HIGH SCHOOL BAND COMMUNITIES OF PRACTICE DURING COVID-19:

A MULTIPLE CASE STUDY

by

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ABSTRACT

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The COVID-19 global pandemic altered PK-12 school music instruction in 2020-2021. The purpose of this multiple case study was to examine teaching and learning practices in high school band classrooms that were modified due to COVID-19. The research questions included (a) How do high school band teachers approach, construct, and adapt to coronavirus-era music teaching? (b) How do high school band students receive, describe, and adapt to coronavirus-era music learning? (c) How do high school band teachers and students work collaboratively toward building social and musical connections in the coronavirus-era music classroom? (d) What aspects of coronavirus-era band education do participants believe will shape future music classrooms? The research questions and analysis were developed using the theoretical framework of Communities of Practice Theory (Wenger, 1998).

Participants included high school band teachers and students. Three high school band director participants were selected based on pre-determined criteria: that they had taught for 3 or more years at their current school with at least 5 total years of band teaching experience. The band students at the same three high schools were eligible to participate. Data was collected remotely and included interviews, observations, and

journal entries. Data was analyzed within each case to describe the specific experiences of each band teacher and student participant. Cross-case analysis was then completed to determine similarities, differences, and unique qualities between the three cases.

Themes from individual cases regarded band teacher strategies in remote and hybrid learning formats and how band teachers and students engaged in band camaraderie during COVID-19. Cross-case analysis produced overarching themes; including Responding to Student Needs, Self-Motivated vs. Group-Motivated, Hybrid Band Community, and Predictions for the Future. The data yielded four assertions regarding the experience of high school band teachers and students during COVID-19: the suitability of remote and hybrid instruction for individual music instruction and independence in learning, that COVID-19 cancellations led to flexibility in designing band instruction, and that social interaction is integral to learning in high school band. Implications for the music education field were also addressed.

CHAPTER ONE

INTRODUCTION

The COVID-19 global pandemic in 2019-2021 disrupted virtually every aspect of society. The novel coronavirus, an infectious disease that is spread through close contact and affects the respiratory system, prompted governments worldwide to restructure daily life. Societal changes that followed the COVID-19 spread in the United States since March, 2020 included national health care emergencies, political mandates to remain at home and quarantine, and temporary shutdowns of airports, businesses, restaurants, and schools. In response to these events, people created new routines in order to adjust to life during the pandemic. Some new routines included curbside pickup of purchases from stores and restaurants, enhancing home life through adopting pets and learning new hobbies, and a profound increase of Internet use for virtual communication with family and friends, remote work, and online education. The sudden move to remote schooling in Spring 2020 caused PK-12 students to stay home and learn through electronic devices while their parents struggled to find the balance between familial duties and workplace responsibilities. Despite the reopening of many PK-12 schools in Fall 2020, the ongoing presence of COVID-19 continued to create difficulties for families, teachers, and students.

Reopening public schools during an ongoing pandemic presented considerable challenges to health and safety measures for students and teachers. Many school districts spent Summer 2020 responding to community pressure and analyzing their available resources and the regional COVID-19 case numbers to determine reopening procedures. The uncertainty of whether schools would reopen in person or begin the academic

semester remotely caused many teachers to create at least two different curricula and accompanying lesson plans for the Fall 2020 semester. For music classes in secondary settings, band, choir, and orchestra teachers in some districts confronted the question of how to teach music virtually when the usual classroom format, ensemble rehearsal, was not an option. Or, if schools decided to reopen in person, music teachers faced multiple decisions of how to continue live music rehearsals in a safe environment where COVID-19 could not be spread. In turn, some music students had to adjust to the new procedures that music teachers and school districts set in place while learning how to be successful in a reimagined classroom. As the 2020-2021 school year proceeded, music teachers and students continually navigated the problems that COVID-19 presented. Compared to music classes without wind instruments, band programs faced a distinct obstacle in structuring safe rehearsals due to the large number of wind players who expel air during regular performance practice. This study documented the experiences of high school band teachers and their students in the United States during the 2020-2021 school year as they negotiated the musical and pedagogical complexities associated with the pandemic. Band teachers and students found new methods of teaching and learning in response to COVID-19, and their solutions could impact how music is taught and learned in the future.

This chapter provides an overview of the characteristics of the COVID-19 pandemic, how public school education and specifically public school music classrooms responded to COVID-19, and how COVID-19 impacted high school band classrooms. This chapter also contains an introduction to the theoretical framework that was used in

this study. The chapter concludes with the purpose and problem statements that guided this study, along with relevant definitions of commonly-used terms.

About COVID-19

The first cases of COVID-19 were reported in Wuhan City, China, in December 2019. COVID-19 and two other coronaviruses, MERS-CoV and SARS-CoV, most likely originated in bats and spread to other animals and humans (World Health Organization, 2021). The origin of COVID-19's spread to humans could be from infected animals in Wuhan City's Huanan Wholesale Seafood Market, though this hypothesis is unconfirmed (World Health Organization, 2021). The "CO" in COVID-19 stands for "corona" which is the class of virus. The "VI" stands for virus and the "D" for disease. The "19" is an abbreviation for the year in which the disease was discovered, 2019. The virus is spread through water droplets that are expelled when an infected person coughs, sneezes, or talks. These small droplets are called aerosols (NFHS, 2020a). COVID-19 is a form of coronavirus that causes a range of symptoms, often including respiratory difficulties and fever. As the virus has become better known, other symptoms have been attributed to COVID-19 including nausea, headache, digestive issues, temporary loss of the sense of taste or smell, and long-term lung scarring (CDC, 2020a). The symptoms of COVID-19 and the length of time needed to return to health can differ greatly for each person who contracts the disease.

While elderly and immunocompromised individuals tend to be more at risk of serious health complications due to COVID-19, people of every age can contract the virus and transmit it to others. As of August 18, 2020, the Centers for Disease Control and Prevention (CDC) reported that adults made up nearly 95% of reported COVID-19

cases. Earlier in the pandemic, older adults made up the majority of cases, but in the summer months of June through August 2020, incidence of COVID-19 was highest in adults from 20-39 years (CDC, 2020d). The CDC tracked COVID-19 test results from March through December 2020 and found that the weekly percentage of positive tests in children and adolescents paralleled that of adults, with a steady increase in positive cases from September to December 2020 (CDC, 2021a).

While the spread of cases generally has been higher in more heavily-populated areas, every state reported confirmed COVID-19 cases as the 2020-2021 school year began (CDC, 2020a). On March 17, 2020, the CDC reported 2,797 cases of COVID-19 in the United States. Comparatively, on September 3, 2020 the CDC calculated 6,087,403 cases and 185,092 deaths from COVID-19 in the United States (CDC, 2020f). Cases in the United States continued to rise; on November 3, 2020 the CDC reported 9,268,818 cases and 230,893 deaths. On May 4, 2021 there had been 32,228,003 confirmed cases and 574,220 deaths from COVID-19 in the United States (CDC, 2021c). Throughout the 2020-2021 school year, the continual risk of contracting COVID-19 caused PK-12 through post-secondary schools considerable challenges in providing education to students.

COVID-19 in Public Schools

In response to COVID-19, almost every school district in the United States switched to remote instruction in March 2020 (Education Week, 2020a). Montana, Wyoming, and the Bureau of Indian Education were the only areas of the United States that left the decision of whether to close to the individual school districts. Most school districts in those areas also went remote as COVID-19 cases spread during March and

April 2020. In addition, most school-related extracurricular events and sporting events were canceled in order to limit large group gatherings (Education Week, 2020a). For the remainder of the spring semester, many teachers and school leaders rushed to adapt to the sudden change in instructional format to fully online classes (Lieberman, 2020). Some students and their families were asked to adjust quickly to expanded needs for electronic devices and child care. At the end of the Spring 2020 semester, many high school graduation ceremonies were either canceled or held remotely (Sparks, 2020). When the pandemic had not subsided by August 2020, countless school districts made a variety of decisions regarding the potential of in-person, remote, or a hybrid mixture of in-person and online instruction. In Fall 2020, schools around the United States saw varying levels of success in staying open and limiting the spread of COVID-19 among students, teachers, and school personnel (Schwiegershausen, 2020). Teachers continued to face the uncertainty of whether and how to plan for remote, in-person, or hybrid instruction.

There was a wide range of educational formats that schools across the United States implemented for Fall 2020 (Education Week, 2020b). School districts made decisions based on county risk numbers, on community surveys, on school size, and on technological and facility capabilities. While some school districts chose to maintain an entirely remote educational format, other districts opted for a return to in-person instruction. Furthermore, some school districts elected to provide both in-person and online school, and allowed students and their families to choose their preferred format (Miller, 2020; NYC Department of Education, 2020). This decision caused some teachers to teach dual classes where some students were present via computer and some were physically present. Other school districts decided to offer fewer in-person days at school

in a week, with the rest of the week offered online. Whether classes were in-person or remote, schools mainly opted for synchronous instruction in Fall 2020 rather than asynchronous instruction, so that teachers and students could be in classes together and follow a more consistent schedule. Despite their original plans, several school districts had to scale back reopening plans or return to fully remote instruction for a week or more in Fall 2020 due to rising COVID-19 cases (Schwiegershausen, 2020). Multiple transitions in educational format caused interruptions in students' learning and increased teachers' stress as they tried to plan for every eventuality.

The CDC, the U.S. Department for Education, and the National Federation of State High School Associations (NFHS) issued health and safety guidelines for the return to school in the COVID-19 era (CDC, 2020a; NFHS, 2020b; U.S. Department of Education, 2020). The CDC's recommendations included mask-wearing, social distancing, cohorting, repurposing outdoor spaces, hand hygiene, and cleaning guidelines (CDC, 2020b). Cohorting involved creating smaller groups of students who remained with one teacher during the school day, in order to limit contact with the entire school population (CDC, 2020b). The CDC offered further suggestions for school districts that included staggered school attendance, staggered start and stop times, temperature checks at school entry, and differences in returning to school based on grade or age level (CDC, 2020b). NFHS published consistent updates to the recommendations for the safe implementation of sports, music, theater, and other extracurricular school activities. National health education, physical education, and theatre organizations published their own guidelines and specific strategies for PK-12 teachers in moving to virtual instruction or teaching safely in-person (Educational Theatre Association, 2021; SHAPE America

2020; 2021). However, safety regulations caused several school districts to cancel fall activities entirely or reschedule fall activities to the spring semester.

The abovementioned health and safety recommendations arose from the accepted knowledge that close person-to-person contact increased the likelihood of spreading the virus. Schools can have packed hallways, classrooms, or dorms that create environments where COVID-19 can spread easily. While children and youth seem to experience fewer serious symptoms from COVID-19, they still can become sick and spread the virus to others (CDC, 2020b). Schools faced considerable organizational and financial challenges in meeting all of the recommendations for a safe reopening and 2020-2021 school year.

COVID-19 Impact on Music Education

As described above, the COVID-19 pandemic impacted PK-12 school operations considerably, and music classrooms experienced concurrent changes. School closures in March 2020 caused an immediate cancellation of the semester's music rehearsals and performances, including pep band events, spring musicals, concerts, and graduation performances. Some cancellations extended into the 2020-2021 school year as state and district music associations decided whether concerts, contests, festivals, and All-State ensembles could operate safely during the pandemic (Iowa High School Music Association, 2020; Marching.com, 2020). Some state music festivals also were held in a virtual format (Brookens, 2020). Similarly, many music teachers modified their classrooms to align with district and state mandates regarding the health and safety of students during COVID-era instruction. With regard to performing arts, the National Federation of State High School Associations (NFHS) often referred to the August 2020 aerosol study conducted by NFHS and the College Band Directors National Association

(CBDNA). The authors of the aerosol study showed how COVID-19 could spread through the breathing of singers and instrumentalists in a variety of settings in order to provide recommendations for music and theater classrooms.

The CDC recommendations for social distancing, mask-wearing, and cohorting are not conducive to the pre-COVID-19 music classroom experience. Cohorting applies more easily to core academic classes where students stay with their grade level in one classroom, as opposed to music classes where students from all grade levels combine in a separate music classroom. Elementary music classrooms often involve a great deal of movement, dancing, and singing, while middle and high school ensembles regularly involve singing and the playing of percussion, string, and wind instruments. Secondary music classrooms often are characterized by large class sizes, representation of multiple grade levels in one class, and ensemble performances in filled auditoriums. Social distancing requires fewer students to be in one classroom at a time because there is usually not enough room to place the students at safe distances. Mask-wearing also presents difficulties in singing and playing woodwind and brass instruments. Accordingly, many music teachers had to experiment with modified classroom formats in order to incorporate CDC recommendations.

During the pandemic, some music teachers began creating music classes that incorporated a wide variety of changes in classroom set-up, instructional methods, and materials. Many examples of classroom formats were discussed in Facebook groups such as Google Classroom for Music Teachers, iBand Directors, E-Learning in Music Education, Music Teachers, Band Directors, and Music Educators - Looking Ahead (www.facebook.com). For example, some elementary music teachers were teaching from

carts as they traveled around the school to allow students to stay in their designated area. Some middle and high school teachers were teaching smaller numbers of students at a time, or were only teaching rehearsals outdoors. In some districts, music classes transitioned to a mixture of private lessons and music appreciation lessons taught virtually or in-person, because singing or playing wind instruments in a group was seen as too large of a risk for spreading aerosols containing COVID-19 (NFHS, 2020a). In other schools, music teachers transitioned to teaching only instruments that could be played without spreading aerosols, including orchestral strings, guitar, 'ukulele, percussion, or bucket drums and drum circles. It is too early to tell whether any of these changes in instructional format and materials will last beyond COVID-19.

COVID-19 and Band Classrooms

High school bands faced their own pandemic-related difficulties in logistics, classroom format, and instructional goals. Marching band, pep band, and drumline typically accompany school sports with the intention of adding to school spirit and audience participation. When sports were either canceled or conducted without audiences during COVID-19, these band activities also were canceled or altered and the purpose of marching band might have seemed less prevalent. All band classes including marching band, pep band, concert band, jazz band, and stage or rock band, require the playing of woodwind and brass instruments that can spread aerosols containing COVID-19. Modified classroom formats are one way high school band teachers responded to COVID-19 safety recommendations.

Each classroom format required solutions to safety recommendations and logistical problems, and hybrid or remote formats also presented technological problems.

Some band teachers applied the CDC's safety recommendations of social distancing and mask-wearing to an otherwise typical in-person classroom in which the students still engaged in ensemble music-making (James, 2020). Some in-person band classes during COVID-19 included staggered entrance times to encourage safe traffic flow around band lockers and seats, smaller class sectional rehearsals to allow for social distancing, or rehearsals located in auditoriums, gyms, or outside beneath tents in order to safely distance the full ensemble (CDC, 2020e). These adjustments were dependent upon the school's resources and availability of large spaces. Remote band learning also presented logistical challenges, such as how to provide all the students with school instruments when they were learning from home. In addition, remote learning sometimes was accompanied by technological problems, because teaching band via computer is vastly different from teaching in-person. Technology issues such as latency and the inability to see and hear students fully does not allow for an effective group rehearsal (Rofe et al., 2017b). Technological options are dependent on the electronic devices and Internet connections that students have access to at home, as well as available school resources. High school band classrooms – in whatever form they took during the COVID-19 pandemic – were the setting of the current study.

For many band teachers, finding creative ways in which to engage remote or hybrid classes both musically and socially was one of the challenges of COVID-era music teaching. For many band students, finding ways to negotiate musical learning, feel ownership over their learning, and navigate social activities during COVID-19 could be difficult. For both band teachers and students, learning new safety procedures and new technologies in order to function productively during the pandemic could be stressful.

