THE PERCEPTION OF K-12 INSTRUMENTAL DIRECTORS IN LOW-INCOME AREAS ON VIRTUAL LEARNING WITH SKILL DEVELOPMENT AND RETENTION

By

Anthony Hunt

Liberty University

A THESIS PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIRMENTS FOR THE DEGREE OF DOCTOR OF MUSIC EDUCATION

THE PERCEPTION OF K-12 INSTRUMENTAL DIRECTORS IN LOW-INCOME AREAS ON VIRTUAL LEARNING WITH SKILL DEVELOPMENT AND RETENTION

By

Anthony L. Hunt

Liberty University

A THESIS PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIRMENTS FOR THE DEGREE OF DOCTOR OF MUSIC EDUCATION

Liberty University, Lynchburg, VA

2023

Dr. Nathan Street, Ed.D., Committee Chair

Dr. Monica Taylor, Ph.D., Committee Member

Abstract

Due to the extreme measures taken to protect students from COVID-19 during the pandemic, schools closed their doors, and educators struggled to continue teaching through virtual learning platforms. Performance-based classrooms were encouraged to discover new methods and strategies to motivate students to thrive even though face-to-face rehearsals were restricted. This study examined the experiences secondary music education instrumentalists faced while attempting to utilize synchronous and asynchronous instruction in a 100 percent virtual performance-based environment. This study aimed to understand the negative and positive effects placed on secondary instrumentalists' performance abilities, fundamental development, and participation/retention since the introduction of virtual learning in low-income areas. The focus of this study also examined the possible benefits of enhancing pedagogical skills through the addition of technological advances to push instrumental instruction and performances on the secondary level. This study followed a qualitative hermeneutic phenomenology design. Music educators in low-income DeKalb County communities were interviewed for this study. Participants were requested to share their perspectives and experiences of performance-based virtual learning and results. The study raised the need for future discussions to create and implement a state and national virtual music education guideline that would assist music educators in turning a devastating situation into a blessing for all art programs and their stakeholders.

Keywords: virtual learning, instrumental music education, K-12 education, instrumental music education curriculum, music technology, music educators

ACKNOWLEDGMENTS

I would like to thank Dr. Street for taking on the responsibility of chairing my committee. Thank you for your encouragement, patience, and overwhelming support during this process. Your continued prayers and words of encouragement motivated me to become a better educator and overall person. Dr. Taylor, thank you for providing the necessary feedback and suggestions on improving this body of work and me as a music educator.

I would like to thank Dr. Quentin Lee for your friendship, guidance, and overall support during this process and throughout the last twenty years. You have provided stability in my life and inspired me through the examples of leadership that you have provided. I would like to thank my entire career technical and agricultural education family at Clarkston High School for always giving me the needed love and support and never giving up on me. Thank you. Dr. King-Stephens and Dr. Mitchell, thank you for your guidance and for pushing me through my educational journey. Thank you for your motivation and support to the many friends who came across my path. To all of my music educators, colleagues, and current and former students, thank you for the lessons and experiences throughout my life. Your support will never be overlooked. I thank God you were part of my journey and allowed me to be the change agent in education and for my family.

Finally, I would be remiss if I did not acknowledge the God who has directed and guided me during the long evenings of writing, pushing me to never give up. I do not know my direction in life, but I know He has a purpose, and I cannot wait to see what's next. "Trust in the Lord with all your heart, and do not lean on your own understanding. In all your ways, acknowledge Him, and He will make straight your path." Proverbs 3:5-6

DEDICATION

I would like to dedicate this work to my family. MeKayla, thank you for supporting me through this wonderful journey called life and motivating me to be a better father. Madison, thank you for coming into this world and providing that spark of energy and life we all needed. Chris, thank you for believing in your big brother and always offering words of encouragement throughout life. I also dedicate this work to my parents, Juanita Hernandez and Bronal Hunt. My mother showed me how to fight through adversity and work hard in life to become an outstanding human being and man of God. My father illustrated the characteristics of being an honest man of God and better husband. Thank you both for doing your best with limited resources but an enormous amount of love. Thank you for consistently motivating my brother and me to be greater and live life purposefully.

To my grandmother, Hazel Hunt, while you're no longer present on earth, I know you are smiling down from Heaven. As an educator, you saw the importance of advancing in academia and always pushed me to be the best. I was your Golden Child. I love you and miss you dearly.

Lastly, I dedicate this work to every black and brown student in low-income areas facing adversity in Atlanta, Georgia. I understand what you are facing because I faced your situation just like you. Take advantage of all educational opportunities that come your way and make positive sacrifices to assist with your journey. "Rejoice in hope, be patient in tribulation, be constant in prayer." Romans 12:12

Contents

CHAPTER ONE: Introduction

Overview

Given the current pandemic context generated by COVID-19, essential changes in how specific subjects to music education are taught emerged, affecting not only the particularities of learning and teaching in individual courses but also the other courses regarding group learning or theoretical subjects.[1]Teaching and learning required adaptive adjustment and development as COVID-19 forced governments to mandate societal isolation requirements that greatly challenged teacher practice.[2] Teaching through basic connectivity of online platforms offered various difficulties for instrumental music educators, including reaching students to improve morale and instrumental skill development. Individual rehearsal rather than ensembles focuses via online communication challenged teacher pedagogy, goal setting, and maintaining teacher-student connectivity throughout the year.[3] Connectivity between students and music educators suffered from virtual learning courses, negatively influencing instrumental participation and overall retention. Therefore, this study aimed to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating asynchronous and synchronous virtual learning for their music programs. Furthermore, this study analyzed instrumental music educators' steps to enhance skill development and morale through Virtual Learning.

---

[1] Mădălina Dana Rucsanda, Alexandra Belibou, and Ana-Maria Cazan. "Students' Attitudes Toward Online Music Education During the COVID-19 Lockdown." *Frontiers in Psychology.* 12 (2021): 753785.

[2] Leon R. De Bruin. "Instrumental Music Educators in a COVID Landscape: A Reassertion of Relationality and Connection in Teaching Practice." *Frontiers in Psychology* 11, (2000;2021;): 624717.

[3] Ibid.

This chapter will introduce the study and provide historical, sociological, and theoretical background. This chapter will also discuss the background of the problem and give a problem statement, the purpose of this study, and research questions that will guide the study. Lastly, chapter one will discuss the significance of the study and core concepts and introduce commonly used terms. The overall thesis will follow a traditional five-chapter format. Each chapter comprises a specific focus and objective. The titles of the five chapters are (1) Introduction, (2) Review of the Literature, (3) Methods, (4) Results, and (5) Discussion.[4] The final chapter will conclude the thesis with a discussion on possible implementations of findings and possibilities of further research toward enhancing virtual learning practice in instrumental music education.

Background

Education in the United States was immediately affected by the relentless nature of COVID-19 and the pandemic restrictions. Starting in March 2020, K-12 schools, colleges, and universities worldwide were forcingly closed and transitioned to a fully online experience. The spread of the pandemic resulted in millions of victims and restrictions on freedom of movement around the globe. UNESCO estimates that as of mid-April, 1.5 billion children and youth were affected by school closures in 195 counties.[5] Students were required to access respective online platforms for completing synchronous and asynchronous learning, and educators attempted to provide similar educational experiences in face-to-face learning opportunities.

---

[4] Yvonne N. Bui, *How to Write a Master's Thesis.* (Thousand Oaks, Calif: Sage, 2009), 8.

[5] "1.3 Billion Learners Are Still Affected by School or University Closures, as Educational Institutions Start Reopening around the World, Says UNESCO." UNESCO, last modified June 6, 2021. https://en.unesco.org/news/13-billion-learners-are-still-affected-school-university-closures-educational-institutions.

Music education and its various programs experienced similar challenges in March 2020. Instrumental music students across the United States completed their musical instructions in an isolated online format compared to their typical group setting. Students and educators experienced several challenges, including online access, limited class instruction, and, most importantly, motivation to participate in online classes. Salvador, Erika, and Whitney mentioned that educators providing synchronous online music learning cited poor technology quality, the need for increased planning compared to in-person instruction, and financial constraints as factors that limited the delivery and effectiveness of instruction.[6] Without direct in-person music instruction, students continued their music studies, conducted individual rehearsals, and performed online assessments, which would generally improve their skillset while in person. Students were also vulnerable to various comorbid health conditions from isolation and the nationwide lockdown. During the pandemic, students have been shown to experience higher levels of stress, anxiety, loneliness, and symptoms of depression than before the pandemic.[7]

Historical Context

Since the 1960s, American schools have faced a revolution in education. With the Civil Rights Act signed into law by President Lyndon Johnson and the Supreme Court ruling in Brown vs. Board, the multicultural change in education was inevitable. However, there were problems with how America's educational system operated. The needs of middle-class citizens catalyzed

---

[6] Karen Salvador, Erika J. Knapp, and Whitney Mayo, ″Reflecting on the 'Community in Community Music School After a Transition to all-Online Instruction," *Music Education Research* 23, no. 2 (2021).

[7] Eckart Altenmüller, "Studying Music During the Coronavirus Pandemic: Conditions of Studying and Health-Related Challenges." *Frontiers in Psychology.* 12 (2021).

education in America, and most students in the inner cities could only sustain the education model with increased resources. The separate but equal system of school segregation that dominated in some parts of the nation until 1954 was a legal but thinly disguised means to educate minority children in keeping with their historically distressed socioeconomic status.[8] Even with the advocacy for desegregation, there was a shift in proximity for minorities. The lack of jobs forced them to move to cities due to negative job security in the suburbs. With continued economic depression and frustration in the inner-city communities, the quality of education fell below suburban peers' level.[9] Music education within inner-city schools would also experience challenges due to the lack of consistency from unprepared educators.[10] Educational concern with at-risk students is not simply that they are failing to learn but that they will approach and enter adulthood illiterate, dependent on drugs and alcohol, unemployed or under-employed, as a teenage parent, dependent on welfare, or adjudicated by the criminal justice system.[11]

At-risk students and failing schools still constitute an issue in contemporary education. The socioeconomic differences between urban and rural regions and schools are the misallocations of educational resources. Music education in the inner cities also needs more sustainable financial support. Elpus and Grise reported that budgetary constraints are common obstacles for excellent music teaching in an urban school. Most music teachers in urban schools

---

[8] Michael Mark and Patrice Madura, *Contemporary Music Education*, 4thed. (Cengage, 2014), 168.

[9] Ibid., 167.

[10] Carlesta Henderson, "Preparing Future Music Teachers for Dealing With Minority Students: A Profession at Risk." Visions of Research in Music Education 16, no. 4 (October 1, 2010).

[11] Genevieve M. Johnson. "Resilient At-Risk Students in the Inner City." McGill Journal of Education 32 (Jan 1997): 35. https://search.ebscohost.com/login.aspx?direct=true&db=ofm&AN=507551026&site=ehost-live&scope=site.

endorsed that funding was necessary to offer adequate music instruction rather than providing enrichment to the music program.[12] The Tanglewood Symposium discussed the failure of music education among inner-city students. Advocates of the symposium concluded that the music education profession must contribute its skills, proficiencies, and insights toward solving urgent social problems in the inner city or other areas with culturally deprived individuals.[13]After creating the Tanglewood Declaration, music educators were encouraged to adopt new methods and resources that supported a multicultural society. Current music programs benefit inner-city students that are considered at-risk. Music education is critical to inner-city students and the enhancement of their lives. Arts programs provide a supportive environment for students particularly susceptible to dropping out. In many instances, at-risk students remain in school solely because of their interest in and commitment to the band, chorus, orchestra, dance, drama, painting, sculpture, or other art projects.[14] Students who participate in arts programs show positive academic and social outcomes compared to those who do not. For continued support for at-risk students who participate in music education programs, communities, parents/guardians, and corporations must ensure the survival and longevity of these programs.

Sociological Background

Per the United States Department of Education, Title I, Part A (Title I) of the Elementary and Secondary Education Act, as amended by the Every Student Succeeds Act (ESEA), provides financial assistance to local educational agencies (LEAs) and schools serving significant

---

[12] Kenneth Elpus, and Adam Grisé. "Music Booster Groups: Alleviating or Exacerbating Funding Inequality in American Public School Music Education?" *Journal of Research in Music Education* 67, no. 1 (April 2019): 7. https://doi.org/10.1177/0022429418812433.

[13] Michael Mark and Patrice Madura, *Contemporary Music Education*, 4thed. (Cengage, 2014), 167.

[14] Michael Mark and Patrice Madura, *Contemporary Music Education*,172.

percentages of children originating from low-income families to address the challenge of all children presented with rigorous state academic standards.[15] Federal funding for each state is based on four formulas implemented to analyze the poverty estimates and the cost of education in each state. The formulas include basic, concentration, targeted, and education finance incentive grants. The basic grant formula allocates funding to school districts based on the number of underprivileged children they serve.[16] Districts and systems with two percent of their student population receive funding through the Basic Grant formula. Regardless if the school district is very affluent, all will acquire at least some Title I funding through this formula.[17] The Concentration Grant formula, similar to the Basic Grant formula, provides funding based on the number of underprivileged students school districts serve. School districts must have at least 15 percent of children in poverty or 6,500 students to receive money through the Concentration formula.[18] The Target Assistance Grant formula differs from the two previously mentioned. Rather than providing the same amount of Title I funding per student, it provides more money per child as a district's poverty rate increases, so higher-poverty school districts get more per child than lower ones.[19]

---

[15] Title I, Part A Program. US Department of Education (ED), November 7, 2018. https://www2.ed.gov/programs/titleiparta/index.html.

[16] "Grant Distribution Formulas." New America, last modified June 1, 2022, https://www.newamerica.org/education-policy/topics/school-funding-and-resources/school-funding/federal-funding/title-i/grant-distribution-formulas/.

[17] Ibid.

[18] Ibid.

[19] Ibid.

Local education agencies (LEA) allocate Title I funds to schools with the highest percentages of children originating from low-income environments. Suppose a Title I school is operating a targeted assistance program. In that case, the school provides Title I services to children who are failing or most at risk of failing to meet rigorous state academic standards.[20] Schools serving a student body comprising at least 40 percent originating from low-income families are eligible to utilize Title I funds to operate programs that would improve student achievement. Local education agencies allocate Title I funding for instructional resources, professional learning courses for educators, and technology purchases and integration.

The addition of technology through Title I funding is an excellent enhancement for catalyzing student motivation and achievement. The ubiquitous implementation of information technology (IT) in schools has made these technologies indisputable in learning and teaching for most individuals.[21] Technology is integral for music education programs as well. The application of technology in music education enhances students' performance, participation, interest, motivation, and musical perceptions. Furthermore, it improves students' musical creativity by improving their psychological states.[22] Personal computers and educational software have produced beneficial factors for educators, such as unlimited resources from Internet access and improved the quality of educational production and accessibility.

Conversely, integrating technology requires educators to modify traditional teaching methods to accommodate student learning and achievement. This issue is introduced due to the

---

[20] Title I, Part A Program.

[21] Sabahat BURAK, "Pre-School and Primary School Pre-Service Teachers' Attitudes Towards Using Technology in Music Education." Eurasian Journal of Educational Research (EJER) 20, no. 87 (2020): 206.

[22] Ibid.

need for more technical competency when school systems force educators to utilize updated technology. Burak mentions two types of barriers that remain an issue for Title I educational facilities when implementing technology. External barriers, such as lack of equipment, time, training, and support, are considered first-degree. Perception of self-efficacy about educational technology, epistemological and pedagogic beliefs, and other beliefs, such as the perceived value of technology in learning environments, are viewed as internal barriers, considered to be second-degree barriers.[23] The educator's attitude towards technology affects its integration and usage in the classroom. Infrastructure also affects integration preparedness and technology implementation for educators and students. Due to the unexpected transition to 100 percent virtual learning in 2020, students relied on their community infrastructure to participate actively in live courses. Their community infrastructure may have had constant electrical issues, interrupting internet connectivity. The need for more technical support for hardware and software impedes the learning process. Kerkhoff and Makubuya mention that another barrier to integrating technology is needing more technical support to deliver professional training or repair devices when needed.[24] With proper training on maintenance and repair, educators assume a favorable position, which could hamper students' overall learning experience.

Theoretical Framework

This study was grounded on experiential-based learning theory. Experiential learning theory (ELT) is based on the experiential works of Dewey, Lewin, and Piaget. Unlike cognitive

---

[23] Sabahat BURAK, "Pre-School and Primary School Pre-Service Teachers' Attitudes Towards Using Technology in Music Education." 207.

[24] Timothy Makubuya, "Professional Development on Digital Literacy and Transformative Teaching in a Low-Income Country: A Case Study of Rural Kenya." Reading research quarterly (2021).

learning theories, which tend to emphasize cognition over affect, and behavioral learning theories, which do not allow any role for consciousness and subjective experience in the learning process, student hands-on experience during a lesson or unit plan refers to ELT's process.[25] ELT involves a hands-on approach to student learning that moves beyond teacher lectures. Through ELT, the process of creating knowledge is gained by transforming learning experiences. Therefore, this theory is essential to the current study for analyzing instrumental music educators' process of learning, teaching, and music education experiences solely through technology. Additionally, this theory was beneficial for the current study because ELT is a learn-by-doing process. The experiences gained by music educators implementing and utilizing virtual learning for student achievement and retention will assist the phenomenology study design.

Statement of the Problem

Lotter indicates that as traditional rehearsal methods and public performances become less available, directors must reevaluate their teaching methods to include opportunities to encourage student creativity through active engagement.[26] Many music educators assumed difficult positions where adequate training on executing virtual instrumental learning and access to appropriate music software and applications during the pandemic was almost nonexistent. Most were insufficiently accessing learning management platforms to recreate the resemblance of a proper classroom setting. Music educators needed help to deliver their teaching content with the best methods to ensure students understand the music concepts and skills through a virtual

[25] Mary McCarthy. "Experiential Learning Theory: From Theory to Practice." *Journal of Business & Economics Research (Online)* 14, no. 3 (2016): 92, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fexperiential-learning-theory-practice%2Fdocview%2F1804900934%2Fse-2%3Faccountid%3D12085.

[26] Brian Lotter, "The Music Classroom in the Digital Age: Educator Responses to Remote Instruction." (Order No. 28031321, Southern Illinois University at Edwardsville, 2020).

platform.[27] Students who reside in lower-income environments experience challenges in maintaining access to their classes due to insufficient access to technology, such as unreliable computers and decreased connectivity. Starkey et al. found that students in households with little access to technology engaged less with learning by comparison. Conversely, households with greater access to technology were likely to experience advantages by interfacing with parents with greater education degrees who could better support their children's learning.[28] Students who fail to receive continuous reinforcement support from their music teachers through virtual learning due to technological challenges may need help to maintain and enhance fundamental skills on their instruments.

The need for sufficient access for at-risk students to online classes and their resources disrupted student progress and achievement. Some at-risk students who participate in instrumental music education may lose motivation to participate due to the rigorous expectations of online learning when proper resources are not available. Hash mentions that effective online distance learning in music can foster a greater degree of student motivation and on-task behavior while reducing the anxiety and insecurity some experience in face-to-face lessons, especially in small group settings. However, inadequate technology may result in student attrition and cause

---

[27] Md Jais, Azu Farhana Anuar Ismail, and Fung Chiat Loo. "From Physical to Virtual: A New Learning Norm in Music Education for Gifted Students." *International review of research in open and distributed learning* 23, no. 2 (2022): 44.

[28]Louise Starkey, Miri Shonfeld, Sarah Prestridge, and Mercè Gisbert Cervera, "Special Issue: Covid-19 and the Role of Technology and Pedagogy on School Education during a Pandemic," *Technology, Pedagogy, and Education* 30, no.1 (2021).

learners to feel isolated and unsure of progress.[29] Frustrations with access to proper technology and isolation without contact with peers and educators, as in the traditional band and orchestra setting, may result in students losing interest in participation. The lack of motivation, in-person motivation and accountability, and the desire to learn instrumental pedagogy may lead to retention issues amongst secondary instrumental music programs. The problem is that the literature needs to address proper methods for instrumental music educators to adequately utilize virtual learning for student instrumental skills, motivation, and retention. This problem reveals a literature gap for current technological practices implemented in the instrumental music education setting. This study aims to better understand the perspectives of instrumental music educators about appropriately implementing virtual learning into an instrumental music education curriculum to possibly enhance students' instrumental skill development and their perception of utilizing virtual learning for student motivation and retention.

Purpose Statement

This qualitative hermeneutic phenomenology study aimed to identify perspectives that need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs. Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. This study aimed to gather and examine music educators' perceptions of virtual learning in a classroom setting and the possible effects caused by student instrumental skill development and retention. This study examined each music educator's unique phenomenological experiences, including concerns, success,

[29] Phillip M. Hash, "Remote Learning in School Bands During the COVID-19 Shutdown*," Journal of Research in Music Education* 68, no. 4, (2021).

troubleshooting, anxiety, reflections, and lessons learned. The researcher will recruit ten to fifteen K-12 music educators as participants for this study and collect data through semi-structured interviews. The researcher will develop an interview protocol to guide the construction of interview questions, which is crucial for gaining meaningful qualitative data. By enhancing the reliability of interview protocols, researchers can increase the quality of data they obtain from research interviews.[30]

There was a four-phase process for the development of an interview protocol. Phase one focus on the alignment between interview questions and research questions. This alignment can increase the utility of interview questions in the research process while ensuring their necessity for the study.[31] Phase two included constructing an inquiry-based conversation. A researcher's interview protocol is an instrument of inquiry-asking questions for specific information related to the aims of a study and an instrument for a conversation about a particular topic.[32] Phase three encompassed receiving feedback on the interview protocol development. The purpose of obtaining feedback on the interview protocol is to enhance it's reliability-its trustworthiness- as a research instrument.[33] The final phase consisted of piloting the interview protocol. The best way to tell whether the order of questions works is to try it in a pilot interview. In this step, the interviewer conducts interviews simulating rapport, process, consent, space, recording, and

---

[30] Milagros Castillo-Montoya. "Preparing for Interview Research: The Interview Protocol Refinement Framework." *The Qualitative Report* 21, no. 5 (05, 2016): 811. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fpreparing-interview-research-protocol-refinement%2Fdocview%2F1806967398%2Fse-2.

[31] Ibid., 812.

[32] Ibid., 813.

[33] Ibid., 824.

timing to try out the research instrument.[34] The researcher will analyze the experiences of participating music educators will be analyzed through the provided theoretical framework of experiential-based learning theory to bridge the gap in the literature.

Significance of the Study

This study is particularly significant for instrumental music educators because it may provide practical and effective methods for K-12 instrumental music educators to successfully implement virtual learning and online platforms permanently within their curriculum to benefit student achievement. With normalcy returning to schools, virtual learning for music education will continue to develop into a necessary part of every music program's curriculum. Although classroom training will return, it will differ from before, as online learning is here to stay.[35] Peter Miksza explains that instrumental music students, in particular, routinely expend significant amounts of time practicing apart from the direct influence of their teachers.[36] The direct influence of directors during in-person learning positively motivates students to strive for better rehearsals and performances during personal practice. Such self-guided instruction is essential for beginning and intermediate musicians because the early phases of learning are crucial to developing fundamental skills and proficiencies that may guide future music success.[37] When utilizing virtual synchronous and asynchronous learning to teach instrumental music education,

---

[34] Milagros Castillo-Montoya. "Preparing for Interview Research: The Interview Protocol Refinement Framework," 827.

[35] John Young. "Virtual Learning? It's Here to Stay!" ITNow. 63, no. 3 (2021): 57.

[36] Peter Miksza, "The Development of a Measure of Self-Regulated Practice Behavior for Beginning and Intermediate Instrumental Music Students." *Journal of Research in Music Education* 59, no. 4 (2012): 322. http://www.jstor.org/stable/41348841.

[37] Ibid.

educators must evaluate proper methods that may encourage students to desire self-regulated learning away from the traditional setting.

Further, as education advances, music educators may also gain insight from the research since music education will continuously enhance the utilization of virtual learning to meet the demands of a digital world. Educators have much to learn, including knowledge of their subject matter, classroom management skills, learning theories and child development, and ways to best share their knowledge with students.[38] By understanding the expectations provided by this research, instrumental educators will better grasp strategies to recruit, motivate, and educate students through virtual platforms.

Research Questions

This study is based on the lived experiences of K-12 instrumental music directors teaching in lower socioeconomic communities and their perception of virtual learning for skill development and student retention. This study aimed to investigate the entirety of each director's holistic experience while utilizing a phenomenological research design guided by the theoretical framework of experiential learning theory. The aim was to decipher and understand all factors that may have influenced how virtual learning assisted instrumental directors with student development and if virtual learning may have affected overall student participation. The questions implemented are designed to gather data on the perceptions of K-12 instrumental directors and the influences of virtual learning on their programs.

---

[38] Virginia Wayman Davis, "Beginning Music Education Students' and Student Teachers' Opinions of Skills and Behaviors Important to Successful Music Teaching." *Contributions to Music Education* 33, no. 1 (2006).

RQ 1: What are the lived experiences of K-12 instrumental music directors when teaching skill development virtually to students originating from lower socioeconomic environments?

RQ 2: What are the lived experiences of K-12 instrumental directors serving students originating from lower socioeconomic environments in retaining students following their virtual learning experiences?

Hypotheses

The researcher assumed that the forced addition of virtual learning for instrumental grade school students created an environment that could be more conducive to genuinely nurturing their skill set. Students and music educators from lower-income areas needed better preparation to offer similar instruction to a traditional classroom setting. Louis and Barry discuss that multiple working hypotheses in series, from the observer's perspective, may appear simultaneously authentic, with later actions and effects dependent on former ones.[39] With the unpredictable variables added from virtual learning for instrumental students and K-12 directors, it is hypothesized that:

RQ 1: What are the lived experiences of K-12 instrumental music directors when teaching skill development virtually to students originating from lower socioeconomic environments?

H1: The lived experiences of K-12 instrumental music directors with virtual learning will include a lack of instrumental skill development through assessments for students compared to in-person learning.

[39] Louis P. Elliott, Barry W. Brook, "Revisiting Chamberlin: Multiple Working Hypotheses for the 21st Century," *BioScience*, Volume 57, Issue 7, July 2007. https://doi.org/10.1641/B570708.

H^{01}: The lived experiences of K-12 instrumental music directors with virtual learning will include positive, measurable instrumental development through assessments for students similar to in-person learning.

When addressing this research question, the researcher will better understand K-12 instrumental directors' experiences with implementing virtual learning and how it influenced student skill development. For instance, by highlighting critical components used to approach student skill development through virtual learning, instrumental music educators should be able to provide examples of their implementation process and which strategies promoted efficiency, or lack thereof, for student learning.

The interest to perform on musical instruments and motivation for improvement occurs through social gatherings and group performances. In-person social engagement also assists with recruiting and retention for music education programs. Sichivitsa states that high school students who enjoyed playing their instruments in the past in a group setting were more likely to practice more often, aspire to move up within their performance group, attain higher levels of performance, feel successful, and intend to play their instruments longer in the future.[40]

RQ 2: What are the lived experiences of K-12 instrumental directors serving students originating from lower socioeconomic environments in retaining students following their virtual learning experiences?

[40] Veronica O. Sichivitsa, "The Influences of Parents, Teachers, Peers and Other Factors on Students' Motivation in Music." *Research Studies in Music Education* 29, no. 1 (December 2007): 56. https://doi.org/10.1177/1321103X07087568.

H2: The lived experiences of K-12 instrumental directors with students from lower socioeconomic environments following their virtual learning experience will not improve retention rates for instrumental music programs.

H^{02}: The lived experiences of K-12 instrumental directors with students from lower socioeconomic environments following their virtual learning experience will improve retention rates for instrumental music programs.

Research Methodology and Design

The researcher conducted the methodology through a qualitative approach. Aspers, Patrik, and Ugo explain that qualitative research involves the studied application and collection of a variety of empirical materials-case studies, personal experiences, introspective, life stories, interviews, observational, historical, interactional, and visual text- that describe routine and problematic moments and meanings in individuals' lives.[41] Based on an IRB review approval, elementary, middle, and high school directors representing low-income areas in DeKalb County, Georgia, were requested to participate for data purposes. The researcher conducted interviews with instrumental music educators, and surveys were also created as a secondary option if further data is necessary for completion.

This proposed study followed a hermeneutic phenomenology study design. Phenomenology is the study of human experience and of the ways phenomena present themselves to us in and through such experience.[42] Therefore, this phenomenology study examined the authentic experience of instrumental music educators utilizing virtual learning to

[41] Patrik Aspers, Ugo Corte, "What is Qualitative in Qualitative Research." *Qualitative Sociology* 42, no. 2 (06, 2019): 142, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fwhat-is-qualitative-research%2Fdocview%2F2186635866%2Fse-2%3Faccountid%3D12085.

[42] Robert Sokolowski. *Introduction to phenomenology*. Cambridge university press,(2000): 2.

build fundamental skills and retain student participation. Hermeneutic phenomenology was developed as a philosophical methodology to discover the meaning of being human beings, the significance of which Martin Heidegger claimed had been hidden over by past philosophical approaches that were reductionistic and objectifying.[43] Hermeneutic phenomenology provides a philosophical investigation to interpret the being of human beings, to determine conditions for the possibility of ontological investigations, that is, to reveal the phenomena for investigation and to provide analysis for the structures of existence.[44] Experiential learning will also affect understanding of the phenomenon. The Center for Teaching and Learning at Boston University expresses that experiential learning is an engaged learning process whereby students "learn by doing" and reflect on the experience.[45] The information provided in this phenomenological study will assist instrumental music educators in ascertaining a better understanding of virtual learning and its effectiveness for teaching instrumental skill development and retention in music education instrumental programs.

Core Concepts

The National Association for Music Education (NafME) maintains a virtual learning resource page for music educators. This site aims to improve the music director's awareness of updated or new methods and materials to consider during an online virtual learning process.

---

[43] Patricia Benner. *Interpretive Phenomenology: Embodiment, Caring, and Ethics in Health and Illness.* United States: SAGE Publications, (1994): 65.

[44] Ibid., 66.

[45] "Experiential Learning " *Center for Teaching & Learning: Boston University." Center for Teaching Learning* RSS. Accessed October 27, 2021. https://www.bu.edu/ctl/guides/experiential-learning/.

NafME writes that NafME Societies and Council members have provided these resources from authentic teaching experiences, peers within their school districts, universities, communities, and other trusted sources.[46] The site also includes past webinars about student engagement, virtual rehearsal concepts, engaging community, and strategies for in-person activities through social distancing. The NafME website is a preferred source for this analysis because it offers insight into how an engaging virtual learning classroom should appear.

Virtual learning is an essential concept in this analysis. Virtual learning can be defined as learning that can functionally and effectively occur in the absence of traditional classroom environments.[47] Also known as distance learning, virtual learning is a core concept pertinent in most United States and worldwide school systems.

Low-income environments are defined by Cornell School of Law as a census tract or block numbering area in which the median income does not exceed 80 percent of the overall median income for the region and shall include families reporting incomes not greater than 100 percent of the area median income.[48] Low-income areas are locations where at least 40 percent of the children are eligible to receive free or reduced-price meals as designated by the National School Lunch Program.

---

[46] *"*Virtual Learning Resources for Music Educators.*"* NAfME, last modified June 6, 2021, https://nafme.org/my-classroom/virtual-learning-resources-for-music educators/.

[47] Mitchell J. Finlay, Daniel J. Tinnion, and Thomas Simpson. "A Virtual Versus Blended Learning Approach to Higher Education during the COVID-19 Pandemic: The Experiences of a Sport and Exercise Science Student Cohort*." The Journal of Hospitality, Leisure, Sport & Tourism Education* 30, 2022: 100363.

[48] *"*Definition: Low-Income Area from 12 USC § 4502(28) | LII / Legal Information Institute*."* Legal Information Institute. Legal Information Institute, last modified June 6, 2021. https://www.law.cornell.edu/definitions/uscode.php?height=800&def_id=12-USC-1348200533-1217567162&term_occur=999&term_src=title%3A12%3Achapter%3A46%3Asection%3A4502.

Definition of Terms

Due to the varied perceptions surrounding COVID-19 and its continuous effects on the lives of all individuals, it is best to clarify the definitions of each core concept used in this study. The word "pandemic" has never been a scientific term but rather a popular subjective term. Since the mid-1600s, the word "pandemic" has been so imprecise that it could mean different, even contradictory, ideas in different contexts. At its most specific, it conveyed the vague notion of an impressively large epidemic, and its Greek roots, "pan" (all) and "demos" (people), reflect its widespread nature.[49] The term COVID-19 is a shortened form of the word Novel Coronavirus. Novel Coronavirus, or 2019-nCoV, is a relative of the deadly severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) coronaviruses, both characterized by flu-like symptoms, including fever, cough, and anhelation and can transmit from animals to humans.[50] COVID-19 was initially identified in Wuhan, China, in December 2019. Virtual Learning is an online learning experience that uses technology to enhance student learning inside the educational facility or abroad. Distance learning is conducted in a virtual learning environment with electronic study content designed for self-paced (asynchronous) or live web-conferencing (synchronous) online teaching and tutoring.[51] Synchronous learning is bounded by real-time interaction, which is collaborative. In addition, synchronous learning is also facilitated

---

[49] David M. Morens, Peter Dazak, Howard Markel, and Jeffery K. Taubenberger. "Pandemic COVID-19 Joins History's Pandemic Legion." *Mbio* 11, no. 3 (2020).

[50] W, Tang Wang, J, Wei, F. Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan, China. *J Med Virol*. 2020; 92: 441. https://doi-org.ezproxy.liberty.edu/10.1002/jmv.25689

[51] Veronica Racheva, "What Is Virtual Learning?" VEDAMO. Vedamo, June 4, 2021. https://www.vedamo.com/knowledge/what-is-virtual-learning/.

on the virtual platform where collaborative learning occurs.[52] Asynchronous learning is cost-effective where it does not require daily attention from the instructors. Since it is a self-guided module, students can work on the content themselves at any given time without instructor or peer interactions. Asynchronous learning offers flexibility for the learner to progress in their learning at their own pace and can access learning from any place and time.[53] Each word is an essential component of the research and a vital part of analyzing the overall effects of virtual learning for K-12 instrumental students in low-income areas.

Chapter Summary

The onslaught of the novel coronavirus and the pandemic immediately affected education in the United States and worldwide in 2020. The pandemic forced students to engage with teachers via online platforms, and educators suffered to deliver their expected curriculum sufficiently. Online learning challenged students and instrumental music educators to remain attentive to their craft and continue skill development through virtual learning. The lack of face-to-face instruction may have also caused a strain on instrumental music educators to maintain a high retention rate because of virtual learning. Hurley mentioned that cognitive achievement theorists assume that the child's perception of achievement, expectations for success, and personal values affect motivation and determine achievement behaviors.[54] The lack of student

---

[52] Cassandra Jane Fernandez, Rachana Ramesh, and Raja Manivannan Anand Shankar. "Synchronous Learning and Asynchronous Learning during COVID-19 Pandemic: A Case Study in India." *Asian Association of Open Universities Journal* 17, no. 1 (2022): 3, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fsynchronous-learning-asynchronous-during-covid-19%2Fdocview%2F2673411062%2Fse-2.

[53] Ibid.

[54] Gregory C. Hurley, "Student Motivations for Beginning and Continuing/Discontinuing String Music Instruction." Visions of Research in Music Education 16, no. 6 (2010): 45.

motivation in fundamental instrumental development, performance, and participation potentially strained students' instrumental skill development and retention for instrumental music education programs.

CHAPTER 2: Literature Review

Introduction

The education system in the United States continues to encounter challenges in adapting to change, especially in integrating technology into the curriculum.[55] Hesitancy with educators adopting proper resources to infuse technology into their curriculum may hinder student achievement. Even though in-service training is officially recognized as a fundamental vehicle for teachers to develop more effective instruction using new technologies in teaching and learning processes, technology still needs to be sufficiently incorporated into school work and has yet to be adequately articulated with other classroom teaching activities.[56] As technology advances, educators need proper knowledge and capability to remain sufficient. With instrumental music education, technology provides many benefits for student achievement. The implementation of technology in instrumental music education increases students' performance, participation, interest, and motivations, as well as their musical perceptions.[57] Similarly, music educators encounter barriers when properly integrating technology into their programs. ATABEK states that common barriers include inadequate equipment, time, training, and support.[58]

---

[55] Gregory Clarke, and Jesse Zagarell. "Technology in the Classroom: Teachers and Technology: A Technological Divide: Nancy Maldonado, Editor." *Childhood Education*88, no. 2 (2012).

[56] A. Guzman, and M. Nussbaum. "Teaching Competencies for Technology Integration in the Classroom." *Journal of Computer Assisted Learning* 25, no. 5 (2009).

[57] Oguzhan ATABEK. "Pre-School and Primary School Pre-Service Teachers' Attitudes Towards Using Technology in Music Education." *Eurasian Journal of Educational Research (EJER)* 20, no. 87 (2020):206.

[58] Oguzhan ATABEK. "Pre-School and Primary School Pre-Service Teachers' Attitudes Towards Using Technology in Music Education." 207.

This hermeneutical qualitative phenomenology study aimed to identify the perception of instrumental music educators in low-income areas who have implemented virtual learning into their daily curriculum. The goal was to identify perspectives that still need to be explored concerning how virtual learning influences students' instrumental development, whether virtual learning could be identified as motivation for student participation, and if student retention is affected.