Chapter 2 will focus on each of these topics in greater depth, as literature on band classroom attributes, technology use in music education, and student negotiation of band learning is reviewed further. Specific changes to band classrooms resulting from COVID-19 also are discussed in more detail in Chapter 2.

A Theoretical Framework for Understanding Band During COVID-19

When considering a framework through which to view the experiences of band teachers and students during pandemic-era learning, it was useful to examine the differences between pre- and post-COVID band classrooms. Before COVID-19, band students sat next to each other in instrument sections and conversed easily with the teacher and each other. Band students often ate lunch in the band room and practiced their instruments together. Marching bands occasionally would take bus rides to away football or basketball games to perform as social, school spirit-building entities. Band teachers gave private lessons and modeled musical skills on instruments in close proximity to band students where they could clearly see reactions or confusion in the students' faces. During COVID-era instruction, however, social distancing and mask wearing obstructed these common interactions. Similarly, remote learning interfered with band students' usual activity of rehearsing and performing as a group. All of these changes made it necessary for bands to find new ways to participate in music making, to develop community, and to achieve performance and instruction goals. Etienne Wenger's (1998) social learning theory called Communities of Practice (CoP) provided a helpful framework for examining the new or altered ways in which band teachers and students engaged in meaningful practice during COVID-19. The components of CoP theory were

beneficial in terms of providing focus areas with which to begin analyzing band teachers'

and students' experiences during an unusual and unexplored time.

The foundation of Wenger's (1998) CoP theory is that learning occurs through

social participation. Social participation entails active engagement in the practice of a

community - in this case, the activities, objectives, and materials that form a high school

band classroom. The four components of CoP theory are community, practice, identity,

and meaning (Wenger, 1998). A *community* is where learning takes place and learners

develop a sense of belonging. Wenger's concept of a community goes beyond the

physical nature of a classroom, recreation center, or neighborhood, and extends to

communities that are "social configurations" with a belief that the community enterprises

are worthwhile and that participation can be recognized as competence (p. 5). *Practice* is

a social process where someone works with others who operate under the same

conditions. Wenger listed many aspects of practice that a learner would develop when

working in a community. These aspects include, but are not limited to, underlying

assumptions, shared world views, common language and symbols, and untold rules of

thumb (Wenger, 1998, p. 47). *Identity* is the self-perception of each member of a CoP, in

terms of how they define who they are. Identity is built over time as individuals

participate in a CoP and negotiate their trajectory, goals, relationships, and the "familiar

and unfamiliar" (Wenger, 1998, p. 149). *Meaning* is how a person finds value in

everyday practice as they interact with others and engage with "a multiplicity of factors

and perspectives" (1998, p. 53). A person is involved in a "constant process of

negotiation of meaning" with every experience (1998, p. 53). Community, practice,

identity, and meaning all occur in conjunction with, and are present in, a true CoP.

A CoP is a group endeavor that is characterized by practice and meaning-making. Wenger described three additional dimensions of practice that are present in a community: mutual engagement, joint enterprise, and shared repertoire. *Mutual engagement* is defined by collaboration, social complexity, and relationships. *Joint enterprise* is a negotiation of what will happen, when it will happen, and who will act or speak in various circumstances. Joint enterprise is also a shared goal or goals where the participants have a mutual accountability. Mutual accountability is characterized by the responsibility to participate fully and respond to others in the group so that the goals of the community can advance. *Shared repertoire* consists of the routines, words, gestures, ways of doing things, and concepts that "the community has produced or adopted" (Wenger, 1998, p. 83). For example, high school band students mutually engage in performing music and rely on mutual accountability as each individual is responsible for their instrument part. Band students have a shared repertoire; for instance, they understand musical terms and anecdotes from band events that those outside of the band community might not understand. Several researchers in music education have demonstrated how Wenger's theory can apply to music classrooms as communities of practice.

Wenger's Communities of Practice Theory in Music Education Research

Wenger's CoP theory has appeared in music education research in a variety of ways. Some scholars have discussed the fundamentals of CoP in terms of how well the theory applies to music education settings (Countryman, 2009; Miksza & Berg, 2013; Pellegrino, 2015). Countryman (2009) specifically looked at how well CoP fit the high school music setting, while Miksza and Berg (2013) used CoP as a relevant framework

for research on music teacher preparation. Kenny (2016) used CoP as a lens through which to examine three different types of musical communities, including a jazz, choral, and online community. Zaffini (2018) constructed a literature review on CoP in music education research and found value in CoP as a framework for music teacher preparation, especially in terms of the mentor-mentee relationship between novice and experienced music teachers. Several more researchers utilized CoP as a focus for research in music teacher preparation and professional development (Blair, 2008; Ilari, 2010; Kenny, 2014; Pellegrino, 2019). The rationale for using CoP as a suitable framework for music education scenarios is well-supported.

CoP theory has provided a focus to varied topics beyond music teacher preparation. One of the four main CoP components, identity, has been examined alongside music teacher identity development (Luebke, 2013; Partti et al., 2015; Pellegrino, 2014). The CoP concept of community appears in research constructed around songwriting classes, as researchers examine the balance between teacher-centered and more collaborative songwriting instruction in elementary and college classrooms (Hill, 2019; Muhonen, 2014). The musical communities that have been viewed under the CoP framework also are varied; researchers have attributed CoP characteristics to adult and community ensembles (Balsnes & Jansson, 2015; Bolden, 2012; Mantie, 2012), students working with professional musicians in music conservatories (Virkkula, 2016), and professional digital musicians (Partti, 2014).

CoP theory also has been applied to research in online music learning communities (Bell-Robertson, 2014; Bernard et al., 2018; Brewer & Rickels, 2014; Fitzpatrick, 2014; Kenny, 2013; Partti & Westerlund, 2013; Rickels & Brewer, 2017;

Waldron, 2011; Waldron, 2012). These researchers discussed positive examples of mutual engagement and social connection in virtual music communities, yet also described some unproductive scenarios of online communities. This research particularly applies to the use of CoP as a framework for the current study, because many high school bands utilized remote learning formats during the COVID-19 pandemic. These studies will be outlined further in Chapter 2.

Wenger published *Communities of Practice: Learning, Meaning, and Identity* in 1998, before many of the online classrooms and video chat options were available to teachers. In that book, Wenger included a virtual community as an example of a CoP. Wenger wrote, "Across a worldwide web of computers, people congregate in virtual spaces and develop shared ways of pursuing their common interests" (1998, p. 7). In Wenger's more recent 2009 book, *Digital Habitats: Stewarding Technology for Communities*, Wenger and colleagues discussed the technological platforms and tools available to businesses, schools, and other types of communities. As a theory, CoP has advanced and grown alongside virtual communities and remote learning. Chapter 2 contains a more thorough examination of Wenger's (1998) CoP theory and its applications to present-day music classrooms.

Need for the Study

As band teachers embarked upon the first full school year impacted by COVID-19, there were many unknown facets of the high school band teaching and learning experience. Band teachers and students attempted new methods of music instruction, new ways of communicating, and new ways of socializing. It is unclear what the short- and long-term repercussions of COVID-19 band teaching will be. Band teachers could adopt

some pedagogical strategies out of necessity that turn into positive and long-lasting strategies. Band students could gain a deeper knowledge of what they value about the band experience, or might come to rely on web-based resources in their music learning. With regard to the impact of COVID-19 on music education, there is a need to document music teacher and student perspectives and reactions to such a monumental event. The data in this study provide a record of the initial experiences, strategies, and emotions of high school band teachers and their students during a time of great change. Findings from this study will contribute to the first wave of COVID-related research in music education that undoubtedly will be released in the coming years. In the future, this study could serve as both an empirical and historical record by adding to literature on the first full school year in the age of COVID-19. Hopefully, the results of this study will provide information on how coronavirus-era education could shape new ways of teaching and learning music and will offer implications for the future of band education in the United States.

Purpose Statement

The purpose of this research was to examine teaching and learning practices in high school band classrooms that were modified due to COVID-19. I collected the perspectives of high school band teachers and their students in order to describe the opportunities and challenges of COVID-era classroom environments. I analyzed the data through the lens of Wenger's (1998) CoP theory in order to explore how the participants of a band classroom community negotiated the operation and values of band education. Guiding questions included:

1. How do high school band teachers approach, construct, and adapt to coronavirus-era music teaching?

2. How do high school band students receive, describe, and adapt to coronavirus-era music learning?

3. How do high school band teachers and students work collaboratively toward building social and musical connections in the coronavirus-era music classroom?

4. What aspects of coronavirus-era band education do participants believe will shape future music classrooms?

Definitions

Aerosol. An airborne particle that can stay suspended in the air for minutes or hours (NFHS, 2020a).

Asynchronous instruction. Digital or online learning activities that are not being delivered at the same time or in the same place. (Glossary of Education Reform, 2020).

Cohorting. Forming small groups of students within the student population of a school. Each small group conducts all learning activities within their group during the school day, in order to limit contact with the entire school (CDC, 2020e).

COVID-19 and Coronavirus. These terms will be used interchangeably to improve the flow of reading and interview questions.

Google Classroom. Free web service created by Google for schools to simplify creating, distributing, and grading assignments.

Hybrid instruction. Also known as blended learning. A classroom in which a mixture of in-person instruction and remote instruction takes place. Or learning that combines synchronous and asynchronous in-person and online instruction.

In-person instruction. A classroom in which the teacher and students are operating in the same room, and can speak to each other without the means of an electronic device.

Latency. A short period of delay between when an audio or other signal enters a system and when it emerges.

Mask-wearing. Safety recommendation to prevent the spread of COVID-19 by wearing a paper or cloth mask over the nose and mouth (CDC, 2020e).

Remote instruction. A virtual classroom in which the teacher and student are not in the same room and are communicating by means of an electronic device.

Social-distancing. Maintaining a space of at least 6 feet between each person (CDC, 2020e).

Synchronous instruction. Learning activities that are delivered at the same time but not in the same place, such as a video call with teachers and students in real time. (Glossary of Education Reform, 2020).

Wenger (1998) Communities of Practice Definitions:

> **Community.** A physical or digital space where learning takes place and learners engage in practice.

> **Identity.** The self-perception of each member of a community of practice, in terms of how they define who they are.

> **Joint enterprise.** Negotiation of what will happen and when it will happen by members of a community as they pursue a shared goal.

> **Meaning.** How a person finds value in everyday practice as they interact with others and negotiate their way in a community.

Mutual accountability. The responsibility to participate fully in a community so that the shared goals of the community can advance.

Mutual engagement. The collaboration, social interaction, and relationship-building of members of a community.

Negotiate. The process in which members of a community question, adjust, and re-evaluate their learning.

Practice. A social process where learners work with others who operate under the same conditions.

Shared repertoire. All the routines, words, gestures, ways of doing things, and concepts that the community produces.

CHAPTER TWO

LITERATURE REVIEW

This chapter contains a summary of literature that is relevant to the current study. Because coronavirus-era music education is a recent development (stemming from March 2020), there is a scarcity of published academic studies on the topic. Consequently, some of the literature presented in this chapter is in-progress, and a portion of the relevant information is drawn from journalism or online media. The inclusion of such material is an attempt to present current debates about coronavirus-era music teaching, with the understanding that peer-reviewed empirical research will follow in time. This chapter begins with the most recent empirical studies regarding COVID-19's impact on general education and music education. The second topic addressed in this chapter involves the traditional elements of public school band that have been affected by coronavirus and the coronavirus-related recommendations that exist for band classrooms. The third section focuses on the use of technology in band classrooms and includes a description of how technology use and remote learning have increased during coronavirus. The fourth section contains sources related to the social aspects of band that students might have to approach differently during coronavirus-era learning. The fifth and final section of this chapter contains a closer examination of Wenger's (1998) Communities of Practice (CoP) theory in terms of how band teachers and students can generate meaningful practice.

COVID-19 and Education in 2020-2021

Empirical data regarding COVID-19's impact on schools around the world began to appear in Summer 2020. Some of the initial literature focused on the potential

regression in students' academic and emotional well-being. Alshehri et al. (2020) surveyed university-level teachers in Saudi Arabia, who reported that they had assessed only 40% of their course material before schools closed in March 2020. The teachers observed low student engagement during remote learning for the remainder of the spring semester (Alshehri et al., 2020). Katzman and Stanton (2020) surveyed undergraduate students at Harvard College in the United States. Due to substantial decreases in the students' self-reported physical and emotional health, the researchers recommended adding more social emotional learning activities to remote instruction (Katzman & Stanton, 2020). They suggested that incorporating more lessons in critical thinking, managing emotions, and dealing with conflict would be helpful for students during COVID-19 (Katzman & Stanton, 2020). Because this literature appeared before the Fall 2020 semester was underway, there were no examples of classrooms implementing social emotional learning in known research.

Researchers also observed problems of access during remote and distance learning (Katzman & Stanton, 2020; Kuhfeld et al., 2020; Nichols, 2020). Kuhfeld et al. (2020) examined data from absenteeism, summer vacation, and school shutdown around Hurricane Katrina to form projections of student progress during COVID-19. Kuhfeld et al.'s main concern was that students who had little access to WiFi and electronic devices would not be able to participate in remote learning, a problem that could widen the achievement gap in schools. Katzman and Stanton (2020) and Nichols (2020) expressed similar concerns and recommended that teachers design individualized instruction to involve more students during remote learning. For example, Nichols (2020) reflected on the difficulties of offering independent learning to large numbers of students, based on

their variable progression in Spring and Summer 2020. However, Nichols noted that students could advance at their own pace on self-chosen projects with only small amounts of encouragement and instruction from music teachers.

For PK-12 elective teachers of music and physical education, planning for COVID-era teaching required a time-consuming process of exploring new uses of technology and trouble-shooting technological glitches (Johnson et al., 2021; Joseph & Lennox, 2021; Salvador et al., 2021). Several researchers advocated for more teacher preparation resources and professional development, especially for technology use (Johnson et al., 2021; Joseph & Lennox, 2021; Kaschub, 2020; Webster et al., 2021) and remote grading and assessment (Daubney & Fautley, 2020). Thorgersen and Mars (2021) found that music teachers supplemented school-provided professional development by utilizing online learning communities in order to share resources with each other. The discussion posts on a Swedish music educator Facebook group included many conversations about technology, solving problems during COVID-19, and teachers' work conditions (Thorgersen & Mars, 2021). In reference to the potentially more demanding work conditions for music teachers during the pandemic, Wilcox (2020) recommended self-care strategies to avoid teacher burnout. Kaschub (2020) listed several ways for music teachers to prepare for continued remote teaching, and recommended that they analyze their typical classroom activities to determine which lessons could be redesigned for online classrooms. These researchers focused on the various technological aspects of teacher preparation for remote classes, which included examples of teacher collaboration as they prepared for COVID-era instruction.

Researchers examined music teachers' experiences at community music schools during COVID-19 (Koops & Webber, 2020; Salvador et al., 2021). Koops and Webber (2020) interviewed 11 caregivers of children enrolled in an early childhood music class at one community music school, after the class had switched to a remote format. The caregivers expressed concerns that remote learning hindered their children's ability to socialize with others, and the music teacher also noted that the loss of peer interaction was a constraint during remote learning (Koops & Webber, 2020). Salvador et al. (2021) collected surveys from administrators, music teachers, parents/caregivers, and students at two community music schools. The music teachers explained that their preparation for remote classes and private lessons was labor-intensive because of the extra learning curve in technology and in creating supplemental online resources (Salvador et al., 2021). Despite the additional preparation, the community music schools had lower enrollment overall after switching to remote instruction (Salvador et al., 2021). While many caregivers and adult students were happy that music classes were still being offered, they believed that forming a social connection was more difficult online (Salvador et al., 2021). Overall, Salvador et al. (2021) found that virtual music learning could be convenient and flexible, especially for music students who lived far away, but that remote learning did not work well for group ensembles or classes.

Two recent studies featured primary and secondary music teachers' strategies in the COVID-era music classroom (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021). Calderón-Garrido and Gustems-Carnicer (2021) surveyed 355 K-12 music teachers in Spain, where instrument learning and group performance came to a standstill as schools switched to virtual learning in April 2020. The music teachers planned remote

lessons around music listening, composition, artist presentations, and fun musical activities to do with family members (Calderón-Garrido & Gustems-Carnicer, 2021). Music teachers in Spain and the United States also utilized preexisting videos and software when planning their lessons, such as YouTube and MuseScore, and incorporated a variety of technology into lessons on music history and music theory (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021). Given the lack of ensemble playing, there was an increased focus on individual musicianship in the form of remote private lessons and assignments using software to grow music literacy and listening skills (Hash, 2021). Thornton (2020) celebrated music teachers' creativity and applauded the music community's efforts, from music companies who provided free subscriptions to music learning software to music professionals who offered remote guest lectures. Despite the small amount of currently-available published research, it seemed that music teachers were developing a large variety of ways to teach during COVID-19.

Initial research contained several focal points about the experience of learning and teaching during COVID-19. Cumberledge (2021) surveyed collegiate marching band students at 10 universities and found that modified instruction during the pandemic affected students' sense of community and togetherness. Primary and secondary music students struggled with access to remote learning and staying motivated outside of physical classrooms (Alshehri et al., 2020; Katzman & Stanton, 2020; Kuhfeld et al., 2020; Nichols, 2020). Several researchers identified music teachers' increased stress and need for additional preparation time for remote and hybrid classes (Johnson et al., 2021; Joseph & Lennox, 2021; Salvador et al., 2021). During the pandemic, band, choir, and orchestra teachers often taught versions of classes that did not involve instrument-playing

or large ensemble rehearsals (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021).

As COVID-19 continued to impact music education strategies from Spring 2020 to

Spring 2021, music teachers and students potentially responded to the changes by finding

different ways to communicate and approach music instruction.

Coronavirus and the Band Classroom

The coronavirus pandemic impacted many of the traditional elements found in

secondary school band classrooms. High school band programs typically include large

ensemble classes such as marching band, concert band, and jazz band (Elpus & Abril,

2019; Kelley & Demorest, 2016; Kelly & Heath, 2015; Pendergast & Robinson, 2020).

Related band activities can include pep band at sporting events and school assemblies,

concerts or other live performances, and instrument section rehearsals. Typical objectives

in high school band classrooms focus on student leadership (Goodrich, 2007; Hruska,

2011) and competition at regional or state levels (Hash, 2012; O'Leary, 2019; Silveira &

Silvey, 2020). Depending on school size, these and other band-related activities presented

difficulties given coronavirus-era recommendations against large group meetings. For

example, student leadership could be difficult during COVID-19, because students who

work closely together can spread the virus to each other. Band competitions were largely

not possible because of the difficulties involved in travel and group performance during

COVID-19. Additionally, playing wind instruments presented a problem in spreading an

airborne virus such as COVID-19. The majority of these typical band activities are reliant

on a community of band members working and learning together in the same space. As

coronavirus safety recommendations were implemented, band teachers likely continued

to look for ways to provide typical band instruction while protecting band students.

Research related to health and safety procedures for music classrooms began to emerge in July 2020. The first large-scale study on coronavirus-containing aerosols was conducted by researchers from the National Federation of State High School Associations (NFHS), the College Band Directors National Association (CBDNA), the University of Colorado Boulder, and the University of Maryland. The researchers measured the potential spread of COVID-19 in music and drama classrooms in a study called the International Coalition of Performing Arts Aerosol Study (NFHS, 2021; 2020). The purpose of the study was to draw conclusions about aerosol spread in performing arts activities when considering masks, distance, time, airflow, and hygiene. Preliminary findings were released on July 13 and August 6, 2020 (NFHS, 2020a; 2020b). A third round of findings was published in December 2020 (NFHS, 2020c). The researchers measured aerosol spread as participants in the study sang, performed a monologue, and played flute, oboe, clarinet, saxophone, bassoon, trumpet, French horn, trombone, euphonium, and tuba. The researchers also measured aerosol spread with the instrument bells covered or uncovered, when the performer was wearing a mask or not wearing a mask, and when the performer was inside or outside. In agreement with guidance from the Centers for Disease Control and Prevention (CDC), the researchers recommended that performers should wear masks at all times and should physically distance with 6x6 feet around performers or 9x6 feet around trombone players given the length of the trombone tubing (NFHS, 2020a). The researchers also proposed that wind instrument players use masks with small openings for their instrument mouthpieces. The preliminary findings included advice for an indoor rehearsal length of 30 minutes followed by the length of time needed for at least one full HVAC air change before the next rehearsal (NFHS,

2020a). If rehearsing outdoors, rehearsal should be followed by 5 minutes of no performance time to allow residual aerosols to clear. With regard to hygiene, the researchers suggested that instrument water keys should be emptied onto absorbent pads, rather than onto the floor (NFHS, 2020a). The National Association for Music Education (NAfME) publicized the study and added detailed cleaning information for individual instruments (NAfME, 2020a).

Another round of findings was released on April 21, 2021 (NFHS, 2021a; 2021b). In this follow-up, researchers proposed 60-minute outdoor rehearsals and emphasized that the CDC's updated guidelines allowing 3 feet of distance between students was not safely applicable to band, choir, or drama (CDC, 2021; NFHS, 2021b). The second round of information included specific types of masks and material for instrument bell covers, and contained a reminder that all of the recommendations needed to be followed in order to mitigate transmission of COVID-19 (NFHS, 2021b). The research team released an article containing the measurements and simulations they conducted during the study, and final completion of the aerosol study is scheduled for December 2021 (Wang et al., 2021).

The recommendations from the above aerosol study were implemented to varying degrees in band programs around the United States. Band teachers could utilize the aerosol study as a resource to share with their school administrators in order to set up their coronavirus-era classroom for the 2020-2021 school year (NFHS, 2020a). As of August or September 2020, some band teachers were charged with restructuring their classroom routines to incorporate the recommendations for physical distancing, mask-wearing, and air filtration systems. The CDC also released recommendations for music

classroom set-up to encourage the safety of music teachers (CDC, 2020e). Not all band classrooms in public schools in the United States may have been able to fully implement these recommendations, however. Some band programs had limited resources in terms of budgets and classroom space. Limited resources might have caused some schools to leave old HVAC systems in place while implementing other safety recommendations such as sanitizing surfaces, social distancing, and mask-wearing (Ujifusa, 2020). In other cases, school districts and band programs may not have implemented all the safety recommendations due to state policy, regional policy, community pressure, or a lack of decision-making. In areas with a high number of COVID-19 cases, band programs may not have implemented the aerosol study's recommendations because they were holding fully remote instruction. The learning formats that school districts adopted in the United States are defined next in order to further describe the variety of approaches to education during COVID-19.

Several different formats for music classrooms were employed around the United States during the pandemic (College Orchestra Directors Association, 2020). These formats included but were not limited to, (a) in-person instruction where band teachers applied coronavirus safety recommendations to an otherwise typical classroom in which the students still engaged in ensemble music-making; (b) hybrid instruction where band teachers simultaneously taught a smaller number of in-person students along with remote students online; and (c) remote instruction, where band teachers taught a fully online class. In some instances, band teachers were able to choose their preferred classroom format based on their students' and their own health needs. However, COVID-19 case numbers in a region could rise or fall quickly, and band teachers may have transitioned

through several formats during the 2020-2021 school year due to changing district policies or changing numbers of positive cases within the school. Changing formats could require band teachers to alter instructional plans constantly, interrupt scheduled learning units, and replace in-person lessons with online lessons. The variety of instructional formats that were implemented in response to COVID-19 might have presented difficulties for band teachers and band students as they adapted to multiple modes of learning.

Technology in Music Learning

Coronavirus-era education expanded many music teachers' use of technology as they explored methods to engage music students in remote and hybrid formats. Remote and hybrid band instruction presents logistical, technological, and social challenges. One technological difficulty is that remote band classes do not allow for typical large ensemble rehearsal, because a large number of musicians are unable to play their instruments through their personal devices and hear the full ensemble sound. The audio deficiencies of Google Meet, Zoom, and other video conferencing programs create pauses, skips, and latency in sound quality when musicians play at the same time. A remote band format can include the playing of instruments in a private lesson setting, music lessons that focus on music appreciation, or other features depending on how the band teacher approaches classroom planning. A hybrid band format could include some in-person musical instruction with or without wind instruments supplemented by virtual communication and assignments that could be completed remotely. For band teachers, finding ways in which to engage remote or hybrid students both musically and socially may have been one of the main challenges of COVID-era teaching. This section contains

an overview of literature on technology use in music learning and outlines the challenges of remote band instruction in more depth. A specific focus was placed on how technology has been utilized for remote learning, hybrid learning, distance learning, and independent learning, as well as how technological tools have been used to supplement in-person music classrooms.

Remote Delivery of Music Instruction

Remote delivery of music instruction is characterized by individual or group learning where the teacher, students, or both are communicating through an online medium. Remote music instruction can take place through simultaneous video conferencing, pre-recorded video or audio presentations, or lessons and assignments posted to an online classroom. Video conferencing through Skype, Zoom, or other video chatting software has been one of the main modes of technology used for remote music instruction. Researchers have examined the experiences of music teachers and music students in these online formats (Denis, 2016; Duffy & Healey, 2017; Dye, 2016; Enloe et al., 2013; King et al., 2019; Kruse et al., 2013; Rofe et al., 2017a; Stevens et al., 2019). For example, Duffy and Healey (2017) and Dye (2016) explored the interaction of a music teacher and student in remote private lessons, while other researchers analyzed the possibilities of expanding music offerings for classes in rural schools through a remote teacher (Denis, 2016; King et al., 2019; Stevens et al., 2019). Through a combination of survey responses and journal entries from both virtual teachers and students, Enloe et al. (2013), King et al. (2019), and Stevens et al. (2019) found that remote music instruction was a viable and often enjoyable learning format for students and teachers. However, Denis (2016) and Duffy and Healey (2017) reported that technological issues interfered

with the teachers' and students' abilities to see and hear each other, and that budget constraints resulted in a lack of available technological resources.

Rofe et al. (2017a) and Kruse et al. (2013) presented findings that could be applicable to the technological and social challenges of coronavirus-era music education. Rofe et al. (2017a) examined several student orchestras to determine the success of their telematic performances, and found that fixing the technological issues, such as audio lag or latency, required the creation of new software. Kruse et al. (2013) explored the process of remote piano lessons via Skype at the university level. While issues such as latency still existed, the piano teacher and piano student were successful in communicating with each other and playing for each other. Additionally, the piano teacher and piano student already had developed an in-person relationship prior to the start of remote lessons, which may have influenced the success of the remote lessons. This result has implications for coronavirus-era teaching, as it may be easier for band students who already are familiar with the band teacher to learn remotely while freshmen or new students could have more difficulty forming a productive relationship with the band teacher.

Remote learning experiences also occur when individuals pursue a learning goal by searching for virtual resources. Several researchers have explored the benefits and challenges of self-led learning with Internet resources and online learning communities (Kruse, 2013; Kruse & Veblen, 2012; Seddon & Biasutti, 2010; Waldron, 2009; Ward, 2019). Seddon and Biasutti (2010) recognized that pre-recorded music lessons and an autonomous learning environment allowed undergraduate students to progress at their own pace and to review previous lessons. Through a content analysis of online instructional videos for banjo, fiddle, guitar, and mandolin, Kruse and Veblen (2012)

discovered that the majority of videos were tailored for beginners, contained modeling of instrument playing, and the guitar videos often included supplemental resources for continued learning. The large number of instructional videos available online may benefit music students, but Kruse (2013) also explained how the process of learning to play mandolin through online resources required self-motivation that was strengthened by finding tutorials with engaging teachers. Waldron (2009) and Ward (2019) discussed the potential for adults to learn specific genres of music and to socially engage in online learning communities. They recommended that music classrooms incorporate online learning communities as a way to provide more meaningful, richer experiences for music students (Waldron, 2009; Ward, 2019). The possibilities of creating a social connection and meaningful learning via remote technology are valuable for coronavirus-era music education when in-person learning is not an option.

There is a scarcity of studies that involve the type of remote music instruction as found during the COVID-19 pandemic, where the teacher and multiple students are separated into individual spaces, such as their own homes. With the exception of the few COVID-era studies described earlier, research on remote music learning has either involved a group of students in the same classroom taught by a virtual guest artist or teacher (Denis, 2016; King et al., 2019; Rofe et al., 2017a; Stevens et al., 2019), private instruction where both the teacher and one student were remote (Kruse et al., 2013), or independent learning where the student finds resources, friends with similar learning goals, or teachers online (Kruse, 2013; Seddon & Biasutti, 2010; Waldron, 2009; Ward, 2019). Rofe et al.'s (2017a) study on remote orchestras is the only known research example of virtual large ensemble rehearsals, and new software had to be created so that

the ensemble could rehearse in real time. This lack of research is likely because audio capabilities through mainstream video conferencing methods do not yet allow for a synchronous remote rehearsal by school bands, orchestras, or choirs. Remote music instruction in public schools is relatively unexplored, though as evidenced by the above studies, the use of technological tools utilized by in-person music classrooms has grown over the last 17 years. Hybrid music instruction, where music classrooms combine in-person and remote students and activities, is discussed next.

Hybrid Delivery of Music Instruction

The hybrid instructional format (also termed blended instruction) integrates both in-person instruction and remote instruction. There are many potential variations of hybrid instruction; students might be in-person the majority of the time with supplemental materials located online, or the students might learn remotely with few in-person meetings (Basham et al., 2013). PK-12 and post-secondary students who are independent learners and able to self-motivate tend to be more successful in hybrid formats (Lei & Lei, 2019; Pulham & Graham, 2018). Kuo et al. (2014) found that extroverted graduate students were more satisfied with their experiences in blended learning courses than introverted students. Lei and Lei (2019) provided an extensive list of the potential benefits and drawbacks to hybrid learning. Hybrid learning offers great potential for student differentiation and flexibility, but the less formal structure can cause problems with student consistency and participation (Lei & Lei, 2019). In any hybrid instructional format, access to WiFi and understanding instructional software are paramount. Multiple researchers have recommended further professional development in hybrid teaching for teachers at all grade levels (Basham et al., 2013; Pulham & Graham,

2018). The use of technology-based tools has become more prevalent in music classrooms, and these materials are described further in the next section.

Types of Classroom Technology Use

Different types of technology increasingly have been used for supplemental or assisted learning in music classrooms. Researchers have found that tablets, smartphones, and applications, or "apps," have been helpful in developing listening skills (Veloso et al., 2019), accessing audio recordings for imitation and arranging (Wallerstedt & Hillman, 2015), and helping students to review classroom lessons (Guillén-Gámez et al., 2018). Herrera and Hayes (2014) and Kerstetter (2009) both recommended the use of podcasts in music classrooms as a way to share new information, to present guest speakers, or as a method for students to create their own presentations about music topics. While there are many reported benefits of these technologies as a way to engage students, there are concurrent challenges. Without effective management and motivation, students can use digital devices like tablets and smartphones to access distracting materials online (Guillén-Gámez et al., 2018) or can lose interest in electronic instruments (Kang, 2018). As Brader (2009) noted, synchronous technical support is needed in classrooms that are implementing new technology, and due to lack of resources, training, and understaffing, adequate support rarely is available. In addition, music teachers can struggle to incorporate new technology successfully because of a lack of professional development options (Bauer et al., 2003; Reese et al., 2016). Bauer et al. (2003) and Dorfman (2016) suggested that music teachers would need regular professional development sessions on technology use, and Reese et al. (2016) concurred that a short time span, such as 2 weeks, was not enough to become comfortable using iPads in the classroom.