Hermeneutic Phenomenology Study

This study was grounded in phenomenology research theory. Phenomenology is the study of phenomena in the appearances of things as they appear in our experience or the ways we experience things, thus the meanings things have in our experience.[59] Phenomenology allows the researcher to study the structure of participants' experiences from a first-person point of view. The individual's point of view can range from perception, thought, memory, imagination, emotion, desire, and volition to bodily awareness, embodied action, and social activity, including linguistic activity.[60] This study examined perception of music educators and students in low-income areas on virtual learning. Phenomenology gave this study a broader understanding of music educators' first-hand experience and overall perception of implementing 100 percent virtual learning and its influences on their music programs.

Phenomenology is a formal study used in studies regarding music education. Liora Bresler, a Professor of Education in the College of Education at the University of Illinois at

---

[59] David Woodruff Smith. "Phenomenology." Stanford Encyclopedia of Philosophy. Stanford University, December 16, 2013. https://plato.stanford.edu/entries/phenomenology/.

[60] Ibid.

Urbana Champaign, provided an example of music education phenomenology, examining the values, experiences, and goals of Suzuki's approach. Her study aimed to deepen and enrich the available knowledge of the essence of the experience of education for life within a model consistent in philosophy, pedagogy, and psychology with the characteristics of humanistic psychology and education.[61] The author reported from her findings that teaching requires a phenomenological sensitivity to students' realities and their life worlds, facilitating the teacher's ability to see the pedagogic significance of situations and interactions with children. Phenomenological research can be precious for that purpose.[62]

Martin Heidegger was one of the most influential philosophers of the 20th century, especially in the field of hermeneutic phenomenology, its interpretation, and application. Hermeneutics is the art of understanding and the theory of interpretation. It focuses on the human experience as it is lived. It reveals details and marginal aspects within an experience that may be assumed to generate meaning and attaining a sense of understanding.[63] It is a research methodology designed to produce detailed textual descriptions of the experience of a phenomenon where a deeper understanding of the meaning is sought through progressively layered reflection while using rich descriptive language.[64] In hermeneutic phenomenology, one

---

[61] Liora Bresler. "Ethnography, Phenomenology And Action Research In Music Education." *Visions of Research in Music Education* 16, no. 6 (2010):8.

[62] Ibid., 10.

[63] Alsaigh Rasha and Coyne Imelda. "Doing a Hermeneutic Phenomenology Research Underpinned by Gadamer's Philosophy: A Framework to Facilitate Data Analysis." *International Journal of Qualitative Methods* 20 (01, 2021):2. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fdoing-hermeneutic-phenomenology-research%2Fdocview%2F2613291155%2Fse-2.

[64] Rasha Alsaigh and Coyne Imelda. "Doing a Hermeneutic Phenomenology Research Underpinned by Gadamer's Philosophy: A Framework to Facilitate Data Analysis."

approaches phenomena as recommended to interpret the meaning found with the phenomena. Often these approaches suggest the analysis of text to find these meanings to allow interpretation. The focus is on understanding the meaning of experience by searching for themes and engaging with the data interpretively, with less emphasis on the essences that are important to descriptive phenomenology.[65] Also, hermeneutic phenomenology prefers to refrain from formalizing an analytical method so that the context of the phenomenon itself can dictate how the data are analyzed.[66]

Experiential Learning Theory

This study also applied experiential-based learning. This theory aimed to follow students' and educators' process of learning musical concepts through technology and gauge their experience through various activities. The aims of music education can be achieved by developing the musicianship of all music students through the critically reflective actions of performing, listening, improvising, composing, arranging, and conducting.[67] Therefore, experiential learning was essential to this study for analyzing student and music educator process of learning, teaching, and their music education experiences solely through technology.

---

[65] Art Sloan and Brian Bowe. "Phenomenology and Hermeneutic Phenomenology: The Philosophy, the Methodologies, and using Hermeneutic Phenomenology to Investigate Lecturers' Experiences of Curriculum Design." *Quality and Quantity* 48, no. 3 (05, 2014): 1295. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fphenomenology-hermeneutic-philosophy%2Fdocview%2F1510037241%2Fse-2%3Faccountid%3D12085.

[66] Ibid.,1296.

[67] Chryso Hadjikou. "Experiential Learning in Music Education: Investigating the Cypriot Context." *Music Education Research* 23, no. 4 (2021).

John Dewey is the primary purveyor of the theory of experiential education with his novel Experience and Education. Dewey describes a philosophy of education that relies entirely on social interaction: the only experience available to humans is social. The concept of experiential education, therefore, emphasizes a deliberate enrichment of the social milieu of the student in distinction to a more traditional approach of rules, facts, schedules, and procedures.[68] Dewey noted that the experiential approach brings current knowledge to bear on present challenges, and the educational experiences emerge from there, whereas in a traditional curriculum, new distinct knowledge is inherited in theoretical preparation for future challenges.[69] Kolb's experiential learning theory displays an alternative model to the traditional classroom setting by offering personal change and development infused in the learning cycle. Kolb's theory posits that learning is a cognitive process involving constant adaptation to and engagement with one's environment. Individuals create knowledge from experience rather than just from received instruction.[70] Kolb believed that learning is a holistic process and results from synergetic interactions with the environment, with individuals choosing which parts of the environment which to have engagement.[71] Kolb's experiential learning theory consists of a four-stage learning cycle that includes concrete experience, reflective observation, abstract conceptualization, and active experimentation. The substantial experience stage is usually the basis of the learning

---

[68] Jason D Keune, and Erica Salter. "From 'What' to 'How': Experiential Learning in a Graduate Medicine for Ethicists Course." *Cambridge quarterly of healthcare ethics.* 31, no. 1 (2022): 132.

[69] Ibid.

[70] Harald Bergsteiner, Gayle C. Avery, and Ruth Neumann. "Kolb's Experiential Learning Model: Critique from a Modelling Perspective." Studies in Continuing Education 32, no. 1 (2010): 30.

[71] Harald Bergsteiner, Gayle C. Avery, and Ruth Neumann. "Kolb's Experiential Learning Model: Critique from a Modelling Perspective." 30.

process. At this stage, the learner actively experiences an activity, and lessons are learned through adaptability and opened mindedness rather than a systematic approach to the situation or problem.[72] The reflective stage reflects on an individual's experience with the activity from all perspectives. Abstract conceptualization allows the learner to apply his or her practice, observations, and reflections to create a theory or model to conceptualize what he or she has learned.[73] Active experimentation allows the learners to test the theory or model they have developed in the previous stage, activate them, plan for a forthcoming experience, make predictions about reality, and then act on them.[74]

Experiential learning has been applied in other studies that focus on music education. For example, Russell-Bowie discussed that primary school students and teachers needed to develop confidence and competence in teaching music, and they should prioritize it in their classrooms. The author confirmed that the experiential training and reflective nature were effective in changing the students' attitudes and developing their skills and competence concerning music education.[75] As a result, the author concluded that through experiential learning theory, educators could design music education programs that account for students' lack of confidence and background experiences in arts.[76] Students gained an opportunity to experience activities, reflect

---

[72] Deirdre Russell-Bowie. "Mission Impossible Or Possible Mission? Changing Confidence and Attitudes of Primary Preservice Music Education Students using Kolb's Experiential Learning Theory." *Australian Journal of Music Education no. 2* (2013): 48.

[73] Ibid., 49.

[74] Ibid., 50.

[75] Ibid., 61.

on their experiences, and relate their experiences and reflections to authentic classroom situations.

Experiential learning was a valuable tool for this hermeneutic phenomenology study, as it provides the necessary means for adequately examining students' and educators' virtual learning experiences. Experiential learning offered sufficient data to compare virtual learning influences with face-to-face learning. This theory provided an outline that allows students the ability to remove themselves from teacher lectures and place themselves into an actively involved role of learning and reflecting on gaining music education experience through technology.

Praxial Music Education

This study also incorporated the philosophy of praxial music education. Praxial music education (PME) is a philosophy designed by David J. Elliott that emphasizes how music should be understood in relation to the meanings and values of actual music-making and music listening. The base word praxis is a fundamental word coined by Aristotle that includes voluntary or goal-directed action. However, it sometimes also includes the condition that the action is part of the end and performed for its own sake.[77] The fundamental basis of praxial music education is rooted in ethnomusicological theory. Musical understanding is the overarching concept; underneath it lies the myriad musical styles, each learned through practice. Thus, multicultural music is subsumed through praxis, where all learning occurs through

---

[76] Deirdre Russell-Bowie. "Mission Impossible Or Possible Mission? Changing Confidence and Attitudes of Primary Preservice Music Education Students using Kolb's Experiential Learning Theory," 61.

[77] "praxis." Oxford Reference, last modified March 3, 2022, https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100342205.

culturally informed significant musical challenges implemented through approximations of diverse learning situations.[78]

Praxial music education involves four interlocking dimensions: musical doers or "agents" (music makers and listeners of any kind), musical doing (music-making of all kinds and listening), something performed (musical products, including compositions, improvisations, and arrangements), and the contexts-artistic, historical, social, cultural, educational, ethical, political, and so forth-in which musicing, listening, and the products of these occur.[79] The synopsis of Elliott's theory is that without intentional human activity in music, there is no chance for musical sounds or works of musical sounds. Human activity deems the root of what music is. The premise, which motivated Elliott to construct his concept of music and music education, is people's engagement in musical actions in social musical contexts. PME proposes that individuals conceptualize "music" holistically: as a verb (i.e., processes, as in "musicing" and listening), a noun (compositions, improvisations), and a hub of human interactions (social, cultural, political, and so forth). Each category depends on musical style-communities in which people in different times and places make and listen to the music of different kinds.[80] Depending on the artistic style involved, moving, dancing, and worship can also affect PME. In Elliott's view, musicing and listening are essential forms of thinking-in-action and knowing-in-action; a crucial difference between the two is that in musicing, the thinking in action is overt, whereas, in

---

[78] Natalie Sarrazin. *Ethnomusicology* 40, no. 3 (1996): 518. https://doi.org/10.2307/852476.

[79] Marissa Silverman, Susan A. Davis, and David J. Elliott. "Praxial Music Education: A Critical Analysis of Critical Commentaries." *International Journal of Music Education* 32, no. 1 (February 2014): 56. https://doi.org/10.1177/0255761413488709.

[80] Marissa Silverman, Susan A. Davis, and David J. Elliott. "Praxial Music Education: A Critical Analysis of Critical Commentaries," 56.

listening, it is covert.[81] Dynamic musical practices offer excellent opportunities to achieve the values of self-improvement, enjoyment, and self-knowledge because they involve the advanced matching of increasingly complex musical challenges.[82] Therefore, by adding praxial music education theory to this study, the lived experiences of instrumental music educators actively participating in music and their overall perception became evident.

History of Influential Technology in American Education

Technology has served a function in education since the dawn of written history. Understanding the historical components of technology over time is essential while illuminating the fundamentals of technological changes in education. Jonas suggests that a wealth of research within the history and sociology of technology in the last decades suggests that a historical perspective is pivotal to understanding technological artifacts and systems, their characteristics, and their place in society and the natural world.[83] Therefore, an in-depth understanding of the historical milestones of technology in education will highlight the step-by-step process leading to virtual learning in instrumental music education.

Precivilization

Technology has always been a part of human education throughout history. From the earliest records of human existence, the desire for communication was evident through animal

---

[81] Marissa Silverman, Susan A. Davis, and David J. Elliott. “Praxial Music Education: A Critical Analysis of Critical Commentaries,” 4.

[82] Marissa Silverman, Susan A. Davis, and David J. Elliott. “Praxial Music Education: A Critical Analysis of Critical Commentaries,” 5.

[83] Jonas Hallström and Per Gyberg. "Technology in the Rear-View Mirror: How to Better Incorporate the History of Technology into Technology Education." *International Journal of Technology and Design Education* 21, no. 1 (02, 2011): 3, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Ftechnology-rear-view-mirror-how-better%2Fdocview%2F824235277%2Fse-2%3Faccountid%3D12085.

paintings and symbolic characters carved on rock walls. This form of communication was vital for teaching their young to observe and imitate activities that were important for their survival and the survival of the tribe. Dramatization and demonstration of tribal art and skills were essential to their instruction. The oral tradition emphasized memory and training and continued to be the primary method of instruction even after the development of a simplified and flexible alphabet led to the spread of writing and reading.[84] The continued change of cultural values and the evolution of human knowledge over centuries led to the development of new technologies for education.

Visual Instruction

The introduction of visual instruction catalyzed the technological revolution of education in America. Visual instruction was developed in the early 1900s and would serve as the foundational tool of eventual instructional technology for education. The visual instruction movement served as an antidote to verbalism and sought to lend concreteness to education.[85] During the 1920s, the expansion of visual instruction brought the demand for formal courses for teachers. Joseph J. Weber states:

> The sense of vision plays an essential role in the educative process; the exclusive use of language in education dulls interest and tends to verbalism; the perfection of photography has extended the material environment of learners; experimental education has revealed evidence that visual aids vitalize the curriculum and thus effect marked economics in the

---

[84] Paul L. Saettler. *The Evolution of American Educational Technology*. Englewood, Colo: IAP, Information Age Publishing, (2004): 23.

[85] Wendell G. Johnson. "Making Learning Easy and Enjoyable:" Anna Verona Dorris and the Visual Instruction Movement, 1918-1928." *TechTrends* 52, no. 4 (2008): 51. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fmaking-learning-easy-enjoyable-anna-verona-dorris%2Fdocview%2F223117745%2Fse-2%3Faccountid%3D12085.

> learning process. These considerations justify the formulation of visual aids courses in normal schools, colleges, and universities, at least temporarily, until the transition from the old to the new methodology is complete.[86]

As a result, educators received courses on establishing and enhancing their curriculums through technological advancements to better student education. The development of visual instruction in city schools also assisted with creating the school museum movement, organizing slides in libraries, and starting educational film in school libraries. The creation of visual instruction, in turn, would lead to training films for soldiers during World War II, overhead projectors, and slide projectors.

Educational Radio

The implementation of radios as a viable source for delivering educational instruction became popular in the mid-1920s. During the earlier stages of radio implementation, institutions of higher learning would establish their broadcasting stations to establish a school of the air. School of the air (SOA) was an excellent form of educational technology similar to in-person schools in the structure of their operations. Scholars from the mid-1940s defined SOAs as radio programs intended for an in-school application that presented courses of study arranged programs in a series to assist in cumulative learning, designed individual program series for specific grade levels, developed broadcast schedules that coincided with the school year, and distributed learning support materials.[87] This technology catalyzed a new form of educational value for students and educators. In 1928, the Music Appreciation Hour (MAH) was an SOA

---

[86] Paul L. Saettler. *The Evolution of American Educational Technology*.

[87] William Bianchi. "Education by Radio: America's Schools of the Air." *TechTrends* 52, no. 2 (2008): 36, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Feducation-radio-americas-schools-air%2Fdocview%2F223123198%2Fse-2%3Faccountid%3D12085.

established under the direction of Walter Damrosch, who served as the long-time conductor of the New York Symphony Orchestra. The focus of MAH was to provide educators and students with aesthetic value through the instructional process of greeting, recall, preview, demonstration, and presentation.[88]

By the 1930s, the MAH quickly became the most popular SOA in the country. At least 600,000 students nationally tuned in regularly to the challenging classical music series. Carroll Atkinson, a prominent scholar of education by radio, declared that the MAH was unquestionably responsible, more than any other program, for introducing radios into the American classroom.[89] The 1930s also brought about a sharp decline in radio education expansion. With the possibility of World War II rapidly approaching, educational radio was placed on hold and never revived. By the 1980s, educational radio ceased to exist for student learning. Mostly all commercial radio networks closed their education departments and ceased SOA broadcastings. Educational broadcasting was shifting its focus from radio to television. Whether intentional or not, radio instruction has become the stepchild of education technology.[90]

Educational Television

The first documented attempt at a closed-circuit television implemented in education began with the Los Angeles public school system in 1939. Television began to evolve from an informative tool to one that provided educational value. To accommodate this evolution and its challenges, Congress passed the Educational Television Facilities Act in 1962 to build and

---

[88] William Bianchi. "Education by Radio: America's Schools of the Air," 36.

[89] Ibid.

[90] Paul L. Saettler. *The Evolution of American Educational Technology*.

improve stations to share educational content. [91] Based on the recommendations of The Carnegie Commission on Educational Television, Congress also passed the Public Broadcasting Act, which created the Corporation for Public Broadcasting. In 1964, The Public Broadcasting Service was developed to distribute educational public programming on television. In 1967, The Public Broadcasting Act established a system of noncommercial stations with a mandate to provide diverse and educational programming for children and adults.[92] The initial public response to the new programming could have been more encouraging due to the dismal services provided. Public Broadcasting Systems was founded in 1969 and headquartered in Virginia, and it was initiated as a private, non-profit media enterprise owned and operated by the nation's 349 public television stations.[93]

Public Broadcasting Systems introduced non-commercial enriched quality programs and educational services that enlightened nearly 100 million people each week. Public Broadcasting Systems provided educational television programs and related services to 349 noncommercial stations and served 50 states, Puerto Rico, the Virgin Islands, Guam, and American Samoa.[94] Even with the overwhelming success of educational television, educators were only sometimes on board with its initial implementation. Many professional adult educators only accepted

---

[91] Margaret Crisham. "The Technical History of Broadcast Television, Cable and Satellite, and Videoconference in Public Education in the United States 1931–2003." (Order No. 3362679, Dowling College, 2009), 52.

[92] Ibid., 53.

[93] Margaret Crisham. "The Technical History of Broadcast Television, Cable and Satellite, and Videoconference in Public Education in the United States 1931–2003." 53.

[94] Ibid., 54.

virtually all TV from the realm of education if it included an interaction between program and viewer, the results of which could readily be measured.[95]

Computer Based Instruction

World War II brought the unprecedented need for training millions of workers rapidly. American scientists created computer technology during World War II to win but instead found its way into commercial and educational use. Computers were already in development before the start of World War II but saw rapid intensification in design and production during and after the war ended. The Mark I (or Harvard Mark I), originally named the IBM Automatic Sequence Controlled Calculator, was the first large-scale automatic computer to be completed and operated in the USA.[96] The unveiling of Mark I in August 1944 began the start of the digital computing age. Electronic Numerical Integrator and Computer (ENIAC) followed after World War II ended. Implementing computers in education began with government-funded projects on mainframes and minicomputers during the late 1950s. The PLATO project at the University of Illinois in 1960 was developed and eventually enabled computer-based instruction (CBI) to integrate text and graphics, providing instructors with one of the first programming environments for CBI.[97] During this time, countless research proved that computer usage was better than traditional methods.

---

[95] Robert A. Carlson. "Educator Vs. Broadcaster in the Development of ETV: A Brief History of Educational Television in the United States." *Educational Technology* 11, no. 7 (1971): 14. http://www.jstor.org/stable/44417705.

[96] Bernard Cohen. "Mark I, Harvard. Encyclopedia of Computer Science. *John Wiley and Sons Ltd., GBR* (2003):1078.

[97] Ömer Faruk Sözcü, İsmail İpek, and Erkan Taşkın. "A History of Computer-Based Instruction and Its Effects on Developing Instructional Technologies." *European researcher. 59, no. 9-2* (2013): 2341.

At this time, America was very confident about its technological advances and superiority over the rest of the world. The 1957 launching of Sputnik shattered the sense of comfort in America's scientific prowess, not only creating the image of an enemy capable of launching missiles of massive destruction but a widespread fear that America had failed to nurture the sciences and build advanced technology, with horrifying implications.[98] The educational and technological gap between America and the Soviet Union became the main battleground of the Cold War. In August of 1958, the National Defense Education Act (NDEA) became law in response to the new space race with the launch of Sputnik. The law provided federal funding to ensure trained staffing of sufficient quality and quantity to meet the national defense needs of the United States.[99] The legislation strengthened education in mathematics, science, and foreign languages. The United States government's goal was to correct, as rapidly as possible, the existing imbalances in our educational programs which have led to an insufficient proportion of our population being educated in science, mathematics, foreign languages, and technology.[100] The NDEA legislation allotted one billion dollars to reach the future goals hoping that the act would restore America to its rightful place as the technological leader.

---

[98] John A. Douglass. "The Cold War, Technology and the American University." *UC Berkeley: Center for Studies in Higher Education*. (1999):1. https://escholarship.org/uc/item/9db970dq

[99] "National Defense Education Act." US House of Representatives: History, Art & Archives. Last modified November 29, 2021, https://history.house.gov/HouseRecord/Detail/15032436195.

[100] Peter Dietz. "Education from the Cold War to no Child Left Behind: How Federal Policy Makers have Sought to Transfer Responsibility for Societal Issues Onto America's Schools." (State University of New York Empire State College, 2010).

One-to-One Computing

During the late 1970s and early 1980s, computer advocacy began to affect the business world. Increased computer-based jobs in the United States increased the need to teach students how to utilize computers to be highly competitive in the job market. As a result, Apple initiated a long-term applied research project simulating a future in which all students and teachers would always have access to computers. The Apple Classrooms of Tomorrow (ACOT) creates living laboratories where each student and teacher has a computer on the school desk and another at home.[101] Apple introduced and initiated the program in 1985, offering unlimited technology to several participating schools. Apple's targeted goal in 1985 was to develop a learning environment for students that promoted creativity through their wants, desires, and expectations of their current learning situation in the 20th century. ACOT adheres to the philosophy that instruction should be learner-centered, not teacher-centered. That means students assume responsibility for their learning and, in doing so, reach a state of "owning" the information in a fundamentally different way than when information is presented by teacher-centered instruction.[102] ACOT was the first 1:1 ratio in the participating classrooms, which provided a glimpse into the future of technology and education in America. However, the program only spanned a decade, from 1985 to 1995. During this time, Apple identified effective models that became effective for teaching and learning through technology. After ACOT, Apple expanded its goals towards making significant effects on education by introducing Apple Classrooms of

---

[101] Dick Landis. "ACOT: Apple's Classroom of Tomorrow." *Classroom Computer Learning*, vol. 8, no. 7, (1988): 38. *ProQuest*, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Ftrade-journals%2Facot-apples-classroom-tomorrow%2Fdocview%2F212122864%2Fse-2%3Faccountid%3D12085.

[102] "Apple Classrooms of Tomorrow: Philosophy and Structure and What's Happening Where." Apple, last modified December 22, 2021. https://files.eric.ed.gov/fulltext/ED340349.pdf

Tomorrow-Today ($ACOT^2$) in 2008. $ACOT^2$ was created collaboratively with educators and researchers to identify the best design to promote highly effective curricula through technological advances. Apple analyzed the research of ACOT and developed $ACOT^2$ through three phases:

> In the first phase, $ACOT^2$ developed the essential design principles of the 21st-Century high school and clearly articulated them so any high school can act on them immediately. In the second phase, $ACOT^2$ brought the essential design principles to life through online resources, including "clickable" data, research, expert commentaries, tools, and rich media capturing students' and educators' voices. The voices offer compelling testimony for why and how these design principles should be implemented in our nation's high schools today. In the third phase, $ACOT^2$ will apply these designs to a bold project: 200 Dyas for a Lifetime of Success, a freshman-year high school curriculum specifically designed to prepare students for success in life and work in the 21st century.[103]

Apple pioneered the path to ensure that all students and educational facilities could house sufficient technology for one-to-one computing currently implemented in all curricula today.

International Business Machines (IBM) also provided influential resources to the one-to-one computing revolution in classrooms during the early 1980s. With the introduction of IBM's first personal computer, the IBM 5150, students could access special software for developing reading and writing skills during kindergarten and first grade. Kindergarten and first-grade students who learn to read through the Writing to Read program further develop their natural language and vocabulary. Students write, then read their thoughts and ideas. Students learn 42 phonemes of the English language through the implementation of an interactive computer.[104]

---

[103] "Apple Classrooms of Tomorrow—Today." Apple, last modified December 22, 2021.https://www.apple.com/ca/education/docs/Apple-ACOT2Whitepaper.pdf.

[104] Nancy Staton Beasley. "The Effects of the IBM "Writing to Read" Program on the Achievement of Selected First-Grade Students." (Ph.D. diss., The University of Alabama, 1989), 2.

Before the demise of IBM's computer era due to the continuous onslaught of innovative technology from rival companies, IBM introduced computer software for student learning that would usher in technology known today in education.

World Wide Web

Like many technological advances, one of the predecessors of the Internet, which opened the door to the World Wide Web (WWW) access, was researched and designed after launching the Soviet Union's Sputnik in 1957. In response to this, in February 1958, President Eisenhower created the Advanced Research Projects Agency (ARPA), designed to promote research that would ensure that the Communists would never again beat America in any technological race.[105]ARPA's main goal was to establish and secure networks which linked military research facilities even if one was not operational. UCLA and the Stanford Research Institute successfully connected the first computers over a vast distance via the Interface Message Processor (IMP) via a phone connection. Academic and research libraries, by and large, became beneficiaries of the government largesse that resulted from this "knowledge race." Collections expanded in order to maintain the production of scientific literature.[106] To manage the extraordinary amount of data collected, ARPA relied on computers implemented as processors and storage devices that would later turn into databases in the 1970s. ARPA named ARPAnet its new networking system one year after its inception. The first public demonstration of ARPAnet occurred in October 1972 at

---

[105] L. Kleinrock. "History of the Internet and its Flexible Future." *IEEE Wireless Communications* 15, no. 1 (2008): 8.

[106] Alice Keefer, and Tomas Baiget. "How it all Began: A Brief History of the Internet." *VINE. very Informal Newsletter on Library Automation* 31, no. 3 (2001): 90. roxy.liberty.edu/insight/content/doi/10.1108/03055720010804221/full/pdf?title=how-it-all-began-a-brief-history-of-the-internet.

an international conference on computer communications. Vinton Cerf, considered one of the "fathers" of the Internet, said, "The demo was a roaring success, much to the surprise of the people at AT&T who were skeptical about whether it would work."[107]

Due to the overwhelming success of the internet during the 1970s, institutions, and universities from the United States to Europe connected networks by using communication cables to exchange information. A young English computer science engineer, Tim Berners-Lee of the European Organization for Nuclear Research (CERN), dreamed of developing a system of hyperlinked documents accessible via the internet. In 1980, Tim Berners-Lee built ENQUIRE as a personal database of people using hypertext and software utilities to access the database.[108] Berners-Lee desired to connect data globally without depending on standard machinery and software. In 1989, Tim Berners-Lee introduced a proposal to CERN to establish a global hypertext system with the initial name MESH.[109] The development of MESH went from a proposal to a prototype to a fully accessible system over the following years. After the invention of the supporting hypertext transfer protocol (HTTP) and a web browser named the World Wide Web, the first web server and a page was created describing the project.[110] On August 6, 1991, the Web became an available service on the internet for the world to utilize. Towards the end of 1994, the World Wide Web Consortium (W3C) was established at the Massachusetts Institute of

---

[107]Alice Keefer, and Tomas Baiget. "How it all Began: A Brief History of the Internet."

[108] Priti Srinivas Sajja. - Introduction to World Wide Web. Intelligent Technologies for Web Applications. Hoboken :: CRC Press, (2012): 3.

[109] Information management: A proposal. The original proposal of the WWW, HTMLized. (n.d.). Last modified December 31, 2021, https://www.w3.org/History/1989/proposal.html

[110] Priti Srinivas Sajja. - Introduction to World Wide Web, 3.

Technology (MIT) with overwhelming support from ARPA and the European Commission. The principles of W3C as the governing body include universal access, semantic web, trust, interoperability, evolvability, decentralization, and cooler multimedia.[111]

Berners-Lee made the Web accessible, with no patent or royalties due. The 42 facilitation of protocols, standards, and utilities like search engines and e-mail made the Web ubiquitous and fell within reach of an ordinary man.[112] The World Wide Web's instant success bolstered human connectivity to limitless information and offered new sustainability methods in the workforce and academia. Tim Berners-Lee elucidated:

> The Web initially spread because of the existing Internet infrastructure during the 1970s. By the time I had the idea for the Web at the end of the 80s, computers in many universities and institutions in the United States and Europe were already connected by cables exchanging information. One is to credit those pioneers who assembled such a network before the Web's arrival. The Web spread fast because it was decentralized, and no one controlled its growth. The fact that anybody can start a server or run a browser without registering with any central authority allowed it to proliferate. There were enthusiasts worldwide who realized what the world could be with the Web and directed their efforts at developing it. Also, the Web's openness is a powerful attraction. Everyone can not only read what is on the Web, but they can also contribute to it. Everybody is, in a sense, equal. This sense of boundless opportunity also led to its remarkable growth.[113]

Remarkably, the overwhelming success of the World Wide Web motivated educators from early childhood education to graduate school to rethink the nature of educational approaches and student learning. The introduction of the World Wide Web could offer an

---

[111] Alice Keefer, and Tomas Baiget. "How it all Began: A Brief History of the Internet."

[112] Priti Srinivas Sajja. - Introduction to World Wide Web, 5.

[113] Ethirajan Anbarasan. "Tim Berners-Lee: The Web's Brainchild." *The Unesco Courier*, 09, (2000): 46, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fmagazines%2Ftim-berners-lee-webs-brainchild%2Fdocview%2F207590399%2Fse-2%3Faccountid%3D12085.

atmosphere beyond the boundaries of a traditional academic setting and open a free-flowing schedule. Traditional lectures and demonstrations can become Web-based multimedia learning experiences for students. The world's learning resources can augment the learning resources of a college or university.[114] Education, with access to the Web, equals better opportunities for accessible learning and educational opportunities for those in the job force, community, and homes who cannot attend face-to-face learning due to cultural, economic, or social barriers.

Web Based Learning

William K. Horton defines web-based learning as any purposeful application of Web technologies to educate a fellow human being.[115] Also known as electronic learning (e-learning), web-based learning contains online course content applied during distance learning or hybrid learning. Through discussion forums via emails, videoconferencing, and live learning methods, e-learning provides interactivity and active learning, which promotes collaboration and idea-sharing among students and instructors. Many researchers have shown that students prefer e-learning over traditional lectures.[116] Many adult learners enroll in online courses to complete their bachelor's or master's degrees due to the advantages of online learning, such as convenience, flexibility, and financial benefits.[117] The vast amount of information and readily available resources is a highlight for utilizing the web for connecting to course materials. Web-

---

[114] Ronald D. Owston. "Research News and Comment: The World Wide Web: A Technology to Enhance Teaching and Learning?" *Educational Researcher* 26, no. 2 (March 1997): 27. https://doi.org/10.3102/0013189X026002027.

[115] William K. Horton, *Designing Web-Based Training How to Teach Anyone Anything Anywhere Anytime* (1st edition. New York: Wiley, 2000)

[116] Jason Chris Brown, "Web-Based Learning and Non-Traditional Students: A Quantitative Causal-Comparative Study." (Grand Canyon University, 2020), 39.

[117] Ibid., 43.

based learning operates through distance learning, computer-conveyed education, and internet technologies while using techniques from all three.

Even with educational systems' overall positive praise, web-based learning also provides disadvantages for educators and learners. Limited access to web-based learning platforms could impede learners' abilities to engage with lessons solely provided online correctly. Technological obstacles include a prolonged internet network, e-learning access and equipment preparation, and software and computer service or repair.[118] Technology quality, log-in issues, user-friendly access, and lacking support can affect and deter student engagement while utilizing web-based technology for learning.

Distance Learning

Distance learning is based on the correspondence education developed in the United States, France, Germany, and the United Kingdom during the mid-1800s.[119] Distance learning occurs when an instructor assigns content for learners to complete while separated by space and time. Distance learning applies at all levels, from kindergarten to higher education. Distance learning is a form of education that connects the physically-distant learner(s) and the facilitator(s) of the learning activity around planned and structured learning experiences via various two- or multi-way mediated media channels that allow interactions between/among

---

[118] Sanisah Kadiman Zarina Abd Rashid, Zuriawahida Zulkifli, Juliyana Selamat, Mohamad Hisyam Mohd. Hashim. Review of Web-Based Learning in TVET: History, Advantages, and Disadvantages. International Journal of Vocational Education and Training Research.
Vol. 2, No. 2 (2016): 16. doi: 10.11648/j.ijvetr.20160202.11

[119] William K. Horton, *Designing Web-Based Training How to Teach Anyone Anything Anywhere Anytime*

learners, facilitators as well as between learners and educational resources.[120] However, distance learning also provides extra strain on educators to ensure learners remain on task and complete assignments outside of the traditional setting. With distance learning, the pupil works without physical, direct contact with the teacher and colleagues and therefore needs to be more involved and motivated to learn. Traditional teaching provides opportunities for many informal situations, such as casual conversations in the school corridor where one can learn about the views of other pupils.[121] With distance learning, educators must depend on electronic messaging and online chats, which require additional practice due to their possible complexity.

Synchronous Learning

Synchronous learning requires the presence of both parties at the same time for teaching and learning to occur. It is, therefore, also referred to as live or real-time instruction.[122] Educators and students attend a firm online class schedule similar to traditional in-person learning. Synchronous learning allows educators to provide immediate feedback during lessons for student correction, enabling students to strengthen their lessons learned. It also offers increased motivation and an obligation to be present and participate, increasing student involvement in

---

[120] Luis-Alberto Casado-Aranda."Are Distance Higher Education Institutions Sustainable enough? – A Comparison between Two Distance Learning Universities." *International Journal of Sustainability in Higher Education* 22, no. 4 (2021): 711.

[121] Aleksandra Kruszewska, Stanisława Nazaruk, and Karolina Szewczyk. "Polish Teachers of Early Education in the Face of Distance Learning during the COVID-19 Pandemic – the Difficulties Experienced and Suggestions for the Future." *Education 3-13* (2020):10.

[122] Nian-Shing Chen, Hsiu-Chia Ko, Kinshuk, and Taiyu Lin. "A Model for Synchronous Learning using the Internet." *Innovations in Education and Teaching International* 42, no. 2 (2005): 182.

learning activities and resulting in better learning experiences.[123] Live lectures and educator-led discussions are not the only forms of synchronous learning. Student-led discussions, presentations, and small group assignments can occur collaboratively online.

Asynchronous Learning

Asynchronous learning occurs outside of a scheduled class session. Participants following an asynchronous learning schedule do not learn simultaneously. Asynchronous learning focuses on students' autonomous work on assignments using available resources and offers limited interaction with the instructor and class in a time-delayed format. Information exchange is not limited to the same place and time in asynchronous learning.[124] Asynchronous learning offers students beneficial factors, including better access, flexibility, the convenience of completing an assignment at the learner's own pace, and invisibility with little to no interaction. Asynchronous learning allows students to make their learning self-regulated, self-paced, on an independent schedule, and spend more time on preparation and reflection when needed, which can contribute to more depth of the learning products, like assignments, discussion posts, and projects.[125]

Hybrid Learning

Hybrid or blended learning allows learners the opportunity to receive beneficial in-person instruction while utilizing online resources through web-based learning. Hybrid learning offers

---

[123] Nian-Shing Chen, Hsiu-Chia Ko, Kinshuk, and Taiyu Lin. "A Model for Synchronous Learning using the Internet." 183.

[124] Cynthia Mary Sistek-Chandler, *Exploring Online Learning Through Synchronous and Asynchronous Instructional Methods*. (Hershey: IGI Global, 2019), 7.

[125] Ibid.

the productivity and socialization aspects of traditional face-to-face learning while enhancing the learning curve through technological advances in online delivery. Characteristics of this approach include (a) student-centered teaching where every student has to be actively involved in the content, (b) increased opportunities for interaction between student-faculty, student-student, content-student, and student-additional learning material, (c) opportunities to collect formative and summative assessment to improve course offerings.[126] Hybrid learning is the best option to replace traditional learning as it allows educators to revise content in various courses that were difficult to provide an engaging learning experience for students. Online resources combined with traditional face-to-face learning introduce a new world of blended instruction, which reinvents the 21st-century educational setting. A central element of a blended course is that online resources are not used to substitute for in-person class time; instead, they are intended to enhance and build upon the concept discussed in the classroom.[127]

History of Technology in Music Education

The modern application of technology in music instruction and learning is a complicated confluence of music technology development, with the varieties of music evident in a pluralistic society and an emerging pedagogy that favors individual expression, constructionist learning, and creative thinking while respecting the need for conceptional learning.[128] Students entering

---

[126] Jitendra Singh, Keely Steele, Lovely Singh. "Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & Post-Pandemic World." Journal of Educational Technology Systems 50, no. 2 (2021): 141. https://doi.org/10.1177/00472395211047865.

[127] Jitendra Singh, Keely Steele, Lovely Singh. "Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & Post-Pandemic World." 141.

[128] Peter R. Webster. "Key Research in Music Technology and Music Teaching, and Learning." *Journal of music, technology and education.* 4, no. 2 (2012): 115.

today's music education world operated by technology are oblivious to a world before its inception. Through the introduction of the Internet and the World Wide Web, personal digital assistants, portable CDs, MP3 players, digital keyboards and music software, and web-based platforms provide 21st-century music education with vast information not available during the 20th-century. Computer-based technology is far more complex today than ever. Music and its worldwide presence in our society have never been more decadent; thus, one's fascination with technology and its role in teaching and learning continues to increase.[129] Modern technology for instrumental music education officially entered the realm of education during the Tanglewood Symposium in 1967.