Despite the apparent challenges in incorporating technology into the music classroom, technological tools present intriguing opportunities for learner-centered processes, increased access for non-traditional music students, collaboration, and creativity. Schmidt-Jones (2018) studied an online course on composition and arranging that was offered to anyone aged 18-65. The online course was structured to respond to varied students' needs through inquiry-based learning and individual or group collaboration. Online learning was stimulated through audio, tablature, and notated versions of songs from multiple genres available on the Internet (2018). Researchers also have explored how technology-based music learning can engage non-traditional music students in performing, recording, and composing, in particular by using non-traditional notation (Schmidt-Jones, 2018; Williams, 2012). The creative processes of performing and composing have been enhanced by technology-based discussion and connection with others. Savage (2012) observed a 14-year-old guitar player engaging with other players online to collaboratively create and remix songs in a "social and cultural process" (p. 218). Similarly, Dobson (2019) described how two undergraduate students formed their own language to share technology-based composition ideas as they jointly created a film soundtrack. These examples of inquiry-based projects and technology-based communication methods could be increasingly relevant to public school music classrooms during the remote environment of coronavirus-era education.

High school band programs also have utilized the forms of technology described above. In a 2012 survey, 14% of high school principals indicated that a technology-based music class was an option for students in their school (Dammers, 2012). Secondary band teachers have explored the use of iPads for electronic sheet music, composing with

GarageBand, and creating chordal accompaniments (Dorfman, 2016). Band teachers also have used iPads as a tool in administrative capacities to maintain records and to evaluate students through electronic portfolios and videos of the students' playing (Dorfman, 2016). Band teachers have experienced the same challenges of implementing technology in the classroom as described in Guillén-Gámez et al.'s (2018) and Brader's (2009) studies, including difficulty monitoring the content that students are accessing and a lack of professional training in using iPads and other technology (Dorman & Dammers, 2015). Prior familiarity with using tablets or other technological resources potentially could benefit band teachers who are planning socially-distanced or remote lessons.

Online Resources for Band Teachers

YouTube, Facebook, and other online learning communities likely played a large role in the discussion and preparation of band teachers for coronavirus-era teaching, based on the large number and frequency of posts on band director forums (www.facebook.com; www.youtube.com). YouTube offers a constantly renewing list of tutorials for music teachers who are teaching lessons via Zoom, Google Meet, Skype, and other video chat methods, or who are posting music lessons on Google Classroom. Many of these videos are published by helpful teachers, while other videos are published by commercial channels with hundreds of thousands of viewers (Music Repo, 2020). Technology-related discussion topics and pleas for help are posted regularly on numerous Facebook groups, such as Google Classroom for Music Teachers, iBand Directors, E-Learning in Music Education, Music Teachers, International Music Teachers EXchange, Band Directors, and Music Educators - Looking Ahead (www.facebook.com). Brewer and Rickels (2014) published a content analysis of the Band Directors Group on

Facebook that listed repertoire selection, instrument recommendations, and rehearsal strategies as the most commonly discussed topics among group members. Currently, the need for remote music teaching guidance or technology-related advice might have surpassed some of the topics that Brewer and Rickels (2014) listed.

Additionally, universities and professional music education organizations have hosted several webinars designed to help music teachers prepare classes during COVID-19. The University of Southern Maine School of Music hosted a virtual conference series between April and June of 2020, with sessions on remote curriculum design, strategies for teaching online, and ideas for preparing preservice music teachers to teach during COVID-19 (University of Southern Maine, 2020). NAfME and the National Association of Music Merchants (NAMM) hosted a webinar in March 2020 called "Bridging the Gap: Teaching and Learning Music Online Webinar" and reported that approximately 8,000 music teachers registered to watch the event (NAMM, 2020a). NAfME, the NAMM Foundation, and other state music education associations have offered a continuous string of webinars and online articles related to music teaching during COVID-19 (NAfME, 2020; NAMM, 2020b; OMEA, 2020; TMEA, 2021).

Other online resources that consistently have been posted on Facebook pages include apps for creating or live streaming a group performance such as the Acapella or Upbeat apps, Facebook Live, and YouTube Live (apps.apple.com; upbeatmusicapp.com; www.facebook.com/formedia/solutions/facebook-live; www.youtube.com/live). The Acapella app allows anyone to create multi-frame videos where an individual or group records multiple musical tracks that can be combined and shared. Cayari (2018; 2020) has explored the creation of virtual ensemble arrangements that combine pre-recorded

tracks. Choral composer Eric Whitacre's virtual choirs are well-known examples of ensemble arrangements comprised of musicians' videos from around the world (Cayari, 2016). Other online resources for music teachers include (a) Flipgrid, a software used for video discussion; (b) Nearpod, a software that allows teachers to create interactive presentations; and (c) SmartMusic, a web-based music education tool for music practice and assessment (info.flipgrid.com; nearpod.com; www.smartmusic.com). Current Google searches yield long lists of online resources for music teachers containing links to web-based composition apps, music industry videos and interviews, and online seminars (Billboard Staff, April 2020). Music archives such as the Rock and Roll Hall of Fame's education-oriented site and music activity websites such as musictheory.net have been available online for over 20 years (Rock & Roll Hall of Fame, 2020; Musictheory.net LLC, 2020). The online resources discussed in this section are by no means an exhaustive list, but are meant to illustrate the growing potential of online tools for music teachers. It is still unclear how and to what extent band directors might use these tools in their current teaching settings.

Practitioner articles have been written on state music education association websites that address the difficulty music teachers face in continuing to engage students in music activities during the age of COVID-19. For example, NAfME and the Pennsylvania Music Educators Association published long lists of websites and online resources that music teachers could use to keep remote students interested in music (Fox, 2020; Perry, 2020). The independent news organization *Education Week* surveyed teachers about the growth of technology use during coronavirus (Bushweller, 2020). Teachers reported that their ability to use educational technology was improving and that

1:1 computing environments were becoming more common in schools, but that issues of equity, such as the availability of devices and high-speed Internet for low-income households, could be worsening (Bushweller, 2020). As the 2020-2021 school year proceeds, the use and availability of educational technology likely will continue to change.

Each of the preceding topics on technology use, including remote and hybrid learning, independent learning via Internet resources, and how tablets and other tools have been used in the music classroom to enhance instruction, are relevant to the current study. In remote and hybrid band classrooms, technology is used every day to connect students and teachers. In socially-distanced in-person classrooms, technology can be a useful tool to individualize instruction or to connect students in small group projects. Technology is one aspect of coronavirus-era music education that band students and teachers are navigating currently. The next section will describe student approaches to other band classroom characteristics outside of technological concerns that may have impacted student experiences as they proceeded through the coronavirus-era school year.

Student Negotiation of Music Learning

The idea of how band students negotiate music learning during coronavirus-era education is a central focus of the current study. As defined in the previous chapter, Wenger (1998) described the process of "negotiating" learning as the ways in which people question and adapt their knowledge and actions through interacting with others. Applied to the current study, negotiating is the process by which band students question, adjust, and re-evaluate music learning and music making. As students learn music together, they also navigate their own methods of interacting with other students and with

the teacher and form their own opinions of their musical capabilities. Some of the aspects of band learning and performance that rely on student negotiation and are impacted by coronavirus-era education include student-directed learning, student self-efficacy, social interaction, and student safety.

Student-Directed Learning

When students have opportunities to choose what and how they learn, they are engaging in student-directed learning (Çubukçu, 2012; Platz, 1994). Student-directed learning also has been called autonomous learning (Bonneville-Roussy et al., 2020) or student-led learning (Weidner, 2020). In band classes, student-directed learning can include students' choice over what music to play, activities that develop students' ability to problem-solve and fix musical errors, and students' choice over non-music activities such as how to structure a performance or how to work with others. Shieh and Allsup (2016) and Weidner (2015) recommended that band teachers provide opportunities for students to make self-directed musical decisions. As Weidner (2015) observed, creating a safe and supportive environment for student decision-making can establish musical independence as a long-term outcome of band. Student-directed learning can benefit students' sense of well-being (Bonneville-Roussy et al., 2020) and help students experience more psychological satisfaction through increasing student autonomy and competence (Evans & Liu, 2019). Pike (2015) provided more specific examples of how student-directed learning could benefit students' musical growth. Pike conducted a case study of remote piano lessons taught by three undergraduate music students and noticed that the virtual format afforded the 10 participating students more autonomy. Because the piano teacher was not physically present and could not adjust the sheet music or the

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student's posture and hand position, the piano students often took responsibility to write notes in their sheet music and to apply aural skills to adjust correct notes and tone quality without the teacher's instruction. While both the teachers and students struggled with the technological details of remote learning, such as camera position and audio quality, Pike found that the remote format empowered the students to take ownership over their learning. Thorgersen and Zandén (2014) conducted a study of 12 undergraduate students who were tasked to learn a new instrument with only Internet resources. Similar to the undergraduate teachers in Pike's study, the undergraduates in Thorgersen and Zandén's study also confronted technological issues. In this instance however, the students showed low engagement with online learning communities. Thorgersen and Zandén surmised that the students potentially were too accustomed to traditional, teacher-led modes of learning to take control over aspects of their own goal-setting and musical development. In the current study, the socially-distanced and remote formats of coronavirus-era education could generate opportunities for student-led learning, though these opportunities also depended on how the music teacher structured lessons that allowed students to make their own musical and learning decisions.

Student Self-Efficacy

Another factor that could be shaped during the pandemic is student self-efficacy. Student self-efficacy is defined as students' belief in their ability to influence events that affect their lives (Bandura, 2010). The concept of self-efficacy is relatable to students' internal motivation as found in self-determination theory (Evans, 2015; Renwick & Reeve, 2012). Schmidt (2007) conducted a survey of middle and high school music students and found that the students' belief in their ability to succeed or fail was primarily

internal. The results of Zelenak's (2015) questionnaire indicated that the main influencing factor on middle and high school music students' self-efficacy was their mastery experience. Mastery experience is an individual's history of succeeding or failing in certain tasks and is another internal component of self-efficacy (Zelenak, 2015). Hewitt (2015) asked secondary students to rate their belief in their ability to play musical excerpts, and Schmidt (2007) surveyed secondary students about several motivation constructs including self-efficacy and group efficacy. Music students in both studies considered their own capabilities, such as their own effort and musical ability, rather than blaming external factors for failure (Hewitt, 2015; Schmidt, 2007). Rojas and Springer (2014) studied the impact of adverse conditions on students' self-efficacy and emphasized that students' internal conditions were the main challenges to self-efficacy. The internal conditions that Rojas and Springer listed included students' feeling sick, tired, hungry, or overwhelmed with too much work. These internal feelings hindered the students' ability to self-regulate their music practice (Rojas & Springer, 2014). Although the above researchers found that students' self-efficacy primarily was influenced by internal feelings and beliefs, the introduction of a substantial external factor like COVID-19 could influence how music students perceive their ability to succeed and the band community's group efficacy.

Social Interaction

Social interaction and group collaboration are commonly-accepted attributes of participation in school-based ensembles. Social interaction is also fundamental to learning in a CoP (Wenger, 1998). Participation in band, choir, and orchestra typically includes forming personal relationships, working together in small and large groups, and

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spending a prolonged amount of time together during rehearsals, concerts, festivals, and travel both during and outside of the school day. According to researchers, the social components of ensemble participation include emotional support, developing friendships, and a sense of belonging to a family or community (Campbell et al., 2007; Matthews, 2017; Parker, 2018). Middle and high school music students have described how band and choir participation has resulted in increased self-knowledge and self-confidence (2007; 2018). Salavuo (2008) discussed how the use of social networking platforms and online communities could enhance the CoP that already exists in music classrooms. Although coronavirus safety guidelines might not have allowed for usual forms of group rehearsal or social activity, band teachers and students in socially-distanced or remote scenarios could begin to develop a new sense of community that builds on their existing relationships. Social interaction requires continuous negotiation on the band students' part, especially during COVID-19 when students might feel isolated.

Student Safety

Another aspect of coronavirus-era learning that might have affected students' emotions and actions was whether they felt safe in the classroom. Band that was held in-person during coronavirus may have caused students to feel anxious about the proper implementation of safety guidelines. While no known research exists that measured student stress levels while learning during a pandemic, there are sources on the causes and remedies for childhood stress and anxiety. In the field of childhood education, researchers have studied emotional management therapy (Kearny et al., 2014) and have emphasized safety, attachment, and consistency in a child's environment in order to lessen the impact of chronic stress (Swick et al., 2013). In the field of music education,

researchers explored how music teachers were able to construct learning spaces that promoted student well-being and students' ability to cope with stress (Edgar, 2017; Hendricks et al., 2014; Matthews & Kitsantas, 2007; Nogaj, 2020). Music teachers can assist students by creating a supportive environment in which each student is treated as a unique individual, thereby demonstrating that the music teacher recognizes and cares about each student's safety (Hendricks et al., 2014). In stressful situations, secondary music students can benefit from focusing on task-oriented coping strategies and personal goals (Matthews & Kitsantas, 2007; Nogaj, 2020). Band teachers can promote these strategies by checking on students individually, using class time to practice safety recommendations, and planning task and goal-oriented activities in the classroom. Coronavirus-era education has presented previously unheard-of difficulties; however, these strategies may have been enacted by both band teachers and students during the pandemic.

In summary, COVID-19 could affect student-directed learning, student self-efficacy, social interaction, and feelings of safety for band students. Wenger's (1998) CoP theory could be used as a viewpoint that illuminates these aspects of band education in coronavirus-era education, particularly with regard to the social and collaborative learning processes that take place in music classrooms. Applying Wenger's theory as a framework also provides a working foundation with which to study a new and unpredictable topic like band learning during a pandemic. The theoretical background of Wenger's (1998) CoP theory was introduced in Chapter 1. The next section will describe how researchers have examined Wenger's concept of meaningful practice to music classrooms.

Meaningful Practice in the Band Classroom

Meaningful practice is manifested in band classrooms through the interactions of band teachers and band students. Wenger's (1998) CoP theory is a viable framework to illustrate these meaning-making interactions, as demonstrated by the various music researchers cited throughout this section. The basic premise of a community of practice is that the process of learning occurs through group activity (1998). Members of a particular group share a common interest and develop skills related to that interest through interaction. In the process of learning, they create their own meaning - what participation in the group means to them and what intrinsic value participation in the group carries. High school bands are characterized by small and large group activity where students from several grade levels develop analytical, musical and social skills. High school band students can find meaning in the processes of rehearsing as a group, learning from each other, and growing as musicians and people. There are multiple examples in music education research that use Wenger's (1998; 2002; 2009) CoP theory as a lens through which to explain the social interactions, joint learning, and meaningful experiences of music participation. The aspects of CoP that particularly are apparent in music education research are mutual engagement, joint enterprise, and the process of creating meaning. Wenger defined mutual engagement and joint enterprise as specific dimensions of practice, and meaning is created out of these dimensions.