Tanglewood Symposium

The purpose of introducing the Tanglewood Symposium by the Music Educators National Conference (MENC) was to address the ongoing music and music education issues during the 1960s. MENC, Berkshire Music Center, Theodore Presser, and the School of Fine and Applied Arts of Boston University sponsored the ten-day event. Mr. Louis Wesen, President of the MENC, served as chairman of the project, while Mr. Robert Choate of Boston University served as director. Along with those heading the symposium, over sixty participants contributed to various committees and subcommittees. Musicians, sociologists, scientists, labor leaders, educators, representatives of corporations, foundations, communications, and government, and

others concerned with the many facets of music assembled to participate in committees of the Tanglewood Symposium.[130]

The creation was due to the ongoing social, economic, and culturally diverse maturity that challenged the nation then. During the first week's session, panels of all involved were encouraged to explore the role of the arts in society; characteristics of the "emerging age" possible social, cultural, scientific, educational, and international developments; the music(s) of our time and trends in contemporary music; influence and potentials of technology; economic and community support for the arts; potentials in the behavioral sciences; the nature and nurture of creativity; and means of cooperation among institutions and organizations concerned with music.[131] Final recommendations from the Tanglewood Symposium assisted music educators, communities, and professionals in preparing for the 21st century of music education. It provided the basis for music education to focus on providing a well-rounded curriculum for music educators and learners. Equipping music educators with proper resources allowed students to learn about different genres and cultural music relatable to the ever-expanding multicultural communities and inner cities. The Tanglewood Symposium has influenced music education and its curriculum in today's music standards due to the expansion of multicultural communities and the evolution of technology in music education. Tanglewood Symposium was also the first step to building the foundation for the National Music Standards currently referenced in today's music curriculum.

---

[130] Robert A. Choate, Charles B. Fowler, Charles E. Brown, and Louis G. Wersen. "The Tanglewood Symposium: Music in American Society." *Music Educators Journal* 54, no. 3 (1967): 49. http://www.jstor.org/stable/3391187.

[131] Robert A. Choate, Charles B. Fowler, Charles E. Brown, and Louis G. Wersen. "The Tanglewood Symposium: Music in American Society." 49.

The outcome of the Tanglewood Symposium established a blueprint curriculum that would suffice for the current state of music education and the future. While developing the Tanglewood Declaration, the general committee believed that education must have the art of living, building personal identity, and nurturing creativity as its primary goals.[132] This focus is the basis of each statement within the Tanglewood Declaration that helped administrators enhance the curriculum and provided music educators with a guide for providing quality instruction with better resources and techniques. Music Educators and other contributors to the Tanglewood Symposium agreed to the following statements:

1. Music serves best when its integrity as an art is maintained.
2. Music of all periods, styles, forms, and cultures belongs in the curriculum.
3. Schools and colleges should provide adequate time for music in programs ranging from preschool through adult or continuing education.
4. Instruction in the arts should be general and important part of education in senior high school.
5. Developments in educational technology, educational television, programmed instruction, and computer-assisted instruction should be applied to music study and research.
6. Greater emphasis should be placed on helping the individual student to fulfill his needs, goals, and potential.
7. The music education profession must contribute its skills, proficiencies, and insights towards assisting in the solution of urgent social problems as in the inner city or other areas with culturally deprived individuals.
8. Programs of teacher education must be expanded and improved to provide music teachers who are specially equipped to teach high school courses in the history and literature of music, courses in the humanities and related arts, as well as teachers equipped to work with the very young, with adults, with the disadvantaged, and with the emotionally disturbed. [133]

---

[132] Michael Mark and Patrice Madura, *Contemporary Music Education*, 4th ed. (Cengage, 2014). 38.

[133] Craig Resta, ed. *Valuing Music in Education: A Charles Fowler Reader*. (Oxford: Oxford University Press, Incorporated, 2016), 189.

The issues raised during the 1967 Tanglewood Symposium regarding the societal, cultural, and technological changes forming are still valid today. There was an increasing understanding among the symposium leaders that technology was beginning to occupy an essential role in society.[134] Discussions occurred, and suggestions were made about the function of computers concerning computer-aided instruction. However, since the Tanglewood Symposium occurred before the digital technology boom, the focus rested mainly on the increasing prominence of television in people's lives.[135] The idea was that television could be implemented as a technological medium to bring arts and arts education to the American public effectively.[136] As Tanglewood predicted over forty years ago, technology is changing how Americans conduct business, interact, communicate, and receive the arts in profound and not-so-profound ways. The Internet and its influence on society were not predicted in 1967. However, most modern students can only imagine a time with the internet and social networking.[137]

Music Education Technology

The current model of instrumental music, as a technology and a pedagogy, is the same as that implemented in the early part of the twentieth century. With few exceptions, modern music teachers implement the same instruments and technologies, in the same way, in the same teacher-led large ensembles, as was the norm at the beginning of the profession in the U.S.[138] The

---

[134] Gena R. Greher. "Music Technology Partnerships: A Context for Music Teacher Preparation." *Arts Education Policy Review* 112, no. 3 (2011): 131.

[135] Gena R. Greher. "Music Technology Partnerships: A Context for Music Teacher Preparation," 131.

[136] Gena R. Greher. "Music Technology Partnerships: A Context for Music Teacher Preparation," 131.

[137] Ibid.

development of the vacuum tube during the early 1900s considerably influenced the advanced development of electronic music for music education. The vacuum-tube oscillator was an excellent invention for music because it developed amplifiers, new phonographs, tape recorders, jukeboxes, and even early electric guitars.[139] Adopting tape recorders and recorded instrumental playback allowed music educators and students to listen to and evaluate performances. Listening and evaluating musical performances are concepts utilized today due to the current national music education standards. Music writing software became a new phenomenon during the mid-1960s. Webster referenced that Wolfgang Kuhn and Reynold Allvin of Stanford University accessed a pitch extraction device and a mainframe computer to help judge the pitch accuracy of melodic patterns. At the Pennsylvania State University in 1969, Ned Deihl conducted early work on ear training for instrumentalists with a giant computer.[140] Additionally, the implementation of the PLATO computer-based system, developed by Don Bitzer, became widely applied by college music instruction during the 1970s. Historically, all efforts mentioned set the course for technology and computer-based learning to become infused into music education.

The 1970s and 1980s included personal computer systems decreasing in size but increasing in power. The adaptation of the computer chip allowed databases to process information at a faster rate than their predecessors. Advances in hard disks and removable storage made it possible for more and more educators to experiment with their computer programs. The development of laser-driven CD-ROM drives that can play audio CDs has

---

[138] Alex Ruthmann, and Roger Mantie. *The Oxford Handbook of Technology and Music Education*, edited by Mantie, Roger, S. Alex Ruthmann. 1st ed. New York, NY: Oxford University Press, (2017), 82.

[139] Peter Webster. "Historical Perspectives on Technology and Music," 40.

[140] Peter Webster. "Historical Perspectives on Technology and Music," 41.

allowed these personal computers to adapt to the music classroom quickly.[141] HyperCard software was the first significant milestone for music educators. HyperCard was a conceptual innovation for music software because it allowed music educators without significant computer programming experience to create high-quality interactive software that applied audio recordings on CD.[142] With the development of music and the digital instrument interface (MIDI), music educators could perform sounds through codes created by electronic devices and computer software. As personal computers in the early 1980s flourished, computer-assisted software for music education became abundant.

Webster asserted that David Williams and David Shrader developed the first commercial library of computer-assisted instruction software to use with microcomputers. The library included software for melodic, rhythmic, and harmonic dictation; and music composition.[143] With the addition of the MIDI protocol, the continued evolution of computer-based technology and music training software enhanced personal computers to operate as musical instruments. Software such as SmartMusic and Intonation Trainer from Coda has provided accompaniment support for instrumentalists and vocalists and helped in teaching intonation.[144] Notation software such as Finale and Sibelius allow students and educators to explore theoretical concepts and compose creative expressions of art while utilizing web-based software for tutorials. Nart

---

[141] Peter Webster. "Historical Perspectives on Technology and Music," 41.

[142] Peter Webster. "Historical Perspectives on Technology and Music," 42.

[144] Peter Webster. "Historical Perspectives on Technology and Music," 43.

clarified that notation programs allow all the musical elements related to music to be written, edited, arranged, recorded, and reproduced according to the rules.[145]

The music education profession has adequately adapted to meet the needs of 21st-century students. Prensky states that our students today are all "native speakers" of the digital language of computers, video games, and the Internet.[146] However, the current music education curriculum must meet the demands of the native speakers of the digital age. Wise, Greenwood, and Davis concur that curriculum change is necessary if the world of the classroom is going to keep pace with the world outside. It is necessary to maintain a clearly defined theory that allows teachers to commit themselves intellectually to change.[147] Teachers and ethical obligations must involve transcending naïve efforts aimed at mere competence with technology and music technology. They should strive to engender critical engagement, promoting students continually evaluating if and how various technologies can help them live more affluent and rewarding lives in and through music.[148]

---

[145] Sevan NART. "Music Software in the Technology Integrated Music Education." *TOJET: The Turkish Online Journal of Educational Technology* 15, no. 2 (2016), http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fmusic-software-technology-integrated-education%2Fdocview%2F1807692470%2Fse-2%3Faccountid%3D12085.

[146] Marc Prensky. "Digital Natives, Digital Immigrants Part 1." *On the Horizon* 9, no. 5 (2001): 3.

147 Stuart Wise, Janinka Greenwood, and Niki Davis. "Teachers' use of Digital Technology in Secondary Music Education: Illustrations of Changing Classrooms." *British Journal of Music Education* 28, no. 2 (07, 2011):118, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fteachers-use-digital-technology-secondary-music%2Fdocview%2F887527006%2Fse-2%3Faccountid%3D12085.

[148] Alex Ruthmann, and Roger Mantie. *The Oxford Handbook of Technology and Music Education*, edited by Mantie, Roger, S. Alex Ruthmann. (1st ed. New York, NY: Oxford University Press, 2017), 26.

Perception of Virtual Learning for Instrumental Development

Online education continues to develop with no signs of slowing. Despite the continued growth, little research is available that compares the outcomes of learning musical techniques through online platforms. To fully understand the critical differences between online and face-to-face music education learning, student and director perception could influence whether preference adds value to student development through instrumental skill development. Comparisons of online and face-to-face learning can typically be categorized in two ways: understanding student perceptions or experiences as part of end-of-course evaluations or surveys and studies comparing student achievement by examining grade measures or other outcomes.[149]

Virtual learning offers students and educators valuable connections to resources not available in a traditional setting. Software packages and applications are easily accessible to motivate teaching and learning, providing students and educators with interactive components. Thus, it can raise confidence by replacing conventional forms of teaching that require certain levels of music knowledge and competence. While the Internet allows easy access to information, ideas, and people, the online interaction between students and the application of fresh learning approaches can also facilitate creative music development.[150]

Contrarily, fundamental skills of instrumental development are traditionally seen as face-to-face engagement of serious practice, hands-on activities for motor skill activation, and group learning with immediate assessment by an educator for correcting errors. Practical lessons

---

[149] Agi Horspool, and Sandra S. Yang. "A Comparison of University Student Perceptions and Success Learning Music Online and Face-to-Face." *Journal of Online Learning and Teaching* 6, no. 1 (03, 2010): 16. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fcomparison-university-student-perceptions-success%2Fdocview%2F1497198003%2Fse-2%3Faccountid%3D12085.

[150] Theano Koutsoupidou. “Online Distance Learning and Music Training: Benefits, Drawbacks, and Challenges.” *Open Learning* 29, no. 3 (2014): 243.

require continuous personal contact and interaction for the student to observe and assimilate various instrumental performance and technique aspects.[151] Similar to methods applied with Kodaly, students require multiple types of communication between them and the teacher through musical exercises, which include improvisation, imitation, playing, singing, and clapping in a traditional group setting. Reliance on virtual learning limits students' abilities to rely on image and sound. The student needs to observe the teacher in the way she holds a musical instrument. The correct method to produce sound includes body movement, which is sometimes required for musical expression.[152] The practical aspect of instrumental development relies on visual images to enhance student learning to achieve excellent results. The students also depend heavily on real-time verbal and visual communication and correction. Communication is another fundamental element of instrumental music learning. The relationship between teacher and student is an essential to the student's success. One-to-one tutelage is irreplaceable for its ability to respond to individual necessities and its pedagogical effectiveness.[153]

Audio and video connectivity can also hinder the instrumental learning process for students. Hernandez mentions that high levels of instrumental proficiency and expressiveness perceived through subtle changes in pitch, dynamics, and various techniques are expected from students. If the audio is modified during the videoconference, teachers cannot hear the subtle

---

[151] Theano Koutsoupidou. "Online Distance Learning and Music Training: Benefits, Drawbacks, and Challenges," 249.

[152] Theano Koutsoupidou. "Online Distance Learning and Music Training: Benefits, Drawbacks and Challenges," 250.

[153] Ana Martínez Hernandez. "Online Learning in Higher Music Education: Benefits, Challenges, and Drawbacks of One-to-One Videoconference Instrumental Lessons." *Journal of music, technology, and education.* 13, no. 2-3 (2021): 190.

changes in these parameters and will have to rely on observation only.[154] Audio sounds through software are usually compressed, which causes the listener to receive unnatural tones that are not generally perceived in face-to-face scenarios. Thus, leading to a weakening of the student learning process, eventually affecting overall student ability in the long term. Delayed interactions with substandard software could also hinder student achievement through online learning. Due to latency, speech is less fluid than it would be face-to-face, possibly affecting the efficiency of the lesson. For example, errors and mistakes a teacher detects while the student is playing and voicing can lead to confusion. The student hears the voice later and can associate it with another note or section.[155] These issues mentioned above may strain student and teacher relationships, impede the learning process and expressiveness, and create an environment where the motivation for improvement declines.

Virtual Learning on Student Motivation and Retention

Beluce and Luciane de Oliveira assert that motivation is an internal construct that guides, changes, or maintains goals, actions, and preferences.[156] Student motivation in education is the primary determinant for student success in learning activities during in-person and online learning. Through extensive research, Edward Deci and Richard Ryan provided the basis for

---

[154] Ana Martínez Hernandez. “Online Learning in Higher Music Education: Benefits, Challenges, and Drawbacks of One-to-One Videoconference Instrumental Lessons,” 182.

[155] Ana Martínez Hernandez. “Online Learning in Higher Music Education: Benefits, Challenges and Drawbacks of One-to-One Videoconference Instrumental Lessons,” 190.

[156] Andrea Carvalho Beluce, and Katya Luciane de Oliveira. "Students' Motivation for Learning in Virtual Learning Environments." *Paideía* 25, no. 60 (2015): 106. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fstudents-motivation-learning-virtual-environments%2Fdocview%2F1674925986%2Fse-2.

intrinsic and extrinsic motivation through self-determination theory (SDT). SDT takes an organismic dialectical, metatheoretical perspective that assumes that people are active organisms with evolved tendencies towards growing, mastering ambient challenges, and integrating new experiences into a coherent sense of self. These natural developmental tendencies do not operate automatically but instead require ongoing social nutrients and support.[157] For self-determination theory, the individual is involved in learning situations to meet three basic psychological needs: autonomy, competence, and the perception of belonging or relatedness.[158]Thus, through the inclusion of virtual learning, student motivation occurs through flexibility for socialization, collaboration with peers, and a thorough understanding of their task and its relatability to common goals.

ARCS Model of Motivational Design

Wyss and Lee et al. emphasize that the ARCS model discusses four perceptual components that determine individuals learning motivation: attention, relevance, confidence, and satisfaction.[159] Attention focuses on the individual's reaction to stimulation provided through instruction by the educator. Attention is often seen as a prerequisite for learning and must direct the learner's interest to the appropriate stimuli for a suitable amount of time.[160] Relevance references the learner's perception of what is deemed relatable to the learner's expectations,

---

[157] Mike Prentice, Eranda Jayawickreme, and William Fleeson. "Integrating Whole Trait Theory and self-determination Theory." *Journal of Personality* 87, no. 1 (2019): 57.

[158] Andrea Carvalho Beluce, and Katya Luciane de Oliveira. "Students' Motivation for Learning in Virtual Learning Environments," 106.

[159] Jamie Wyss, Seung-Eun Lee, Tanya Domina, and Maureen MacGillivary. "Cotton Island: Students' Learning Motivation using a Virtual World." *Decision Sciences Journal of Innovative Education* 12, no. 3 (2014): 221.

[160] Ibid.

goals, and demands from the course. Confidence is defined as a learner's positive expectations regarding their performance on the task at hand. It can affect a student's persistence and accomplishments, while fear of failure can impede learning.[161] Student self-evaluation of progress fosters confidence and draws a measurable connection to attention and relevancy. Satisfaction refers to feeling accomplished and is vital to sustaining motivation. An important aspect of satisfaction is offering the correct reward for the appropriate level of challenge. If this is not achieved, students may feel discouraged.[162] Continued motivational factors assist with student achievement and retention.

Student Motivation in Virtual Learning

Beluce and Oliveira emphasize that motivating the student to learn is an educational objective that must be prioritized, whether in conditions of on-site learning or educational situations mediated by the implementation of information and communication technology.[163] Therefore, platforms constructed as educational spaces should integrate various resources that allow students to interact through synchronous communication processes, offering real-time experiences while allowing asynchronous learning to build on lessons learned. Among the platforms most applied worldwide, the open-source code system, the Modular Object-Oriented Dynamic Learning Environment (Moodle), is prominent due to its ease of use, arising from its simple and user-friendly interface and through the interaction afforded by its different tools, such

---

[161] Jamie Wyss, Seung-Eun Lee, Tanya Domina, and Maureen MacGillivary. "Cotton Island: Students' Learning Motivation using a Virtual World," 221.

[162] Jamie Wyss, Seung-Eun Lee, Tanya Domina, and Maureen MacGillivary. "Cotton Island: Students' Learning Motivation using a Virtual World," 221.

[163] Andrea Carvalho Beluce, and Katya Luciane de Oliveira. "Students' Motivation for Learning in Virtual Learning Environments,"107.

as the discussion forums, chat rooms, emails, wikis, diary, glossary, and tasks.[164] Most tools available through current environmental platforms create opportunities for undertaking activities in a collaborative effort. In collaborative learning, group members contribute to achieving a common learning objective, thus resolving a proposed problem or situation.[165] Interactive tools alone are not the sole qualifying factor in ensuring the success of a positive learning environment and the educational process. Recognizing the pedagogical work necessary to fulfill all dynamics of virtual learning to maintain student motivation is necessary for student participation and motivation to be achieved. Educational situations which fail to consider the specific characteristics of online education create a space for undesirable results, such as procrastination, dropping out, and demotivation on the part of the student.[166] Furthermore, students' feelings of isolation, geographical distance, and self-management lead to a lack of motivation and possible change of course.

Summary

As instrumental music educators continue integrating technology into the daily curriculum, it has become apparent that extensive research has yet to be conducted on proper methods to fully immerse into practical virtual instrumental lessons. Integrating technology is considered one of the critical challenges of the 21st century. Instrumental music educators can continuously learn how to become technologically fluent today, but they need to learn how to

---

[164] Andrea Carvalho Beluce, and Katya Luciane de Oliveira. "Students' Motivation for Learning in Virtual Learning Environments," 107.

[165] Ibid.

[166] Ibid.

integrate technology into their teaching purposefully.[167] Researchers primarily studied the value of adopting and incorporating particle aspects of virtual learning for music education. Nevertheless, music educators' perception of virtual learning and its effectiveness in K-12 schools has yet to be examined. Furthermore, no step-by-step manual provided by the Department of Education or the National Music Educators Association displays a solid commitment to virtual learning in music education. Technological knowledge and skills are necessary, but more is needed; teachers must also feel confident when using technology in teaching.[168] Additionally, without proper professional development opportunities, music educators will not see the relevance of using technology in their teaching in the future.[169] More importantly, the lack of technological advances in a music education curriculum may deter student participation, motivation, and overall program retention.

This phenomenology study aimed to examine and identify the director's perspective that has yet to be studied and documented regarding the integrating of complete virtual learning in the K-12 music education curriculum. Music educators' perception of utilizing virtual learning for instrumental skill development, motivation, and student retention has yet to be explored. The next chapter is the research methodology that will guide this study.

---

[167] Merle Taimalu and Piret Luik. "The Impact of Beliefs and Knowledge on the Integration of Technology among Teacher Educators: A Path Analysis." Teaching and Teacher Education 79, (2019): 101.

[168] Merle Taimalu and Piret Luik. "The Impact of Beliefs and Knowledge on the Integration of Technology among Teacher Educators: A Path Analysis." 102.

[169] Ibid., 103.

Chapter 3: Methodology

Introduction

In 2020, a global pandemic shocked the education profession as COVID-19 spread uncontrollably. Educational facilities forcingly closed to ensure the health and well-being of students and staff. The pandemic placed teachers in an uncomfortable position of attempting to merge their curriculum with virtual learning, hoping to reach the necessary standards and goals for student success continuously. Instrumental music students had to complete their musical instructions through online platforms in isolation compared to the traditional group settings. Without direct in-person instruction, students were accountable for continuing their studies to increase instrumental skills through rehearsals while remaining motivated to improve. The pandemic placed instrumental music educators in the challenging situation of attempting to teach without proper knowledge of sufficient technology to assist students with meeting their instrumental standards, motivating them for continuous practicing, and, eventually, student retention. Therefore, this qualitative hermeneutic phenomenology study aimed to identify perspectives that still need to be explored and documented concerning the perception of K-12 instrumental music educators in low-income areas regarding integrating virtual learning into their music programs. Furthermore, this study analyzed music educators' steps that may increase or decrease student skill development and morale through virtual education.

This chapter will offer an overview of this study's methodology through research questions and the hypotheses guiding this study. Additionally, this chapter will provide insight into the study's setting, instrumental music educators participating, instrumentation, and the

procedures followed in conducting the study. Lastly, this chapter will discuss the data analysis plan and all ethical guidelines that the researcher will follow.

Research Design

This study followed a qualitative hermeneutic phenomenology design. Qualitative research provides insight and understanding of people's experiences, and it may also be applied in informing the development of interventions or understanding barriers and facilitators to their successful implementation.[170] Qualitative research allows researchers to apply non-numerical data to analyze the perceptions and worldviews of the participants. Phenomenology is the study of the development of human consciousness and self-awareness as a preface to philosophy or a part of philosophy.[171] Phenomenology is the study of human experience and of the ways things present themselves to us in and through such experience.[172] Hermeneutic phenomenology seeks to describe the meaning of a phenomenon and understand the contextual forces that shape it. Hermeneutic phenomenology aims to attend to others' experiences and reflections to understand better the deeper meaning of a specific human phenomenon within the context of the holistic experience.[173] Following a qualitative design, the researcher used a purposeful sampling method to conduct semi-structured interviews with instrumental elementary, middle, and high school directors in lower-income urban schools. Data was collected from each interview and analyzed

---

[170] Elaine Denny, and Annalise Weckesser. "Qualitative Research: What It Is and What It Is Not." *BJOG : an international journal of obstetrics and gynecology.* 126, no. 3 (2019): 369.

[171] Danuta M. Wojnar, and Kristen M. Swanson. "Phenomenology: An Exploration." *Journal oHolistic Nursing* 25, no. 3 (September 2007): 172. https://doi.org/10.1177/0898010106295172.

[172] Robert Sokolowski. *Introduction to phenomenology*. Cambridge university press, 2000, 2.

[173] William Bynum and Lara Varpio. "When I Say... Hermeneutic Phenomenology." *Medical Education* 52, no. 3 (2018): 252.

by using Delve software. Through research synthesis, the researcher produced new knowledge by making explicit connections and tensions between individual study reports that were not visible before.[174] Once all research was analyzed, it was coded into meaningful themes, analyzed, and visually displayed.

Due to the state of the current pandemic, the researcher followed the social distancing guidelines from the Center for Disease Control and Prevention (CDC). All semi-structured interviews were conducted via Microsoft Teams video conferencing. All semi-structured interviews were electronically recorded and interpreted through an idiographic approach. Through the idiographic process, the researcher captured these inherent idiosyncratic qualities of experience in terms of something unique to that person. Idiographic science is founded upon the premise that each individual is unique in all respects, including genetically, physiologically, and psychologically-and ultimately, experiences life in idiosyncratic ways.[175]

Questions and Hypotheses

Research Questions

The researcher used the following questions in this study:

RQ 1: What are the lived experiences of K-12 instrumental music directors when teaching skill development virtually to students from lower socioeconomic environments?

---

[174] Harsh Suri. "Purposeful Sampling in Qualitative Research Synthesis." *Qualitative Research Journal* 11, no. 2 (2011): 63, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarl y-journals%2Fpurposeful-sampling-qualitative-research%2Fdocview%2F920894910%2Fse-2%3Faccountid%3D12085.

[175] Blake Peck and Jane Mummery. "Recovering the "Individual" for Qualitative Research: An Idiographic Approach." *Forum: Qualitative Social Research* 20, no. 3 (2019): 4. http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarl y-journals%2Frecovering-individual-qualitative-research%2Fdocview%2F2539279832%2Fse-2.

RQ 2: What are the lived experiences of K-12 instrumental directors serving students from lower socioeconomic environments in retaining students following their virtual learning experiences?

Hypotheses

H1: The lived experiences of K-12 instrumental music directors with virtual learning will include a lack of instrumental skill development through assessments for students compared to in-person learning.

H2: The lived experiences of K-12 instrumental directors with students from lower socioeconomic environments following their virtual learning experience will not improve retention rates for instrumental music programs.

Participants

Participants for this study included twelve instrumental music educators with ten or more years of teaching experience in lower-income K-12 facilities. Data saturation will determine the final number of participants for this study. Purposive samples are the most commonly implemented form of non-probabilistic sampling. Their size typically relies on saturation or the point at which the data observe no new information or themes.[176] The researcher selected participants from School A, School B, School C, School D, School E, and School F due to the convenience of the researcher's recruitment process. The researcher works in the school district and is acquainted with each participant. Therefore, the researcher followed a convenience sampling method for recruitment. Convenience sampling requires data collection data from whoever is willing to partake in a study, is the most approachable, or is, in other ways,

[176] Greg Guest, Arwen Bunce, and Laura Johnson. "How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability." *Field Methods* 18, no. 1 (February 2006): 59. https://doi.org/10.1177/1525822X05279903.

conveniently accessible to the researcher.[177] For participation purposes, each participant was required to me the following specific criteria:

1. Each participant must work in a lower-income K-12 environment.
2. DeKalb County Schools must currently employ each participant.
3. Each participant must be an instrumental music educator with ten or more years of experience.

The research posed demographic questions for participants, including years of experience, level of education, and socioeconomic status of their school. The researcher replaced all names with pseudonyms to protect participants' identities and provide anonymity. Those participating in the study reported the following demographic variables:

Table 1. Research Participants

Participant	Gender	Education	Experience	School Type	SES
Participant One	Male	Master's	29	High School	Title I
Participant Two	Male	Doctorate	29	Middle School	Title I
Participant Three	Male	Master's	16	High School	Title I
Participant Four	Male	Master's	11	High School	Title I
Participant Five	Male	Master's	10	High School	Title I
Participant Six	Female	Master's	12	Elementary School	Title I
Participant Seven	Male	Master's	11	High School	Title I
Participant Eight	Female	Doctorate	29	High School	Title I
Participant Nine	Female	Master's	22	Middle School	Title I
Participant Ten	Female	Specialist	25	High School	Title I
Participant Eleven	Male	Bachelor's	28	High School	Title I
Participant Twelve	Male	Master's	10	Middle School	Title I

Source: Fieldwork 2023

[177] Salome E. Scholtz. "Sacrifice is a Step Beyond Convenience: A Review of Convenience Sampling in Psychological Research in Africa." *SA Journal of Industrial Psychology* 47, no. 3 (2021): e2.

The selected participants serve a lower-income metropolitan Atlanta, Ga community as instrumental music educators. The poverty rate in Atlanta, Georgia, is 22.4%, and welfare information states that 97,629 of 435,586 Atlanta residents reported income levels below the poverty line in the last year. African Americans' poverty rate in Atlanta, Georgia, is 33%. Asians account for 24.8% of the population, 25.3% of Hispanics, and 7.4% of Caucasians.[178] The city of Clarkston has a poverty rate of 33%, the second-highest rate in DeKalb County. Participants were 66.6% male and 33.3% female, 32-60 years of age. In addition, persons of color comprised 91.6% of the participant sample. [179]

Instrumentation

The data collection process implemented by the researcher was by semi-structured interviews (see Appendix C). Each participant was asked the same twelve open-ended questions during the one-on-one interview in a private setting. Open-ended questions are posed alone or in combination with other interviewing techniques to explore topics in-depth, understand processes, and identify potential causes of observed correlations.[180] One of the main advantages is that the semi-structured interview method successfully enables the interviewer to improvise follow-up questions based on the participant's responses and allows space for participants' verbal

---

[178] "Poverty in Atlanta, Georgia." 22.4% Poverty Rate in Atlanta, Georgia. Accessed June 27, 2021.https://www.welfareinfo.org/poverty-rate/georgia/atlanta.

[179] Ibid.

[180] Susan C. Weller, Ben Vickers, H. Russell Bernard, Alyssa M. Blackburn, Stephen Borgatti, Clarence C. Gravlee, and Jeffery C. Johnson. "Open-Ended Interview Questions and Saturation." PloS One 13, no. 6 (2018): e0198606-e0198606.

expressions.[181] The researcher developed an interview protocol to guide the construction of all interview questions. A reliable interview protocol is crucial to obtaining adequate qualitative data. It facilitates the interview process involving various groups of people systematically, consistently, and comprehensively through prior delimitations of the issues to be explored.[182]

Additionally, the interview protocol assisted in increasing the efficiency of the interview process by allotting comprehensive information and adequately managing the timetable for the researcher and participants. Lastly, the researcher's advisor and reader examined all interview questions to ensure that each one aligns with the study's purpose, issue, and research questions. The researcher immediately adjusted interview questions based on feedback from experts.

Researcher Positionality

The researcher's motivation for this study is substantiated by the desire to provide adequate instrumental music education for students attending Title I schools through modern technology. During the pandemic, it became evident that at-risk students and educators attempted multiple methods to sufficiently access courses through virtual learning, with student achievement as the overall goal. With instrumental music education, students and music educators managed to adapt and succumb to unsubstantiated virtual learning methods for

---

[181] H. Kallio, Pietilä, A.-M., Johnson, M. & Kangasniemi, M. "Systematic methodological review: developing a framework for a qualitative semi-structured interview guide." *Journal of Advanced Nursing* 72, no.12 (2016): 2955. doi: 10.1111/jan.13031

[182] May L. Yeong et al. "Interview Protocol Refinement: Fine-Tuning Qualitative Research Interview Questions for Multi-Racial Populations in Malaysia." *The Qualitative Report*, vol. 23, no. 11, 2018, pp. 2700. *ProQuest*, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Finterview-protocol-refinement-fine-tuning%2Fdocview%2F2151128806%2Fse-2%3Faccountid%3D12085.

instrumental development and motivation. In 2022, with the pandemic subsiding and life returning to normal, virtual learning has infused itself into music education curricula. Music educators must use new techniques to successfully apply virtual learning to improve student outcomes, motivation, and retention. This research study will provide K-12 educators, post-secondary educators, and consultants with insights that may influence specialists to adopt new techniques and methods for applying virtual learning for instrumental music education.

Concerning the research purpose and question, each instrumental music educator lived different experiences when implementing virtual learning during the pandemic. The perception of each educator implementing and applying virtual learning for instrumental skill development and motivation constructs a reality worthy of examination. The assumption behind phenomenology is that if one relegates the preconceived understandings of a phenomenon and revisits the experiences, new meaning emerges to enhance one's knowledge of the phenomenon.[183] The following sections include descriptions of the informative framework and philosophical assumptions applied to guide the researcher to understand better the perception of each participant's experiences with this phenomenon.

Procedures

This study required approval from the Instructional Review Board (IRB) of Liberty University before conducting data retrieval. The basis of the IRB approval depends on the review

[183] Alexandra A. Lauterbach. "Hermeneutic Phenomenological Interviewing: Going Beyond Semi-Structured Formats to Help Participants Revisit Experience." *The Qualitative Report*, vol. 23, no. 11, 2018, pp. 2883. *ProQuest*, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fhermeneutic-phenomenological-interviewing-going%2Fdocview%2F2155621343%2Fse-2%3Faccountid%3D12085.

of the researcher's design, interview protocol and questions, and other necessary documentation. Once approved, the researcher can commence with interviews for the study (see Appendix A). To formally recruit participants, the researcher gained approval from his respective school district through Georgia Music Educators Association (GMEA). The purpose of this process is to govern and coordinate research conducted in the district to protect the rights and privacy of students, parents/guardians, and staff, protect instructional time, promote continuous improvement in student achievement, support the districts mission, goals, and strategic plan, and to ensure that the research will inform educational practice.[184] Once approved, participants received an invitation via email and phone. When communicating with participants, the researcher explained the nature of his research, the purpose of the study, and all requirements and criteria needed to meet the demands of the study. Participants received an emailed consent form (see Appendix B) to agree to interview or opt out of the study. The consent form provided an overview of the study, the participant's requirements, the protection of data privacy, and all risks involved in their participation. Little to no risk was involved in this study since each participant only discuss their perceptions and experiences related to the study in an interview format. Due to the state of the current pandemic, the researcher followed social distancing guidelines from the Center for Disease Control and Prevention (CDC). All semi-structured interviews took place via Microsoft Teams video conferencing.

---

[184] "Research, Data & Evaluation." DeKalb County School District, March 17, 2022. https://www.dekalbschoolsga.org/research-data-evaluation/.

Each participant received the same twelve open-ended questions during the real-time interview. The interview timetable was at most forty-five minutes to ensure ample time for follow-up questions and answers for clarity. Each interview was recorded on the Microsoft Teams video conferencing platform and transcribed through Delve software in preparation for data analysis. Participants was granted an opportunity to examine their transcripts for irregularities in recording data collected, and any discrepancies will receive adjustments to ensure the reliability of all data.

Data Collection Plan

Besides selecting a research topic and appropriate research design, no further research task is more fundamental to creating credible research than obtaining an adequate sample. Ensuring enough data is a precursor to credible analysis and reporting.[185] Qualitative research interviews involve gathering information, eliciting stories, and learning about meaning, emotions, experiences, and relationships that cannot easily be observed. Interviewers engage in active, supportive listening that involves paraphrasing and probing to develop rapport and encourage in-depth discussion.[186] As a hermeneutic phenomenological study, data collected through interviews are essential in understanding each participant's lived experiences and perception of the phenomenon. This study applied an affect-responsive semi-structured interview

---

[185] Bryan Marshall, Peter Cardon, Amit Poddar, and Renee Fontenot. "DOES SAMPLE SIZE MATTER IN QUALITATIVE RESEARCH?: A REVIEW OF QUALITATIVE INTERVIEWS IN IS RESEARCH." *The Journal of Computer Information Systems* 54, no. 1 (Fall, 2013): 11, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fdoes-sample-size-matter-qualitative-research%2Fdocview%2F1471047612%2Fse-2%3Faccountid%3D12085.

[186] Kelly R. Rossetto. "Qualitative Research Interviews: Assessing the Therapeutic Value and Challenges." *Journal of Social and Personal Relationships* 31, no. 4 (June 2014): 483. https://doi.org/10.1177/0265407514522892.

model. The method of semi-structured interviews successfully enables reciprocity between the interviewer and participant, enabling the interviewer to improvise follow-up questions based on the participant's responses and allowing space for participants' verbal expressions.[187]

Affect-responsive interviewing explicitly recognizes that, most often, participants gain greater insight into their lived experiences through the interview process.[188] In this model, participants gain a greater understanding of events or other aspects of their lived experiences through the interview process. The researcher gains a greater understanding of the participant's lived experiences and thus can richly describe and give voice to those experiences.[189] This model is deemed respectful and ethical for participants and researcher.

There are seven stages of the interview process that the reader will recognize in this study, which include thematizing, designing, interviewing, transcribing, analyzing, verifying, and reporting. Thematizing refers to formulating research questions and theoretically clarifying the theme investigated.[190] Designing an interview study involves planning the procedures and techniques of the "how" of the study.[191] The setting of the interview stage should encourage the

---

[187] Pietilä H. Kallio, A.-M., Johnson, M. & Kangasniemi, M. "Systematic methodological review: developing a framework for a qualitative semi-structured interview guide." *Journal of Advanced Nursing* 72, no.12, (2016): 2955, doi: 10.1111/jan.13031

[188] Julie Minikel-Lacocque. "The Affect-Responsive Interview and In-Depth Interviewing: What We Can Learn From Therapy Research." *Qualitative Inquiry* 25, no. 9–10 (2019): 1043. https://doi.org/10.1177/1077800418792941.

[189] Ibid., 1044.

[190] Svend Brinkmann, and Steinar Kvale. *Planning an Interview Study*. *Doing Interviews*. (London : SAGE Publications Ltd, 2018), 3.

[191] Svend Brinkmann, and Steinar Kvale. "Planning an Interview Study. Doing Interviews," 5.

interviewees to describe their perspectives on their lives and worlds.[192] Transcribing transferring data from one form to another, and transcriptions are translations from an oral language to a written language.[193] Analyzing clarifies the meaning of what was said while attempting to confirm or reject the researcher's interpretations during the interview.[194] Validity refers in ordinary language to the truth, the correctness, and the strength of a statement. A valid argument is sound, well grounded, justifiable, strong, and convincing. Reliability pertains to the consistency and trustworthiness of research findings; it is often treated concerning the issue of whether a finding is reproducible at other times and by other researchers.[195] Reporting section communicates the findings of the study and the methods applied in a form that lives according to scientific criteria while considering the investigation's ethical aspects and results in a readable product.[196]

The researcher transcribed all finalized interview results and notes in preparation for data analysis using the Microsoft Teams software platform. Participants checked their final transcriptions for accuracy and inform the researcher of the required corrections. Delve software program completed the data analysis of this research. Delve is a qualitative data analysis software that assists researchers with organizing and analyzing data to create codes and themes. Data analysis is the most complex qualitative research phase and receives the least thoughtful

---

[192] Svend Brinkmann, and Steinar Kvale. "Planning an Interview Study. Doing Interviews," 4.

[193] Ibid., 2.

[194] Ibid., 1.

[195] Ibid., 3.

[196] Ibid.

discussion in the literature. When conducting data analysis, the researcher becomes the instrument for analysis, making judgments about coding, theming, decontextualizing, and recontextualizing the data.[197] This study employed thematic analysis to identify coding and theme in the data. Thematic analysis is a method for identifying, analyzing, organizing, describing, and reporting themes found within a data set. This method is described as a translator for those speaking the languages of qualitative and quantitative analysis, enabling researchers who use different research methods to communicate.[198] Interviews were analyzed and coded by incorporating inductive coding. Induction is observing and scrutinizing several instances, for example, in one's transcripts, to say something general about the given class of the sample. Qualitative research is frequently characterized as inductive since researchers often approach their subject matter without too many preconceived ideas to test. Instead, let the empirical world decide which questions are worth seeking an answer.[199] The researcher grouped codes into themes, assess them, and revise them if necessary. The researcher summarized the findings in a written narration.

Data Analysis Plan

The researcher developed interview questions to address the study's research questions. Each question aimed to detail participants' lived experiences with the phenomenon. Individual semi-structured interviews took place on the Microsoft teams video conferencing platform. The

---

[197] Lorelli S. Nowell, Jill M. Norris, Deborah E. White, and Nancy J. Moules. "Thematic Analysis: Striving to Meet the Trustworthiness Criteria." *International Journal of Qualitative Methods*, (2017): 2. https://doi.org/10.1177/1609406917733847.

[198] Ibid.

[199] Svend Brinkmann, and Steinar Kvale. *Planning an Interview Study*. *Doing Interviews*, 3.

researcher recorded interviews auditorily to preserve the exact verbiage of participants' experiences. Each instrumental music educator participated in a discussion that involves semi-structured questions designed to stimulate details of their perception of the phenomenon (See Appendix B). After completing the interview process with each participant, the researcher analyzed all responses and identified commonalities and themes in their experiences.

The researcher transcribed interviews by using the Microsoft Teams software platform. The researcher verified the accuracy of each transcription by listening to the recording while analyzing the written text to ensure the integrity of each interview. After authentication of transcriptions, the researcher forwarded them to each participant to verify the content. After participant approval, the researcher added pseudonyms to protect participants' identities and uploaded each transcript into the Delve analysis platform for thematic analysis and coding. Coding is crucial to content analysis, grounded theory, and computer-assisted analysis of interview texts.[200] Once initial coding was completed, the researcher reviewed the transcripts and codes to ensure alignment with the intended meaning of the participants.

Data Synthesis Plan

After completing the data analysis plan, the researcher synthesized all findings into a final body of evidence that addresses both research questions. Qualitative research synthesis is a valuable method to combine the data or results of multiple qualitative reports to enhance their usefulness and influence.[201] The creation of this synthesis began with a written narrative and a

---

[200] Svend Brinkmann, and Steinar Kvale. "Planning an Interview Study. Doing Interviews," 3.

[201] James W. Drisko. "Qualitative Research Synthesis: An Appreciative and Critical Introduction." *Qualitative Social Work* 19, no. 4 (2020): 749. https://doi.org/10.1177/1473325019848808.

story with summarized themes identified by participants. Completing this task followed the four-step phase: initialization, construction, rectification, and finalization.

The initialization phase comprises data transformed into the textual format, including interview transcripts, participant observation field notes, journals, documents, literature, artifacts, photographs, video, websites, and email correspondence.[202] The construction phase deals with the researcher reflecting on organizing codes and comparing similarities and differences to assign a place to each cluster of codes concerning the research question.[203] The theme is on the verge of full development with the rectification or verification phase. Still, researchers need to re-analyze, reappraise the analysis process, and distance themselves from the data to increase their sensitivity and reduce premature and incomplete data analysis.[204] The finalization phase is the last step; the researcher develops a narration as a written commentary to describe and connect various themes and answer the research questions.[205]

Trustworthiness

Trustworthiness or rigor of a study refers to the degree of confidence in data, interpretation, and methods used to ensure the quality of a study. In each study, researchers should establish the protocols and procedures necessary for a study to be considered worthy of

---

[202] Mojtaba Vaismoradi, Jacqueline Jones, Hannele Turunen, and Sherrill Snelgrove. "Theme development in qualitative content analysis and thematic analysis." *Journal of Nursing Education and Practice* 6, no. 5 (2016): 103.

[203] Ibid., 105.

[204] Mojtaba Vaismoradi, Jacqueline Jones, Hannele Turunen, and Sherrill Snelgrove. "Theme development in qualitative content analysis and thematic analysis," 106.

[205] Ibid., 107.

consideration by readers.[206] Four criteria were established for the trustworthiness of qualitative data: credibility, dependability, confirmability, and transferability. These criteria go beyond assessing qualitative data alone but are instead concerned with evaluations of interpretation and conclusions.[207]

Credibility

The credibility of the study, or the confidence in the truth of the research and, therefore, the findings, is the most crucial criterion. This concept is analogous to internal validity in qualitative/quantitative research.[208] Authenticity is the extent to which researchers show various realities and realistically convey participants' lives. The selection of appropriate people for the study sample and providing a rich, detailed description are ways that researchers address this criterion.[209] The researcher ensured that each participant had an opportunity to review all transcripts, data, and notes collected during the interview process. If irregularities were presented, the researcher immediately adjusted the transcript to meet the participant's demands.

Triangulation

The researcher also employed method triangulation to increase the credibility of the research findings. Triangulation refers to using multiple methods or data sources in qualitative

---

[206] Lynne M Connelly. "Trustworthiness in Qualitative Research." *Medsurg Nursing* 25, no. 6 (2016): 435, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Ftrustworthiness-qualitative-research%2Fdocview%2F1849700459%2Fse-2%3Faccountid%3D12085.

[207] Umesh Kemparaj, and Sangeeta Chavan. "Qualitative Research: A Brief Description." *Indian Journal of Medical Sciences* 67, no. 3 (2013): 94, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fqualitative-research-brief-description%2Fdocview%2F1466549788%2Fse-2%3Faccountid%3D12085.

[208] Lynne M Connelly. "Trustworthiness in Qualitative Research," 435.

[209] Ibid., 436.

research to develop a comprehensive understanding of phenomena. Method triangulation, frequently applied in qualitative studies, may include interviews, observation, and field notes.[210] This research only applied interviews to gather data for understanding the phenomena. The researcher reviewed and scrutinized all interviews to identify key phrases and sentences. Interview transcripts described and revealed all new experiences of participants' during the interview. Coding was applied to identify each concept and categorize them into themes. As new themes materialize, codes will be revised to create new codes. Participants had an opportunity to review interview transcripts to correct and enhance new themes from the data sources provided.

Transferability

Transferability demonstrates that the findings of this study are applicable in other contexts. Rodon and SesÃ mention that transferability is a process also performed by readers by which they can infer that the research results would be similar in their situation.[211] Transferability should be implemented in qualitative research because it supports the idea that qualitative findings may apply to situations during the study.[212] The researcher accomplished

---

[210] Nancy R.N. Carter, PhD., Denise Bryant-Lukosius, DiCenso, Alba,R.N., PhD., Jennifer Blythe PhD., and Neville, Alan J, MBChB, MEd,M.R.C.P., F.R.C.P.(c). "The use of Triangulation in Qualitative Research." *Oncology Nursing Forum* 41, no. 5 (09, 2014): 545, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fuse-triangulation-qualitative-research%2Fdocview%2F1559261620%2Fse-2%3Faccountid%3D12085.

[211] Joan Rodon, and Feliciano SesÃ. "Towards a Framework for the Transferability of Results in IS Qualitative Research," 7.

[212] Eamonn Slevin, and David Sines. "Enhancing the Truthfulness, Consistency, and Transferability of a Qualitative Study: Utilising a Manifold of Approaches." *Nurse Researcher (through 2013)* 7, no. 2 (99, 2000): 91, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fenhancing-truthfulness-consistency%2Fdocview%2F200819635%2Fse-2%3Faccountid%3D12085.

these potential conditions by providing adequate information about background data, participants, and a detailed description of the phenomenon.

Dependability

The dependability of qualitative data refers to data stability over time and conditions.[213] Dependability demonstrates that the study's findings are consistent and replicable. The researcher addressed this study through a detailed purposeful description of themes, member-checks of transcripts and findings, and multiple reviews of the research process by the researcher and chair. Hermeneutic phenomenology was selected for this study because it offers systematic approaches for replication.

Confirmability

Confirmability refers to the objectivity or neutrality of the data, that is, the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning.[214] Conducting triangulation reduces the chance of researcher bias to ensure this study's conformability. Inquiry audits can also be applied to maintain dependability and confirmability. In an inquiry audit, the investigator develops an audit trail, a systematic collection of documentation that allows an independent auditor to devise conclusions about the data.[215] Furthermore, to limit the researcher's bias, epoché was implemented. By performing the epoché through first bracketing or suspending one tacit belief in the absolute existence of the world and

---

[213] Umesh Kemparaj, and Sangeeta Chavan. "Qualitative Research: A Brief Description." *Indian Journal of Medical Sciences* 67, no. 3 (2013): 95, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fqualitative-research-brief-description%2Fdocview%2F1466549788%2Fse-2%3Faccountid%3D12085.

[214] Umesh Kemparaj, and Sangeeta Chavan. "Qualitative Research: A Brief Description," 95.

[215] Ibid.

no longer simply taking reality as the unquestioned point of departure, one starts to pay attention to what worldly objects are given.[216] Thus, due to his familiarity with the school district, music programs, and directors, the researcher sets aside all personal views of the study and assumptions that may arise during the interviewing.

Ethical Considerations

Ethical considerations for this study commenced with the researcher securing IRB approval from the research institution. The IRB gave the researcher permission to start recruiting participants and collecting data. The researcher prepared an informed consent form for all participants before the interview process. The researcher protected all participant information, and pseudonyms will be applied to maintain confidentiality. Participants had the opportunity to remove themselves from the study when necessary. The researcher protected all data in a password-protected file inside the home office of the researcher's residency. After five years, the researcher will destroy all data and participant information to remain aligned with the IRB approval guidelines. Participants had the opportunity to review their transcripts to look for irregularities in the data collected. Any discrepancies were immediately adjusted to ensure the reliability of all data.

Summary

The purpose of this qualitative hermeneutic phenomenology study was to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in Title I schools regarding integrating asynchronous and synchronous virtual

---

[216]Dan Zahavi. "Applied Phenomenology: Why it is Safe to Ignore the Epoché." *Continental Philosophy Review* (04, 2019): 1-15, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fapplied-phenomenology-why-is-safe-ignore-epoch%C3%A9%2Fdocview%2F2205738329%2Fse-2

learning for their music programs. Furthermore, this study analyzed instrumental music educators steps to boost student skill development and morale through virtual learning. The researcher recruited ten to fifteen participants for this study and collect data through semi-structured interviews. The researcher developed an interview protocol to guide the construction of interview questions, which is crucial for gaining meaningful qualitative data. The researcher's advisor and reader examined all interview questions to ensure that each question aligns with the study's purpose, issue, and research questions. The researcher followed all guidelines to protect participants' identities and provide anonymity.

CHAPTER 4: Presentation of Findings

Introduction

This hermeneutic phenomenological study aimed to examine the lived experiences of K-12 instrumental music directors in low-income areas and identify perspectives that still need to be explored and documented concerning their perception of properly integrating virtual learning for their music programs. The information provided in this chapter focuses on the personal first-hand experiences of each participant, and this data offers descriptions of participants via pseudonyms to protect their privacy. This chapter will provide a detailed presentation of the study participants and the reporting of the findings in sections. The first section will outline themes identified from the participant interview transcripts. The final section will present the participant's responses to the central research questions and a summary of the chapter.

Participants

The basis of this study was semi-structured interviews among twelve instrumental music directors representing Dekalb County's lower-income areas. All participants had ten or more years of experience in lower-income areas. The participants of this interview included orchestral, band, elementary music education, and keyboard educators. Each director signed and submitted consent forms within the requested period. Two participants discontinued participation due to time restraints and scheduling issues, which increased the time frame for collecting data. The mean age of participants was approximately 43 years of age, with ages ranging between 33 years and 57 years. Participants' mean years of experience was 19.5 years. Participants were 66.6% male and 33.3% female. In addition, persons of color comprised 91.6% of the participant sample. Pseudonyms were applied in Table 2 to describe the research participants.

Table 2. Research Participants

Participant	Gender	Education	Years of Experience	School Type
Participant One	Male	Master's	29	High School
Participant Two	Male	Doctorate	29	Middle School
Participant Three	Male	Master's	16	High School
Participant Four	Male	Master's	11	High School
Participant Five	Male	Master's	10	High School
Participant Six	Female	Master's	12	Elementary School
Participant Seven	Male	Master's	11	High School
Participant Eight	Female	Doctorate	29	High School
Participant Nine	Female	Master's	22	Middle School
Participant Ten	Female	Specialist	25	High School
Participant Eleven	Male	Bachelor's	28	High School
Participant Twelve	Male	Master's	10	Middle School

Source: Fieldwork 2023

Participant One

Participant One is an orchestra teacher with extensive experience with K-12 schools. This participant has taught grades four through twelve within the same lower-income community for twenty-nine years, and he maintains a Bachelor's and Master's degree in Music Education. Participant number one is an orchestra director for two high schools. 100 percent of the student body qualifies for free or reduced lunch.

Participant Two

Participant Two has taught instrumental music education within the greater metropolitan of Atlanta for twenty-nine years. The participant has taught primarily high school but has also taught elementary and middle and was a college professor/director of bands for three years. He maintains a Doctorate in Music Education and serves as a middle school director in DeKalb County Schools. 100 percent of the student body qualifies for free or reduced lunch.

Participant Three

Participant Three is a current high school band director for a high school, and he holds a Master's Degree in Music Education. This participant has taught grades kindergarten through twelfth within lower-income communities for sixteen years within the same school system, and he is currently completing year six at his current school. 90 percent of the student body qualifies for free or reduced lunch.

Participant Four

Participant Four is a high school band director for DeKalb County Schools. He holds a Master's Degree in Music Education. This participant has taught high school instrumental music for eleven years within the same low-income community. His school is designated as Title I, and 100 percent of the student body qualifies for free or reduced lunch.

Participant Five

Participant Five is currently a high school band director for DeKalb County schools. He holds a Master's Degree in Music Education. The participant has taught grades nine through twelve in several greater Atlanta metropolitan school districts for ten years. His current high school is located in a lower-income community. 100 percent of the student body qualifies for free or reduced lunch.

Participant Six

Participant Six is an instrumental music education educator with twelve years experience in DeKalb County. She holds a Master's Degree in Music Education and has taught grade levels kindergarten through fifth. She currently teaches at an elementary school within a lower-income community, with 100% of the study body qualifying for free or reduced lunch.

Participant Seven

Participant Seven is a high school band director with eleven years of experience teaching grades nine through twelve. He holds a Master's Degree in Music Education and has taught in several counties. The average household income within their current school community is between twenty and forty thousand annually. 100 percent of the student body qualifies for free or reduced lunch.

Participant Eight

Participant Eight serves as a keyboard instructor/music educator for middle and high school students. She maintains a Doctorate in Curriculum and Instruction with a Concentration in Gifted Students. Participant eight has served numerous school districts within the greater Atlanta metropolitan for twenty-nine years and teaches in a lower-income community. 100 percent of the student body qualifies for free or reduced lunch.

Participant Nine

Instrumental music educator Nine is a middle school band director with twenty-two years of experience with K-12 schools. She holds a Master's Degree in Music Education and serves a lower-income community. This participant has taught middle and high school levels during her career. 85 percent of the student body qualifies for free or reduced lunch.

Participant Ten

Participant Ten is a high school band director with twenty-five years of service. She holds a Bachelor's in Music Education, a Master's in Educational Leadership, and a Specialist in Curriculum and Instruction. Participant ten currently teaches at a high school in a lower-income community. 100 percent of the student body qualifies for free or reduced lunch.

Participant Eleven

Instrumental music educator Eleven is a high school band director with twenty-eight years of experience. They have a Bachelor's Degree from Norfolk University and currently serve a Title I school in a lower-income community. During his twenty-eight years of service, he has only worked at the high school level. 100 percent of the student body qualifies for free or reduced lunch.

Participant Twelve

Participant Twelve is a middle school instrumental music educator with ten years of experience with DeKalb County Schools. They hold a Master's Degree in Music Education and currently serve a Title I school within a lower-income community. He serves a lower-income community, with 100% of the study body qualifying for free or reduced lunch.

Experiential Learning Theory

According to Kolb, the purpose of experiential learning theory is guided by concrete experience, reflective observation, abstract conceptualization, and active experimentation. Participants for this study were recruited based on their lived experiences with virtual learning and their process applied to adapt to their situations outside of the traditional classroom settings (concrete experience). During the interview process, the researcher requested participants to reflect on their virtual learning experience to discuss if the application of virtual learning assisted with student skills development and retention (reflective observation). Additionally, participants were requested to discuss logical ideas that could assist with the proper application of virtual learning in music education curricula in the future (abstract conceptualization). Lastly, findings from the research will provide the next steps for future researchers to add existing or adopt new

resources that will assist with successfully applying virtual learning to instrumental music education for student achievement (active experimentation).

Kolb developed the learning style inventory to assess individual learning styles. This instrument aimed to enhance an individual's understanding of the learning process through experience and to assist the individual's approach to learning. Learning style inventory also aids as a research tool for investigating experiential learning theory and the characteristics of individual learning styles. The researcher evaluated participants for this study to understand the learning styles to approach their application of virtual learning to enhance student instrumental skill development and retention.

Results

A series of responses to twelve semi-structured questions were provided via the transcript function on the Microsoft Teams conference platform to allow immersion in each participant's responses. Interview transcripts were analyzed through the Delve qualitative analysis software to identify keywords, phrases, statements, and paragraphs that described each participant's experience with the phenomenon. Classification of transcripts required categorical aggregation and establishing patterns of categories for each question concept. The researcher will present the results in two sections. In the first section, the researcher will analyze the participant interview transcripts. The final section presents participants' responses to both central questions and each sub-question, followed by a summary of this chapter.

Themes Explored in Interviews

The qualitative analysis steps illustrate inductive logic in three states: coding, categorizing, and thematizing. Coding consists of selecting and tagging the data to be later

classified into clusters in the categorizing stage. Subsequently, the categories can be grouped or connected into themes, which consist of analytical statements to identify underlying patterns and commonalities between the categories to answer the research questions.[217] The researcher interviewed twelve instrumental music directors to gather data on their lived experiences of teaching instrumental music virtually to students in lower-income areas. The interview consisted of six demographic questions and twelve semi-structured interview questions. The researcher analyzed each interview through the application of the Delve analysis platform. Inductive coding followed. Meaningful units were identified, coded, and organized into themes affiliated with their core characteristics. During the final analysis, common themes in all interviews emerged from the data (see table 3).

Table 3. Main Themes and Sub-Themes

Main Themes	Sub-Themes
1. Integration	
2. Virtual Issues	2a. WIFI Connectivity
	2b. Chromebooks
	2c. Synchronization
3. Participation	
	3a. Assessments
	3b. Instrumental Development
4. Professional Development	
	4a. Administrative Support
5. Community	
	5a. Living Conditions
	5b. Financial Restraints

Source: Fieldwork 2023

[217] Bruno Graebin de Farias, Luciana Dutra-Thomé, Silvia Helena Koller, and Thiago Gomes de Castro. "Formulación de Temas En Investigación Cualitativa: Procedimentos Lógicos y Vías Analíticas." *Trends in psychology = Temas em Psicologia* 29, no. 1 (2021): 156.

Hypotheses 1: The lived experiences of K-12 instrumental music directors with virtual learning will include a lack of instrumental skill development through assessments for students compared to in-person learning.

Participants' experiences emerged as themes forming the response to research question one. Discussions with instrumental music directors from different levels within lower-income communities provided a perception of their experience with instrumental skill development and its influences when taught virtually. Instrumental directors were first requested to describe their musical programs, socioeconomic status of school and community, and years/level of education to gain a clear understanding of whether virtual skill development assists or hinders student development. Instrumental music educators related their experience with virtual learning to traditional face-to-face learning settings when creating responses about instrumental skill development. Participants discussed the perceived benefits and negative aspects of virtual learning for developing instrumental skills and the importance of meeting student success demands in both scenarios. Participants further highlighted the importance of proper training through professional development courses to support future virtual classroom settings.

Participants were asked to describe their school's instrumental music program and their perception of including virtual learning in their curricula. Their descriptions provided insight into their expectations of technology in music education, how technology is structured in their curricula, and the extent of its integration into their respective schools' programming. Each instrumental music director described an instrumental music program with varying degrees of integration. The researcher identified various characteristics in the instrumental music educators'

descriptions of their music program. The following sections discuss critical points provided by instrumental directors during their lived experiences with virtual learning.

Technology Integration for Instrumental Music

Participants described their programs as comprehensive and overly active with the inclusion of technology. All instrumental music educators mention implementing various types of technology in their classroom, yet their years of experience in education indicated their level of technology implementation and inclusion. Specifically, the more years an instrumental director served in education, the less likely that they were to apply modern technology daily for instruction. Participant one's program "relied on audio and video recordings of various concerts during the school year. Once formatted, those video recordings are uploaded to YouTube to allow students to share them with friends and family." Similarly, Participant twelve also incorporated technology through YouTube lessons and listening assignments.

Participant Two only "used a desktop strobe tuner with their middle school program to assist students with ear training while tuning instruments with like voices." Conversely, Participant five "relied heavily on a "Bring Your Own Device" method because kids feel comfortable with their own devices and are familiar, allowing them access to all resources necessary at a push of a button." Participant three recently finished working on his Master's in music technology, allowing him to "introduce new methods and practices through technological advances on students' laptops and cell phones."

Perception of Virtual Learning

Most instrumental music educators interviewed referred to the application of virtual learning in their program as a tedious task. Participant One mentioned that "the downside of

virtual learning is that it is much harder to give quick feedback, and you do not get that synchronization between the instruments to allow students to listen to each other and balance." Participant Two emphasized that "students would always run into issues when playing as an ensemble due to delays, so they would never play as an ensemble during virtual learning. The best outcome for their program was students individually working and one-on-one with each student to measure progress." Participant Seven noticed that "virtual learning did not provide the same hands-on instruction as in person, and they noticed that the kids were just not engaged when it came to music."

In contrast, Participant Six found virtual learning to benefit her elementary students. This director mentioned that "virtual learning is similar to being face to face, and students love working with technology. Accessing the online piano on their laptops is a lifesaver during virtual learning."

Virtual Learning Issues

Most participants experienced issues with the county's introduction and mandate of virtual learning during the start of the COVID-19 pandemic. Their perception of implementing and attempting to maintain an instrumental music classroom virtually emerged as sub-themes. Discussions with instrumental music educators underscored the importance of WiFi connectivity, quality hardware for instrumental playback, and software for live rehearsals and performances via virtual platforms.

Wi-Fi Connectivity

The lack of connectivity in general for all classes was paramount to student success. For most instrumental music education, virtual learning issues hampered the learning process for

student development. Most instrumental music educators agreed that WiFi was the primary concern when dealing with technological issues during virtual learning. Participant Four outlined that "students lack internet access due to their economic standing, which was the issue that carried over with WiFi issues. Therefore, students had limited access to their music program. The lack of connectivity led to students suffering educationally and musically."

Participant Nine also asserted that many students needed access to WiFi to participate in class activities. "Some students had to get hot spots, and their hot spots were beyond subpar, which lacked support for students in their lower-income communities. Many single-family homes could not afford replacements, and students would miss out, preventing them from moving forward in their music and musical education experience." Participant Two agreed that "WiFi connectivity issues at home would always keep students from accessing their assignments online if their school-issued computer needed to operate correctly." Participant Four stated that "students had difficulty with virtual learning due to either WiFi issues or lack of having access to instruments due to low economic standing. Our technology was not the best and often broke without qualified, certified repair individuals to offer support. So, that placed many of our students in that grey area of no participation."

Chromebooks

In considering instrumental performances and student assessments, instrumental music educators addressed issues concerning quality audio recording microphones and playback through county-issued laptops. This juxtaposed with the immediate feedback students would receive in person after completing a performance assignment. Most instrumental music educators were not content with their inability to adequately listen to student performances and provide

sustainable feedback for student improvement. Participant Five highlighted that “the laptops distributed county-wide needed to be equipped with the type of audio necessary for great feedback from instruments. Due to the county purchasing lower-end equipment, students would record themselves for performances, but the devices were not recording pure, authentic sounds from the students, which impeded the necessary approach for redirection by the music educator.”

Participant Five also mentions:

> due to the lower income areas that DeKalb serves, technicians were not readily placed to assist with the necessary training to teach how to operate technology correctly, and students were held accountable for educators’ lack of skills. When it came to technology during COVID, educators were told to do it, say we did it, and to meet them, but again it was not benefitting us, and it was not benefiting the kids, and they were not learning at their full potential.

Participant Nine, in agreement with Participant five, mentioned that it was challenging to ascertain the correct tone quality via an electronic device properly. “One cannot hear the timbers, and you cannot hear tones. One cannot properly fix issues that students may be having. Furthermore, due to the lower income area, we cannot request proper equipment to hear live and real tones.”

Synchronization

The third sub-theme involves ensemble rehearsals and performances simultaneously via an online platform. According to mostly all instrumental music educators with ensembles, performing as a group was virtually impossible without proper instructions on executing successfully. Participant Seven revealed that students could not play together because tempos would vary depending on the strength of the signal that students would need for connection. At times, students could not participate daily due to the same connectivity issues, which was

frustrating for the music educator and student. Participant Two, in agreement with Participant Seven, indicated that he also experienced issues with delays while attempting to perform as a group online. “It became impossible, so we worked one-on-one or with subgroups within the team’s platform. That was if students could participate due to subpar connectivity issues.” Participant One highlighted that the “downside of virtual learning is that it becomes much harder to give quick feedback, and you do not get that synchronization between instruments, and they cannot listen and balance each other. So, it is just a stopgap. It helps us survive long enough, but certainly not a replacement.”

Instrumental Development through Virtual Learning

Instrumental development presented the most commonly recognizable issues with implementing virtual learning in music education curricula. Each instrumental educator interviewed discussed his or her experiences with applying virtual learning, his or her perceptions, and the necessary next steps in the future to assist music educators and their students with proper implementation successfully. In general, discussions with participants examined if student participation virtually while attempting to complete assessments assisted with student instrumental development.

Virtual Student Participation

Student participation is vital for student development scholastically in all education curricula. With virtual music education, participants discussed methods to ensure student participation remained a key priority during virtual learning. Participant Two mentioned that “students recording themselves and submitting their products for review is essential to our development.” He outlined that:

> We are most critical of ourselves. So, one can record themselves and reflect, saying, Man, that was good or horrible. So, you are going to keep on doing it over and over and over. Next thing one knows, they have become so proficient at playing that particular exercise that it makes anything else easier because if you are recording yourself, you are going to be critical. I am not going to send a video of myself performing if it is not going to be just right. In fact, on a side note, I had to record myself doing an audition. I did 154 takes in one day to find the best one, and the next day I did 47 takes. So, I only got two takes out of that. But that is the same thing the kids were going through with virtual learning. My students had to record themselves and submit them to me, and those are the advantages of student participation with virtual learning.

Participant Eleven also concluded that virtual learning works well for student participation and has a place in music education curricula "because it's a great study buddy for kids." Participant Eleven elaborated that "in-person rehearsals and performances will never be replaced by it, but it works well. It is a great way for students to individually work on things they may still have trouble with outside the classroom or during private lessons."

Virtual Assessments

Virtual Assessments provide an interesting perspective from the responses of each participant. Primarily all participants utilized online applications to create and post assessments while allowing their students to record their performances. Applications like Flip Grid allow students to upload their performances to its platform for an educator to view privately and post necessary redirections. Participant Seven said he would "have students record themselves and submit their recording on Google Classroom and that way I can view it individually and I can also provide feedback." He also stated that recording and posting to an online platform assisted new students who were nervous about performing in front of their peers. Participant Three indicated they would have his students record themselves if they had instruments and theory tests for those without instruments. However, he preferred to avoid continuous recordings for assessments. Participant Three pointed out that recording tests "kind of hinders the results

because students can record a performance many times. So, you will not get real-time performances. We just do not know how many times they had to retake before submitting." The virtual assessment process detracts from the in-person performances if students can continuously practice during their recording until the presentation is correct.

Participant Two viewed online assessments as a great motivational tool for his students. He explained that "their students would receive assessments weekly. I wanted them to show how they were advancing through Flip Grid, and students would have the opportunity to assess each other as well. They really got a kick out of that." All participants were asked, "What were the main observations needed to acknowledge the improvement of instrumental skills?" Their responses suggested that basic posture, proper embouchure development, hand placement, and hand positioning were the main visuals necessary. However, overall, instrumental education is considered more of a hands-on approach.

Student Instrumental Development

In considering the basics of instrumental development, all instrumental music educators agreed that virtual learning does maintain a place in music education. Besides the inability to assess students without including online recording platforms, all participants valued the accessibility of online resources for instrumental student progress. Participate Three outlined that he "see virtual learning as a decent method for offering basics such as theory and learning notation, but it does not benefit students when it comes to their motor skills and enhancing their playing ability." Participant Four indicated that virtual learning could support student skill development by "providing tutorial hours where you can have sectionals at certain times and work on certain instrumentation that can take on a one-on-one roll if necessary." Participant

Eleven discussed that "virtual learning could be used as a motivational tool for students who are not the most confident when performing in front of others. It opens doors for individual rehearsal time with immediate response from teachers via web platforms or music programs like finale."

In contrast, most educators also agreed that the basics of instrumental development must be a task completed in person or in groups for students to gain the best quality instruction to be successful. Participant one recounted that:

> Virtual learning has its usefulness, but I am old school. I would rather have students in front of me while I teach the concepts. I am sure it will become more useful for future educators, but kids feel free to play with each other. And, you know, they will play together in little groups or individually. They cannot get that online. They help each other, and that is another thing we really miss in the virtual part, which is kids working with kids. It is one of the best ways to learn by teaching and learning from somebody else in person.

Participant Two agreed that "in-person learning is still the best method for music education because not only can you immediately redirect, but kids have the sense of community, which is a strong motivating factor." Participant Five described that "virtual learning has its place for helping students in particular areas of music education but not with developing their instrumental skills. And when I say instrumental skills, I am referring to their motor skills, proper breathing, posture, and creating that perfect tone. I cannot see how virtual learning could assist with those factors." In agreement with Participant Five, Participant seven noted:

> Through virtual learning, just having to demonstrate proper tone on each instrument, proper technique, and even that small notion of being able to hold the instrument correctly was difficult to demonstrate virtually. Due to teaching so long in person and never being trained for a potential virtual lesson during a pandemic, it was just difficult getting students to understand that we are going through the same suffering that they were. It was just frustrating because they were not catching on as fast as they would during in-person lessons. I focused more on keeping their mental together and just letting them know its OK. You are going to mess up. It is OK you are not going to be able to catch on as fast as you would, but as long as you are progressing, even if it is very minimal, it is OK.

Participant Twelve also indicated that "virtual learning can be useful for teaching basic skills and for those students who need extra practice with those basic skills, but I do not think it is the best for teaching motor skills for instrumental studies. That is more of an in-person activity."

Professional Development

In considering professional development opportunities provided to instrumental music educators, the district music coordinator must designate valuable and enriching courses for experienced and novice teachers regarding virtual learning. All instrumental music educators interviewed expressed that professional development is necessary on a district level for all educators in DeKalb County. Participant Eleven indicated, "all future teachers must be educated on connecting virtually to support students without issues adequately." Participant Twelve outlined that:

> I definitely think that there is a lot of professional development for teachers and content areas, but looking for those specialty areas such as career tech, the Fine Arts, and physical education, making sure that we have the same level of support as your content standards and looking for those innovative programs that would assess our program, especially music.

At the district level, a music coordinator is essential to supporting instrumental music educators and their ability to adequately educate students in-person and virtually. Participant Two recounted that:

> The first thing we had to do was get another music supervisor in position. That would help because when the music coordinator retired, that was a lot of grey areas because many people were not sure about what to do with virtual music education and how to support instrumental educators overall. So that was the first big step because they have to educate the principals and the administrators because oftentimes, they do not know. I have been lucky because my principals have been really supportive with me rebuilding

> my program, but I have been at schools where they did not support, not necessarily to be facetious, but sometimes they did not know how. So, the first big step was to get a music supervisor who is thorough and competent and who can also educate our administrators.

Participant Four outlined that "I believe professional development would help us greatly. Especially for those that may have been in the system a little bit longer than others, they may not be as frequent to the different uses of technology, so having professional development is very keen on having a successful program."

Administrative Support

While most instrumental music education programs were financially supported with in-person resources, most programs need to be prepared with the proper software to promote a sound virtual learning experience for students. Consequently, concerns surfaced regarding the following steps to ensure instrumental educators and students are better prepared if a similar situation like the COVID pandemic transpires. Participant Eleven affirmed that "what we need and should have is all music software on school-issued computers. That would eliminate directors printing out parts for days. If students had software like finale on their computers, directors would only have to upload parts. That would be a game changer." Participant nine, in agreement with Participant eleven, concluded that "with technology, I would like for the county to provide workstations where theory can be taught and have a Finale and Sibelius software programs to help the kids learn."

Participant Five urged that administration support instrumental music education by adequately training educators to "properly manage technology within the classroom while meeting students where they are. I cannot see us successfully using technology without proper lessons for us to gain experience to implement instead of using a band-aid and saying we were

successful. We are on a collision course if we are forced virtual again in the near future." Similarly, Participant One suggested that "it would be helpful to use some kind of program where students could actually hear and see each other at the same time virtually. Maybe if we had access to that program for free and for the students, maybe we could try it out with proper training to see if it works. Also, someone could explain it and explains how it all works. You know, that could be helpful."

Hypotheses 2: The lived experiences of K-12 instrumental directors with students from lower socioeconomic environments following their virtual learning experience will not improve retention rates for instrumental music programs.

The researcher designed the second hypothesis to examine the effects of virtual learning on students from lower-income areas' desire to maintain the same level of interest in instrumental music education after completing virtual instrumental courses. To develop an appreciation of their response, the researcher asked each participant about their perception of student motivation and retention through applying virtual learning with their instrumental curricula. One theme emerged along with two sub-themes from their responses. The main theme was that students were motivated by instrumental music when placed in a group or community setting with peers. The first sub-theme was that student living conditioning was not conducive for instrumental rehearsal and performances. The final sub-theme was the need for more available instruments and repair support for students who could not afford personal resources.

In-Person Community Rehearsals and Performances

Participants perceived in-person learning in a collaborative effort as an essential part of students' instrumental growth. The researcher assessed this from the lived experiences of

instrumental educators and the outcome witnessed during virtual learning classes. Participant One discussed that "kids are highly observant, and it is hard for them to observe each other from a laptop or monitor. Students do not receive the same interactions with their teacher and with each other where they develop that sense of elite core. You know, they are part of a group. It just seems like it is so much easier, like I could see students say I just do not feel like logging on." Participant One recounted that:

> Kids in their classrooms felt free to play with each other. And heck, you know, they would play together in little groups or individually at times. We do not get that online. Students feel brave for playing in front of each other in the classroom instead of online. It takes a lot of effort to get kids initially to be willing to play for each other because they feel so self-conscious. If requested to practice, they'll just start doing it and they will form their own little groups and practice together. They help each other, and that is another thing we really missed in the virtual part, which is kids working with kids. It is one of the best ways to learn, and that is by teaching someone else.

Participant Two understood the importance of student collaboration and its benefits for student achievement. The importance of students collaborating is a catalyst for developing positive competitiveness, creativity, communication, and mental focus. For Participant Two, in-person learning is still the best method for music education because not only can one immediately redirect, but students have a sense of community, which motivates them to improve as musicians. "The collaborative effort from students actively participating in person becomes more apparent in their rehearsal time which assists with enhancing their performances. This mindset assists with their motivation and drive of betterment at their craft."

Participant Eight reflected that motivation for student improvement originated from students' competitive nature during in-person group activities. According to Participant Eight:

> Our students were so used to working together in class face to face and building a sense of pride for their program every year and the pandemic seemed to stop that motivation. I

> recall times when kids were excited to work with those students that played like instruments and would want to challenge to see who was the best. It brought out the best in students, and that is what was really missing during virtual learning.

Unfavorable Rehearsal Conditions

Based on the experience of Participant Three, students' ability to entirely focus on coursework and instrumental rehearsal time during virtual learning was interrupted by unforeseen requests by parents and guardians. Participant Three elaborated that:

> A lot of students either had to babysit or watch their siblings due to economic restraints with their parents, so they could not give the time to focus or be consistent with classes or practicing. A lot of students also had to go to work to assist with supporting their family. Specifically, during the pandemic, when we all went virtual, students would miss a lot of class because of work. Also, students would inform me that their parents or guardians denied them practice time because their instruments were either too loud or caused a disturbance in the neighborhood. This caused restrictions with their improvement on their instruments.