Mutual Engagement

Mutual engagement in a CoP is defined by social complexity, navigating relationships, and working together to pursue similar goals (Wenger, 1998). Social complexity is created by the interaction of new and experienced members of a group,

where new members develop knowledge of how they are expected to act by observing experienced members. All group members navigate relationships as they form their identities as group leaders or group followers, or as they develop closer friendships with some group members. The members of a CoP interact, hear each other's stories, learn from and with each other, and learn through formal and informal activities (Wenger, 2009). Formal activities are organized or guided by a leader in the community, while informal activities arise naturally from any member, usually through discussion with one or more other members (Wenger, 2009). Mutual engagement is not always harmonious; there can be tension and conflicts between community members as diverse individuals work to establish themselves in different roles in the group (Wenger, 1998). Applied to a music setting, music classrooms are filled with aspects of mutual engagement, as student musicians interact, create, and learn from each other, just as they can experience moments of tension when they disagree with each other or with the music teacher.

Several music education researchers have described the mutual engagement dimension of CoP in both online forums (Bell-Robertson, 2014; Bernard et al., 2018; Rickels & Brewer, 2017; Partti & Westerlund, 2013; Waldron, 2011 & 2012) and in-person settings (Morgan-Ellis, 2019). Bell-Robertson (2014) created an online learning community for novice music teachers to discuss their challenges and questions related to teaching. Music teachers used the online community as a discussion forum, and often felt supported emotionally by reading about other music teachers' similar experiences. In addition, the teachers felt a sense of accomplishment by acting as mentors for each other (Bell-Robertson, 2014). Music teachers also have utilized online learning communities for discussion and professional development through Facebook groups (Bernard et al.,

2018; Rickels & Brewer, 2017). Rickels and Brewer (2017) surveyed members of the Band Directors Group (BDG) on Facebook. The BDG members felt emotionally supported and a sense of "I'm not alone" while engaging in online discussion (Rickels & Brewer, 2017, p. 88). Bernard et al. (2018) examined The Music Teachers group on Facebook and noted aspects of mutual engagement, as the members learned from each other about class planning, classroom management, and best practices in music teaching.

Another characteristic of a CoP that Bernard et al. (2018) and Morgan-Ellis (2019) found was that members experienced the group at different levels. Members of a CoP can experience group participation at fluctuating levels, as they take a passive or active role in a group or leave and return to the group. As Lave and Wenger (1991) described, participants in a CoP can demonstrate varying levels of engagement. In many cases, peripheral participation can lead to full participation in a community. For example, in the Facebook Music Teachers group, participants had the choice to read discussion posts without commenting, to press the Like button, or to actively engage through commenting on the posts (Bernard et al., 2018), thereby participating at varying levels of engagement. Morgan-Ellis (2019) surveyed performers at old-time music festivals and found that revivalist old-time musicians were designated as "full" rather than "peripheral" participants if they demonstrated specific markers of old-time music learning, such as accumulating new tunes from jam sessions and learning from recordings rather than using notation and tablature (p. 52). An example of multiple levels of participation in a band classroom could be the changing roles of student leadership as new students become section leaders or drum majors.

Other music education researchers have identified aspects of mutual engagement in genre-specific online music communities (Partti & Westerlund, 2013; Waldron, 2011 & 2012). Waldron looked at two online learning communities, Banjo Hangout (2012) and Online Academy of Irish Music (2011), both of which offer online videos, sheet music, tutorials, and discussion forums for participants pursuing a common interest. These online learning communities were characterized by both formal learning activities, such as scheduled lessons or jam sessions, and informal learning activities, such as casually posting about the excitement a group member felt about learning a new piece (Waldron, 2011; 2012). Alternatively, Partti and Westerlund (2013) found properties of an online learning community that did not incorporate positive aspects of mutual engagement. In the Opera By You composing community, unseen moderators changed composers' musical segments and completed the piece without a large amount of member discussion (Partti & Westerlund, 2013). This lack of collaboration could indicate a missed opportunity for full mutual engagement (Wenger, 1998). Nonetheless, as described above, the music teachers and musicians in these learning communities regularly shared stories and worked collaboratively.

Joint Enterprise

Joint enterprise is a shared goal and a negotiation of what will happen in a CoP (Wenger, 1998). Mutual accountability is one characteristic of joint enterprise and is demonstrated when community members are responsible to each other in order to add to the learning experience. In music classrooms, mutual accountability can take many forms. Examples could include ensemble members who each need to practice their part in order to improve the group, music teachers who rely on each other to contribute to a

professional development event, or music students and teachers who work together to present a concert. Brewer and Rickels (2014), Cremata and Powell (2017), Kenny (2013), and Parker (2014) have isolated mutual accountability in their studies on music CoP.

As mentioned earlier, Brewer and Rickels (2014) conducted a content analysis of the posts in the Facebook Band Directors Group (BDG) from September to October 2012. While the BDG was a social community, the posts were often "professionally-tinged" and relevant to the members' work as band directors (Brewer & Rickels, 2014, p. 17). An example of a professional and useful document created within the BDG was the "Twice-Taught Repertoire List," which contained the titles of band pieces that teachers had deemed quality literature and had programmed on more than one concert (Brewer & Rickels, 2014). The BDG was enhanced by the group members' code of conduct, as they held each other mutually responsible for posting in a professional manner, and for participating in the creation of shared documents. Kenny (2013) also recognized the sense of togetherness created through the activities of an Irish traditional music online community. Participants who posted videos of their own fiddle, flute, and bodhrán playing and received comments in the online forum felt a sense of "we're in this together" (Kenny, 2013, p. 246). Participants also reported the desire for the online community to be more active, which demonstrated mutual accountability in their need for each member to participate fully in order to have a helpful and active learning experience. The dynamic of the group also changed as new members joined, and as members either began or stopped participating.

Cremata and Powell (2017) and Parker (2014) provided examples of mutual accountability as demonstrated by high school-age students. Cremata and Powell studied

an online music education community while Parker studied an in-person choir classroom. Cremata and Powell collected data from a sound engineering course that engaged 100 students in online collaboration. The students described a give-and-take process that taught them to recognize each other's skills in composition, arranging, or using digital audio workstations (Cremata & Powell, 2017). A quote from one student helped to demonstrate the quality of mutual accountability: "When my creative energies broke down, I simply let the other guy take over and vice-versa" (Cremata & Powell, 2017, p. 308). While Cremata and Powell did not fully utilize Wenger's CoP theory as a lens through which to view their results, they did comment on how networked communities could contribute to a group's sense of togetherness over time and across distance. Parker (2014) examined the process of social identity development in high school choir classrooms. Younger members of the choir learned from older members as they became familiar with the musical skills and accepted behaviors of the classroom community. Parker wrote, "Participants' responses indicated that they were expected to be accountable, take risks to support the group" (2014, p. 25). This finding showed how mutual accountability could correspond with group members' expectations, as the music teacher and fellow classmates critiqued newer group members or expressed their goals for the group. Parker noted that in this adolescent community, the choir members were full members who were both "social producers and social products in the world as they had constructed it" (p. 29).

The researchers discussed above demonstrated how mutual engagement and mutual accountability can be essential components of musical CoP. These examples also are indicative of some of the issues with mutual engagement and mutual accountability

that could arise in remote coronavirus-era band classrooms. Bell-Robertson (2014),

Bernard (2018), and Rickels and Brewer (2017) focused on the supportive relationships

of adults, and these findings might indicate that band teachers during the COVID-19

pandemic could rely on their fellow band teachers to create coronavirus-era teaching

strategies. In a partially remote and partially in-person classroom, band teachers and

students also might depend on each other to participate in different ways in order to

organize and make sense of a new band learning experience. Band students could claim

coronavirus-era restrictions as another factor that they have in common, and could

operate in a sense of "we're all in this together." Mutual engagement likely manifested

differently during the pandemic, as music classroom members interacted in socially-

distanced or remote ways. Mutual engagement and joint enterprise are inherent aspects of

a CoP whether the community is online or in-person, or whether the practice is structured

by a leader, teacher, or moderator. Mutual engagement and mutual accountability impact

community participants as they decide how participation in a CoP is meaningful in their

lives.

Creating Meaning

Participants of a CoP create meaning as a result of mutual engagement, joint

enterprise, and social interaction (Wenger, 1998). Wenger defined creating meaning as

"the process by which we experience the world and our engagement in it as meaningful"

(p. 53). The negotiation of meaning occurs individually, as each participant forms a

deeper understanding of the community's purpose. Meaning also is negotiated as a group

when participants develop relationships with each other, adjust group actions, and form

accepted beliefs. The negotiation of meaning is meant to include the process of

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"continuous interaction, of gradual achievement, and of give-and-take" (Wenger, 1998, p. 53). Wenger (2002) described more explicit examples of meaning by discussing how communities of practice operate in the business context. In large corporations, participation in a CoP can provide short-term, long-term, tangible, and intangible value (2002). Short-term value is demonstrated when community participants receive assistance from their peers on immediate problems (2002). Short-term value leads to long-term value, as peer interaction develops an ongoing practice that serves the organization's overall strategy (2002). Community participants experience tangible value, such as developing improved skills, and intangible value, such as experiencing a sense of belonging, trust, professional confidence, and forming meaningful relationships (2002). As Wenger wrote, "Even routine activities... involve the negotiation of meaning, but it is all the more true when we are involved in activities that we care about or that present us with challenges" (1998, p. 53). Essentially, the factors required for creating meaning in a CoP include group collaboration on a project that is both interesting and challenging to the people involved and where each participant has the potential to achieve. The process of negotiating meaning can be applied to high school band classrooms, where classmates work together to solve musical questions and where friendships are formed. Band members experience tangible value as they develop musical ability and intangible value as they develop personal attachments to musical pieces and collect memories from band class. The following group of studies highlights how music education researchers have explored meaning as negotiated by music students, music teachers, and adult musicians.

Waldron (2009) conducted a cyber ethnographic study by observing an online community of musicians focused on learning how to play Old Time music. Waldron

described the use of YouTube videos and their accompanying discussion posts as meaningful artifacts from the group participants, in particular because the artifacts existed outside of time and place. Waldron shared an example of a participant admiring a video and post made 7 months previously, which indicated how virtual artifacts could signify meaning to different groups of participants over time. People drawn to the group already were passionate about Old Time music, allowing the group to add meaning to a pre-existing interest. Fitzpatrick (2014) also conducted a study focused on a virtual CoP. During their student teaching seminar course, music student teachers used a blog to share resources and solve problems (2014). The student teachers created meaning through the negotiation of problems related to their student teaching experiences. The feedback and reassurance of their peers helped the student teachers develop a sense of togetherness and support.

Adderley et al. (2003), Bartolome (2013), and Parker (2016) explored music students' experience in creating meaning in middle and high school performing ensembles. While these authors did not cite Wenger as a framework, their studies provided clear examples of communities that form in school bands, choirs, and orchestras. Parker approached four public school choir classrooms from the perspectives of the choir teachers. The choir teachers found meaning in how they provided support and care for their students, and in how the choir members developed a sense of belonging. Parker suggested that communities are more collective than individual because of the communal sense of joy that accompanied choir performance. One choir teacher participant said, "When you produce something together, there is just a lot of joy" (Parker, 2016, p. 232). Bartolome (2013) interviewed the choir members and teachers of

an extracurricular community girls' choir in Seattle. The singers perceived the choir as a safe haven where they were able to express their emotions and develop their self-confidence. Choir members also enjoyed the respect of their peers and learning to work as a group. The community girls' choir was supported by dedicated music faculty and parent volunteers, which suggested that the adult participants found their own sense of meaning through providing a support system for the choir members' experience (Bartolome, 2013).

Adderley et al. (2003) addressed the "meaning and value that music ensembles engender for their participants" through the perspectives of high school students in band, choir, and orchestra (p. 190). Interviews revealed a long list of both musical and nonmusical benefits resulting from participation in school music programs. The participants valued the sense of accomplishment arising from learning musical skills and performing for audiences. They also felt that participation in music ensembles resulted in enhanced personal growth, such as responsibility, commitment, and self-confidence. The supportive classroom atmosphere created through friendships and by members who tended to "stick together" reinforced the most meaningful experiences (Adderley et al., 2003, p. 202).

The researchers in this section demonstrated how adult musicians (Waldron, 2009), music student teachers (Fitzpatrick, 2014) and music students (Adderley et al., 2003; Bartolome, 2013; Parker, 2016) created meaning by participating in music teaching and learning. Parker's (2016) suggestion that music communities hold more meaning for the group than for individual participants might have implications for music education during the COVID-19 pandemic, as music teachers and students may have felt less

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connected as a group during coronavirus-era education. On the other hand, music teachers and students might have united in their shared experience dealing with pandemic restrictions, because shared difficulties can cause community members to relate to and support one another (Fitzpatrick, 2014). Waldron's (2009) observation about the fluidity of time in online music communities also might apply to coronavirus-era learning because the typical school calendar, daily schedule, and assignment due dates likely fluctuated more than usual during the pandemic. Participation in band, choir, and orchestra can engender meaning for the students who participate in these school-based ensembles, though it is unclear how students retained or altered their negotiation of meaningful experiences during coronavirus-era music education.

Chapter Summary

The literature reviewed in this chapter outlined characteristics of pre- and post-coronavirus public school band, aspects of technology utilized in music learning, and attributes of Wenger's (1998) CoP theory. During a global pandemic, these topics took on a different meaning for band teachers and students. Remote and hybrid learning formats and new uses of technology in band classrooms are dependent on available resources and teacher preparation. Safety regulations have transformed how band teachers and students interact as individuals and as an ensemble. Music education researchers have used Wenger's CoP theory as a lens through which to describe mutual engagement, mutual accountability, and meaning-making as they exist in online and in-person musical communities. Emerging empirical research on how COVID-19 has affected music classes has introduced issues of student participation, access to technology, and an emphasis on individual music learning over group interaction.

However, there are few studies that utilize CoP theory as a framework for participation in high school band classrooms, and little research regarding the experience of teaching and learning in band classrooms during COVID-19. The current study was designed to explore how high school band teachers and their students negotiate coronavirus-era teaching and learning, and how they continue to engage in meaningful practice during an unpredictable and stressful time. Examining the experiences of band teachers and band students during this period could provide greater understanding of how participants navigated band teaching and learning, and how they made overall sense of the meaning of band during the current global pandemic.

CHAPTER THREE

METHODOLOGY

In order to describe the experience of coronavirus-era band teaching and learning from a variety of perspectives, I utilized a multiple case study method. Collecting data at three high schools in three states allowed me to hear from band directors and students in settings that were connected by coronavirus-era education but different in state response, district response, and classroom strategies. In this chapter, I explain the foundations of the multiple case study method, its suitability for this study, and the processes of participant selection, data collection, and data analysis. I also reflect on researcher bias, trustworthiness, and ethical considerations.

The purpose of this research was to examine teaching and learning practices in high school band classrooms that were modified due to the COVID-19 pandemic. Guiding questions included: (a) How do high school band teachers approach, construct, and adapt to coronavirus-era music teaching? (b) How do high school band students receive, describe, and adapt to coronavirus-era music learning? (c) How do high school band teachers and students work collaboratively toward building social and musical connections in the coronavirus-era music classroom? (d) What aspects of coronavirus-era band education do participants believe will shape future music classrooms?

Qualitative Research

Qualitative research is focused on "the meaning individuals or groups ascribe to a social or human problem" (Creswell & Creswell, 2018, p. 4). In qualitative research, the researcher's goal is to understand the individuals' experience and to describe that experience from the participants' point of view. The participants' point of view is known

as the "emic" or "insider's" perspective, which researchers attempt to portray without influencing the description with their own "etic" or "outsider's" perspective (Merriam & Tisdell, 2016, p. 16). Another main characteristic of qualitative research is its emergent nature (Creswell & Creswell, 2018). Researchers simultaneously collect and analyze data and generate new questions and procedures throughout the study.

Qualitative research combines multiple methods of data collection and several data analysis procedures in order to provide an in-depth understanding of the participants' experiences. Researchers conduct observations and interviews and collect documents, artifacts, and as many forms of data as possible to be able to describe the problem or phenomenon at hand. Stake (2006) noted, "The most meaningful data-gathering methods are often observational - both direct observation and learning from the observations of others" (p. 4). Researchers observe the setting and the participants' actions, interview the participants, and reflect on potential responses to the research problems throughout data collection. During the observation and interview process, researchers collect documents and artifacts as they relate to the participants' actions. In the music education setting, an example of a document might be teachers' lesson plans or students' assignments, while an example of an artifact might be a photo of the classroom or a musical instrument.

Data analysis in qualitative research generally includes researchers' observations and reflections in response to all the forms of data collected, as researchers seek to establish categories and themes (Creswell & Poth, 2018). Stake (2006) described the necessity of confirming themes across multiple forms of data, a process called triangulation: "Each important finding needs to have at least three (often more) confirmations and assurances that key meanings are not being overlooked" (p. 33).

Qualitative researchers analyze notes from observations, interview transcripts, and all other forms of data to find similar and different categories in a process called coding. In one of the many approaches to coding, a first step in data analysis is "open coding," where researchers are open to all categories and take note of any segment of data that might be useful (Merriam & Tisdell, 2016, p. 204). Open coding is followed by "axial" or "analytical" coding, where researchers begin to coalesce the large number of open codes (Merriam & Tisdell, 2016, p. 206) in order to choose and describe the final themes of the study.

There are several types of qualitative research, and while each type follows the basic procedures of data collection and analysis described above, each type has its own particular attributes that researchers structure to suit the research questions. A common type of qualitative research is the case study, which is used to explore the development of a specific person, place, or situation over time.

Case Study

A case study is a form of qualitative research that is used to examine a person, group, object, or phenomenon. In a case study, the researcher "explores a real-life, contemporary bounded system" (Creswell & Poth, 2018, p. 96). By studying cases that are current and in-progress, researchers are able to gather accurate and contextualized information (Creswell & Poth, 2018). Bounding the case by defining characteristics of the person or phenomenon being studied allows researchers to identify the cases that are best able to provide information on the research problem. The cases in the current study contained authentic, ongoing information on band teachers' and students' experiences and were bounded by location and time.

Case studies are further categorized as intrinsic or instrumental. The intent of an intrinsic case study is to explore the case itself and to not go beyond the case (Stake, 2006). Researchers choose an intrinsic approach when the case is unique or unusual (Creswell & Poth, 2018). In contrast, the intent of an instrumental case study is to develop deep knowledge about the central object or phenomenon and to go beyond the case (Stake, 2006). Researchers choose one or more bounded cases to illustrate the issue at hand (Creswell & Poth, 2018). Because of the large number of high school band programs affected by COVID-19, the wider perspective of an instrumental case study was most applicable to the current study. Researchers often analyze several cases in instrumental case studies in order to compare and contrast different examples of the same issue. This method is known as multiple case study.

Multiple Case Study

In a multiple case study, researchers choose several representations of an object or phenomenon to explore. The object or phenomenon that is the central focus of the study is called the "quintain" (Stake, 2006). Although it is rarely possible to study every example of the quintain, qualitative researchers study the parts to learn more about the whole. Multiple case studies include all the forms of data collection and data analysis typically found in qualitative research, with additional procedures for data analysis that address each case equally. Observations, interviews, and documents from each case comprise the data, and the data are triangulated to check the validity of the findings. Researchers often will present a full description of each case along with the cross-case analysis in order to present their findings from the individual cases (Stake, 2006). After analyzing each case separately, researchers employ strategies for cross-case analysis in

order to find not only the similarities between cases but also what is "unique to each" (Stake, 2006, p. 39). The current study was a multiple instrumental case study in which three high schools were the cases, band directors and band students were "mini-cases" (Stake, 2006, p. 26), and the quintain was the impact of the COVID-19 pandemic on the cases. Because of the variation in how high schools and their music programs approached coronavirus-era education in the 2020-2021 school year, each case was described fully before the results of cross-case analysis.

Goodness of Fit

Qualitative research can be applied when a research phenomenon or question has not been investigated thoroughly or cannot be quantitatively measured. Qualitative research is exploratory and allows researchers' questions to evolve over the course of data collection rather than being "limited to research questions presented at the onset of a study" (Phillips, 2008, p. 12). In the current study, the future impact of COVID-19 on band teaching and learning was unknown, and the participants' responses could change as circumstances changed. Schools were adapting constantly to COVID-19 in terms of whether and how to offer in-person, remote, or hybrid instruction. The uncertain climate during the 2020-2021 school year, as well as the researcher's interest in describing teacher and student experiences in-depth, made qualitative research the most appropriate design for this study.

The multiple case study method further fit this study because of the abundance of potential sites. COVID-19 affected how schools operated across the United States, and, by extension, how band classrooms operated. By selecting cases in multiple locations, I was able to collect a wider perspective on the experiences of band teachers and their

students during the pandemic. The cases were bounded by the narrow focus on band in three public high schools, but each case was disparate because of the varied protocols that states and school districts implemented to meet the needs of education during the pandemic.

The COVID-19 Impact on Methodology

Health and safety issues during COVID-19 influenced some components of a typical multiple case study. Qualitative research practice generally includes in-person observations and interviews that are typically collected in a natural setting (Creswell & Poth, 2018). In the COVID-19 climate, in-person observations and interviews were not advisable or permissible at the research sites. All forms of data collection for this study, including obtaining signatures on consent forms, observing band classrooms, and conversing with participants was accomplished electronically via email, video conference methods (e.g. Zoom), or shared files on Google Drive. Nonetheless, conducting all observations and interviews virtually provided further perspective on the remote teaching and learning experience of COVID-19 classrooms and reflected how music learning was unfolding for participants in their natural settings.

There is precedent in qualitative research for remote data collection procedures. Merriam and Tisdell (2016) discussed the advantages and disadvantages of both synchronous and asynchronous online interviewing. Building rapport with the participant can be more difficult remotely than in-person, but communications technology tools are widely available (Merriam & Tisdell, 2016; Stewart & Williams, 2005). Conducting interviews virtually also can reduce or remove the need for travel, so that a researcher is not geographically constrained when sampling potential participants (Merriam & Tisdell,

2016). Stewart and Williams (2005) examined the effectiveness of conducting online focus group interviews and called attention to the difficulties of collecting consent forms, group moderating, and participant anonymity in remote formats. These and other ethical considerations are discussed later in this chapter.

Bounding the Study

Setting

The settings for this multiple case study were band programs in three public high schools. The high schools were located in suburban or urban areas of Ohio, Texas, and Colorado. The purpose in collecting data from three states was to gather perspectives from areas far enough apart to have been impacted differently by COVID-19 case counts and local government responses. The rapidly changing nature of reopening guidelines and school instructional formats from state to state made variation between the three sites likely. The sites themselves were an ancillary consideration in the sampling of participants (Merriam & Tisdell, 2016). I sought high school band teacher participants through a mixture of criterion-based selection and convenience sampling (Merriam & Tisdell, 2016). My criteria included participants who taught band at large high schools with more than 100 students in the band program. I focused on large high school bands because I was interested to see how substantial class sizes and the inclusion of marching and pep bands might present additional difficulties in adapting to coronavirus safety procedures and live performances. The size of the band programs did not necessarily mean that the school had more financial and technological resources than smaller schools or schools in rural areas, though this may have been the case. The settings and participants at each of the three sites are described further in Chapters 4-6.

Participants

The participants in this study were high school band teachers and their students. I continued to use criterion-based selection (Merriam & Tisdell, 2016). My criteria were teachers with over 5 years of experience teaching high school band who had been teaching at their current school for over 3 years. The experience and longevity of their positions indicated that the participants would be able to respond to coronavirus-era questions with the knowledge of how their pre-pandemic teaching years at the school had differed. Convenience sampling allowed me to reach out to band teacher acquaintances with whom I already have developed some rapport, an important distinction in the stressful teaching scenarios I was examining. I contacted potential band teacher participants through their publicly-available school email addresses with an initial short and friendly message. If the potential participant responded with interest, I emailed them the more extensive description of my study and a request to communicate with their administrator.

I used two-tier sampling to select band student participants at each of the three high schools (Merriam & Tisdell, 2016). Selecting the band teacher was the first tier, after which I sampled high school band students at each site. I invited all band students to participate in order to increase the variation of possible responses to focus group questions and to encourage comfort and rapport. There were no criteria that excluded any of the high school band students from participating if they chose to do so and their parents granted permission. This strategy aligned with Stake (2006), who specified that the primary criterion for selecting cases within each case was the opportunity to learn more about the quintain. My goal was to include at least 6-10 band students from each

site, which aligned with Merriam and Tisdell's (2016) recommendation for focus group size.

Data Collection

Multiple case studies are characterized by the researcher's collection of many types of data that are used to support emerging themes (Stake, 2006; Phillips, 2008). I conducted interviews as the main form of data and collected journal responses, documents, and field notes from classroom observations. Before any data collection began at a site, I discussed data collection procedures with the band teacher in order to avoid any conflicts with the school calendar and any unnecessary stress on the participants' part. I spent 3-4 weeks with each site, and at each site I conducted two teacher interviews and individual student interviews. At one site I conducted a student focus group interview. I also collected fieldnotes from three classroom observations and students' written responses for two journal prompts from each site. The specific procedures and rationale for collecting each of these forms of data are described below.

Observations and Field Notes

The band students knew my role as a researcher during classroom observations to the extent that the band teacher chose to introduce me. I observed rehearsal routine and teacher-student interaction remotely through Zoom. The camera was focused on the band teacher, though I viewed band students when they (a) approached the band teacher to ask a question, (b) were in the Zoom room with me as remote students, or (c) in the Colorado marching band rehearsal, when the camera was pointed at the students on the practice field. With the exception of the outdoor marching band rehearsal, I observed in-person, indoor band classes. My presence in the classroom was that of a computer placed near the

director, which minimized intrusion (Stake, 2006). I turned off my video and audio so that my movements or sounds would not distract the teacher or students.

I took field notes during each classroom observation. Merriam and Tisdell (2016) recommended that field notes should be highly descriptive and contain the researcher's reflections, reactions, and speculations. I took notes on a Word document where I typed my observations and reflections in relation to prompts based on my research questions. The observations included descriptions of the classroom, notes on the interactions between the band teacher and students, and notes on classroom adaptations due to COVID-19. Within 24 hours after each observation, I read through the field notes and added clarification questions for the band teacher and students. Clarification questions stemmed from difficulty hearing what the band directors and students were saying through the computer or from the band directors and students referencing classroom topics or assignments that required more description for me to understand fully. To complete my field notes, at the end of each week I added speculations on how the research problems were being addressed.

Interviews

I conducted three types of interviews during the study. First, I conducted two semi-structured interviews via video conference with the band teacher at each site for a total of six remote interviews. These interviews occurred at the beginning and end of data collection at each site and ranged from 30 minutes to 1 hour in length. The band teacher digitally signed a consent form prior to being interviewed. The first interview focused on the band teacher's preparation for the 2020-2021 school year and on their challenges and successes in teaching. The second interview regarded the band teacher's reflection of the

school year so far in terms of their interaction with students, unexpected aspects of teaching during COVID-19, and their plans for the future. Stake (2006) clarified that an interview should be more about the case than the interviewee. Accordingly, the majority of interview questions related to the research questions and to aspects of the coronavirus-era band classroom that represented a community of practice (CoP) (Wenger, 1998).

Second, I conducted one individual interview with each band student who demonstrated interest in participating via email or Google Form. All band students and their parents received a description of the study and digital consent forms prior to the individual interviews. The student interviews ranged from 24 to 35 minutes in length and focused on the student's participation in band, perspective of band during COVID-19, and self-perceived musical or academic growth during the pandemic. There were minor technical issues in audio or video quality during a few of the individual interviews, but these did not hinder data collection or building rapport with the participants.

Finally, I scheduled one focus group interview with band students at each site. Focus group interviews were conducted following the individual student interviews to ensure that each student who had completed the consent forms had the opportunity to participate. Each focus group interview took place outside of the school day, at a time I deemed most convenient based on the times the students selected for their individual interviews. Each student and their parent completed assent or consent forms prior to the interview using my university's secure survey system, REDCap. None of the participants communicated concerns regarding accessing and completing the forms. Anonymity was not a concern, because the students were informed through email that the focus group

would involve any classmates of theirs who were interested in participating. The students connected to Zoom from their devices at home.

The Texas focus group interview was the only focus group that included more than one student. The Ohio and Colorado focus groups consisted of only one student each. In these instances, I posed the focus group questions as an extension of the student's original individual interview. At the beginning of the Texas focus group interview, I read the brief description of the study to the students and let them know that they had a choice of whether to answer the questions and that their identities would be kept anonymous. The focus group interview was semi-structured and included questions about the band students' experiences with music-making during the 2020-2021 school year as well as their interactions with the band teacher and their peers. It is possible that the use of Zoom hindered the natural communication the students would have in-person; however, the focus group added valuable data to the current study.

Overall, I interviewed two students in Ohio, three in Texas, and four in Colorado. Of the nine students, three were in 9th grade, three were in 10th grade, three were in 11th grade, and three were in 12th grade. An additional three students joined the focus group interview in Texas, resulting in 12 total students. Five students identified as female and seven students identified as male. Seven of the 12 students were White, three were Hispanic, and the remaining two students conducted interviews with the Zoom video feature turned off.

I audio-recorded every interview with a Sony ICD-PX470 stereo digital voice recorder and made a back-up recording with a second audio voice recorder. I transcribed some interviews by hand and some using Temi.com's transcription service. Transcribing

by hand was necessary in the Texas focus group interview to identify each voice, and in some of the student interviews due to difficult-to-hear voices. The initial interview questions remained consistent across sites. I added questions as band teachers and students brought up new topics throughout the study.

Student Journaling

At each site, I provided two written prompts to all of the participating band students. The students received one prompt each week after enrolling in the study and completing consent and assent forms. The prompts were sent to the students' email addresses via REDCap, Case Western Reserve University's secure survey system. The students had a choice of whether to respond to the prompts, and their response could be any length. The first prompt asked the students to share their most positive and challenging experiences with coronavirus-era band class. The second prompt asked the students to share aspects of pre-coronavirus band they missed the most, and what aspects of coronavirus-era band they would like to keep in the future.

Documents

After completing classroom observations and interviews, I asked the band teachers to share documents of classroom activities that had been newly-implemented during COVID-19. The band teachers from two of the three sites provided examples of student work and/or assignment instructions. The third teacher did not respond to my request. These documents supplemented the other forms of data collection by further clarifying the band teachers' instructional goals and the band students' experiences.

Data Analysis

I followed Stake's (2006) multiple case study analysis procedures. According to Stake, "Researchers have some of the influence of contexts in mind at the outset of a study, but they need to be prepared for the subtleties of unexpected influence" (2006, p. 13). Stake encouraged researchers to find the balance between "underanticipating" and "overanticipating" while analyzing data, in order to not look so hard for answers to the research questions that other relevant themes are missed. As a first step in analyzing the data for the individual cases, I uploaded the collected data for each site into NVivo. I read through all the collected data without the research questions in mind and assigned codes to the participants' interesting stories or events. As a second step, I read through all the collected data specifically with the research questions in mind, and coded sections of the data that addressed the research questions. I then examined the resulting codes to create themes for each site based on the frequency and depth of the codes.