Highlighting that students could not complete assignments nor meet the demand of performance assessments, students suffered from the lack of rehearsal time due to demands that superseded course assignments. Participant Seven also mentioned that their students faced unfavorable conditions due to tasks their parents and guardians placed upon them. Participant Seven denoted:

> I guess I learned how to be more compassionate to my students, just understanding what they are going through throughout the day. Unfortunately, I had a couple of kids who did have their mics live, and I could just hear the things that they are dealing with at home, whether it is little siblings or parental involvement or lack thereof, and as a teacher, I have a high demand, a high standard as any other teacher would, but it showed me that I can have that standard and still show them compassion. At times, it would be so disheartening to hear a student tell me that they cannot practice because they are too busy taking care of their family or having to work to help support their family. It is almost like their joys as a child are stricken away, and they have to live their lives as adults.

Financial Restraints

In discussing motivation and retention with participants, most suggested that financial obligations and restraints were the main influential factors for deterring students' interest in instrumental music education. For Participant Eight, parents in lower-income areas lost jobs during the pandemic, saw reduced hours, or struggled to provide the bare minimum for their families, and purchasing or renting an instrument was not a family priority during that time. Participant Eight reflected in the discussion:

> There are so many students in our area that have parents who are challenged by not having the ability to financially afford their kids participating in performance groups. In our case, pre-pandemic, we struggled mightily with requesting dues for shirts, performances, music, and uniforms. Virtual learning added to the financial struggle by tenfold. I think it is going to be a long time before we see the success in music education that we saw pre-pandemic.

Another participant also discussed issues emerging from the lack of financial support during virtual learning. Participant Five recognized that without access to free public transportation, students and parents could not retrieve resources from schools to participate in virtual learning. Participant Five indicated that:

> I cannot forget my kids that suffered because they either could not make it to campus to get a school-issued instrument because they did not have a way, those students who could not afford their own personal instruments, and my kids that had an issue with their school instrument during virtual learning and could not get it repaired because of lack of funds. I know the last sentence was a run-on, but I found it disheartening when my kids suffered because they could not afford to participate, and I felt responsible. That is why we relaxed a bunch on the assessment end.

Likewise, Participant Seven shared that “a lot of times, students’ lack of engagement came from not having the tools to participate as well. We do not have an abundance of school instruments for every student, so some went virtual without anything to play. It was virtually

impossible to request students to rent or purchase instruments when they needed to help pay bills at home." Further, Participant Seven recalls when virtual learning "was really difficult due to students not having access to a working camera." Damaged Chromebooks, and iPad along with their corresponding hot spots also discouraged students from participating if damaged. Participant Six affirmed that "students suffered with accessing resources due to damaged equipment provided by the county. If student-issued iPad and chrome books stopped working, we had no way of repairing their equipment, and parents could not afford to repair damaged devices on their own nor replace them with personal equipment. When this happened, students missed courses for weeks at a time."

Summary

In summary, the findings from the semi-structured interviews explored the perceptions and experiences of twelve instrumental music education directors and their first-hand experience with virtual learning in their music curricula. Specifically, the researcher aimed to understand instrumental directors' perceptions of whether adding virtual learning to instrumental music curricula in lower-income areas supports student development with instrumental skill development and student retention. This chapter began with a detailed description of the study participants and a report of the findings. The initial demographic questionnaire allowed each instrumental director to describe their music programs, level of education, grade levels taught, and experience in lower-income areas. They described their music programs as being highly comprehensive within the means of their school and community. Instrumental music educators perceived adding virtual learning to music programs as a positive factor for meeting students where they are to increase achievement.

Conversely, instrumental music educators considered the implementation of an instrumental virtual learning classroom to be overwhelmingly complex. They viewed the virtual learning experience as a setback from what they would experience during in-person learning. Educators expressed concerns about the lack of student participation due to technical issues that were quickly resolved with professional assistance. Educators described their hardship with applying student resources provided by the school to teach online adequately. In general, all educators agreed that in-person student participation is more favorable to virtual learning due to the collaborative effort needed in an ensemble configuration and the sense of community students develop amongst themselves.

The themes were organized and presented within their requisite research questions section. In Chapter 5, the emergent insights related to each research question will be explored in the context of K-12 instrumental directors' perception of virtual learning with development and retention in low-income areas. Implications of the findings will be discussed to identify what was learned and how this information may be applied for future research.

CHAPTER 5: CONCLUSION

Summary of Study

This study focused on the instrumental directors' perception of including virtual learning in their music education curricula and its effects on lower-income student skill development and retention. With the continuous progress of internet technology, the educational methods of music are constantly changing. The requirements of lifelong teaching and lifelong education make the traditional music teaching platform experience challenging. Due to the implementation and operational challenges instrumental educators continue to experience with virtual learning, school districts, and counties are moving forward with virtual learning becoming components of their daily plan for student achievement.

This research engaged K-12 instrumental music educators in analyzing their virtual learning application with their music education program for students' instrumental skill development. The research also attempted to establish how instrumental music educators perceive virtual learning's contribution to music education curricula and their first-hand lived experience with online education compared to in-person with students from lower-income areas. The lived experiences based on the data collected from each participant deliver a narrative that contributes to the purpose of this hermeneutic phenomenological study. The qualitative approach offered a framework to develop the research from the lived experiences of instrumental music educators in lower-income communities. Their experiences revealed a perspective that connects the researcher to the current study.

Summary of Purpose

This hermeneutic phenomenological study examined the lived experiences of instrumental music educators serving in low-income areas and their perception of virtual learning in their music education curricula. This study aimed to collect and examine instrumental music educators' perceptions of virtual learning and the possible effects on student instrumental skill development and retention. The primary focus of the research was the factors, situations, and perceptions that shaped how instrumental directors engaged with students from lower-income areas solely through virtual learning.

Chapter 5 begins with a summary of the findings from the perspective of the themes that emerged in the data analysis. The summary of findings will also discuss the broader implications of virtual learning for music education programs in lower-income areas. Finally, Chapter 5 concludes by offering recommendations to improve virtual learning in music education that would benefit students in lower-income areas.

Discussion

Many studies have examined the benefits of implementing and applying technology in music education. However, applying virtual learning for lower-income students' instrumental skill development and retention is a relatively new approach. Consequently, only a few studies have analyzed this methodology, especially with music educators serving lower-income communities. Additionally, only a few studies have considered the factors influencing music educators' decision to gauge student progress through virtual applications. For example, previous literature examined the differences between traditional face-to-face engagement for instrumental development and the potential issues presented while educating virtually. However, no specific

research investigated instrumental music educators' experience with enhancing lower-income students' instrumental skills through virtual learning. In addition, only a few studies have examined student motivation and retention while participating in virtual instrumental music courses. For example, previous literature has examined student retention via virtual learning and factors that may influence student participation. However, no specific research investigated instrumental music educators' experience with motivating instrumental students from lower-income communities and their retention in the instrumental program. Therefore, this study may be the first to investigate this gap in the literature.

Summary of Findings

This hermeneutic phenomenological study included twelve participants. Four of the participants were female, and eight were male. All participants currently teach in DeKalb County schools with at least ten years of experience. The researcher generated semi-structured interview questions to understand instrumental music educators' lived experiences and perspectives of virtual learning in lower-income communities. Data collection occurred during the individual interview process. The researcher digitally recorded each interview for transcription creation and accuracy. The researcher transcribed all participant interviews with the assistance of the Microsoft Teams digital meeting application, which allowed participants to share their lived experiences from various locations. The findings of this study supported instrumental music educators' outlook on the challenges of implementing virtual learning for instrumental music education programs in lower-income areas. Further, the findings also addressed student motivation and retention issues with the application of virtual learning in music directors' respective instrumental music program curricula.

Application of Experiential Theory

This study employed experiential theory as the theoretical framework, and investigated instrumental music educators' experiences with virtual learning based on Kolb's framework. The researcher interpreted the findings of this study to confirm two essential characteristics of this theory. The first was the instrumental music educators' responsiveness to the four stages of the experiential learning cycle throughout their experience. The second was their interpretation of Kolb's four distinct learning styles, which are direct influences based on the four-stage learning cycle of experiential learning. Conclusively, readers will grasp the researcher's interpretation of the value of the four stages of experiential learning and the learning cycle in examining the lived experiences of instrumental music educators. This theory provided a valuable framework that allowed the researcher to comprehend the participants' experiences with applying virtual learning for student success.

The Experiential Learning Cycle

The four stages of the experiential learning cycle consist of (a) *concrete experience*, the learner encounters a new experience or situation or a reinterpretation of existing experience in the light of new concepts; (b) *reflective observation*, the learner reflects on the new experience in the light of their existing knowledge; (c) *abstract conceptualization*, reflection gives rise to a new idea, or a modification of existing concept; (d) *active experimentation*, the newly created or modified concepts give rise to experimentation (see figure 1).

Cycle of Experiential Learning

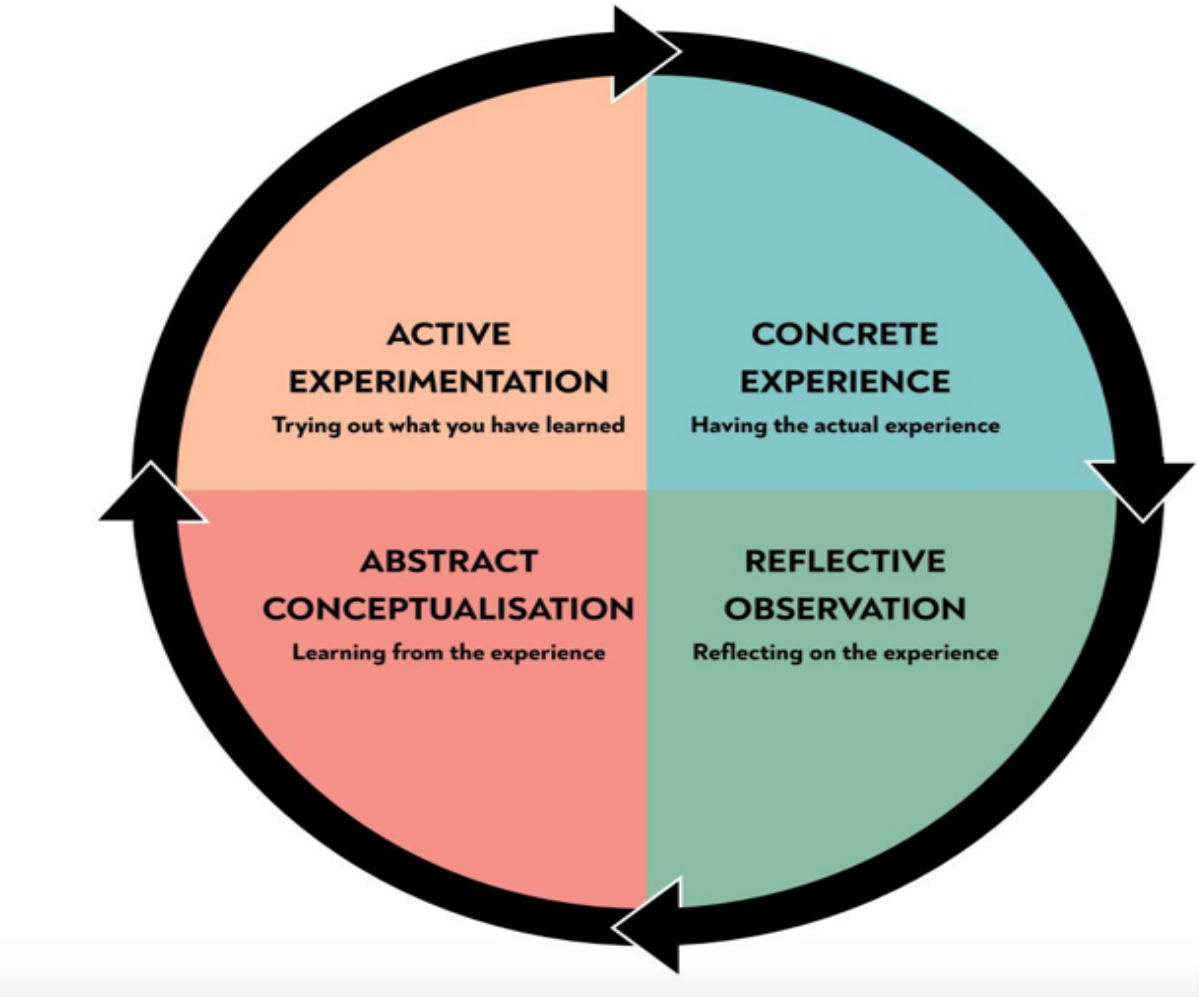

Figure 1. Kolb's Cycle of Experiential Learning. *Source:* Saul Mcleod. "Kolb's Learning Styles and Experiential Learning Cycle." *Simple Psychology*, February 2023.

Each instrumental music educator strategically aligned with the first stage of *concrete experience* through the rigorous introduction of virtual learning into his or her curricula at the start of the pandemic. The *reflection observation* stage transpired once music educators fully

transitioned into virtual learning while analyzing concepts through virtual learning that applied to student instrumental development and participation. Consequently, the researcher's interpretation of the findings was mainly focused on the *abstract conceptualization* and *active experimentation* stages of the learning cycle. *Abstract conceptualization* is the application of developing newly created concepts from experience and applying them to enhance the learning experience for students. *Active experimentation* is the process of actively experimenting with new concepts developed from experience.

The researcher realized how both stages are influential throughout the lived experiences of each participant during the study of virtual learning applications for students' instrumental skill development and retention. The findings revealed that, through the application of a new concept developed through his or her experience (abstract conceptualization) with virtual learning, the participants were immediately positioned to observe the consequences of their involvement in the learning cycle and its effects on student development and participation while actively experimenting with new concepts (active experimentation) based on his or her lived experience. The stages were instrumental in shaping instrumental music educators' final impressions of virtual learning and their decision-making process that aided student success.

Kolb's Reflective Cycle

The Learning Style Inventory (LSI), the instrument used to assess individual learning styles, identifies four types of learners based on their approach to obtaining knowledge – Diverger, Assimilator, Converger, and Accommodator.[218]

[218] Mary McCarthy. "Experiential Learning Theory: From Theory to Practice," 93.

Cycle of Learning Styles

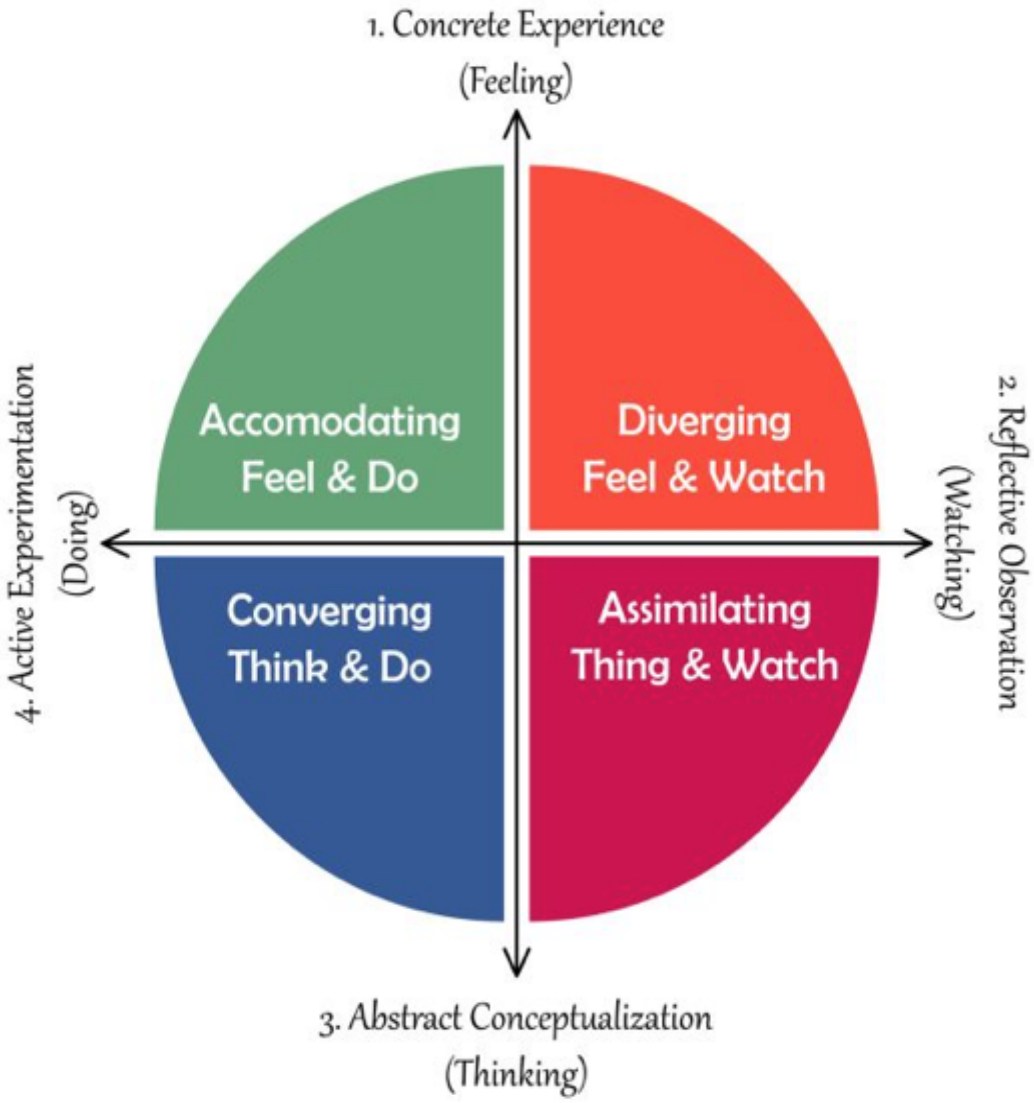

Figure 2. Kolb's Cycle of Learning Styles *Source:* Saul Mcleod. "Kolb's Learning Styles and Experiential Learning Cycle." *Simple Psychology*, February 2023.

Diverger prefers to approach learning through concrete experience and to process it through reflective observation. *Accommodators* have the ability to learn from basic hands-on experiences. The *assimilator* prefers to approach knowledge through abstract conceptualization

and to process it through reflective observations. The *converger* also approaches knowledge through abstract conceptualization; however, the converger processes choose to process through active experimentation.

The researcher's interpretation of these findings revealed the importance of learning styles in participants understanding of their lived experiences and approach to applying virtual learning in their curricula. Each theme's emergence unequivocally aligned with a learning style associated with Kolb's reflective cycle. The findings of this study enlightened the researcher on the true value of learning styles and their influences on participants' lived experiences. Experiential learning provided a brilliant framework that allowed the researcher to examine the experiences of each participant methodically. This analysis stimulated meanings and understandings of relevant themes created by participants' experience with virtual learning for instrumental music education.

Active Experimentation

The researcher's interpretation of the value of active experimentation is the most important stage of this study. Through this experiential learning stage, the researcher gained a distinct understanding of each participant's lived experience as they applied virtual learning to their instrumental music curricula. Active experimentation allowed participants to fully understand the attributes of implementation, connectivity, and student participation associated when they applied the new concepts of virtual learning to instruct skill development to students from lower-income communities. Also, active experimentation allowed instrumental educators an opportunity to attain extensive knowledge through application and best practices suited for future implementation of virtual learning for skill development and student retention.

Technology in Instrumental Music Programs

The first interview question explored the fundamental aspects of each instrumental educator's music program and their perception of applying technology within their curricula to support student learning. All music educators indicated that they supported the application of technology in their respective programs grounded on their technological experiences. Based on the participant's responses, districts and counties need to offer professional training on updated technology to assist instrumental educators in properly adopting and implementing technology for the success of their students and programs. According to Alekseenko, musicians' professional training under current conditions presupposes the obligatory introduction of innovative pedagogical technologies in the educational process to make it more efficient. It is essential to enrich pedagogical knowledge with innovative technologies in music training, which should be selected from a wide range of pedagogical technologies applied in the education system.[219]

Furthermore, outside of basic training, some instrumental music educators were interested in adopting students' devices to mitigate and align to their level of daily functionality. Wilfried suggested that a smartphone is a digital device that fascinates children. Representatives of telecommunication companies promote digital information systems. Even educators call for integrating such devices as tools targeting schooling because they implement some traces of the reality of life into the classroom.[220] According to Participant Five, students feel comfortable with their devices and use them to access extra resources to complement music education taught in the

---

[219] Nataliya Alekseenko, and Daniela Rakich. *The use of Innovative Pedagogical Technologies in Music Education*. Vol. 87. Les Ulis: EDP Sciences (2020): 1.

[220] Wilfried, Gruhn. "FROM FRENCH HORN TO SMARTPHONE: LEVERAGING DIGITAL TECHNOLOGY AND THE DIGITAL TURN." *Philosophy of Music Education Review* 30, no. 1 (Spring, 2022): 50.

classroom. Participant Five demonstrated a concrete stage of learning along with a diverger learning style. Participant Five desired to reinterpret the application of mobile devices to teach new concepts in music education. His learning style shows that he relied on his existing knowledge while reflecting on his new experience with technology in his instrumental music education curricula.

Perception of Virtual Learning

Interview question two explored participants' experiences with applying virtual learning to their instrumental music education program. Each participant felt that virtual learning was challenging due to the need for more support from the administration and the district.
All directors expressed the need for budgeting and training for proper implementation and maintenance during the school year. Instrumental music educators also stated that ensemble performance was challenging due to outdated software and hardware. Participant One expressed that the downside of virtual learning is that it is more difficult to provide reliable and quick feedback and it is impossible to synchronize between instruments. Most students experienced difficulty listening and balancing with each other virtually. Stapleton expressed that virtual music lessons were deemed an acceptable alternative to in-person instruction, assuming that internet quality is not poor for either participant. However, the inherent qualities of live music-making need to be sufficiently replicated online to serve as a complete substitution.[221] There was a consensus among the research participants that there is a need for enhanced technological resources to improve the overall virtual experience for collective ensemble rehearsals instead of isolating students. Many educators believe that existing technology cannot replace human

[221] Sarah Stapleton. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond." *The Canadian Music Educator* 64, no. 2 (2023):17.

connection and may even increase feelings of isolation.[222] Each participant experienced the reflective observation stage of experiential learning due to the inconsistencies between their prior knowledge of virtual learning and what they experienced while implementing it into their curricula. Participants exhibited the learning styles of accommodators and assimilators. They approached the implementing virtual learning firsthand through theoretical application rather than an emotional state to understand the situation.

Technical Challenges for Lower-Income Students

From the instrumental directors' perspective, it was beyond challenging to establish and maintain a comprehensive instrumental music program due to the unpredictability of school-issued technology for educators and students. Based on responses from the participants, students from lower-income areas suffered due to connectivity support in their communities. Even with the district's one-to-one Chromebook initiative, students from lower-income areas needed help accessing classrooms for instruction adequately. Participant Eleven said that he needed the proper step-by-step lesson on operating anything virtually, and students also suffered some because they needed more resources to access online classes. Students were unable to maintain access to WIFI through personal hotspots at home due to their unreliability. Nicholas reflected on findings when suggesting that the sudden closure of some schools became particularly devastating to students in low-income areas. The absence and obsolescence of digital technology have marooned students from their hubs of learning. Most school districts in less affluent areas experience a different reality. For them, the prospect of remote learning is a herculean task with

[222] Sarah Stapleton. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond," 22.

an insurmountable list of goals and hurdles for meeting learning objectives.[223] This statement implies that students from lower-income areas experienced increased opportunities for missing coursework and participating due to the need for more connectivity.

Instrumental educators also experienced delays and playback during ensemble rehearsals due to students' connectivity and hardware issues. Stapleton stated that researchers evaluated platforms for music education, including Skype, YouTube videos, and Google Hangouts, and determined that each experience some lag and low audio quality.[224] According to participants in the research, it was not DeKalb's intention to apply Chromebooks to serve as an audio feedback device for instrumental rehearsals and performances. Participant Five expressed that the Chromebooks could not record sounds well, and he correctly assessed student progress since the computers could not record the full authentic sounds of their instruments. Participant Nine added that due to the poor quality of audio feedback, it was impossible to assert correct tone quality because one could not hear the tones. One cannot correct issues that the students may be experiencing. As a result, most participants could not adequately guide students in the correct direction to improve on their instrument, thus limiting student success. Participants displayed characteristics of the reflective observation stage and accommodators learning style. Instrumental music educators were positioned in a new experience in light of their existing knowledge of virtual learning and its accompanying resources. They relied heavily on people for

---

[223] Bryan E. Nichols. "Equity in Music Education: Access to Learning During the Pandemic and Beyond." *Music educators journal.* 107, no. 1 (2020): 68–70.

[224] Sarah Stapleton. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond." 17.

information on proper implementation rather than their technical analysis, leading to their negative experience.

Virtual Student Participation

The fourth interview question investigated the participant's process for monitoring student participation during virtual instrumental music classes. During the pandemic, DeKalb County Schools provided all educators with an open policy to adopt an online platform for engaging with students virtually. Most participants chose Microsoft Teams as their online platform because of the software added breakout rooms. Instrumental educators would implement a breakout room feature to separate students by their respective instruments or experience levels. Participant Three noted that he would make different virtual rooms and monitor each. For instance, he would create a different room for each section of the band and would allow each section to interact with one another in their section's room. Participant 2 required students to record themselves performing and return those recordings. The participant created this process to 1) keep other students from listening to performances from other students and 2) evaluate their performance and provide feedback for improvement with tonality, body posture, hand positioning, and breathing.

Participants expressed concerns with student participation virtually because, as participant Five states, "it is virtually impossible to engage all students simultaneously. Even though students are logged into their virtual classroom via an online platform, instrumental educators experienced difficulty due to outside distractions. Unlimited access to the outside world deterred students' attention to the instruction and impeded student success." According to Stapleton, children often lack the maturity to remain attentive in a virtual lesson, presenting

another barrier to learning.[225] Participants were in the abstract conceptualization and active experimentation stages while attempting to motivate student participation. Even though instrumental music educators were in a new realm of reaching students to encourage participation virtually, they were modifying their new ideas for engagement and experimenting with those new ideas. With the converger learning style, participants prefer to deal with technical tasks and issues rather than allowing them to worsen. Their strengths lie in problem solving, decision-making, and the practical application of ideas.

Instrumental Skill Development

The fifth and sixth interview questions investigated if applying virtual learning to instruct students from lower-income areas assist with positively developing their instrumental skills. Most participants recognized from their experience that students need in-person assistance to benefit from instruction for instrumental development. Stapleton suggested that many researchers perceive music lessons to be a method of cultivating identity and community rather than a skill-developing pursuit alone. This practice is enhanced when students are provided with autonomy-their teachers facilitating rather than dictating-resulting in more personal meaning-making, more profound commitment, and enhanced learning.[226]

Most participants expressed the need for in-person learning for instrumental skill development to ensure student progress on fundamentals. Insights from Participant Five demonstrated that virtual learning could assist students with music education, but it becomes a

---

[225] Sarah Stapleton. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond." 17.

[226] Ibid., 18.

hindrance to developing their instrumental skills. Participant Five noted he could not see how virtual learning could assist with motor skills, proper breathing, posture, and creating that perfect tone. Participant Twelve shared a similar response stating that virtual learning is not the best for teaching motor skills for instrumental studies and is more of an in-person activity. Because of its self-referential nature, distance learning in music is challenging for young pupils who need much guidance. Pupils without self-determination benefit greatly from in-person learning for development.[227]

Despite this, all participants perceived virtual learning as potentially beneficial to instrumental music education for theoretical studies and one-on-one private lessons with advanced students. Laine notes that with music theory teaching, interactions in real-time may not be required, as instruction is mainly based on reading educational material shared online.[228] Participant 3 similarly expressed that virtual learning is a decent method for offering basics such as theory and learning notation. All participants expressed that applying virtual learning as a hybrid tool for learning instrumental music education would benefit students' success. Each participant reflected on the newly created concepts and ideas applied through experimentation and realized that virtual learning was unsuitable for developing instrumental skills. This reflection was accomplished through the active experimentation stage of experiential learning.

Virtual Performance Assessments

Interview questions seven and eight examined how instrumental music educators assessed student performances virtually and if their instrumental skills were improving from

---

[227] S. Laine, & Juvonen, A. TEACHERS' EXPERIENCES OF DISTANCE MUSIC LEARNING IN GRADES 3 TO 6 IN FINLAND. *Problems in Music Pedagogy, 21*(1), (2022): 22.

[228] Ibid.

online lessons. Participants perceived that adding an online platform was beneficial for educators and students for assessing performances. Most participants applied recording applications such as Flipgrid to create assessment files and allowed students to record their performances before submitting them. Participant One perceived that online submission of assessments worked in students' favor due to the limited access to their performance from peers. He perceived students who were not as confident performing for a community strived because they did not have an audience to please. Participant Two perceived online assessments as motivating students to improve their performances. He mentioned that because individuals strive for perfect performances and are most critical of themselves, they would record until the assessment is near perfect, drastically improving their proficiency for that exercise. On the contrary, Participant Three understood that removing the live aspect of assessing student performances and solely relying on video recordings impedes students with ambitions of scholarship opportunities.

All participants understood that due to the limitations of virtual learning, basic observations of assessments were necessary to examine improvements. Instrumental music educators felt fundamental skills such as posture, breath support, and hand positioning were common issues while teaching virtually. Each participant expressed the need for immediate feedback on student assessments to ensure continuous motivation for improvement. Students need to receive feedback from their instructor about their performance, which could be in various forms, such as text explaining the errors, strong and weak points, visuals indicating the errors, and a grade representing an overall evaluation result. Feedback keeps students' attention and

induces self-reflection and improvement.[229] Participants displayed the reflective observation stage with virtual assessments. Due to their existing knowledge with instrumental assessments, new concepts and ideas led to new experiences that benefited student achievement through virtual learning.

Motivation and Retention

Per most instrumental music educators' perspectives, virtual learning significantly reduced student participation during and after the pandemic. Many participants stressed that adding virtual learning for instrumental music forced educators and students alike to explore an unknown realm, which was an absolute challenge. Participant Three emphasized that many of their students were not fond of the transition and genuinely depended on a community ensemble setting in-person. Insights from Stapleton demonstrated that the lack of community in COVID-19 isolation borders on pathological, with research describing the pandemic as the deterioration of social belonging and a loneliness epidemic.[230] This observation can lead to unmotivated students disengaging from lessons in the virtual classroom setting when experiencing failure, thus compromising their potential as musicians.

Participant Seven experienced similar results from their perspective of virtual learning. He stressed concern with students from lower-income areas' social-emotional learning when direct communication was altered. The lack of immediate feedback warranted students to lose motivation to participate, thus ultimately losing interest in the instrumental program overall.

---

[229] Başak Esin Köktürk-Güzel, Osman Büyük, Barış Bozkurt, and Ozan Baysal. "Automatic Assessment of Student Rhythmic Pattern Imitation Performances." *Digital signal processing* 133 (2023):1.

[230] Sarah Stapleton. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond." 18.

Studies have shown that students must have a community of peers to learn and to succeed.[231] In a similar aspect, Participant Four perceived that the addition of in-person instrumental music courses, or the arts in general, are outlets for students beyond the core classroom settings. He stressed that without in-person learning, students lost the community aspect of camaraderie and collaboration, thus extinguishing their motivation to improve their craft. In-person participation with instrumental organizations such as bands and orchestras can promote the development of social skills and the sense of belonging to a group.[232] Participants experienced the concrete stage of experiential learning. Even with the addition of virtual learning as the primary platform for teaching, instrumental music educators encountered a reinterpretation of existing experiences with student motivation and retention similar to in-person learning. This coincides with the diverger's learning style. Divergers are best at perceiving situations from many perspectives to find the best solution and outcome for student success.

Professional Development and Administrative Support

All participants understood they needed more specialized professional development training to implement virtual learning into their programs appropriately. According to Schmidt and Robbins, if professional learning is to improve teaching and learning, it needs to be conceived and pursued in terms of specific individuals and local conditions and understood by teachers and administration as something of value, not simply a series of token experiences.[233] In

---

[231] Sarah Stapleton. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond," 25.

[232] Adrian Hille, Jürgen Schupp. "How learning a musical instrument affects the development of skills." *Economics of Education Review*, Volume *44,*(2015): 57.

[233] Patrick Schmidt and Janet Robbins. "Looking Backwards to Reach Forward: A Strategic Architecture for Professional Development in Music Education." *Arts Education Policy Review* 112, no. 2 (2011): 95.

agreement, Participant Five pleaded for lessons on properly managing all technology for instrumental programs to meet students where they are successful. Additionally, Participant Eight emphasized the importance of meeting the demands established by local and national standards regarding the addition of technology in music education. She stressed that it is impossible to establish a mandatory standard in music education yet not provide the tools to meet that particular demand.

Participants also stressed the importance of administration providing proper software and audio devices for virtual training and group performances. According to Participant Eleven, "access to all music software for educators' and students' computers is necessary, along with specialized training on enhancing students' educational experiences with this technology instead of adding a band-aid and hoping we all figure out how to make virtual learning work." Participant One agreed that if educators and students-maintained access to music software that allowed synchronized performances and proper specialized training to operate the technology adequately would ease the challenges of virtual learning for instrumental programs. Kalivertenos mentioned that the lack of resources limits the ability of stakeholders in the education system to implement programs that only caters to the needs of music teachers.[234] As a result, most professional development specialized training programs need to be adequately designed to meet music education's current and specific needs.

Limitations

This research conducted this study via a qualitative approach that presents various limitations in scientific inquiries. Among the significant limitations experienced in this research

---

[234] Alexis Kalivretenos, "The Importance of Music Education." The Humanist.com (2015).

is that the findings must be extended to a broader population with a different degree of certainty similar to that of a quantitative approach. Further, only a few studies exist on this specific research topic. As a result, a limited amount of literature was available for review. Another critical limitation this research experienced was a small sample encompassing twelve participants. Despite the abundant data collected during the interview process, the findings in this research may only reflect the perceptions of some K-12 instrumental music educators in lower-income areas on virtual learning and its influences on skill development and student retention. Lastly, some of the responses from the participants may comprise biased perceptions. Instrumental music educators might have offered specific answers to research questions to protect their reputation or the reputation of their organizations. Participants may have also provided limitations due to their inability to recall specific experiences, contributing to biased perspectives. In this context, their responses to interview questions may not reflect the participant's authentic experiences.

Recommendations for Future Study

This study focused on K-12 instrumental music educators' perceptions and lived experiences with virtual learning for student skill development and retention. Future research may try to replicate the study and investigate the experiences of choral and instrumental music educators representing rural areas outside Atlanta, Georgia. In addition, conducting the study in person rather than virtually should also be considered.

An additional recommendation to consider is the need for instrumental music educators to participate in the decision-making, policy development, and training for implementing technology in their curricula. State and national standards and expectations should align with

necessary resources and training for student achievement. This suggestion guarantees that student and instrumental music educators' needs are considered to improve student skill development and retention outcomes when applying virtual learning.

An excellent future recommendation may be employing this study through a quantitative approach. With quantitative analysis, a much broader study that includes more people can be accomplished for the betterment of this study. Quantitative research allows far fewer variables when collecting data, and another researcher can easily replicate the study. The quantitative approach produces objective data that can be clearly communicated by applying statistics and numbers. This approach may contribute to a new understanding and perspectives influencing instrumental music educators' decision to adopt or reject virtual learning for instrumental skill development.

Finally, another area of future research may be employing a different theoretical framework to guide the study. For example, experiential learning theory provided valuable insights into the participants' lived experiences with the application of virtual learning. In addition, music learning theory could assist with examining how developing audiation skills could assist lower-income students in becoming musically independent without the need for in-person or synchronous learning. This approach may provide a substantial understanding and appreciation of the instrumental skill development process. In addition, self-determination theory could assist with examining students' points of view on motivational factors that influenced their lived experience with virtual learning and instrumental skill development.

Implication for Practice

This study examined the lived experience of instrumental music educators serving in lower-income communities and the application of virtual learning for instrumental skill development and retention. Unfortunately, the researcher could only source a select number of prior studies that examined music educators' experiences that applied virtual learning to their curricula. A literature review found no studies investigating the instrumental music educators' experience, beliefs, application, and maintenance of virtual learning to assist lower-income students with instrumental skill development and overall retention for their music programs. This study is noteworthy because it contributes to bridging the research gap related to implementing virtual learning for instrumental and retention practices.

In a review of the current literature addressing the employment of virtual learning to influence instrumental development, Koutsoupidou found that fundamental skills of instrumental development are traditionally viewed as face-to-face engagement of serious practice, hands-on activities for motor skill activation, and group learning with immediate assessment by an educator for correcting errors.[235] In another study examining the essential in-person connection between student and teacher, Hernandez found that the relationship between teacher and student is essential to student success. One-to-one tutelage is irreplaceable for its ability to respond to individual necessities and its pedagogical effectiveness.[236] Another study that focused on student motivation and retention found that educational situations, which fail to consider the specific

---

[235] Theano Koutsoupidou. "Online Distance Learning and Music Training: Benefits, Drawbacks, and Challenges," 249.

[236] Ana Martínez Hernandez. "Online Learning in Higher Music Education: Benefits, Challenges, and Drawbacks of One-to-One Videoconference Instrumental Lessons," 190.

characteristics of online education, create a space for undesirable results, such as procrastination, dropping out, and demotivation on the part of the student. Further, students who were feeling isolation, geographical distance, and self-management led to a lack of motivation and possible change of course.[237]

The current study identified and reflected on the influential factors of virtual learning on the instrumental skill development and retention of students from lower-income areas. The research needed help finding published studies that addressed instrumental music educators experience with this evidence-based approach. The missing component of the literature examined influential factors determining if instrumental music educators' serving lower-income communities perceived virtual learning as a beneficial tool for developing student instrumental skills and retention for their music programs.