Stake (2006) provided worksheets for the researcher to use when synthesizing each case's codes and themes. I used Worksheet 5B from "Track II: Merging Case Findings" (see Appendix A) in order to synthesize the themes from each case (Stake, 2006, p. 58). First, I combined similar codes from each case in a process called merged findings (Stake, 2006). From this step, I identified which cases were most relevant to answering each research question. After merging the findings from each case, I created "tentative assertions" which are statements that explain one set of merged findings (Stake, 2006, p. 62). The final step was to examine how each assertion related to the quintain. Chapters 4-6 include the description of each case presented intact, followed by the cross-case analysis in Chapter 7.

Other authors informed my analysis for overall organization of data and coding during the single-case analysis. Creswell and Creswell (2018) recommended an organized sequence of steps to follow when analyzing data in qualitative research. The steps included organizing the data, reading all the data, coding the data, and using the codes to generate descriptions (Creswell & Creswell, 2018). Merriam and Tisdell's (2016) recommendations influenced my process for the initial rounds of coding. I completed several rounds of coding in NVivo and utilized open coding by making notes next to segments of the data that seemed interesting, unique, or relevant to my research questions (Merriam & Tisdell, 2016). Open coding assisted me during the two read-throughs of case data described above.

As discussed in Chapters 1-2, I used Wenger's (1998) CoP theory as the theoretical framework for this study. CoP theory informed the research problems and were used to develop the interview questions. Research problems 1 and 2 relate to Wenger's concept of negotiated learning, and research problem 3 contains aspects of mutual engagement and creating meaning. I used the interview questions to explore Wenger's concepts by inquiring about band teachers' pedagogical and community-building strategies, and band students' self-learning and musical learning during the coronavirus-era school year. Throughout data analysis, I identified sections of data that related to Wenger's concepts of negotiating learning, mutual engagement, and meaning.

Role of the Researcher

Reflexivity is a researcher's way of situating her own experiences that potentially can bias the study's findings (Creswell & Poth, 2018). I situate myself as an American, White, female music teacher with experience in teaching middle and high school band in

both rural and suburban schools. I was educated in public schools and participated in band in Grades 6-12 and through college. I taught at public schools in Colorado and Kansas and a private international school in Ecuador. I earned music education degrees at universities in Colorado and Texas, and substitute-taught in Ohio while pursuing a PhD. These experiences mean that I do have prior knowledge and predispositions about teaching high school band in the states that are represented in this study.

One of the reasons I was interested in the experiences of high school band teachers and students as they negotiated band teaching and learning during COVID-19 was my prior experience as a high school band teacher. As a Ph.D. candidate in music education, I have been removed from high school band teaching for 3 years. However, I found it impossible not to create hypothetical plans for the ways in which I would approach coronavirus-era band teaching. COVID-19 also impacted how I taught as a graduate teaching assistant at Case Western Reserve University. While teaching a guitar methods course, I experienced the challenges of engaging remote and in-person students at the same time in a hybrid model. I also observed how the large ensembles at my current university approached COVID-19 restrictions. The strategies that the university ensembles used included rehearsing as small chamber groups and pre-recording performances. These options might be available to a varying extent in public high schools, and I was curious to compare how large bands in public high schools were approaching rehearsals and performances.

Another reason that I was interested in this topic were the stories I heard from music teacher colleagues when the COVID-19 pandemic began in March 2020. COVID-19 presented extreme challenges to my peers' teaching environments and pedagogical

methods. I was interested in how unexpected benefits could arise from the difficult 2020-2021 school year. The changes implemented in response to COVID-19 could impact the use of technology in the band classroom, the ways in which band teachers and students interact, and the learning objectives that band teachers and students enact for years after COVID-19.

While my band teaching experiences helped me to generate rapport with the participants and understand their perspectives further, they also had the potential to influence my ability to analyze data in a non-biased way. During the course of data analysis, I strived to situate my experiences outside of the collected data. To underpin this endeavor, I implemented ethical data analysis procedures.

Ethical Considerations

Living during a global pandemic can be stressful, emotional, and difficult. In writing interview questions and approaching all communication related to this study, my goal was to protect the participants from any unnecessary harm. If the participants shared sensitive or personal stories as part of this study, I worked to describe them in a tactful way while keeping all identifying information anonymous. I was flexible in response to any of the participants' needs for rescheduling due to COVID-19, and did my best not to put undue pressure on them.

All names of places and people in this study were assigned pseudonyms in order to preserve anonymity. It was also necessary to store all study data securely in order to protect participants' information. Collected data were stored in Box, the secure file storage system at Case Western Reserve University. I removed identifying information from observation notes, interviews, and other data as soon as it was no longer needed to

organize the data. Identifying information will not be shared in any future discussion, presentation, or publication of this study.

The Institutional Review Board (IRB) at Case Western Reserve University received my application for the study, along with letters of cooperation from the high school principal at each site, interview questions, and journal prompts. IRB-approved procedures were followed during each step of the study. The band teachers and parents of band students received consent forms, and the band students under the age of 18 received assent forms. The consent and assent forms included a description of the study, assurance of anonymity, and a notification of the option to stop participating in the study at any time.

Trustworthiness

I used several methods to ensure that data analysis and the resulting findings were trustworthy. These methods included multiple forms of data, triangulation of data, member checking, and peer debriefing. I conducted individual interviews and focus group interviews and collected field notes and journal entries. I triangulated the data through the use of several sources to form a clear and meaningful picture of the cases (Stake, 2006). Each individual interview transcription was sent to the interviewee for verification. Asking the band teachers and students to review the transcripts verified accuracy in data collection and encouraged additional discussion points. I used member checking by sending preliminary themes to the band teachers to verify whether the themes matched their experiences (Merriam & Tisdell, 2016). I also utilized a peer review process by asking two colleagues with knowledge of qualitative research practices and music teaching to review my proposed findings (Merriam & Tisdell, 2016). The peer

reviewers analyzed my list of codes and initial themes together with participants' quotes and suggested ways to clarify or alter the themes. Throughout the research process, I engaged in reflexivity to search for any bias and to find alternative explanations.

It is worthwhile to consider the ethics of online research, especially because COVID-19 moved so many aspects of daily life into virtual settings. Collecting data remotely is not a new strategy, and there is a growing body of research in the music education field regarding online data collection. Researchers have recently considered the background of and strategies for ethical online research in early childhood music instruction (Culp & Robison, 2020) and in social media and music learning (Waldron et al., 2020). Prior to the pandemic, the SAGE *Handbook of Online Research Methods* included warnings of exchanging identifying information via personal digital devices (Fielding & Lee, 2008). I communicated with participants via my university email address and their self-provided preferred email addresses, and removed identifying information from email attachments. Researchers also have discussed the difficulty of obtaining consent forms online in terms of confirming who is completing the consent form (Culp & Robison, 2020; Fielding & Lee, 2008). In the current study, all the consent forms were sent securely via REDCap, where the participant received a link to their email that allowed them to access and sign the form. Despite being able to view the digital handwriting of the parent signature on the consent form and compare it with the student's assent form, it would have been possible for student to complete both forms. As online data collection methods develop, researchers' abilities to ethically conduct online research will hopefully develop as well.

Limitations

This research study contained limitations that hindered data collection and generalizability. The total number of band students from all sites who completed individual interviews was 9, which was low considering the 100+ potential band student participants from each site. The multiple case aspect of the study limited the amount of time I was able to spend at each of the three sites to 3 or 4 weeks. The data from this study were not generalizable because there was no typical case of coronavirus-era band teaching given the unexplored nature of the COVID-19 pandemic in music education. While multiple cases increased the diversity of available data, the choice to collect data from several sites may have limited the depth of information collected at each site. Furthermore, the choice to focus on high school band eliminated data that could have been collected from other middle or high school music programs such as choir and orchestra.

Remote data collection potentially caused issues in recruiting participants for this study. I made multiple efforts to recruit band student participants at each site, including posting written and video announcements and a Google Form Sign-up to classroom pages and announcing the study at the beginning of band rehearsals via Zoom. All three teachers sent two reminder emails to their students after the initial announcement. Despite these efforts, there was low enrollment in the study, with two to four individual student interviews at each site and only one successful focus group interview. It is likely that enrollment would have been larger if I had been at the sites in-person. However, the low participation rate was supported by the experiences of the band teachers, who reported that anywhere from 15-50% of their students found it difficult to continue

participating during online learning. Teachers in prior research also reported problems in student participation and engagement during online learning (Lei & Lei, 2019) or specifically during COVID-19 (Alshehri et al., 2020; Salvador et al., 2021).

Data collection was particularly limited by the remote nature of observations and interviews, which provided a vastly different perspective than in-person data collection. For example, I was unable to view the entire band classroom or view many of the students because of the location of the band teacher's camera or computer. Many interactions between students went unseen. I also was somewhat dependent on the audio and visual quality of the available technology during remote observations and interviews. Loud instrument sounds, in particular those from percussion instruments, occasionally caused the Zoom audio to mute automatically. Remote interviews generated a different participant perspective, especially when I had not previously met the participants in-person. To mitigate this limitation, I conducted several observations at each site and regularly conversed via email with the participants.

Reporting the Findings

Data collection took place from January-April 2021. Chapters 4-6 contain in-depth descriptions of each of the three sites, including interview excerpts from the band teachers and band students who formed the mini-cases, along with a summary of the themes that arose from each site. Chapter 7 contains the results of the cross-case analysis and discussion, and Chapter 8 includes tentative assertions and implications for the field of music education. Chapter 9 contains a summary, conclusion, and recommendations for future research.

CHAPTER FOUR

ORION HIGH SCHOOL, OHIO

Orion High School is a large, modern-looking building in a busy suburban area of Ohio and serves approximately 1,500 students in Grades 9-12. The student population was 74% White, 8% Black, 6% Hispanic, and 5% Asian at the time of data collection. The music department occupies its own extensive section of the high school and includes an auditorium, black box theater, and rehearsal, practice, and storage rooms for the band, choir, and orchestra. In pre-COVID times, I had traveled to Orion as a flute clinician for summer marching band camp and could clearly imagine the band room: a long room with lockers at one end, a grand piano at the other, the teacher's office in a separate room at the back, and a white board underneath a large interactive display screen on the front wall. The band director at Orion is Mr. Oakley, an experienced yet youthful teacher who has taught middle and high school music for 12 years with 7 of those years at Orion. Mr. Oakley's busy teaching schedule includes concert band, symphonic band, wind ensemble, marching band, jazz band, group piano classes, and Advanced Placement music theory.

In January 2021, I waited for Mr. Oakley to join the 3 p.m. Zoom call for our first interview. After months of remote graduate school, conferences, and calls with friends, it felt normal to sit down at my computer in my small apartment in Little Italy, Cleveland, surrounded by tray tables holding two voice recorders, charging cords, a notebook, and a mug of hot tea. As my upstairs neighbors, an opera singer and a 4th grade teacher, conducted their animated remote activities, I placed a blanket over my lap and checked my computer volume. From preliminary conversations via email, I was aware of the instructional formats that Orion High School had adopted thus far: remote asynchronous

instruction for the last half of Spring 2020, remote synchronous instruction with the exception of in-person, outdoor electives in Fall 2020, and in-person synchronous instruction with half of the high school's students attending every other day in Spring 2021. However, I knew little about how the band classes had operated in any of the instructional formats in terms of the teacher's and students' strategies for learning. As I waited, I wondered about the successes and challenges Mr. Oakley may have encountered during remote or in-person band teaching at Orion High School.

Participants

I had the opportunity to speak with Mr. Oakley and two of his 11th grade students, Chloe and David. Mr. Oakley was a detail-oriented band director who attempted to help each individual student develop their musical skills. Chloe was a percussionist who enjoyed playing many varied percussion instruments, and David was a French horn player who planned to pursue a music degree in college. In their interviews, Mr. Oakley, Chloe, and David discussed the impact of COVID-19 on the band program, their progress with different instructional formats, and their feelings surrounding the 2020-2021 school year.

Mr. Oakley: The Organizer

Mr. Oakley joined the Zoom meeting with a friendly demeanor and no hint of tiredness from a full day of teaching. He easily shared stories of his background and career experience, and explained how he had implemented Chromebook assignments in Spring 2020 after a 2-week spring break transition to remote learning. I was impressed with Mr. Oakley's organizational detail as he spoke about his initial process for teaching in remote formats:

> I ended up doing assignments that the students worked on kind of chunk by
> chunk. So one of them was, I took a piece that I was working on with each of the
> bands, and then created a melody sheet where they could play along with a
> recording...They would work on the first half, do a recording, work on the second
> half, do a recording, on Flipgrid. (interview, January 21, 2021)

Over the remainder of the spring semester, Mr. Oakley began to combine more music learning software with step-by-step assignments that guided the students in completing a variety of projects. For example, students were asked to play and record pieces at increasing levels of difficulty from the Sight Reading Factory website, and to learn a song of their choice by ear using any recordings or resources they found online. As Mr. Oakley explained,

> I finally hit a point where I'm like, ok, I have all these resources, I see how they
> can fit together, I know how the technology works to make it manageable, and I
> need something for them to be doing regularly whether we're online or hybrid.
> And this, you know, will serve all of those functions. It also became my planning
> for those online courses. (interview, January 21, 2021)

Mr. Oakley focused on practical activities that band students could access, engage in, and complete. After exploring several available resources for online music learning, Mr. Oakley began the Fall 2020 semester with an organized plan of online assignments accompanied by remote feedback.

One of Mr. Oakley's primary learning objectives in the 2020-2021 school year was to provide resources to encourage each student's individual musical development.

This objective manifested in an extensive database that allowed Mr. Oakley to keep track of each student's progress:

> I have a master spreadsheet of alternating exercises, so there are exercises on [the website] uTheory that teach about a rhythm concept and then allow them to practice it. They'll do that. And then they go to Sight Reading Factory for the next assignment, and they do sight reading that includes that rhythmic element. And so the levels gradually increase, the complexity increases, but it makes them work on common time, cut time, and compound meter...Each student has their own spreadsheet that links into mine, so I can just put on my spreadsheet when they have passed something and what they need to do next. (interview, January 21, 2021)

Mr. Oakley's goal was to scaffold the music activities so that students could begin at their own playing and music-reading level and grow from there. He used the available resources and remote learning format as an opportunity to recognize individual student needs as musicians and to plan music lessons for each of his students. Mr. Oakley was pleased with the results so far in the school year and said, "I have seen students progress through their playing and their understanding of sight reading because of these exercises. And seeing them work on things that are appropriate for them...I've seen that as a success" (interview, January 21, 2021).

While Mr. Oakley expressed satisfaction with his adapted instructional methods, he also described many challenges of COVID-era instruction. Given the stressful situation of living during a pandemic, Mr. Oakley explained that he was happy if he saw

his band students "engaging at all" (interview, January 21, 2021). He also missed the natural feeling of in-person conversation in the classroom, explaining,

> It's just very hard to have a rapport with those students when they're staring at you through a screen. Even if you're trying to have a conversation, it's just not organic...And especially for my freshmen, trying to build a rapport with them, where I don't get to see them every day in class is just really difficult. (interview, January 21, 2021)

Mr. Oakley expanded on how teaching via Zoom felt disconnected even when Orion High School switched to hybrid instruction in Spring 2021. Because only half of the student population came to school in-person on a given day, each of the three band classes had an in-person rehearsal while small groups of three to nine students attended via Zoom and played their instruments from home. The remote students remained muted during each rehearsal to avoid distracting the class with audio lag. Therefore, Mr. Oakley and the in-person band students could not hear or provide feedback on the remote students' musical playing. Despite Mr. Oakley's efforts to provide individual attention to each band student, he felt that the challenges of remote and hybrid teaching impacted the band's ability to verbally communicate and blend as an ensemble. Mr. Oakley described the COVID-19 school year process as a "trial by fire" (interview, January 21, 2021) because of the rapidity of preparing for remote learning and because of the challenge of connecting to students via Zoom.