The insights emerging from this research demonstrate that more resources and training available for K-12 instrumental music educators in low-income areas are required when school districts and counties adopt local, state, and national programs. This study offers practical implications that guide administrators to focus on engaging with educators and students to identify their needs and challenges and implementing opportunities for improving virtual learning applications for instrumental music education programs. Despite this study's comprehensive findings, the researcher needs more references to understand and address the many challenges instrumental music programs experience in lower-income communities. Furthermore, even with the continued federal practices available for schools to support music

---

[237] Andrea Carvalho Beluce, and Katya Luciane de Oliveira. "Students' Motivation for Learning in Virtual Learning Environments,"107.

education, inequality experienced in lower-income areas limits recommendations in this research. This can be attributed to the ethical nature of this research and the consideration that all participants and institutions remain anonymous.

The researcher highly recommends suggestions for specialized professional development courses designed to implement and operate virtual learning for all music courses properly. Professional development is a significant benefit for instrumental music educators due to networking opportunities from local or national platforms and the educational value offered. The consensus of the findings in the research, along with previous limited studies and reports, illustrate that this investigation was vital to understanding perceptions of K-12 instrumental music educators serving in underprivileged communities by applying virtual learning in their curricula and the necessary policy changes needed to support student success in the future.

Conclusion

This hermeneutic phenomenological study examined the lived experiences of K-12 instrumental music educators in lower-income areas who implemented virtual learning and how it influenced student skill development and retention. Many music educators in lower-income areas assumed challenging roles as online instrumental music mediators where training on executing virtual instrumental learning needed to be more extensive. Without a traditional in-person setting, students from lower-income areas experienced meeting rigorous expectations without proper resources to meet demand. Frustration from poor connectivity and the lack of peer-to-peer interactions promoted isolation, which strained student participation and motivation. In this context, the research focused on whether virtual learning provided an opportunity for

instrumental music educators to adequately develop students' instrumental skills while analyzing if adopting virtual learning manipulated student retention.

The aim was to ascertain the factors that may influence K-12 instrumental music educators' adoption or rejection of virtual learning in their instrumental music curricula in the future. The theoretical framework that guided this study was Kolb's experiential-based learning theory. Through experiential learning, the process of creating and gaining knowledge is by transforming learning experiences by doing. The researcher collected data via interviews with twelve participants from different educational levels in lower-income areas of DeKalb County. Interviews were conducted and analyzed through thematic analysis, and discussion was achieved through data triangulation.

The four stages of experiential learning theory are concrete experience, reflective observation, abstract conceptualization, and active experimentation. The substantial experience was predetermined for the participants due to their lived experience of virtual learning during the COVID-19 pandemic. During the interview process, reflective observation and abstract conceptualization occurred through participants reflecting on their experiences with implementing and operating virtual learning to assist students with skill development and retention while providing insight into logical methods needed to ensure the successful implementation of virtual learning in the future. Lastly, the fourth stage, active experimentation, was achieved through findings from the research, which provided the next steps for administration, school districts, and counties to add or adopt new resources that will assist with successfully applying virtual learning to instrumental music education for student achievement.

Bibliography

Alekseenko, Nataliya and Daniela Rakich. *The use of Innovative Pedagogical Technologies in Music Education*. Vol. 87. Les Ulis: EDP Sciences, 2020, https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/conference-papers-proceedings/use-innovative-pedagogical-technologies-music/docview/2488519261/se-2.

Altenmüller, Eckart. "Studying Music During the Coronavirus Pandemic: Conditions of Studying and Health-Related Challenges." *Frontiers in Psychology.* 12 (2021).

Anbarasan, Ethirajan. "Tim Berners-Lee: The Web's Brainchild." *The Unesco Courier*, 09, 2000. 46, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fmagazines%2Ftim-berners-lee-webs-brainchild%2Fdocview%2F207590399%2Fse-2%3Faccountid%3D12085.

Apple. "Apple Classrooms of Tomorrow—Today." Last modified December 22, 2021.https://www.apple.com/ca/education/docs/Apple-ACOT2Whitepaper.pdf.

Apple. "Apple Classrooms of Tomorrow: Philosophy and Structure and What's Happening Where." Last modified December 22, 2021. https://files.eric.ed.gov/fulltext/ED340349.pdf

Aspers, Patrik and Ugo Corte. "What is Qualitative in Qualitative Research." *Qualitative Sociology* 42, no. 2 (06, 2019): 139-60, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fwhat-is-qualitative-research%2Fdocview%2F2186635866%2Fse-2%3Faccountid%3D12085.

ATABEK, Oguzhan. "Pre-School and Primary School Pre-Service Teachers' Attitudes Towards Using Technology in Music Education." Eurasian Journal of Educational Research (EJER) 20, no. 87 (2020): 1–22.

Avis, Rupert. "Higher Music Education, India, and Ethnography: A Case Study of KM Music Conservatory Students." *Ethnomusicology Forum* 29, no. 2 (2020): 230-249.

Beasley, Nancy Staton. "The Effects of the IBM "Writing to Read" Program on the Achievement of Selected First-Grade Students." Order No. 9022247, The University of Alabama, 1989. In PROQUESTMS ProQuest Dissertations & Theses Global, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Feffects-ibm-writing-read-program-on-achievement%2Fdocview%2F303733762%2Fse-2%3Faccountid%3D12085.

Beluce, Andrea Carvalho and Katya Luciane de Oliveira. "Students' Motivation for Learning in Virtual Learning Environments." *Paideía* 25, no. 60 (Jan 2015): 105-13, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fstudents-motivation-learning-virtual-environments%2Fdocview%2F1674925986%2Fse-2.

Benner, Patricia. *Interpretive Phenomenology: Embodiment, Caring, and Ethics in Health and Illness.* United States: SAGE Publications, 1994.

Bergsteiner, Harald, Gayle C. Avery, and Ruth Neumann. "Kolb's Experiential Learning Model: Critique from a Modelling Perspective." Studies in Continuing Education 32, no. 1 (2010): 29-46.

Bianchi, William. "Education by Radio: America's Schools of the Air." *TechTrends* 52, no. 2 (Mar 2008): 36-44, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Feducation-radio-americas-schools-air%2Fdocview%2F223123198%2Fse-2%3Faccountid%3D12085.

Bresler, Liora. "Ethnography, Phenomenology And Action Research In Music Education." Visions of Research in Music Education 16, no. 6 (2010): 4–16.

Brinkmann, Svend, and Steinar Kvale. *Planning an Interview Study*. *Doing Interviews*. London: SAGE Publications Ltd, 2018.

Brown, Jason Chris. "Web-Based Learning and Non-Traditional Students: A Quantitative Causal-Comparative Study." Order No. 28085949, Grand Canyon University, 2020. In PROQUESTMS ProQuest Central; ProQuest Dissertations & Theses Global, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fweb-based-learning-non-traditional-students%2Fdocview%2F2440985980%2Fse-2.

Bui, Yvonne N. How to Write a Master's Thesis. Thousand Oaks, Calif: Sage, 2009.

BURAK, Sabahat. "Pre-School and Primary School Pre-Service Teachers' Attitudes Towards Using Technology in Music Education." Eurasian Journal of Educational Research (EJER) 20, no. 87 (2020): 1–22.

Bynum, William and Lara Varpio. "When I Say... Hermeneutic Phenomenology." *Medical Education* 52, no. 3 (2018): 252-253.

Carlson, Robert A. "Educator Vs. Broadcaster in the Development of ETV: A Brief History of Educational Television in the United States." *Educational Technology* 11, no. 7 (1971): 13–16. http://www.jstor.org/stable/44417705.

Carter, Nancy, R.N., PhD., Denise Bryant-Lukosius, DiCenso, Alba, R.N., PhD., Jennifer Blythe PhD., Neville, Alan J, MBChB, MEd,M.R.C.P., F.R.C.P.(c). "The use of Triangulation in Qualitative Research." *Oncology Nursing Forum* 41, no. 5 (09, 2014): 545-7, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fuse-triangulation-qualitative-research%2Fdocview%2F1559261620%2Fse-2%3Faccountid%3D12085.

Casado-Aranda, Luis-Alberto, Sandra Sofia Caeiro, Jorge Trindade, Arminda Paço, David Lizcano Casas, and Ana Landeta. "Are Distance Higher Education Institutions Sustainable enough? – A Comparison between Two Distance Learning Universities." *International Journal of Sustainability in Higher Education* 22, no. 4 (2021): 709-730.

Castillo-Montoya, Milagros. "Preparing for Interview Research: The Interview Protocol Refinement Framework." *The Qualitative Report* 21, no. 5 (05, 2016): 811-30, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fpreparing-interview-research-protocol-refinement%2Fdocview%2F1806967398%2Fse-2.

Choate Robert A., Charles B. Fowler, Charles E. Brown, and Louis G. Wersen. "The Tanglewood Symposium: Music in American Society." *Music Educators Journal* 54, no. 3 (1967): 49-80. http://www.jstor.org/stable/3391187.

Clarke, Gregory, and Jesse Zagarell. “Technology in the Classroom: Teachers and Technology: A Technological Divide: Nancy Maldonado, Editor.” *Childhood Education*88, no. 2 (2012): 136-139.

Cohen, Bernard. “Mark I, Harvard. Encyclopedia of Computer Science. *John Wiley and Sons Ltd., GBR* (2003):1078-1080.

Connelly, Lynne M. "Trustworthiness in Qualitative Research." *Medsurg Nursing* 25, no. 6 (Nov 2016): 435-6, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Ftrustworthiness-qualitative-research%2Fdocview%2F1849700459%2Fse-2%3Faccountid%3D12085.

Creswell, John W., William E. Hanson, Vicki L. Clark Plano, and Alejandro Morales. “Qualitative Research Designs: Selection and Implementation*.” The Counseling Psychologist* 35, no. 2 (March 2007): 236–64. https://doi.org/.

Crisham, Margaret. "The Technical History of Broadcast Television, Cable and Satellite, and Videoconference in Public Education in the United States 1931–2003." Order No. 3362679, Dowling College, 2009. In PROQUESTMS ProQuest Central; ProQuest Dissertations & Theses Global; Social Science Premium Collection, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Ftechnical-history-broadcast-television-cable%2Fdocview%2F305169276%2Fse-2%3Faccountid%3D12085.

Davis, Virginia Wayman. "Beginning Music Education Students' and Student Teachers Opinions of Skills and Behaviors Important to Successful Music Teaching." *Contributions to Music Education* 33, no. 1 (2006): 27-40, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fbeginning-music-education-students-student%2Fdocview%2F222375190%2Fse-2%3Faccountid%3D12085.

De Bruin, Leon R. "Instrumental Music Educators in a COVID Landscape: A Reassertion of Relationality and Connection in Teaching Practice." *Frontiers in Psychology* 11, (2000;2021;): 624717-624717.

De Farias, Bruno Graebin, Luciana Dutra-Thomé, Silvia Helena Koller, and Thiago Gomes de Castro. "Formulación de Temas En Investigación Cualitativa: Procedimentos Lógicos y Vías Analíticas." *Trends in psychology = Temas em Psicologia* 29, no. 1 (2021): 155–166.

Denny, Elaine, and Annalise Weckesser. "Qualitative Research: What It Is and What It Is Not." *BJOG : an international journal of obstetrics and gynecology.* 126, no. 3 (2019): 369–369.

Dietz, Peter. "Education from the Cold War to no Child Left Behind: How Federal Policy Makers have Sought to Transfer Responsibility for Societal Issues Onto America's Schools." Order No. 1486612, State University of New York Empire State College, 2010. In PROQUESTMS ProQuest Dissertations & Theses Global, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Feducation-cold-war-no-child-left-behind-how%2Fdocview%2F756918728%2Fse-2%3Faccountid%3D12085.

Douglass, John A. "The Cold War, Technology and the American University." *UC Berkeley: Center for Studies in Higher Education*. (1999):1-20. https://escholarship.org/uc/item/9db970dq

Drisko, James W. "Qualitative Research Synthesis: An Appreciative and Critical Introduction." *Qualitative Social Work* 19, no. 4 (July 2020): 736–53. https://doi.org/10.1177/1473325019848808.

Elpus, Kenneth, and Adam Grisé. “Music Booster Groups: Alleviating or Exacerbating Funding Inequality in American Public School Music Education?” *Journal of Research in Music Education* 67, no. 1 (April 2019): 6–22. https://doi.org/10.1177/0022429418812433.

“Experiential Learning " Center for Teaching & Learning: Boston University.” Center for Teaching Learning RSS. Accessed October 27, 2021. https://www.bu.edu/ctl/guides/experiential-learning/.

Fernandez, Cassandra Jane, Rachana Ramesh, and Raja Manivannan Anand Shankar. "Synchronous Learning and Asynchronous Learning during COVID-19 Pandemic: A Case Study in India." *Asian Association of Open Universities Journal* 17, no. 1 (2022): 1-14, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fsynchronous-learning-asynchronous-during-covid-19%2Fdocview%2F2673411062%2Fse-2.

Finlay, Mitchell J., Daniel J. Tinnion, and Thomas Simpson. “A Virtual Versus Blended Learning Approach to Higher Education during the COVID-19 Pandemic: The Experiences of a Sport and Exercise Science Student Cohort*.” The Journal of Hospitality, Leisure, Sport & Tourism Education* 30, 2022: 100363100363.

Greher, Gena R. “Music Technology Partnerships: A Context for Music Teacher Preparation.” Arts Education Policy Review 112, no. 3 (2011): 130-136.

Gruhn, Wilfried. "FROM FRENCH HORN TO SMARTPHONE: LEVERAGING DIGITAL TECHNOLOGY AND THE DIGITAL TURN." *Philosophy of Music Education Review* 30, no. 1 (Spring, 2022): 44-57, https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/scholarly-journals/french-horn-smartphone-leveraging-digital/docview/2644080757/se-2.

Guest, Greg, Arwen Bunce, and Laura Johnson. “How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability.” *Field Methods* 18, no. 1 (February 2006): 59–82. https://doi.org/10.1177/1525822X05279903.

Guzman, A. and M. Nussbaum. "Teaching Competencies for Technology Integration in the Classroom." *Journal of Computer Assisted Learning* 25, no. 5 (2009): 453-469.

Hadjikou, Chryso. "Experiential Learning in Music Education: Investigating the Cypriot Context." *Music Education Research* 23, no. 4 (2021): 403-415.

Hallström, Jonas and Per Gyberg. "Technology in the Rear-View Mirror: How to Better Incorporate the History of Technology into Technology Education." *International Journal of Technology and Design Education* 21, no. 1 (02, 2011): 3-17, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Ftechnology-rear-view-mirror-how-better%2Fdocview%2F824235277%2Fse-2%3Faccountid%3D12085.

Hash, Phillip M. "Remote Learning in School Bands During the COVID-19 Shutdown." *Journal of Research in Music Education* 68, no. 4 (2021): 381–97. https://doi.org/10.1177/0022429420967008.

Henderson, Carlesta. "Preparing Future Music Teachers for Dealing With Minority Students: A Profession at Risk." Visions of Research in Music Education 16, no. 4 (October 1, 2010): 35–44.

Hernández, Ana Martínez. "Online Learning in Higher Music Education: Benefits, Challenges, and Drawbacks of One-to-One Videoconference Instrumental Lessons." *Journal of music, technology, and education.* 13, no. 2-3 (2021): 181–197.

Hille, Adrian, Jürgen Schupp. "How learning a musical instrument affects the development of skills." *Economics of Education Review*, Volume *44,* (2015): 56-82.

Horspool, Agi and Sandra S. Yang. "A Comparison of University Student Perceptions and Success Learning Music Online and Face-to-Face." *Journal of Online Learning and Teaching* 6, no. 1 (03, 2010): 15-29, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fcomparison-university-student-perceptions-success%2Fdocview%2F1497198003%2Fse-2%3Faccountid%3D12085.

Hurley, C Gregory. "Student Motivations for Beginning and Continuing/Discontinuing String Music Instruction." Visions of Research in Music Education 16, no. 6 (2010): 44–55.

Ismail, Md Jais, Azu Farhana Anuar, and Fung Chiat Loo. "From Physical to Virtual: A New Learning Norm in Music Education for Gifted Students." *International review of research in open and distributed learning* 23, no. 2 (2022): 44–62.

Johnson, Genevieve M. "Resilient At-Risk Students in the Inner City." McGill Journal of Education 32 (Jan 1997): 35-49. https://search.ebscohost.com/login.aspx?direct=true&db=ofm&AN=507551026&site=ehost-live&scope=site.

Visual Instruction Movement, 1918-1928." *TechTrends* 52, no. 4 (Jul 2008): 51-8, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fmaking-learning-easy-enjoyable-anna-verona-dorris%2Fdocview%2F223117745%2Fse-2%3Faccountid%3D12085.

Kalivretenos, Alexis."The Importance of Music Education." The Humanist.com (2015).

Kallio, H., Pietilä, A.-M., Johnson, M. & Kangasniemi, M. "Systematic methodological review: developing a framework for a qualitative semi-structured interview guide." *Journal of Advanced Nursing* 72, no.12 (2016): 2954– 2965. doi: 10.1111/jan.13031

Keefer, Alice, and Tomas Baiget. "How it all Began: A Brief History of the Internet." *VINE. Very Informal Newsletter on Library Automation* 31, no. 3 (2001): 90-95. roxy.liberty.edu/insight/content/doi/10.1108/03055720010804221/full/pdf?title=how-it-all-began-a-brief-history-of-the-internet.

Kemparaj, Umesh and Sangeeta Chavan. "Qualitative Research: A Brief Description." *Indian Journal of Medical Sciences* 67, no. 3 (Mar 2013): 89-98, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fqualitative-research-brief-description%2Fdocview%2F1466549788%2Fse-2%3Faccountid%3D12085.

Keune, Jason D, and Erica Salter. "From 'What' to 'How': Experiential Learning in a Graduate Medicine for Ethicists Course." *Cambridge quarterly of healthcare ethics* 31, no. 1 (2022): 131–140.

Kleinrock, L. "History of the Internet and its Flexible Future." *IEEE Wireless Communications* 15, no. 1 (2008): 8-18.

Köktürk-Güzel, Başak Esin, Osman Büyük, Barış Bozkurt, and Ozan Baysal. "Automatic Assessment of Student Rhythmic Pattern Imitation Performances." *Digital signal processing* 133 (2023).

Koutsoupidou, Theano. "Online Distance Learning and Music Training: Benefits, Drawbacks and Challenges." *Open Learning* 29, no. 3 (2014): 243-255.

Kruszewska, Aleksandra, Stanisława Nazaruk, and Karolina Szewczyk. "Polish Teachers of Early Education in the Face of Distance Learning during the COVID-19 Pandemic – the Difficulties Experienced and Suggestions for the Future." *Education 3-13* (2020): 1-12.

Laine, S., & Juvonen, A.TEACHERS' EXPERIENCES OF DISTANCE MUSIC LEARNING IN GRADES 3 TO 6 IN FINLAND. *Problems in Music Pedagogy, 21*(1), (2022) 19-53.

https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/scholarly-journals/teachers-experiences-distance-music-learning/docview/2686228090/se-2

Landis, Dick. "ACOT: Apple's Classroom of Tomorrow." *Classroom Computer Learning*, vol. 8, no. 7, 1988, pp. 38. *ProQuest*, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Ftrade-journals%2Facot-apples-classroom-tomorrow%2Fdocview%2F212122864%2Fse-2%3Faccountid%3D12085.

Lauterbach, Alexandra A. "Hermeneutic Phenomenological Interviewing: Going Beyond Semi-Structured Formats to Help Participants Revisit Experience." *The Qualitative Report*, vol. 23, no. 11, 2018, pp. 2883-2898. *ProQuest*, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fhermeneutic-phenomenological-interviewing-going%2Fdocview%2F2155621343%2Fse-2%3Faccountid%3D12085.

Legal Information Institute. “Definition: Low-Income Area from 12 USC § 4502(28) | LII / Legal Information Institute.” Last modified June 6, 2021.https://www.law.cornell.edu/definitions/uscode.php?height=800&def_id=12-USC-1348200533-1217567162&term_occur=999&term_src=title%3A12%3Achapter%3A46%3Asection%3A4502.

Lotter, Brian. "The Music Classroom in the Digital Age: Educator Responses to Remote Instruction." Order No. 28031321, Southern Illinois University at Edwardsville, 2020. In PROQUESTMS ProQuest Central; ProQuest Dissertations & Theses Global,http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Fmusic-classroom-digital-age-educator-responses%2Fdocview%2F2447268047%2Fse-2%3Faccountid%3D12085.

Louis P. Elliott, Barry W. Brook, Revisiting Chamberlin: Multiple Working Hypotheses for the 21st Century, *BioScience*, Volume 57, Issue 7, July 2007, 608–614, https://doi.org/10.1641/B570708.

Makubuya, Timothy. “Professional Development on Digital Literacy and Transformative Teaching in a Low-Income Country: A Case Study of Rural Kenya.” Reading research quarterly (2021).

Marcus, Aaron. Ethnography, Ethnography, or Ethnography? What Happens When the Same Word Means Different Things to Different People? Design, User Experience, and Usability Theory, Methods, Tools and Practice: First International Conference, DUXU 2011, Held as Part of HCI International 2011, Orlando, FL, USA, July 9-14, 2011: Proceedings /. Vol. 6769. Heidelberg: Springer, 2011.

Marshall, Bryan, Peter Cardon, Amit Poddar, and Renee Fontenot. "DOES SAMPLE SIZE MATTER IN QUALITATIVE RESEARCH?: A REVIEW OF QUALITATIVE INTERVIEWS IN IS RESEARCH." *The Journal of Computer Information Systems* 54, no. 1 (Fall, 2013): 11-22, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fdoes-sample-size-matter-qualitative-research%2Fdocview%2F1471047612%2Fse-2%3Faccountid%3D12085.

Mark, Michael, and Patrice Madura, *Contemporary Music Education*, 4th ed. (Cengage, 2014).

McCarthy, Mary. "Experiential Learning Theory: From Theory to Practice." *Journal of Business & Economics Research (Online)* 14, no. 3 (2016): 91, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fexperiential-learning-theory-practice%2Fdocview%2F1804900934%2Fse-2%3Faccountid%3D12085.

McKimm, Judy, Carol Jollie, and Peter Cantillon. "Abc of Learning and Teaching: Web Based Learning." *BMJ: British Medical Journal* 326, no. 7394 (2003): 870-873.

Miksza, Peter. "The Development of a Measure of Self-Regulated Practice Behavior for Beginning and Intermediate Instrumental Music Students." *Journal of Research in Music Education* 59, no. 4 (2012): 321-38. Accessed June 26, 2021. http://www.jstor.org/stable/41348841.

Minikel-Lacocque, Julie. "The Affect-Responsive Interview and In-Depth Interviewing: What We Can Learn From Therapy Research." *Qualitative Inquiry* 25, no. 9–10 (November 2019): 1039–46. https://doi.org/10.1177/1077800418792941.

Morens, David M., Peter Dazak, Howard Markel, and Jeffery K. Taubenberger. "Pandemic COVID-19 Joins History's Pandmeic Legion." *Mbio* 11, no. 3 (2020).

NAfME. "Virtual Learning Resources for Music Educators" Last modified January 5, 2021. https://nafme.org/my-classroom/virtual-learning-resources-for-music-educators/.

NART, Sevan. "Music Software in the Technology Integrated Music Education." *TOJET : The Turkish Online Journal of Educational Technology* 15, no. 2 (2016), http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fmusic-software-technology-integrated-education%2Fdocview%2F1807692470%2Fse-2%3Faccountid%3D12085.

New America. "Grant Distribution Formulas." last modified June 1, 2022, https://www.newamerica.org/education-policy/topics/school-funding-and-resources/school-funding/federal-funding/title-i/grant-distribution-formulas/.

Nichols, Bryan E. “Equity in Music Education: Access to Learning During the Pandemic and Beyond.” *Music educators journal.* 107, no. 1 (2020): 68–70.

Nowell, Lorelli S., Jill M. Norris, Deborah E. White, and Nancy J. Moules. “Thematic Analysis: Striving to Meet the Trustworthiness Criteria.” *International Journal of Qualitative Methods*, (2017). https://doi.org/10.1177/1609406917733847.

Ömer Faruk Sözcü, İsmail İpek, and Erkan Taşkın. “A History of Computer-Based Instruction and Its Effects on Developing Instructional Technologies.” *European researcher. 59, no. 9-2* (2013): 2341–2347.

Owston, Ronald D. “Research News and Comment: The World Wide Web: A Technology to Enhance Teaching and Learning?” Educational Researcher 26, no. 2 (March 1997): 27–33.https://doi.org/10.3102/0013189X026002027.

Oxford Reference. "praxis." last modified March 3, 2022, https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100342205

Peck, Blake, and Jane Mummery. "Recovering the "Individual" for Qualitative Research: An Idiographic Approach." *Forum: Qualitative Social Research* 20, no. 3 (2019), http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Frecovering-individual-qualitative-research%2Fdocview%2F2539279832%2Fse-2.

“Poverty in Atlanta, Georgia.” 22.4% Poverty Rate in Atlanta, Georgia. Accessed June 27, 2021. https://www.welfareinfo.org/poverty-rate/georgia/atlanta.

Prensky, Marc. "Digital Natives, Digital Immigrants Part 1." *On the Horizon* 9, no. 5 (2001): 1-6.

Prentice, Mike, Eranda Jayawickreme, and William Fleeson. “Intergrating Whole Trait Theory and self-determination Theory.” *Journal of Personality* 87, no. 1 (2019): 56-69.

Racheva, Veronica. “What Is Virtual Learning?” VEDAMO. Vedamo, June 4, 2021. https://www.vedamo.com/knowledge/what-is-virtual-learning/.

Rasha, Alsaigh, and Coyne Imelda. "Doing a Hermeneutic Phenomenology Research Underpinned by Gadamer’s Philosophy: A Framework to Facilitate Data Analysis." *International Journal of Qualitative Methods* 20 (01, 2021). http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fdoing-hermeneutic-phenomenology-research%2Fdocview%2F2613291155%2Fse-2.

Reeves, Scott, Ayelet Kuper, and Brian David Hodges. "Qualitative Research: Qualitative

Research Methodologies: Ethnography." *BMJ: British Medical Journal* 337, no. 7668 (2008): 512-14. Accessed June 6, 2021. http://www.jstor.org/stable/20510696.

"Research, Data & Evaluation." DeKalb County School District, March 17, 2022. https://www.dekalbschoolsga.org/research-data-evaluation/.

Resta, Craig, ed. *Valuing Music in Education: A Charles Fowler Reader*. Oxford: Oxford University Press, Incorporated, 2016. Accessed June 22, 2022. ProQuest Ebook Central.

Rodon, Joan, and Feliciano SesÃ. "Towards a Framework for the Transferability of Results in IS Qualitative Research."

Rossetto, Kelly R. "Qualitative Research Interviews: Assessing the Therapeutic Value and Challenges." *Journal of Social and Personal Relationships* 31, no. 4 (June 2014): 482–89. https://doi.org/10.1177/0265407514522892.

Rucsanda, Mădălina Dana, Alexandra Belibou, and Ana-Maria Cazan. "Students' Attitudes Toward Online Music Education During the COVID-19 Lockdown." *Frontiers in Psychology.* 12 (2021): 753785–753785.

Russell-Bowie, Deirdre. "Mission Impossible Or Possible Mission? Changing Confidence and Attitudes of Primary Preservice Music Education Students using Kolb's Experiential Learning Theory." *Australian Journal of Music Education no. 2* (2013): 46-63

Ruthmann, Alex and Roger Mantie. *The Oxford Handbook of Technology and Music Education*, edited by Mantie, Roger, S. Alex Ruthmann. 1st ed. New York, NY: Oxford University Press, 2017.

Saettler, L. Paul. *The Evolution of American Educational Technology*. Englewood, Colo: IAP, Information Age Publishing, 2004.

Salvador, Karen, Erika J. Knapp, and Whitney Mayo. "Reflecting on the 'Community' in Community Music School After a Transition to all-Online Instruction." *Music Education Research* 23, no. 2 (2021): 194-210.

Sarrazin, Natalie. *Ethnomusicology* 40, no. 3 (1996): 517–19. https://doi.org/10.2307/852476.

Schmidt, Patrick, and Janet Robbins. "Looking Backwards to Reach Forward: A Strategic Architecture for Professional Development in Music Education." *Arts Education Policy Review* 112, no. 2 (2011): 95-103.

Scholtz, Salome E. "Sacrifice is a Step Beyond Convenience: A Review of Convenice Sampling

in Psychological Research in Africa." *SA Journal of Industrial Psychology* 47, no. 3 (2021): e1-e12.

Sichivitsa, Veronica O. "The Influences of Parents, Teachers, Peers and Other Factors on Students' Motivation in Music." *Research Studies in Music Education* 29, no. 1 (December 2007): 55–68. https://doi.org/10.1177/1321103X07087568.

Silverman, Marissa, Susan A. Davis, and David J. Elliott. "Praxial Music Education: A Critical Analysis of Critical Commentaries." *International Journal of Music Education* 32, no. 1 (February 2014): 53–69. https://doi.org/10.1177/0255761413488709.

Simpson, J.A, and E.S.C. Weiner. "Oxford English Dictionary." Home: Oxford English Dictionary. Accessed June 26, 2021. https://www.oed.com/.

Singh, Jitendra, Keely Steele, and Lovely Singh. "Combining the Best of Online and Face-to-Face Learning: Hybrid and Blended Learning Approach for COVID-19, Post Vaccine, & Post-Pandemic World." Journal of Educational Technology Systems 50, no. 2 (2021): 140–71. https://doi.org/10.1177/00472395211047865.

Sistek-Chandler, Cynthia Mary. *Exploring Online Learning Through Synchronous and Asynchronous Instructional Methods*. Hershey: IGI Global, 2019.

Slevin, Eamonn and David Sines. "Enhancing the Truthfulness, Consistency and Transferability of a Qualitative Study: Utilising a Manifold of Approaches." *Nurse Researcher (through 2013)* 7, no. 2 (99, 2000): 79, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fenhancing-truthfulness-consistency%2Fdocview%2F200819635%2Fse-2%3Faccountid%3D12085.

Sloan, Art, and Brian Bowe. "Phenomenology and Hermeneutic Phenomenology: The Philosophy, the Methodologies, and using Hermeneutic Phenomenology to Investigate Lecturers' Experiences of Curriculum Design." *Quality and Quantity* 48, no. 3 (05, 2014): 1291-303, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fphenomenology-hermeneutic-philosophy%2Fdocview%2F1510037241%2Fse-2%3Faccountid%3D12085.

Smith, David Woodruff. "Phenomenology." Stanford Encyclopedia of Philosophy. Stanford University, December 16, 2013. https://plato.stanford.edu/entries/phenomenology/.

Sokolowski, Robert. *Introduction to phenomenology*. Cambridge university press, 2000.

Srinivas Sajja, Priti. - *Introduction to World Wide Web*. *Intelligent Technologies for Web*

Applications. Hoboken: CRC Press, (2012).

Starkey, Louise, Miri Shonfeld, Sarah Prestridge, and Mercè Gisbert Cervera. "Special Issue: Covid-19 and the Role of Technology and Pedagogy on School Education during a Pandemic." *Technology, Pedagogy and Education* 30, no. 1 (2021): 1-5.

Stapleton, Sarah. "Best Virtual Practices: Virtual Voice Pedagogy through COVID-19 and Beyond." *The Canadian Music Educator* 64, no. 2 (2023): 15-25, https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/scholarly-journals/best-virtual-practices-voice-pedagogy-through/docview/2754421547/se-2.

Suri, Harsh. "Purposeful Sampling in Qualitative Research Synthesis." *Qualitative Research Journal* 11, no. 2 (2011): 63-75, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fpurposeful-sampling-qualitative-research%2Fdocview%2F920894910%2Fse-2%3Faccountid%3D12085.

Taimalu, Merle and Piret Luik. "The Impact of Beliefs and Knowledge on the Integration of Technology among Teacher Educators: A Path Analysis." Teaching and Teacher Education 79, (2019): 101-110.

Title I, Part A Program. US Department of Education (ED), November 7, 2018. https://www2.ed.gov/programs/titleiparta/index.html.

UNESCO. "1.3 Billion Learners Are Still Affected by School or University Closures, as Educational Institutions Start Reopening around the World, Says UNESCO." Last modified June 6, 2021. https://en.unesco.org/news/13-billion-learners-are-still-affected-school-university-closures-educational-institutions.

Vaismoradi, Mojtaba, Jacqueline Jones, Hannele Turunen, and Sherrill Snelgrove. "Theme development in qualitative content analysis and thematic analysis." *Journal of Nursing Education and Practice* 6, no. 5 (2016): 100-110.

W3. "Information management: A proposal." The original proposal of the WWW, HTMLized. (n.d.). Last modified December 31, 2021, https://www.w3.org/History/1989/proposal.html.

Wang, W, Tang, J, Wei, F. Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan, China. *J Med Virol*. 2020; 92: 441– 447. https://doi-org.ezproxy.liberty.edu/10.1002/jmv.25689

Webster, Peter R. "Key Research in Music Technology and Music Teaching and Learning." *Journal of music, technology, and education.* 4, no. 2-3 (2012): 115–130.

Webster, Peter. “Historical Perspectives on Technology and Music.” *Music Educators Journal* 89, no. 1 (2002): 38–43. https://doi.org/10.2307/3399883.

Weller, Susan C., Ben Vickers, H. Russell Bernard, Alyssa M. Blackburn, Stephen Borgatti, Clarence C. Gravlee, and Jeffery C. Johnson. “Open-Ended Interview Questions and Saturation.” PloS One 13, no. 6 (2018): e0198606-e0198606.

Wise, Stuart, Janinka Greenwood, and Niki Davis. "Teachers' use of Digital Technology in Secondary Music Education: Illustrations of Changing Classrooms." *British Journal of Music Education* 28, no. 2 (07, 2011): 117-34, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fteachers-use-digital-technology-secondary-music%2Fdocview%2F887527006%2Fse-2%3Faccountid%3D12085.

Wojnar, Danuta M., and Kristen M. Swanson. “Phenomenology: An Exploration.” *Journal of Holistic Nursing* 25, no. 3 (September 2007): 172–80. https://doi.org/10.1177/0898010106295172.

Wyss, Jamie, Seung-Eun Lee, Tanya Domina, and Maureen MacGillivary. “Cotton Island: Students’ Learning Motivation using a Virtual World.” *Decision Sciences Journal of Innovative Education* 12, no. 3 (2014): 219-232.

Xu, Yan; Song, Weixuan; Liu, Chunhui, "Social-Spatial Accessibility to Urban Educational Resources under the School District System: A Case Study of Public Primary Schools in Nanjing, China." Sustainability 10, no. 7(2008).

Yeong, May L., et al. "Interview Protocol Refinement: Fine-Tuning Qualitative Research Interview Questions for Multi-Racial Populations in Malaysia." *The Qualitative Report*, vol. 23, no. 11, 2018, pp. 2700-2713. *ProQuest*, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Finterview-protocol-refinement-fine-tuning%2Fdocview%2F2151128806%2Fse- 2%3Faccountid%3D12085.

Young, John. “Virtual Learning? It’s Here to Stay!” ITNow. 63, no. 3 (2021): 56–57.

Zahavi, Dan. "Applied Phenomenology: Why it is Safe to Ignore the Epoché." *Continental Philosophy Review* (04, 2019): 1-15, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fscholarly-journals%2Fapplied-phenomenology-why-is-safe-ignore-epoch%C3%A9%2Fdocview%2F2205738329%2Fse-2.

Zarina Abd Rashid, Sanisah Kadiman, Zuriawahida Zulkifli, Juliyana Selamat, Mohamad Hisyam Mohd. Hashim. Review of Web-Based Learning in TVET: History, Advantages and Disadvantages. International Journal of Vocational Education and Training Research. Vol. 2, No. 2, 2016, pp. 7-17. doi: 10.11648/j.ijvetr.20160202.11

Zhu. Ni. “Application of Internet Information Technology in College Music Education Teaching System.” Wireless Communications and Mobile Computing 2022, (2022): 1-11.

APPENDICES

Appendix A: IRB Approval

Date: 12-9-2022

IRB #: IRB-FY22-23-350
Title: The Perception of K-12 Instrumental Directors in Low-Income Areas on Virtual Learning with Skill Development and Retention
Creation Date: 9-27-2022
End Date:
Status: Approved
Principal Investigator: Anthony Hunt
Review Board: Research Ethics Office
Sponsor:

Study History

Submission Type	Review Type	Decision
Initial	Limited	Exempt - Limited IRB

Key Study Contacts

Member Anthony Hunt	Role Principal Investigator	Contact [redacted]
Member Anthony Hunt	Role Primary Contact	Contact
Member Nathan Street	Role Co-Principal Investigator	Contact

Appendix B

Research Participant Consent Form

Title of the Project: The Perception of K-12 Instrumental Directors in Low-Income Areas on Virtual Learning with Skill Development and Retention

Principal Investigator: Anthony Hunt, Doctoral Candidate – School of Music, Liberty University

Invitation to be Part of a Research Study

An invitation has been extended to you to participate in a research study regarding the lived experiences of K-12 instrumental music educators teaching in low-income schools. You were selected as a possible participant because you have ten or more years of teaching in a low-income area. To participate, you must be (1) a current instrumental music educator with the DeKalb County School District, (2) have ten or more years of experience teaching in a low-income school, and (3) have access to an online meeting platform (Microsoft Teams) for the interview. Taking part in this research project is voluntary.

Please read this entire form and ask questions before deciding whether to participate in this research.

What is the study about, and why is it being done?

This qualitative phenomenology study aims to identify perspectives that have not yet been explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs effectively. Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received excellent lessons through online platforms.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:
Participate in an online interview (approximately 30 minutes) via Microsoft Teams.

How could you or others benefit from this study?

Participants should not expect a direct benefit from participating in this study. Both researcher and participants can benefit from this study because it provides substantial evidence of first-hand experiences of instrumental music educators for utilizing virtual learning to influence student skill development and retention. It also may initiate more creative approaches for interactive learning experiences in instrumental music through virtual learning, and the lived experiences of

participating directors serving in low-income K-12 schools. This research may motivate instrumental music educators to explore new methods for enhanced implementation practices of virtual learning, helpful tips, and solutions to better serve instrumental music programs in low-income areas.

What risks might you experience from being in this study?

The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. Future research may use the data shared from this study, and other researchers may access it. If data collected from you is shared, any information that could identify you, if applicable, will be removed.

- Participant responses will be kept confidential through the use of pseudonyms. The researcher will conduct interviews in a location where others will not easily overhear the conversation.
- Data will be on a password-locked computer and may be used in future presentations. After three years, the researcher will delete all electronic record.
- Interviews will be recorded and transcribed.
- Recordings will be stored on a password-locked computer for three years and then erased. Only the researcher will have access to these recordings.

How will you be compensated for being part of the study?

The researcher will not compensate participants for participating in this study.

What are the costs to you to be part of the study?

No personal expenses are necessary for this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you withdraw from the study, please inform the researcher that you wish to discontinue your participation by contacting him at the email address and phone number in the next paragraph. Should you decide to withdraw, data collected from you will be destroyed immediately and will not be in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Anthony Hunt. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [redacted]. You may also contact the researcher's faculty sponsor, Dr. Nathan Street, at [redacted].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515, or email at irb@liberty.edu.

Disclaimer: The task of the Institutional Review Board (IRB) to ensure that human conducting human subject research is completed as defined and required by federal regulations ethically. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you agree to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records, and the researcher will keep a copy of the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

_____
Printed Subject Name

_____
Signature & Date

Appendix C: Interview Questions

Semi-Structured Interview Questions

Demographic Questions

1. Job description
2. Level of education
3. Years of experience
4. Socioeconomic status of the school
5. Time in current position
6. Grade levels served

Semi-Structured Interview Questions

1. Describe your instrumental music program and how you implement music technology.

2. Discuss your overall perception of virtual learning in your instrumental music education curricula.

3. Were there any technical challenges involved for lower-income students with the implementation of virtual learning?

4. Describe your process for monitoring student participation and progress through virtual learning platforms.

5. Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

6. Discuss ways your virtual learning experience can better support student instrumental skill development.

7. How often would you assign performance-based assessments to measure skill development through virtual learning?

8. During your virtual assessment reviews, what were the main observations needed to acknowledge improvement of instrumental skills?

9. How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

10. What professional development, if any, would you like to attend that would assist instrumental music educators in teaching virtually?

11. Discuss ways in which your school and district can better support their instrumental music educators with technology in and outside of the classroom.

12. Is there anything else you would like to tell me?

Appendix D: Interview Transcript

Interview Transcript
Participant #1

Researcher: Good afternoon

Participant #1: Good afternoon, sir.

Researcher: Before beginning, I want to ensure I have your consent to record you.

Participant #1: Yes, that's fine.

Researcher: Awesome. Starting the transcript, and let's see if we are rolling. And you should be able to see the transcript on your side.

Participant #1: Very good, very good.

Researcher: Alright, I appreciate you for sitting in on this interview about the life lessons of virtual learning within our music programs. Beforehand, I'm going to start with the entire script with the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs properly.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could

identify you, if applicable, will be removed before the data. You can read over all collected data and decide if editing is necessary.

Participant #1: OK

Researcher: Awesome. There are a few demographic questions, and interview questions will follow them. Please tell me your job description.

Participant #1: OK, I am the orchestra director for this year, school #1 and school #2. Although past years I've done more than in previous years, particularly the ones where I was teaching online, I've had high school and elementary school.

Researcher: And your level of education?

Participant #1: I have my bachelor's and masters in music education.

Researcher: Right. And years of experience in teaching?

Participant #1: So, this is year 29.

Researcher: And the social and economic status of the school you teach.

Participant #1: Our area has two refugee centers, so we get refugee students from wherever the world is destroyed. So generally, very low income.

Researcher: And grade levels served.

Participant #1: I've taught everything from 4th through 12th grade over those 29 years.

Researcher: Awesome. So those are the demographic questions, and we will move on to the semi-structured interview questions.

Researcher #1: Describe your instrumental music program and how you implement music technology.

Participant #1: The online portion or just in general?

Researcher: Just in general.

Participant #1: So, in the orchestra, of course, we're learning to perform our instruments, violin, Viola, cello, and bass, and the repertoire that goes along with it. I incorporate technology the most when we record our concerts, audio, and video or make music videos. Also, audio and video can be edited and uploaded onto YouTube to be shared with parents and friends.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #1: We got it to work because we did try playing together, but obviously, that did not sync up. So instead, what we did was I would play, and in their own homes, they would try to play along with me, and then I'd give them opportunities to play for me, whether it was just the class or me, depending on how they felt about it.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #1: Of course, the downside is it's much harder to give quick feedback, and you don't get that synchronization between the instruments you know they can't listen to and balance each other. So, it's just a stopgap, and it helps us survive long enough but certainly is not a replacement.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #1: So, the students were outstanding. Fortunately for me, about having their cameras on so that I could observe, at least they're playing position. I could watch their bowel motions, although sometimes lag was not helpful. It doesn't lead to a previous question or a future question. I also mention making our performances. I had the students record themselves individually. Send me the audio files, and then I edit them together on the computer, which is a lot of work.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #1: It is useful, but I am old school and would rather have students before me while I teach the concepts. It will likely become useful for future educators.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #1: It did. Record themselves at home and listen to themselves critically before sending me the file. And I would say some checked 1st, and some recorded what they could and sent it anyway.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #1: Well, we did put together the counters, although again, it wasn't synchronized, and it wasn't like we could record simultaneously. So, while the end product was an ensemble, it

was still an individual performance to create an ensemble. Online, at least with the technology we have. We couldn't perform together; we could only perform individually and edit it together.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #1: If they did, they did catch on, and I was surprised that it turned out better than I thought in some ways because when at the very end semester, we were allowed to come back to the building, not all kids did. But if you did and I got them together and we played together, they did better than I thought they might. So that was good, but time-wise. Over a semester, we accomplished what we would have done in a few weeks in the classroom. So, while there was progress, it's just different. You don't get that immediate feedback, and they don't. Kids are highly observant, and it's hard for them to observe.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #1: I think it was. Well, I was fortunate that my students were good kids, self-motivated, and always showed up. It just it's kind of like. Hey, they don't get that same interaction with their teacher and each other where they develop that sense of elite core. You know, they're part of a group. It's so much easier. I could see students like I don't feel like logging on. My computer didn't work today. Ohh well.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #1: Yeah, that's an interesting question. What could have been helpful? I've heard some people could use a program where they could listen to it, and I wonder if they could hear and see each other simultaneously. If we had access to that program for free and for the students, and then we could try it out and, you know, somebody could explain. OK, here's how this all works. That could be helpful.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #1: I haven't gotten to try it here in a long time, but there was a time when it was looking into, like teaching kids how to write music and, you know, get the computers, but then the computer gets locked down so much it didn't function. We couldn't use finale, so I gave up on that whole thing, and it could be different. Now, I don't know. It would be interesting. I've seen other groups use iPads instead of, you know, music folders and, you know, advantages and disadvantages, but it probably would be suitable for our modern generation to be better prepared for that transition if that transition does come. So, if we were supplied with those, I'd be willing to experiment with them.

Researcher #12: Is there anything else you want to tell me?

Participant #1: Hmm. I don't think for a moment. I felt I'd add one more thing: I thought the kids In my classroom felt free to play with each other. And, you know, they'll play it in little groups or individually. So, we don't get that online. And also, they feel brave or play in front of each other in the classroom while online. Check a lot of effort to get kids initially willing to play for each other because they feel self-conscious. Tell them to practice. They'll start doing it, form their little groups and practice together. They help each other, which is another thing we miss in the virtual part. Kids working with kids. One of the best ways to learn is by teaching somebody else.

Researcher: And you gave a lot of information. We have a lot of data on the transcripts, which will be readily available for you if you want to read over them. Once I have them all jotted down. Again, all this and the recording are anonymous, and all reports will remain anonymous, including names and school information. Thank you again for participating. I am going to stop the recording now.

Interview Transcript
Participant #2

Researcher: Good afternoon.

Participant #2: Hey there.

Researcher: You should start seeing the transcription on the right of your screen.

Participant #2: I see it is in the middle.

Researcher: Oh, ok. I do appreciate you for participating. I'm going to start with the entire script with the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and because you have ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs properly.
Furthermore, this study analyzed music educators' steps and their experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: Alright, first, I will start with the demographic questions. Please tell me your job description.

Participant #2: I'm the band director and general music teacher.

Researcher: Level of education.

Participant #2: I have a doctorate in music education Doctor in Musical Arts.

Researcher: And your years of experience in teaching music education.

Participant #2: This is my 29th year.

Researcher: Alright, perfect. And the socioeconomic status of the school that you're currently teaching?

Participant #2: My school is a Title I school, which speaks to how many people receive free lunches.

Researcher: Time in current position

Participant #2: One year.

Researcher: What grade levels have you served?

Participant #2: Mostly high school. I did 19 years of high school, and I did elementary school, and I did General Music, the elementary school. I am in my 4th year of middle school and was a college professor for three years.

Researcher #1: Alright, thank you. We can move on to the interview questions at this time. Can you describe the instrumental music program and how you implement music technology?

Participant #2: ok. The instrumental music program here is relatively new. I came in January of 2022, and only a few kids weren't doing much with technology. They had instruments, but that was a limited number, and they couldn't even take the instruments home. What I've done with technology a lot is to try to teach them about how to tune. We found an old strobe tuner here that helps them see visually when in tune and also hear. I have an app on my phone since the stroke tuners are outdated. I use this to let them see when notes are in tune and also to help them listen. I also have them play with each other to try to listen to for, listen for sound waves. Those are a few areas of technology that we currently use. The sound poster boards I posted all around the classroom are not technical, but they do help acoustics, and I teach them about acoustics and how that works in music. We have yet to do any actual music technology classes, but I'm looking forward to doing those types of things.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #2: ok. When I came to this school, I think the pandemic was coming to us. And so, only a few kids were doing virtual learning. And I didn't have any band students doing virtual learning. But my experience with virtual music, I did teach recorders in elementary school during our virtual learning. It can be challenging because a lot of times kids, the way the computers work, that's always a delay. So that makes it difficult. And it's tough to try to do something as an ensemble. So, what I started to do, as we would use our computers and always ran into that

problem, and we never really tried to play as an ensemble because of that, but individually and then one-on-one, it worked well.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #2: Way too many issues to count. Most of our students had WIFI connectivity issues, or their school-issued computers were not operating correctly. We also had problems with delays while attempting to perform as a group online, and it became impossible, so we worked individually or with sub-groups within the team's platform. And that was only if students could participate due to subpar connectivity issues.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #2: I required them to record themselves performing; nobody could hear them except me. But now we also have the canvas platform. So even though we're not doing virtual, I use the same idea. We let them record themselves and then submit that to me so I can evaluate what they're doing. If I give them a certain amount, for example, with these recorders, we did record one of the famous hot cross buns, for example. And I'll check that based on timing. You know, the tempo and different things like that. So, they record themselves and send it to me. At that time, we were using verge, so they recorded that and sent it to me, and I assessed and assessed it based on how they were performing. As far as their body posture and hand positioning, the breathing. I looked at all that. And that worked well.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #2: It has its ups and downs with what we can currently do. Future educators should be able to utilize virtual learning with proper guidance properly. The direction that we never received to start. Any resource beneficial for student success can be manipulated to work in their favor.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #2: I'll tell you what I think about virtual learning. Virtual learning has its benefits and cons. One good thing about virtual learning is that students record themselves; we record ourselves just like you and me. We're most critical of ourselves. So, you can record it. Man, that was good. So, you're going to keep on doing it over and over and over. The next thing is students have become so proficient at playing an exercise that it starts to e anything else easier because if you're recording yourself, you will be critical. If it is not just right, I won't send anything out of me performing. On a side note, I had to record something to do an audition. I did 154 takes in one day to find one, and the next day I did 47 takes. So, I only got two takes out of that. But

that's the same thing the kids were going through with virtual learning. My students had to record themselves and submit performances to me, but virtual learning had some advantages.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #2: As previously stated, since students could record themselves, we made an effort to have assessments weekly. I wanted them to show how they were advancing through Flipgrid, and students would have the opportunity to assess each other. They got a kick out of that.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #2: Basic hand positioning, motor skills, proper breath support, and tone. I assessed their theoretical knowledge to ensure students grasped all concepts.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #2: Well, it did a number with retention and motivation, especially because so many times in lower-income communities, a lot of times you'll find that the kids are shy, frequently they have extreme issues. So, they can record themselves, and I get them. Hey, you know something? It was good that they found out they were doing better than they thought. So, it gives them some motivation and confidence, which helps a lot. Suppose they gain inspiration through recording themselves, which assists with confidence. I sound ok because you listened to them and showed them why you believe it was good. Ok. That was good. I'll sit down with you and explain why it was good. So, they started to believe. And this right here might be my niche. Instrumental music is the thing that’s for me, and it is my niche. Music is the thing I can do for myself. So, it motivates and helps with retention because it allows them to see that they have some outlet other than just coming to school.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #2: I would love to take some professional learning with virtual learning. Oh my gosh. I need to find some way to make the ensemble work, even just section rehearsals. So, I won't be caught off guard again and improvise and try to figure things out myself if something like COVID ever happens again.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #2: Well, the first thing we had to do was get another music supervisor, or do we have one now, you know?

Researcher: I don’t believe so.

Participant #2: So that will help because when the music coordinator retired, there were a lot of grey areas because many people needed clarification about what to do with virtual music education and how to support educators overall. So that was the first big step because they had to educate the principals and the administrators. After all, often, they don't know. I've been lucky because my principals have supported me in rebuilding my program, but I've been at schools where they didn't help me, not necessarily to be facetious, but sometimes they didn’t know how. So, the first big step was to get a music supervisor who's thorough and competent and who can also educate our administrators.

Researcher #12: Is there anything else you want to tell me?

Participant #2: Well, the biggest thing is I would hope not to have been caught off guard with that again. And we're better prepared this time. If it does happen again, it is possible to lose a lot of students because of virtual learning. Some kids may pick up and practice, some may not, and it will take work. In-person learning is still the best method for music education because not only can you immediately redirect, but also kids have a sense of community, which is a solid motivating factor.

Researcher: Thank you again for participating. Furthermore, all of this and the recording is anonymous, and all reports will remain anonymous, including names and school information. Thank you again for participating. I am going to stop the recording now.

Interview Transcript
Participant #3

Researcher: You should be able to see transcriptions now.

Participant #3: Ok

Researcher: Alright. I appreciate you for coming in and assisting with this dissertation research. We will go ahead and run through the background of the information and ensure that you understand what you are participating in. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Participant #3: Ok

Researcher: Alright, there will be the demographic questions, and then we'll get into the interview questions. The first one is, can you tell me your job description?

Participant #3: I am a K through 12 certified instrumental music educator.

Researcher: Alright. And your level of education?

Participant #3: I completed my bachelor's and am six credit hours away from the master's.

Researcher: So awesome. Congratulations.

Participant #3: Thank you.

Researcher: Years of experience?

Participant #3: I have 16 years of experience in the classroom this year.

Researcher: And the socioeconomic status of the school that you currently teach.

Participant #3: It would be low-income title one.

Researcher: How long have you been in your current position?

Participant #3: This is my sixth year.

Researcher: Grade levels served

Participant #3: Kindergarten through 12th.

Researcher #1: Those are the geographic and demographic questions. We will go into the semi-structured interview questions at this time. Can you describe your instrumental music program and how you implement music technology?

Participant #3: Well, this is my first year having an actual music technology class. I'm getting my master's in music technology and have experience in it and my personal. But in the classroom, I am teaching music sequencing. You know, through many technologies on computers. And the sort.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #3: As a teacher, I was allowed to instruct without interruptions which were suitable for the teacher. However, the students needed more attention and focus because they had free range and, you know, they had a choice to pay attention. It was a benefit in some ways, and it hurt in some ways.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #3: The need for consistent Wi-Fi or Internet service. Of course, many students had to babysit or watch their siblings, so they needed more time to focus or be consistent with the classes and, you know, oversleeping. So, I still had to work, and many of the students needed to go to work, specifically during the pandemic. When we all went virtual, they would miss many classes.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #3: Umm, well, using Microsoft Teams, you know it has a few features where you can see when the student is active online. I would give them the task and would make some different rooms virtual rooms, and I would monitor all the rooms that I created. For instance, you know how we have different sections in the band. I started a different room for each section, and I would send them in there to interact with each other. And I would ensure that I monitored each with an equal amount of time.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #3: It was a hindrance of, you know, sometimes we have to place our hands on students to show proper posture or redirect in person. Let them know what they need to do to adjust all basic skills. You know, there's just some physical things that you couldn't reiterate to them, to the students, to make adjustments for playing an instrument.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #3: Virtual learning is a decent method for offering basics such as theory and learning notation. But I can't see how it benefits students regarding their motor skills and enhances their playing abilities.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #3: Yes, mostly Id have them record some of their playing, and for those who did have an instrument, they'd take theory tests. And but it hinders the results because students can record a performance many times. So, you won't get real-time. You know, not all the time. Sometimes I did, you know, do quizzes on the spot where they had to play lives. Sometimes I did have them to record. You don't know how many had to do retakes.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #3: Uh, yes, I did so with that; you know, the students are in front of a computer, so I could send them many different resources, whether videos or websites, that could help them directly. And some of them who took it seriously, they, you know, took heed to the resources. And I could hear the improvements.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #3: Well, many of the students weren't fond of it. You know, playing an instrument, of course. A lot of it is dependent upon ensemble, so you know, so we can help some individuals who, you know, who take it seriously. Usually, the older musicians who are already established were self-motivated. In some ways, it helped them, but it hurt retention for beginners. Because they weren't one having fun, weren't having a social aspect out of it, and they didn't get a chance to work with other musicians.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #3: Professional development in that area wouldn't hurt. However, it needs to be relevant, and it needs to be geared toward what we need in case a pandemic is repeated that shuts us down. That needs to be a push to ensure that we have the relevant equipment and can use resources that will help that are up to date. Something you know in that instance, then yes.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #3: We are well, at least in my district, behind in the state-of-the-art resources, especially with keeping up with the digital music world. And you know, we need to catch up. And what we allow, you know, there are many careers using music technology. Instead of just throwing it in as an elective, it should be more geared toward students with musical backgrounds. We have experience, and we understand some level of theory. We can show them, you know, that they can have careers in music technology.

Researcher #12: Is there anything else you want to tell me?

Participant #3: I touched on everything. You know it has its pluses and minuses. It's 2022, you know, technology is what drives the world, and you know we all need it. We all need proper training, and we need to focus on getting what works instead of what's the best price level. That's, that's about it.

Researcher: Thank you again for participating. Furthermore, all of this and the recording is anonymous, and all reports will remain anonymous, including names and school information. Thank you again for participating. I am going to stop the recording now.

Interview Transcript
Participant #4

Researcher: Good afternoon, participant #4.

Participant #4: Good afternoon.

Researcher: All right, so you should be able to see the transcript in the middle on the side.

Researcher: I do appreciate your participation. I'm going to start with the entire script with the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and their experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: I'm going to start with the demographic questions. So, the first question is, what is your job description?

Participant #4: Music educator.

Researcher: Alright. And your level of education?

Participant #4: Above Master’s degree.

Researcher: Alright, years of experience in education.

Participant #4: This is year 11.

Researcher: what is the socioeconomic status of the school that you currently teach?

Participant #4: We are a Title I school with 100% free or reduced lunch students. Therefore, we're extremely low-income.

Researcher: Alright. And what is your and what is your time in the current position?

Participant #4: 11 years.

Researcher: Grade levels served

Participant #4: 9 to 12.

Researcher #1: So those were the demographic questions. We're going to move on to the semi-structured interview questions, and once I ask one of the questions and the follow-ups come about, that will typically answer some of the following questions. I won't ask the same questions. The first question is to describe your instrumental music program and how you implement music technology.

Participant #4: In the school, we have the marching band and the concert band. We have different instrumental groups as far as you have a drumline, we have a few chamber groups, and we have other sectionals that break out to make up one program. We also have an orchestra program. Each program has technology within its curriculum, which allows those resources to be readily available for students' needs. Our county has established an initiative that provides all students with a laptop and hotspot for connectivity at home.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #4: At present, with the implementation of virtual learning? It is currently limited to none since we're no longer under that reprimand due to COVID-19. However, when COVID was taking place, virtual learning was 100% taking place. And during that time, students had difficulty with that due to either Wi-Fi issues or lack of access to instruments due to low economic standing. Our technology could have been better and often broke without qualified, certified repair individuals to count on. So, that placed many of our students in that grey area of no participation.

Researcher #3: And that just went into the next question that we were going to talk about the technical challenges involved for the students in low-income areas.

Participant #4: Yes. Correct, like lacking access to that due to the economic standing. That was a significant issue that carried over into the Wi-Fi issue. Therefore, they had almost limited access to that program. The lack of connectivity led to students suffering educationally and musically.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #4: With the use of live streaming, where you can have the video, you can view students and hear them. Therefore, you can observe what they're doing and assist them.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #4: For those with a passion for it, it is instrumental in developing those skills, as well as those with access to the resources. It is instrumental for those that might be brand new. It may be more of a struggle, but it is instrumental.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #4: It can be close to almost like tutorial hours where you can have sectionals at certain times where we can work on specific instrumentation that can take place where you can work on one-on-one as well if need be. And if students had access to the essential resources as far as the instruments, that could play a large part in how successful that could take place.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #4: A weekly assessment is sufficient.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #4: I would pay attention to their increased sight reading abilities, proper breath support, and rehearsal/performance of standards. Or some of the bases they should be able to gain from that, and some things that need improvement and just having an ear. Some students lack an ear if they don't have a person that's their present with them, but those attributes can theoretically be developed virtually.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #4: It affects their motivation because they need an outlet besides just their regular class settings. Music is a great outlet where they can gain additional knowledge, and it gives

them an outlet they can work towards. In-person learning works much better for students than staying online, where students don't have comradery and a sense of working together.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #4: Professional development would help us greatly. Especially for those that have been in the system a little longer than others, they may not be as frequent to the different uses of technology, so professional development is very keen on having a successful program.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #4: In and out of the classroom, ensuring that all students have the necessities and adequate Wi-Fi at that, at that adaptability, making sure that they're able to receive those instruments that they need. Also, correctly placing students in their correct classes, let alone providing proper resources, would be beneficial. Having all levels in a class while attempting to educate virtually is impossible, and many music educators continuously deal with this issue. To properly educate virtually or in person, scheduling must be addressed.

Researcher #12: Is there anything else you want to tell me?

Participant #4: That's all for today.

Researcher: Thank you again for participating. Again, this and the recording are anonymous, and all reports will remain anonymous, including names and school information. Thank you again for participating. I am going to stop the recording now.

Participant #4: Quite welcome.

Interview Transcript
Participant #5

Researcher: Hey there!

Participant #5: How are you?

Researcher: Doing great. Thank you for joining me. You should see the transcripts begin on the right side of your screen. There it is.

Participant #5: Got it.

Researcher: I do appreciate your participation. I'm going to start with the entire script for this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and their experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: Alright, demographic questions. What is your job description?

Participant #5: Director of bands.

Researcher: Level of education

Participant #5: Master's degree.

Researcher: How many years do you have experience?

Participant #5: I have 10.

Researcher: And your socioeconomic status of the school that you currently serve.

Participant #5: Low income.

Researcher: what is the time in your current position?

Participant #5: Two years.

Researcher: OK. And how many and what grade levels have you served during your teaching time?

Participant #5: 9 through 12.

Researcher #1: Alright, so we will run through the 12 questions, and you can answer them how you choose. Describe your instrumental music program and how you implement music technology.

Participant #5: My instrumental music program is, let's say, intensive. Uh. Geared towards building skill individual skills first, ensemble second. We incorporate technology using the bring-your-device manner. Even though the school district does supply devices for students, I do believe in BYOD just because kids feel comfortable with their own devices, they're familiar with their own devices, and different devices work, to be honest, and we'll use them throughout periodically as tuners will use them as resources to find some vocabularies. We use them to supplement the music education already taught in the classroom.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #5: Honestly, we are not using virtual learning. After getting comfortable returning to school, we returned to the early 20th century when technology wasn't available. The only technology we use is phones. I wish we could incorporate it more, but when incorporating music technology more, you need training which means you need a budget. We would need good budgeting to train educators on using virtual learning properly, and my county does not have that. We don't have that in place, and I think that'll be beneficial for me myself because, again, we're trying to meet our kids where they are, and our kids are not millennials, they're not Gen Xers, they're the new generation and they not interested in virtual learning band classes. It's not the same.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #5: It's funny you asked. So, when we look at technology, when we purchase these Chromebooks and on devices, we never intended to have any audio feedback for instruments. So, we bought the lower-end things. So, when we pass performances or want kids to record, we're not picking up the great sounds. We don't know what we can work on with the kid cause we're not getting the full authentic sound from the kid. Another issue was that we weren't one-to-one in school and weren't ready for technology in our schools, even though we had Chromebooks. Our network couldn't handle so many individual computers accessing it, and that's an issue at the county level. So again, we use these things, but we're not equipped in our communities, or we don't have the right people in place to accept them correctly, and we need the training to teach with technology. So again, that's just the hard part. When it came to technology during COVID, we just said to do it to say we did it and to meet them, but again it wasn't benefiting us, and it wasn't benefiting the kids. And they needed to be learning to their full potential.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #5: We attempted to use platforms such as teams, zoom, or google classroom but again, as a full ensemble, it did not work for us. We would have way too many delays while performing together. Monitoring worked perfectly as a one-on-one scenario, but that's different from how you teach in a general setting. You had to engage all students simultaneously, and it was virtually impossible.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #5: No, I don't, and the problem is it's nobody's fault. We don't have the proper training that we need, and as a younger teacher and good with technology, I still need training, and we don't know everything out there. You know, that's because we're not out there looking. We're saying, hey, we purchased this smart music or this new software, but who knows how to use it? That's just, that's just a scapegoat for saying that we use technology in the classroom when we don't know what we are doing.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #5: Virtual learning has its place for helping students in particular areas of music education but not for developing their instrumental skills. And when I say instrumental skills, I'm referring to their motor skills, proper breathing, posture, and creating that perfect tone, and I can't see how virtual learning could assist.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #5: There was a limited amount. So, when we are talking about assessment, when I talk about formal assessments, yeah, we did that every other day. But when I talk about authentic assessments, it was probably once a month, if that because I couldn't keep up. Students weren't receiving their entire musical aspect while virtual, and they knew it. They knew it because they weren't getting the full authentic music education experience. After all, we're not face-to-face. The full, in-person, hands-on experience was missing. I couldn't show students first-hand the "how tos" of playing their instruments. But it's good when I can help you. Let you see. I can walk around. I can sing your full embouchure. Bottom left, right, top. So that aspect took a lot of work to grade. And the second aspect is I listen to a recording when I'm getting bad sounds. It doesn't sound good if you're too close to the mic. If you were too far, I couldn't hear you. It would go in and out because of the pickup, and it always depends on the system. Now for the kids whose parents have money and they bought the $200.00 mic, couldn't play video games, and had a video game MIC. That's the difference. But again, it's just assessment aspect was very, like, very difficult, and it's unfair to the kids at the end of the day. So, U didn't believe in having too many assessments during virtual learning. Oh, and I can't forget my kids that suffered because they either couldn't make it to campus to get a school-issued instrument because they didn't have a way, those students who couldn't afford their instruments, and my kids that possibly had an issue with their school instrument during virtual learning and couldn't get it repaired because of financial restraints. I know the last sentence was a run-on, but I found it disheartening when my kids suffered because they couldn't afford to participate, and I felt responsible. That's why we relaxed a bunch on the assessment end.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #5: As mentioned, I needed to see that the student mastered the fundamentals before listening to their performance. But a first-hand experience is what I am used to, so I know many of my students suffered during virtual learning because I couldn't provide the proper service to ensure their experience.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #5: Yes. Umm, so again, that's the two-fold type of thing. Students saw that, hey, I can do something other than just music education, let alone general education. I don't necessarily need to be paying attention. I can be successful. And then you saw the younger entrepreneurs. You saw younger people starting their businesses. You saw younger people being influences. So yeah, education took a step back. The retention of students was gone. And then the second thing is we realized our kids relied so heavily on technology to give them the instant answer where they weren't forced to find the answer. So instead of finding out. Uh, let's say something simple. We wanted them to do a long division problem. I don't have to do a long division problem if I could type it in. I don't have to do the steps; that goes with music. Like I want to learn how to play the piano. Well, I just got it right here. I play it right here. I just follow. I could touch the

thing, and it's telling me I'm following along. I think it's like, that's the two aspects. I could do something else without being in school, and I'm not getting the total educational value where I have to grasp the concepts and look forward to retaining them.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #5: Please let me learn how to properly manage technology within the classroom while meeting the students where they are. I can't see us successfully using technology without proper lessons to gain experience to implement instead of using a band-aid and saying we were successful.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #5: By providing necessary resources for us educators and future educators with technology. The same answer as before. We are on a collision course if we are forced to virtual again in the near future.

Researcher #12: Is there anything else you want to tell me?

Participant #5: Virtual learning made me have to plan more. Because I saw my students fail more. I saw students did not have as much success as they had before virtual learning, and it made me become a better band director because I had to get into the nitty-gritty. Like, why isn't this not working? It's different between having kids right next to each other. Hey, let's do this. Fix this and that. It's like, OK, let's sit down and figure it out. Since virtual classrooms, I told myself, let me get on the job and see what I am doing to help and if I can give like a cheat code type of thing for students' success. That's all I had.

Researcher: Thank you again for participating. Again, all of this and the recording is anonymous, and all reports will remain anonymous, including names, and school information. Thank you again for participating. I am going to stop the recording now.

Interview Transcript
Participant #6

Researcher: Good morning.

Participant #6: Good morning. My time is limited since I am watching multiple classes this morning—just a heads up.

Researcher: Thank you for letting me know. I will give you a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and their experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Participant #6: OK

Researcher: Alright, so the first ones are going to be about the demographic questions of your location. Uh, what's your job description?

Participant #6: I am a music teacher

Researcher: Right. What's your level of education?

Participant #6: Masters.

Researcher: Years of experience.

Participant #6: 12.

Researcher: What is the socioeconomic status of your school?

Participant #6: Low-income title one.

Researcher: And the time in current position.

Participant #6: 12 years.

Researcher: OK, and then the grade levels served.

Participant #6: Kindergarten through 5th.

Researcher #1: All right, all right. So, we're going to start with the interview questions. First, describe your instrumental music program and how you would implement technology.

Participant #6: OK, so my music program is very diverse, I have kids that have just come to the United States, so some of them have never seen written music before, so I have them sprinkled in with kids that I've had for years. And so, I have to use technology. We use a lot of quaver music, which helps engage everybody because even if they don't know something, they can see the rhythm on board, catch on, and follow along. That's my big way of using technology through quaver.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #6: OK, so I do, um, I do use virtual learning with music education because, Umm, well, last year, we had a lot of students that were still home, and we still provided some virtual things for them. So, we would send a lot of rhythm sheets, and then they would record themselves playing the rhythms and then send it back to me. Or if we do some live videos where I can see them, they would be playing, or they could make the rhythms while virtual, and I would see them. And I would say, OK, that's wrong. That's right. And so forth. So, we use a lot of virtual learning at home with instruments.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #6: Most students initially struggled with accessing our county platform due to WIFI issues. I recall students and parents complaining because the hotspot devices were not working correctly, and parents in our area could not afford their services. Students suffered with accessing resources due to damaged equipment provided by the county. If students-issued iPads and Chromebooks stopped working, we could not repair their equipment, and parents could not

afford to repair damaged devices on their own nor replace them with a personal item. If this happened, a student could be missing for weeks.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #6: We would use online platforms like teams and google meets at scheduled times throughout the day to monitor students. All students would have their sound and camera on for me to supervise their rehearsals and performances. Our students enjoyed using technology when it worked because they were tech-savvy, and it was almost as if they wanted virtual learning than face-to-face learning.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #6: I do see that as a suitable method. It's just like being face to face in. In most cases, when it comes to, I wouldn't say like band instruments, but you know, as far as like with mic instruments like percussion. Our students excelled with their Orff percussion instruments while virtual.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #6: Students demonstrated that online learning could become part of our music curriculum on the elementary level because of the continuous access to resources and redirection that can take place immediately, similar to when in person. Recording their performances also helps with motivating students to become better. They will always want the best grade, so they repeatedly try until their performance is correct. That helps with skill development alone.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #6: At least once a week.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #6: Not every time. Maybe after we started doing it weekly, because if kids don't see it or it's like once a week, then they lose that knowledge, especially when it comes to rhythms like they sometimes can't wrap their head around it. So, I think doing it frequently has helped to improve the results, and I would teach them the right way to play it. And then I would say where did you mess up, and you know, let them self-correct, and then we went from there.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #6: I don't think, on my level, it has affected any retention with band students.

Researcher: Are those your kids coming in?

Participant #6: Yes, these are my students. Everybody say hello. Give me a second, please.

Researcher: OK, no problem.

Participant #6: OK, I'm back. Motivation. They love technology, so I have the online piano thing I've been implementing in class, and it's a lifesaver. So, it's motivating them because we get to use the iPads.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?
Participant #6: Just a virtual aimed class. I just can not get my words right now. A workshop that even talks about this is on it, period, and I haven't seen anything offered with that in mind.

Participant #6: Hold on one second. Hold on. Come in quietly, guys. I'm conducting an interview, OK. Hey, all of you, come sit down quietly. I am in an interview. OK, you guys can see who I am speaking with. OK. I'm back.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #6: Yes, yes, they could offer a couple of more workshops, like offer workshops about virtual learning and some resources. They can send us some things we can use if we have to return virtual again soon. Guide for us educators to serve our students better and not stress because of our limited knowledge of virtual learning and other resources.

Researcher #12: Is there anything else you want to tell me?

Participant #6: No, I believe that's it.

Researcher: OK, well, thank you again for participating. Again, all of this and the recording are anonymous, and all reports will remain anonymous, including names and school information. Thank you again for participating. I am going to stop the recording now.

Participant #6: OK, no problem. OK, thank you.

Researcher: Take care.

Participant #6: OK, bye, and congratulations.

Interview Transcript
Participant #7

Researcher: Good afternoon, there.

Participant #7: How's it going?

Researcher: Everything is good. Great to see you. I am going to start the recording transcription at this time.

Researcher: You should see them either on the left side or middle of your screen.

Participant #7: Yep. I see.

Researcher: Cool. Alright, I will start with a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and their experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: Alright, so I will start with the demographic questions. What is your job description?

Participant #7: I am a Director of Bands

Researcher: What's your level of education?

Participant #7: I have a master's degree in music education.

Researcher: Years of experience?

Participant #7: I've been teaching now for 11 years.

Researcher: What is the socioeconomic status of your school?

Participant #7: The average household income may be between 20 and 40,000. That would be considered low-income.

Researcher: And how long have you been in your current position?

Participant #7: I've been here for five years now.

Researcher: Grade levels served

Participant #7: 9 through 12.

Researcher #1: I will proceed with the semi-structured interview questions. These questions are open-ended for elaboration to go on if we choose to do so. Alright, describe your instrumental music program and how you implement music technology.

Participant #7: For instrumental music? We primarily focus on developing them in terms of musical fundamentals, and throughout my teaching career, it's been hard to implement technology, but that is really what reaches the kids. So, I've networked with many directors on the high school, collegiate, and middle school areas to find different things that my students can utilize throughout the school day and at home to enhance their abilities. And I was able to find some sight-reading websites. Uh, some music theory websites. And I also have my kids not only look at YouTube for recordings of songs that we're performing but also go to JW Pepper so that they can see different forms of music and different things to open up their eyes beyond the YouTube forum. And it's been helpful. My kids developed some outstanding questions after they visited those sites. And I've even had their input and music that we select for LGPE. And this it's been really insightful, and it excites them to want to listen to those things and want to study even more. And there's something accessible on the cell phone. And as we all know, they'll look at that cell phone all day if they can. So, it's excellent. The one thing I want to implement is smart music. I'm unfamiliar with it, but I hear it does many positive things for the students.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #7: It was challenging not being able to see the students face to face. Some had different situations where they couldn't put their cameras on because of their household. That made it difficult just assuring that I had their attention was hard. I utilized YouTube clips showing them collegiate bands, just trying to excite them, and different things. And for performance, it was a big struggle. We could not play together cause everyone's tempo would

vary depending on the strength of your signal, and that created a lot of frustration amongst them, and the best thing we were able to do was to go into the isolated rooms, and I would treat it as if it was a very short private listen. I will have them play a brief excerpt of something that we're trying to cover, and I'll give them feedback, and I'll try to, you know, demonstrate it for them. That lasted for a couple of weeks, and then even after that, you could tell the kids were not engaged virtually when it came to music. A lot of times, their lack of engagement came from not having the tools to participate as well. We do not have an abundance of school instruments for every student, so some went virtual without anything to play. It was virtually impossible to request students to rent or purchase instruments when the same students helped their parents pay bills in the house and put food on the table.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #7: WIFI mainly caused our students' biggest technological issue. Having connectivity was a complete pain. The delay while performing would hinder our full ensemble practices, and I would have to, you know, do that break-out rooms to get anything accomplished. But definitely WIFI issues and connectivity overall with their devices at home.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #7: I will have them record themselves and submit their recording on Google Classroom; that way, I can view it individually and provide feedback as well. I had them performing in front of their peers just because I had a young group, and I could tell that nerves were, you know, shaky. So, I just told them, hey, we'll record for your playing test, record yourself, submit it if you have any questions, we can work on it during our private listening session, or I could just give you outside feedback beyond class.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students’ instrumental skills?

Participant #7: I don't.

Researcher #6: You know, hey, that's straightforward. Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #7: I can only see any support for students through virtual learning by recording their practice or test. They get to try repeatedly until it's right, which pushes them to want their assessment to be perfect, motivating them to practice.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #7: I started doing it every week, and I could tell by the students their social-emotional situation was getting to them, so I tried to make it as less stressful as possible. So, it became biweekly, and towards the latter part of the semester, I stopped even calling it an assessment altogether. I would assist them individually and just, you know, counter for a grade and just have them thinking it's a classroom participation instead of an assignment.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #7: Uh, it was a lot of, you know, basic fundamentals, just having to demonstrate proper tone on each instrument, proper technique, and even that small as being able to hold the instrument, it was difficult because having taught for so long in person and never being trained for a potential virtual lesson during a pandemic, and it was just difficult just getting the kids to understand that we're going through the same differences that they are. And it was just frustrating because they weren't catching on as fast as they would like and just keeping their minds together and just letting them know it's OK. You're going to mess up. It's OK that you won't be able to catch on as fast as you are, but as long as you're progressing, even if it's very minimal, it's OK. My main focus in assessing the kids was their minds more than the technical aspect.

Researcher #9:How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #7: It definitely has affected my numbers. We were already going down, but since that pandemic, not only at the high school but having a conversation with other schools in the cluster, their numbers went down. It's just the kids found it to be more complicated than we know it's it has its difficulties, but it's not as difficult as it was during the pandemic, and their interest just left, and it became more of a want to be interested in computer technology, and I want to do ROTC—different things like that. So, the band is just an afterthought to many of these kids, and also the opportunity to go and see collegiate groups and take trips that kids look forward to. Obviously, we couldn't do that during the pandemic or the following year. It was hard to get those kids interested cause that's why they look forward to trips out of town, and you know you're seeing your favorite college band on YouTube and in person. That made me want to be in a band going out of town. So that was the most significant thing with those kids. Share ideas, and I know many teachers develop ideas because they do studio work and different things like that, so they know how to engage kids and utilize additional software. And if we had professional data just taught us about those things and the resources of a smart music program, that would really help us. But we know the afterthought in schools or athletics first. You know academics second, and then you have Fine Arts as a far afterthought. So, I genuinely believe that if we had those resources, that experience could have been slightly better. It still would have been a rough one because it was a never before seen atmosphere in terms of education. But we could have assessed our students better. We could have also provided positive feedback, which was a lot easier, and helped them with their social-emotional learning because there are a lot of

times kids want to know. How well they are doing, they want to hear themselves, and unfortunately, it was pretty hard to do that.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #7: The critical term is just fundamentals on teaching virtually successfully. We got online with kids without knowing how to make everything work. There is a chance that another pandemic could happen in our lifetimes, and it's wise for school systems to provide adequate resources to prepare us if and when it does happen.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #7: If our school system could provide smart music and other subscribed software like finale, that would substantially help our fine arts programs. It is impossible for us to meet some of our standards due to the lack of software resources. Offer what's needed to meet all standards and allow our kids to be successful in every avenue.

Researcher #12: Is there anything else you want to tell me?

Participant #7: It was it was challenging, but at the same time, I grew as a teacher. I learned how to be more compassionate to my students, just understanding what they're going through throughout the day. Unfortunately, I had a couple of kids who did have their mics live, and I could hear the things they're dealing with at home, whether it's little siblings or parental involvement or lack thereof, and that just made me made me think about their situation. As a teacher, I have a high demand, and a high standard, as any other teacher would, but it showed me that I can have that standard and still show them compassion. And actually, it increased my respect level and the students, you know, willingness to go beyond cause my classroom numbers are not the best, but the kids that I did teach during the virtual lesson are those I can rely on for after-school rehearsals. Because of that situation, I would say I grew, and I hope that they grew at the same, but it's like you say, it's a lot of things that we still are not prepared for, and unfortunately, we cannot say this would never happen again. So, we should prepare for it now instead of having a similar situation as 2020, and to piggyback off of that, kids were not doing work in my class but in every situation. To get to a point where you hope the kid would show up to class, they didn't turn in any assignments. It was a struggle. It was a huge struggle because you didn't know if you would ever see the school building again. So, that’s my peace.

Researcher: Hey, listen, I do appreciate you. You gave me some great answers, and I will pause the transcript now. Again, all of this and the recording are anonymous, and all reports will remain anonymous, including names and school information. Thanks again.

Participant #7: Anytime, man, and congratulations.

Researcher: Thank you.

Interview Transcript
Participant #8

Researcher: Good evening

Participant #8: Hello

Researcher: It's great to see you, and thank you for participating on such short notice.

Participant #8: Not a problem at all. I appreciate the invitation.

Researcher: I am going to start the recording transcription now. You should see the transcript in the middle on the side of your screen.

Participant #8: Got it

Researcher: Perfect. I will start with a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: OK, I need to start with demographic questions. What is your job description?

Participant #8: I am a music educator

Researcher: What is your level of education?

Participant #8: I have a doctorate in curriculum and instruction, concentrating on gifted students. My dissertation had to do with music education, so that's how we tied everything in.

Researcher: Years of experience.

Participant #8: I'm in my 29th year of teaching in public schools.

Researcher: What is the socioeconomic status of the school?

Participant #8: Low-Income title one school

Researcher: Time in current position

Participant #8: This is my fifth year.

Researcher: Grade levels served

Participant #8: I teach 9th grade, 10th, 11th and 12th

Researcher #1: OK, alright. The first question is to describe your instrumental music program and how you implement music technology.

Participant #8: In the keyboarding class, we use Yamaha keyboards. Each student has a keyboard of their own to use while they're at school. For example, we use the keyboards on our phones or our Chromebooks. We use the piano apps so that they can learn the solfege and see precisely the relationship between pitch and how it moves on the keyboard. But for a piano keyboard class, I found it more beneficial for them to have access to the keyboard. We also use musictheory.net in the keyboarding class, and so every day, not every day. The Promethean boards that we use are a huge lifesaver because, you know, one of the standards says that students should be able to view live performances, and so the wonderful thing about having the technology in the classroom is that they can watch performers on YouTube or on Ted talks or NPR tiny desk. All of those give them a little access to view actual performances.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #8: It was difficult navigating at first. After a while, the thing that saved me was that I used a document camera so I could use an Elmo projector. I showed myself doing theory using staff paper. They could see me writing the notes, and they could also see my hands playing. We were doing zoom at the time, and of course, we know that zoom doesn't allow multiple

instruments to play simultaneously, so that was a challenge. But when it came time for keyboarding class, it was a lot easier to navigate uh and keep the instruction going.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #8: During the pandemic, they were allowed to check out keyboards so that we could keep the program going because I found that it was challenging to teach keyboarding without them having adequate space in the instrument. We only faced a few challenges because I ensured we had books. I showed them how to use blanksheetmusic.net to run off staff paper. I still believe in allowing students to write their notes, write the symbols, and learn how to draw the trouble Clef sign. And you know, these things seem common and basic, but they're very, you know, it's essential. And there are a lot of programs out there that allow students to, you know, forget about the actual writing process, but I still find value in that. So blanksheetmusic.net gave them staff paper. And as I said before, I supplied them with the keyboard, and instruction could continue.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #8: We would use the zoom platform to meet virtually, and students would have to place their cameras in a position for me to monitor hand placements on their keyboards while performing their assignments—the same issue, as always, would be the delay with zoom if students are performing together So, I would break students off into, you know, different sub rooms in zoom for smaller ensemble practice or one on one assistance.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #8: That was difficult because, yeah, on my side, I knew what I was doing, and they could see what I was doing, but it wasn't always easy to see what they were doing. It took a lot of listening to ensure they were performing correctly; that was the only way I could do it. One thing that helped tremendously was the flip grid. The constant recordings given by students showed that virtual performing could be a valuable asset for student development.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #8: So, during the pandemic, all of my students did all their assessments, their playing assessments on Flipgrid. And so that gave them, they could set, you know, set up their workstations the way that they wanted. They had to film themselves, you know, I made that a

mandate that I had to see their keys because, you know, obviously you didn't want them to give me a performance of somebody else playing or having somebody, you know. So, the requirement for them to get a grade was for their hands to show on the Flipgrid. Access to resources like flip grid supports student instrumental achievement.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #8: I've always done this. They have to do a quiz every Friday. So, we do a simple quiz and an open-note written quiz. The open Note written quiz prepares them. It's sort of like they are creating their study guide. So, with the notes, they have an open note quiz every Friday, and then at the end of the unit, they have an actual end-of-unit test that is not open, nowhere they have to, you know, by that time they would have had to retain all the information needed to pass. But the playing tests were weekly, and the quizzes were weekly. And then, the unit assessment was every nine weeks.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #8: Due to the continuous weekly testing and quizzes, a slight improvement was noticeable with my beginning, intermediate, and advanced piano classes. But, even while virtual, we are still stuck with the same schedule as in person.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #8: It has, and I would say just overall, we are all in the process of healing and building back up, building up children, educators, and administrators because, you know, we found that there's a considerable amount of complacency that has set in and I think that's an expectation. It was up to the students to decide whether they would do their work, so it was a challenging time, and it would take a long time to rebuild as far as music programs were concerned. I think we got used to not performing, and we got used to not being on stage, you know, everyone has become kind of comfortable with that, and you know, it's sort of like life went on without this critical aspect of our lives and of our education, and the entertainment industry is still trying to build. So, if you can imagine the entertainment industry trying to rebuild, think about schools, which have much less money. We have children that we're trying to motivate and rebuild with, and so yeah, I know that it has affected many of the programs and is still affecting them. COVID is still around, so the pandemic is not officially over. Whatever fear you know of being in a closed room with people singing or, you know, people playing instruments and the air coming out at them and, you know, the saliva count, all that you know, has a lot to do with everything. So. And then when you think about the financial aspect, you know, people have lost jobs. So, do you have the money to buy an instrument? Maybe not. Can my child still get an education without me spending hundreds or thousands of dollars on lessons,

private lessons, or instruments? Of course, they can. So many students in our area have parents who are challenged by not being able to financially afford for their kids to participate in performance groups. In our case, pre-pandemic, we struggled mightily with requesting dues for shirts, performances, music, and uniforms. Virtual learning added to the financial struggle tenfold. It will be a long time before we see the success in music education that we saw pre-pandemic.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #8 It's a good question, and I can't adequately answer it because my technology skills are limited. Many of the new textbook series has a unique curriculum that involves technology, and I would appreciate a staff development that would assist in showing us exactly how to navigate the new curriculum that's about to come out.
Uh, and knowing how it could benefit my students and not just sort of like a broad thing, I would like to get the curriculum to go a little bit deeper.
That would help different levels of keyboard students because right now, in DeKalb, we only have a beginning keyboard. And you might have a few that go to the next level, but the only curriculum that we have is, is beginning. If I could find some way to incorporate technology better than I'm doing for the keyboard, I would love that. Maybe go into a little bit of music, you know, music history with the composers, but not in a way that is just so dull and drab like it is now. Umm, something that adds a component of world music and a component of composers, you know, of African American heritage.
Anything like that. And I know that's not really what you asked, but I'm, you know, kind of throwing some things out there that I would like.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #8: I think it all goes back to the curriculum. It always goes back to that. There needs to be written in the curriculum, and I was one of the curriculum writers for a few years. And we often wanted to include several things in the curriculum, but we didn't have the resources, and I'm just going to say it like that. So many things were left out. I think more things that had to do with composition would be good. What are some of the apps that? No, the writing apps.

Researcher: Uh, finale and Sibelius?

Participant #8: Yeah, exactly. The county could provide that for us to teach the basics. Especially for a keyboard class because you know the standard mentions students to write and compose. Making students compose in general music and elementary classes should be mandatory. You

can’t require educators to do something, but you don’t provide the tools to meet that particular level.

Researcher #12: Is there anything else you want to tell me?

Participant #8: Umm. I think that's it.

Researcher: Thank you so much for participating in this interview process. You gave me some great answers, and I'm going to pause the transcript now. Again, all of this and the recording is anonymous, and all reports will remain anonymous, including names and school information. Thanks again.

Interview Transcript
Participant #9

Researcher: Hello, good morning.

Participant #9: Good morning

Researcher: Glad you could join me this morning with such a busy schedule.

Participant #9: I appreciate you asking me to be part of your work.

Researcher: Thank you again. I will start with a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: I will start with demographic questions before completing the 12 interview questions. What is your job description?

Participant #9: Band director

Researcher: Level of education

Participant #9: Master’s degree.

Researcher: How many years of experience do you have?

Participant #9: This is my 22nd year

Researcher: Alright. And the socioeconomic status of the school where you currently reside?

Participant #9: This school is a Title I school and a low-income area; that is—only free lunch at this institution.

Researcher: Time in current position

Participant #9: 22 years

Researcher: Grade levels served

Participant #9: Six through 12.

Researcher #1: Thank you for those answers. Alright, there are 12 interview questions to follow. Describe your instrumental music program and how you implement music technology.

Participant #9: Instrumental music program is more hands-on than anything, and implementing the technology is far between. You know, you use uh finale, and you may use a charms website to keep up with the students. Progress, daily progress, but more than anything, music education is hands-on and face-to-face.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #9: Well-being in a low-income area is challenging. Analyzing the correct tones and tone quality via an electronic device, you can't hear timbers, you can't hear tones, and you can't correctly fix issues that the students may be having. And by being in a lower income area, we can’t request this equipment to hear more live and real tones. But it is almost like pulling teeth, especially in this area I am currently in.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #9: Absolutely, because many students did have active Wi-Fi. Some students had to get hot spots, and the hotspots were so sub parred for the conditions that the students were in that you have a lot of single-family homes who can't afford it, and then they miss out, which will further damage them, you know, moving forward in their music, musical education experience.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #9: You can only correctly monitor if you already have everything working properly, and not receiving the means for student success allows the kids to stay caught up.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #9: No, because, uh, again, If you have this virtual learning platform with all the students in your Google Classroom, you still have to deal with the outside distractions. The distractions in the home. The kid may have a TV on the kid is at home, so they, you know, get up and go to the bathroom. When they want to and miss out on a particular type of instruction.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #9: it isn't easy to manage cause classroom management is big for me. So, I can control the classroom if I'm in front of them virtually may be more difficult. Virtual seems to work more during the private lessons area because there's more one-on-one, and you keep the concentration.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #9: You tried to follow the regular weekly my standard weekly regimen of specific skills. It was a straightforward strategy for the students to adhere to as a weekly benchmark, but it wasn't easy again because many kids didn't get on. If you are trying to watch finger facility on clarinets, what if their Internet is choppy, you won't see what it looks like, and you can't tell them hey, keep your fingers low. Do this, change your embouchure, and they freeze on camera due to lousy service. You don't know. So, you run a risk.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #9: It would always go back to band fundamentals during virtual learning. Are kids demonstrating perfect posture? How are their finger and hand placements on their instruments? Are they properly supporting their tones with excellent breath support? I would always start with the basics. Flip grind worked wonders for analyzing student performance while looking for the basics. But, one downfall will always remain that lack of immediate redirection.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #9:Ok, while I welcome the change in time that we're in, certain things need to be left the way they were. The fast-paced virtual learning has taken kids completely out of motivation. We are already at the age when students are stuck on their phones. It's to the point now that they can look on their phones for music. Kids want accessibility right then and there. They don't want to work and put in the time. The extra time it takes to be a competent musician or even work towards some type of scholarship is becoming a daunting task because they don't like to face adversity. That's the same with social media. I first started with Facebook, and now that's boring. Then on to Instagram, and now that's becoming boring. Snapchat is next. So, it's going to keep changing, and it's going to keep getting worse. As far as the band is concerned, it will push the band down the totem pole. We will be at the bottom in the minute and possibly obsolete.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #9: I would like professional development geared toward returning to the old school long tones. Uh, face to face. Classroom management, because I see now that you know, there are a lot of younger men and directors who struggle with classroom management and want to be friends rather than be their director. They don't wear many hats as the younger men directors, the older band directors like myself, the more seasoned, I'm going to say your father, your uncle, your dad, your grandpa. You're everything to that student now. Younger directors? Oh, that's my friend. He's cool. I talk to him, but I'll be cool too. But at the same time, the kids know where the line is drawn. There's no line; there's a blurred line where younger band directors now. We have to take your classroom back because if you don't have a classroom, you don't have a band.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #9: With technology. I would like for the county to provide workstations where you can teach theory, you know, and have a few finale or Sibelius software. Program to help the kids learn. But if I had that in high school, even though I did have a great teacher with the chalkboard and the five lines. I did all that, but it would have been great if I had had that. That would help the band program tremendously. I also know of a band program that is a local band program that is in a different county, and they do incorporate music technology, or they make beats with music, and they teach chord structures and beat making, and they put it all together, and sometimes what the kids do is. The teacher would turn it into an arrangement for the students, raising interest in the band. Hey, they are playing my beat. They are playing my song.

Researcher #12: Is there anything else you want to tell me?

Participant #9: I've said my piece on virtual learning and music education. It doesn't work, but it's a very low percentage of success for students moving forward and into the post-secondary

area of Marching band or college performances. We have seen the plummet of College bands musically and where they have to rebuild. The musicality of the students coming in is already low, so they will hear it on YouTube or already know that song. I think I can do this. Yeah. This is easier to learn. No, go back to the old school. Changeable. Just keep a couple of staples, and then you keep your kids on their toes.

Researcher: I do appreciate your participation in this interview. I'm going to pause the transcript at this time. Again, this is a reminder that the recording is anonymous, and all reports will remain anonymous, including names and school information. Thanks again.

Participant #9: You’re welcome.

Interview Transcript
Participant #10

Researcher: Good evening.

Participant #10: Hey there.

Researcher: I hope all is well and your school year is off to a great start.

Participant #10: I have no complaints thus far. I can't wait to see you and your group later on during the football season.

Researcher: I'm looking forward to it and your group as well. Researcher: Thank you again. I will start with a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: For time purposes, I will start with demographic questions first, then finish with interview questions. This process should not take long at all.

Participant #10: Sounds good.

Researcher: Great. The first question is your Job description.

Participant #10: So right now, director of Bands.

Researcher: Level of education.

Participant #10: Bachelor's in music, a master's in educational leadership, and a specialist in curriculum and instruction.

Researcher: Years of experience

Participant #10: So professionally or certified education 12 years overall, including my lay coach years, we're talking about 25.

Researcher: What is the socioeconomic status of the school?

Participant #10: Title one and low income.

Researcher: Time in current position.

Participant #10: This is my second year here.

Researcher #1: Nice. Alright, so I will proceed with the 12 semi-structured interview questions. Can you describe your instrumental music program and how you implement music technology?

Participant #10: My instrumental music program initially started with a very small population of students. We went through a significant recruitment phase to get students involved and engaged and used some music technology as a sampling tool to help get students to keep their interest in music education. The only genre of music that my students know about is Latino music, and that's their only interest. Using technology such as garage band, Pro Tools, and Band Lab gave them some outlook to listen to different types of beats as well as get acclimated to what I had to engage them with or my interest in music and try to use some collaboration. And so, it worked. So, we had to have a courageous conversation to get it going the very next semester. And that helped increase our numbers.

Researcher: OK. That's very good. So, before you got there, there wasn't any music technology available for the students, or it was rare for the most part.

Participant #10: Very rare. They taught music theory in the building, but the music theory teacher in the band director had yet to collaborate. They didn't coincide at all. Music theory was just an elective class they used to push the kids through. And after they finished, students weren't even required to be in band, orchestra, or chorus.

Researcher #2: That's interesting. Can you discuss your overall perception of virtual learning in your instrumental music education curriculum?

Participant #10: So, my overall perception during the pandemic was that the possibilities of students who had instruments would continue, but needless to say that it seemed to have come to a hiatus that they didn't pick up anything while virtually, I think they just ended up doing, like, worksheets uh, when I came in, and I was like, man, if those students could have had some theory concepts or just been taught some sort of, you know, the paper trail of theory and given reading, reading fundamentals, it probably would have advanced them a lot quicker. But they didn't have that. They just had more, like, historical content. Who was Michael Jackson? Who was, you know, what songs did they sing? So, it kind of went bland for this population. If they could have gone into music theory or jazz, the advancement of knowledge and pedagogical skills studies would have been much further than they are, but we're on the right trajectory.

Researcher #3: Were there any technical challenges involved with loser income students when you were implementing virtual learning?

Participant #10: Definitely. You know, you have families who have more than one student and had to share spaces or had to share, you know, Chromebooks or whatever, depending on what the objectives were for that particular school. The district was, you know, caught off guard. Obviously would not have enough supply and demand for technology. Some students could just get logged on or use their phones. But then some students needed the sources of the Internet or the communication outputs they needed to be successful day in and day out. This population is meticulous. The school sits in a very high priority and high economic development here at the Lenox Mall area. But needless of the, you know, the poverty on the backside of the school is real. They exist, and unfortunately, that's where our students lie. They lie right after the $0 to $10,000 line while the $100,000 to $1,000,000 line exists. You know, three radius miles across the street. Do you know what I mean? So, hey, it was intentionally drawn this way for our students to suffer without proper resources within our cluster area.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #10: I'm still now doing this exact thing. We work on repetition and check daily for student progress. I had to create a habitual process to get them to understand that these are the things you must do daily. So, I had to monitor that first and get them in the habit of just doing it day in and day out. What do they do when they come into a virtual classroom? How does it look? So now that they're on that path, I can easily convert them to more technology and say, OK, we have this. This software is called Engenius, where they do karate.

Black karate belt challenges, so as you advance within the theory, the belts change, and you opt out at Black Belt, which is like level 35 or something like that. And so now I can go online while I'm at home and say, OK, well now, Jada understands what chords are or, you know, Kevin understands what, you know, dominant sevenths are, you know. So now I can see that is happening.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #10: I believe that it has its place in the world of academia, but I think, you know, I have to implement it to where all have a clear and concise understanding of its job, expectations while using, and the short- and long-term goals to establish results. I love allowing students to record themselves and submit finished assignments, and that helps students with rehearsal times.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #10: As mentioned before, several software additions to virtual learning could support students' rehearsal times, pushing their abilities as musicians and ultimately making them better. Flip grid is one software because of the student's ability to record, you know, their assessments. Kids won't turn in garbage performances until they get it right. That's their practice time and how they continue to get better. Also, listening to and rating performances immediately gives students feedback on corrections. Those methods are beneficial for helping students with their skill development.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #10: Ohh, definitely weekly, and depending on what it was, probably twice a week. And mainly because once they hang up with you, they are already comfortable; they are already in their pajamas. The intensity of doing the repetition is not there. In the building, they must walk past you and see they must have these instruments. Yeah, you know, they'll pick it up, but at home, they're gone. We out. I'm laying back down. The game is on. So, you almost have to double the trouble just to make sure that they, you know, they took you seriously, you know, that was another thing. Students didn't take the virtual learning process seriously, you know.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #10: Yeah. I guess you can acknowledge, you know, the learning curve or the actual aptitude of them being able to recite, or even perhaps put it in, you know, the record shows me that you did what you did, you know, and that way I can acknowledge that you put forth the

effort or at least you attempted it, you understand, and you know doing. Virtual learning, we became so complacent with children trying to do something you know so.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #10: Virtual learning didn't impact motivation for me. I think it does the very opposite in terms of retention. Again, they didn't take it seriously enough, and I did not retain those students with the information you attempted to teach them. But if you were a teacher that monitored daily, then your class may have benefited, but if you didn't constantly monitor their progress, meaning you didn't reinforce basic skills and remediate, then yea, I'm sure you had issues with motivation, and retention. You know the retention rate was there because you have to realize our student's attention span for computers is equivalent to their phones. I'm dealing with the cultural and language barrier in my current school. I'm dealing with ESL and ELL students who can barely understand me when I'm speaking to them face to face. It took me an entire semester just for them to learn my name, let alone attempt to retain basic skills on their instruments and learning theory. But constancy is critical, which is why I believe that virtual learning does not play a significant role in motivation and retention. It's more so the teacher and their approach that disturbs the learning.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #10: I wish to learn about more platforms that could impact instrumental student achievement. Give me something, give me a platform, or teach us how to reach students in a virtual setting conducive to them just how you want it to be. Let it be student-centered, whereas the educator could group ideally, unlike teams, and perform in a group setting without delays and connectivity issues.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #10: Developing a more comprehensive curriculum for music education would be a good start. The standards and goals are not backed by the current resources provided at my school. How will I allow students to arrange and compose, but the county will not add the needed software for students to accomplish that standard? Also, our school or county needs to add subscriptions for us to use these platforms with the premium additions associated continuously.

Researcher #12: Is there anything else you want to tell me?

Participant #10: I touched on just about everything.

Researcher: Awesome. All of the information provided today will be anonymous, and only the information you provided regarding data will be added to this dissertation. I appreciate you for participating in this interview, and I'm going to stop the transcription at this point. Give me one second.

Participant #10: No problem, and thank you again for the invite.

Researcher: You are welcome.

Interview Transcript
Participant #11

Researcher: Good morning.

Participant #11: How are you today? Glad I was able to join you this morning.

Researcher: I definitely appreciate your participation. You are helping me out immensely.

Participant #11: Anytime.

Researcher: And the transcription has begun. Do you see it on your screen?

Participant #11: I don't see anything at this point.

Researcher: It should be on your left, right, or in the middle. Is this on your phone?

Participant #11: Yes.

Researcher: Oh, that's the reason why you won't be able to see it.

Participant #11: That's fine. That's fine.

Researcher: OK, thank you again for your participation. I am going to start with a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could

identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Researcher: I am going to start with the demographic questions. What is your job description?

Participant #11: Music educator

Researcher: Level of education

Participant #11: I have a bachelor's from Norfolk State University.

Researcher: Years of experience

Participant #11: Total 28 years of experience.

Researcher: Socioeconomic status of the school

Participant #11: Title one school

Researcher: Time in current position

Participant #11: 17 years.

Researcher: And what grade levels did you serve?

Participant #11: 9 through 12.

Researcher #1: Alright, let’s get started with the questions. Describe your instrumental music program and how you implement music technology.

Participant #11: Well, we have a band program, orchestra program, percussion class, and music appreciation that I am responsible for. Each class uses standard computers given by the school system. We also use projectors with audio and visual, DVD, and CDs for lectures and analyzing performances by artists or various music programs.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #11: Virtual learning is a requirement in our day-to-day activities. Whether we went virtual as a school or every class every day, virtual learning assisted me to some degree in my classes. I used it every day regardless of whether your school is virtual or not required. I would use two computers, one school computer and my personal computer, and I would often have to share the school computer and turn the camera towards my personal computer because the

information was not copyrighted and owned by the school system. To protect my program from copyright infringement, I would play music from my computer and allow it to project onto my school computer for students to access when necessary. Virtual learning has always had a rough position with our school.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #11: Definitely. Virtual learning with our school system was a different ball game because we had to use teams. Allowing the computer to act as a projector was challenging for me as an experienced educator, and I wasn't given the proper step-by-step lesson on operating anything virtually. Students also suffered some because they needed more resources to access online classes. We still face that issue today. Students barely had access to personal hotspots for home use initially, and most of the hotspots were not dependable. Students missed a lot of assignments because they needed access.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.

Participant #11: OK, it was a little difficult in class. As an entire class, it was difficult to monitor them all, but I could do it in small groups, mainly due to the delay that comes with online playing. I would request students to turn their sound off to perform with me. Then I would have them demonstrate particular performances individually while at home. But as a group, the delay was always too bad for us to play together, and I needed help to figure out a way around that.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #11: It works fine if it's if it has its place. It's a great place and a great study buddy for kids. In-person rehearsals and performances will never be replaced by it, but it works well. There are times when students can't get in, and they may be confined for various reasons, and that is an excellent way for them individually work on things they may still be having trouble with.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #11: Virtual learning could be a motivational tool for students who could be more confident when performing in front of others. It opens doors for individual rehearsal time with immediate response from the student's teacher via web platforms or music programs like finale.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #11: We did it every day, so if you once we played the section, I'd go back. I want to hear everybody play. So, I played it on the computer. I'm watching you, and now I know what the book is saying because I have your book here or your music in front of me, and I don't know. I have your music in front of me. Play it for me. There was a case where a student did not have their music, so by having two computers, I turned my computer towards the other piece of music and let them see the music on their computer. And I can. You can hear yourself playing. There was no way out of saying I don't have the stuff I wanted to hear.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #11: I would listen for proper pitch and watch breathing techniques. Being new to virtual learning took getting used to, but there's nothing like being able to fix issues or redirect students while in person.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #11: Well, those who played well and were self-motivated. A musician has to be able to self-motivate. You have to be able to go into the practice room and that study area and do it by yourself. It creates that maturity for students. So, when they get the more complex pieces or the more complicated things they've already learned, they practice individually and go from point A to point B. Potentially your attendance will drop significantly. They dropped significantly because some students were not self-motivated. They need someone in the room with them. They need three or four other trumpets to let them feel like they belong. It's good to see a friend on the screen often. What I did was I told them OK, turn your cameras on. OK, make sure I can see from your chin up. And I would turn mine on. And I said, you know, my team would say speak everybody. They would love that just a couple of seconds while the other kids, hey, there's also. It's OK, give me a couple of seconds of that, shout out, and then we play. But some students thought they were isolated and wanted to be around others. So, the problem was getting them all to play together. I didn't know how to make that adjustment on my computer.

Researcher #10: What professional development would you like to attend that would assist instrumental music educators in teaching virtually?

Participant #11: Our future teachers need education on how to connect virtually and adequately support students without issue. All educators need training with advanced technology to meet our students where they are today.

Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #11: We need and should have all music software on school-issued computers, and that would eliminate directors printing out parts for days. If students had software like finale on their computers, directors would only have to upload parts, which would be a game-changer.

Researcher #12: Is there anything else you want to tell me?

Participant #11: You have to be extremely flexible. You have to remember that a child or student has the only thing they will have: a voice. And what you teach them. You have to teach so literally. You have to teach so emphatically. It's so clear. It's so detailed. OK, you can't leave anything to chance. You can't say. Ohh. Just do this. No, you have to explain what the expectation is. And if you do that, then you'll get your results back. You have to give this child the proper tools as well.

Researcher: As mentioned previously, all the information provided today will be anonymous, and only the information you provided regarding data will be added to this dissertation. I appreciate you for participating in this interview. I am going to stop the transcription at this point. Give me one second.

Participant #11: Anytime.

Interview Transcript
Participant #12

Researcher: Good afternoon.

Participant #12: Good afternoon, young man.

Researcher: I'm glad to have you on board to participate in this interview process.

Participant #12: It is an honor to help you out.

Researcher: Thank you. I will transcribe this interview for data-collecting purposes.

Participant #12: Sounds good. Yes, I do approve.

Researcher: Alright, so you should be able to see the transcriptions to the left or right of your screen.

Participant #12: I want to thank you again for participating. I will start with a brief breakdown of the purpose of this interview. The researcher invites you to participate in a study on the lived experiences of K-12 instrumental music educators teaching in low-income schools. The researcher selected you as a possible participant because of your membership in the Georgia Music Educators Association (GMEA) and your ten or more years of teaching in a low-income area. Taking part in this research project is voluntary. Your decision on whether or not to participate will not affect your current or future relations with Liberty University or Dekalb County School District. If you decide to participate, you are free not to answer any question or withdraw at any time without affecting those relationships. This study aims to identify perspectives that still need to be explored and documented concerning the perception of K-12 music educators in low-income areas regarding integrating virtual learning in their music programs.
Furthermore, this study analyzed music educators' steps and experience with adopting virtual learning to ensure students received suitable lessons through online platforms. The risks involved in this study included in this study are minimal, which means they are equal to the risks you would encounter in everyday life. The records of this study will be kept private, and published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records/documents. The researcher may share data collected from you in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed from the data. You can read over all collected data and decide if editing is necessary.

Participant #12: Ok.

Researcher: I have a few demographic questions to ask. What's your Job description?

Participant #12: Band director.

Researcher: What is the level of education?

Participant #12: Masters.

Researcher: Years of experience

Participant #12: 10 years of experience

Researcher: Socioeconomic status of the school

Participant #12: Title I, many students participate in the free reduced lunch program.

Researcher: Time in current position

Participant #12: Three years.

Researcher: Grade levels served

Participant #12: 7 through 12.

Researcher #1: There are twelve questions, so let's get started. Describe your instrumental music program and how you implement music technology.

Participant #12: COVID forced us to go into a new method of teaching for band directors, so I could put assignments online for the students to play, and I could assess their performance, but it also made it hard to teach technical skills. Virtual learning forced us to communicate with technology, especially in teaching theoretical concepts.

Researcher #2: Discuss your overall perception of virtual learning in your instrumental music education curricula.

Participant #12: Well, it was something that was not initially perceived as to be an everyday thing until after COVID-19. Virtual learning has a place in the music world to help us sustain music education for the next century.

Researcher #3: Were there any technical challenges for lower-income students implementing virtual learning?

Participant #12: Yes. Yes, I had a lot of issues. The lack of internet resources hindered students, who needed more connectivity with their devices.

Researcher #4: Describe your process for monitoring student participation and progress through virtual learning platforms.
Participant #12: Alright, I used the platform provided by Google for the classroom. And that allowed me to assign the assignments, and they could upload their performance, and I could leave them feedback through the video settings.

Researcher #5: Do you perceive the employment of virtual learning as a method for developing students' instrumental skills?

Participant #12: I believe it can help teach basic skills and for those students who need extra practice in those basic skills. I don't think it's the best for teaching motor skills for instrumental studies, and that's more of an in-person activity.

Researcher #6: Discuss ways your virtual learning experience can better support student instrumental skill development.

Participant #12: It's tough, but instant feedback was instrumental in ensuring our students received the best possible musical experience when I was learning and building upon their original skills.

Researcher #7: How often would you assign performance-based assessments to measure skill development through virtual learning?

Participant #12: Some more development needs to occur, but given what we've had in place, the assessment served its purpose. I was able to give that feedback, and since we've come out to COVID-19, my best students have grown.

Researcher #8: During your virtual assessment reviews, what were the main observations needed to acknowledge the improvement of instrumental skills?

Participant #12: Just looking at previous clips and comparing from the beginning to the end of continuous improvement, and checking with the students for understanding and to keep them connected with the program.

Researcher #9: How do you perceive the addition of virtual learning in your daily curriculum, and has it affected student motivation and retention?

Participant #12: I don't think virtual learning has affected motivation and retention. I feel that it's caused educators to remove a lot of the quote/unquote fluff, and the technology made us focus on those key components and critical standards to move forward with content standards, especially our music programs.

Researcher #10: What professional development would you like to attend that would assist instrumental music?

Participant #12: More information on various platforms and assessment pieces for musicians during digital learning.
Researcher #11: Discuss ways your school and district can better support their instrumental music educators with technology in and outside the classroom.

Participant #12: I think that there's a lot of professional development for teachers and content areas, but looking for those specialty areas such as career tech, the Fine Arts, and physical education, making sure that we have the same level of support as your content standards and looking for those innovative programs that would assess our program, especially music.

Researcher #12: Is there anything else you want to tell me?

Participant #12: No, Sir, I think that's all.

Researcher: As stated earlier, all the information provided today will be anonymous, and only the information you provided regarding data will be added to this dissertation. I appreciate you for participating in this interview. I'm going to stop the transcription at this point. Give me one second.

Participant #12: Thank you again for allowing me to participate. I’m very proud of you.

Researcher: Thank you. It means a lot coming from you.

APPENDIX E: Thesis Defense Approval

Doctor of Worship Studies or Doctor of Music Education

Doctoral Thesis Defense Decision

The thesis Advisor and Reader have rendered the following decision concerning the defense for

Anthony Hunt

on the Thesis

The Perception of K-12 Instrumental Directors in Low-Income Areas on Virtual Learning with Skill Development and Retention

as submitted on April 12, 2023

X **Full approval to proceed with no proposal revisions.**
The document should be prepared for submission to the Jerry Falwell Library.
With minor edits

_____ **Provisional approval pending cited revisions.**
The student must resubmit the project with cited revisions according to the established timeline.

_____ **Redirection of project.**
The student is being redirected to take MUSC/WRSP 889 again, as minor revisions will not meet the expectations for the research project.

Nathan Street [redacted] 4-12-23

Print Name of Advisor **Signature** **Date**

Monica Taylor [redacted] 4-12-23

Print Name of Reader **Signature** **Date**