In a hopeful coincidence, the second interview with Mr. Oakley occurred on the day he was scheduled to receive his first of two COVID-19 vaccination shots. When Mr. Oakley joined the Zoom meeting, I found him at home rather than at school, preparing

for his appointment by organizing his medical paperwork and emails. The reality that vaccinations were now being dispensed inspired Mr. Oakley to reflect on the school year:

> I do feel like this has made me a better teacher. It has really stretched me to make me think outside of the box in the way that I do things, and to utilize online resources that also can be used during a regular school year. (interview, February 16, 2021)

Mr. Oakley had turned a corner and was able to focus less on the nuts and bolts of preparing remote and hybrid band instruction. He was beginning to appreciate the positive aspects of the school year while also thinking about how the COVID-era instructional methods might benefit his students' musical learning after a return to in-person instruction.

Chloe: Cheerful Junior Percussionist

Chloe signed on to the Zoom call with a bright smile and twinkle lights decorating the ceiling behind her. Currently a junior in high school and a percussionist, Chloe enthusiastically shared pre-COVID stories about being in marching band and playing drum set for pep band during basketball games. She also shared her family connection to music: "My brother, who is older than me, who is 20, started in band and he played percussion...and I did percussion also because we play music together. So I'm very connected in band class" (interview, February 5, 2021). When our conversation turned toward the current school year, Chloe expressed mixed feelings that stemmed from the similarities and differences between pre and post-COVID band classes. "I liked marching band the most. Outside, that was a lot of fun. But what I didn't really like was not having enough time in the band. We haven't really done any marching, so I kind of hate that"

(interview, February 5, 2021). Chloe explained how Orion High School had completed summer marching band camps and outdoor rehearsals in Fall 2020, as well as performances at several football games. However, due to safety regulations, the marching band stood in place on the field while playing rather than learning a full visual show. As Chloe described, "We just stand there usually. It's not as fun, but it's ok" (interview, February 5, 2021). However, Chloe was pleased to have in-person band ensemble rehearsals in any capacity: "If we just do it some, I'm cool with that. It was just, months of nothing happening" (interview, February 5, 2021). She also discussed the experience of beginning to practice a new piece in group rehearsal after the long hiatus of remote learning: "It was a good experience, I like playing in the band, and I like making music with the band, and I just love having people being around" (interview, February 5, 2021).

Chloe was less positive about the Fall 2020 semester and its remote instructional format. She explained the changes she would like to see with regard to band classes and her current schedule: "I would like to have more time in the day, doing especially marching band for that. And I would say, for regular band, more time for practicing" (interview, February 5, 2021). Chloe felt that there was little time to spend on any after-school activity except for completing large amounts of homework, both for band and for academic classes:

Bethany: What about homework, has there been more, less, are they different?

Chloe: More. That's different based on last year.

Bethany: It feels like more?

Chloe: Which is not a fun part of it.

Bethany: So the teachers are giving more work?

Chloe: Yes, more work. All on my Chromebook. (interview, February 5, 2021)

Chloe showed disinterest when explaining the remote band assignments. "We've been doing SmartMusic and uTheory and sight-reading. That's not my favorite thing of all band...but it's just like, new programs that we do outside of, not outside of band, but adding on to band" (interview, February 5, 2021). Chloe looked forward to the reopening of the band room for after-school music practice because she did not have access to percussion instruments at home. She longed to spend more time playing music with her friends, and the fact that she was about to be a senior made Chloe's desire to return to pre-COVID camaraderie more immediate.

Overall, Chloe deeply missed the social connection she felt in band prior to COVID-19 in terms of being able to converse with friends and to participate in after-school activities. She spoke fondly about pre-COVID memories regarding band students playing together, conversing socially, and helping each other to learn music. Chloe's positivity toward past musical experiences made her hopeful for post-COVID band and her senior year.

David: Committed Junior French Horn Player

David displayed a straightforward and friendly demeanor as he signed onto Zoom, asked how I was doing, and exchanged pleasantries. He related stories from his core classes and his band experiences in a professional manner, delivering practical and concise responses in a way that would not be out of place at a company board meeting. David was clear about how his learning strategies had been impacted by remote instruction: "I definitely do better in-person than online. Paperwork is much easier for me to get done, because it's material that I can work on, instead of just typing away for hours

at a time" (interview, February 5, 2021). David had the same trouble engaging with the remote assignments for band class, but found some success using online resources outside of band to grow musically. He described searching for and practicing French horn music on the International Music Score Library Project database, and shared the reason for his motivation: "I'm just trying to get more experience with other music that I could end up playing in the future. Because eventually I want to go to college for music. And it's not that far away for me, really" (interview, February 5, 2021). David's goals to improve musically were mainly connected with activities outside of school, and though he was on a hiatus from private lessons that he said was not due to COVID-19, he planned to begin lessons again soon.

Similar to Chloe, David sincerely missed being a part of the full band ensemble. "So, with band I feel it's a lot easier to get work done in person, especially playing things, playing assignments" (interview, February 5, 2021). David also missed the group sound of the ensemble, and shared his favorite part of band during the school year: "Oh god, probably just being able to be back in person playing with more people than just myself" (interview, February 5, 2021). Even though in-person rehearsals had recommenced, David noted that COVID-19 safety regulations caused a feeling of separation. Orion High School's system for Spring 2021 was to have half of the students (last names A to L and M to Z) attend every other day in order to reduce the number of students in school at one time. David spoke about how this format affected band instrumentation:

> I guess it's just like playing with the entire band at once instead of just half and
> half. Because also in my group there's no trombones, there's very few low brass.

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So we're kind of missing some sections. There's two percussionists, so one plays

mallets and one plays snare or bass or whatever. (interview, February 5, 2021)

David reflected on an isolating experience he had while playing a part by himself in the

pared down ensemble, with one other French horn player on a different part. He noticed

that the socially-distanced set-up in band exacerbated the feeling of being alone on a

musical part, because he could hear his individual sounds more than the blending of the

full ensemble. David seemed to miss the full band experience and musical sound as much

as or more than the social side of conversing with classmates. However, when asked

about the advice he would give to another classmate for being successful during COVID-

19, David immediately showed his awareness of band collaboration. "Do all of the work

that you can to improve yourself and to help others improve as well" (interview, February

5, 2021). Essentially, David's work ethic and internal motivation was in constant conflict

with the lack of social interaction and hands-on activities during COVID-era band.

Themes

The participants followed precise safety guidelines at Orion High School, but

there was additional flexibility in how students chose their preferred instructional format,

assignments, and assignment due dates. Mr. Oakley, Chloe, and David experienced

physical and mental distance from others during COVID-19 and also changed their

perspectives on the purpose of band. Given these notions, four themes arose from their

combined stories. The themes of Health Awareness, Leeway, Camaraderie from a

Distance, and Changed Priorities are described below.

Health Awareness

Mr. Oakley was highly aware of the school district's decisions regarding COVID-19 safety and meticulously followed the regulations laid out in the NFHS aerosol study (NFHS, 2021a). In Summer 2020, the school district organized its reopening plan to align with the county's color-coded risk levels, which were based on the rise or fall of new COVID-19 cases. Mr. Oakley explained, "Our initial school's plan was that any time we were in red or purple, we would be online" (interview, January 21, 2021). According to the county website, yellow and orange were low risk levels, followed by red and purple. This decision impacted summer marching band camp as well as the fall semester. Mr. Oakley described the sudden changes during the summer: "So at the end of the first round of band camp...we went from orange level to red level. So I ended up canceling the last couple of days, given like, well, they're telling people not to meet" (interview, January 21, 2021). Mr. Oakley took district guidelines and the preliminary results of the NFHS aerosol study (NFHS, 2020a) seriously whether the band was rehearsing indoors or outdoors. With the support of the administration and a strong teachers' union, the HVAC system in the music area was updated and the bands rehearsed for 30 minutes at a time followed by a period of recovery between rehearsals to allow for air circulation. Classroom observations confirmed that Mr. Oakley structured the 40-minute rehearsals with 30 minutes of playing bordered by 5 minutes of no-playing time at the beginning and end of class. In contrast, marching band in the fall had been a logistical challenge in following the multiple safety regulations. As Mr. Oakley described,

> We marched onto the field, took our masks off, played, put our masks back on,
> marched back off. So we had as normal of a season as can be imagined, but we

only had a few students who decided not to participate because of COVID...We

were very good about spacing out in the stands...So I think the parents and the

students saw how careful we were being and felt comfortable. (interview, January

21, 2021)

Mr. Oakley adhered closely to multiple health precautions in order to create as safe a

feeling as possible for the band community.

As Mr. Oakley mentioned, there were a few students who chose to participate in

band entirely remotely. In fact, one student chose not to attend in-person band even

though she was taking other courses in-person. Mr. Oakley said,

I have one student who is coming to school in-person but doesn't feel comfortable

playing in the band room, even with the precautions. So she is actually Zooming

in on opposite days from home to play with the band, and then goes to a study hall

during band period. (interview, February 16, 2021)

On the other hand, Chloe and David seemed comfortable with the safety

regulations, although they were aware of how others were adopting strict health

precautions. Chloe described the freedom of interacting with Mr. Oakley: "I go to the

band teacher to ask questions. He will come up at a safe distance" (interview, February 5,

2021). Chloe was confident that Mr. Oakley was creating a safe and helpful environment.

David observed the impact of COVID-19 on two other teachers in the school as well as

their safety procedures, saying,

I'm not sure if teachers are allowed to be at home or not. I know if they are

exposed, they are required to be at home. That just happened to my algebra

teacher...I don't believe that there's any older teachers that are taking it more

seriously. Other than my chemistry teacher, she wears her mask obviously, but

she also wears a lab coat, not just because we're in chemistry lab, but for her own

protection. And then she wears a face shield. She's really taking it seriously.

(interview, February 5, 2021)

David and Chloe seemed accustomed to following the safety procedures and to seeing

others around them do the same. Mr. Oakley also indicated that the band students overall

had acclimatized to the COVID-19 safety routine. "I would say that as far as the

precautions, the kids have adapted very well. You know they're very good about keeping

their masks on, they've figured out how to get their mouthpieces into their masks"

(interview, February 16, 2021). The stories of Mr. Oakley, Chloe, and David illustrated

that while there were a few exceptions, the band community was operating at a functional

level with multiple safety regulations after 10 months of living with COVID-19.

Leeway

The students at Orion High School were given a great deal of flexibility in how

they chose to approach classroom attendance, classroom assignments, and assignment

due dates throughout COVID-era instruction. This leeway provided a degree of comfort

but also affected the quality of the band sound. For example, Mr. Oakley outlined how

students could choose from several remote or in-person school options:

One of the other options the kids can do is they can either elect to come back in-

person, or they can do what they're calling Remote 2.0, which is, they are

learning from home but they Zoom into a live class...There are also students who

have elected to do Apex, which is an online learning platform where they learn at

their own pace, but they're also paired with a teacher who is just a resource for them when they have questions. (interview, January 21, 2021)

The remote learning options affected the students' musical experience and development. Students who chose to use Apex did not have a music course option, while students who chose to learn from Zoom could play along with the band but without being heard by their in-person classmates. Alternatively, students who attended school in-person only interacted with half of the band. Mr. Oakley further described the limits that affected even those students who were able to attend in-person:

There are some weeks where I will see a kid three times, and some weeks I will see them twice. That means there are some weeks where kids are home, on off days, but they're work days, they are supposed to be doing work. But they're not being supervised 3 days a week or 2 days a week. (interview, January 21, 2021)

Students who opted to attend school in-person were in the school building every other day, and were given assignments to complete on the alternate days. Mr. Oakley observed that many students had trouble finishing their work at home, and would simply wait until the next day at school to catch up. Any learning format that the students chose during the school year came with necessary adjustments for him to make regarding rehearsals and assignments. Mr. Oakley planned rehearsals for in-person students, alternative assignments for remote learning, and had no contact with Apex students.

Orion High School band students sometimes struggled to adjust to the sudden amount of freedom in instructional formats and assignments. In one classroom observation, I noticed a French horn player (not David) at home on Zoom continuously switching from playing his instrument to eating a bowl of cereal while Mr. Oakley was

giving instructions. It was clear that being in school and being at home at the same time was a difficult combination of professional and casual mindsets. Chloe spoke about her own difficulty in completing band assignments during COVID-19, such as the weekly practice logs: "Well, yes, but I am inconsistent with things. And so yes I do practice sometimes" (interview, February 5, 2021). Mr. Oakley described the change in leeway as asking students to be "more self-sufficient" (interview, February 16, 2021).

> I think for a lot of them it's just being resilient enough to organize themselves at home and stay on top of things. Now, they're not all successful with trying to do that, but I do think a lot of them are developing skills that they wouldn't necessarily have, because it's kind of akin to going to college. Not having class every day, and not having a teacher who is going to breathe down your neck, whether or not you're getting your work done. (interview, February 16, 2021)

Learning from home required increased student independence and was a difficult transition for some of the band students.

During remote learning, Mr. Oakley provided some leeway in band assignments and when they could be submitted, in order to try to lessen the stress the students might be feeling:

> I tried to give them a number of different things they could do...If you're into theory you can do the theory, if you're enjoying a song, there's got to be something here that you're going to feel comfortable engaging in. (interview, January 21, 2021)

Band students could choose a solo they wanted to learn and record or a song of any genre to learn by ear. Students also could choose to arrange a piece of music or construct their

own creative assignment. Mr. Oakley shared an example of a project that a group of students created and worked on together: "I had a group that did a presentation on the music of Mario Kart and talked about the key of each piece, the time signature, the instruments that they used, and how it fit in with that level" (interview, January 21, 2021). The first two slides of the students' Mario Kart presentation are shown below in Figure 4.1. Band students received individual feedback and a grade on the assignments they chose to do, and there were also a few playing tests, sight reading exercises, and practice assignments that all the students were asked to complete. Mr. Oakley described the final half of Spring 2020 as having the most latitude:

> In general our school's game plan was to be as flexible as possible. Whatever students could get done by the end of the year, I'm like, whatever you do, I'll give you some credit for it. They had due dates, but they were essentially meaningless to some degree. (interview, January 21, 2021)

Without end-of-the-year band contests, concerts, and award ceremonies, the Orion High School band concluded the spring semester with a variety of individual projects and flexible grading. The regularity of grading and assigned work increased as the school community became more accustomed to COVID-19 procedures. Leeway in assignments and due dates continued to a lesser extent in Fall 2020, although the need for students to motivate themselves to work remained the same. While Mr. Oakley noted that students who engaged in the creative assignments did develop their musical skills, the amount of additional leeway in learning procedures was not an easy change for all students.

Figure 4.1

Mario Kart Student Presentation

Camaraderie from a Distance

A pre-COVID band rehearsal at Orion High School involved community and

clamor as band students greeted each other, moved around the classroom, set up their

chairs and music stands, and warmed up their instruments. Post-COVID, band rehearsal

was characterized by less movement and conversation. The smaller class sizes, social

distancing, mask-wearing, and communication via remote methods all combined to draw energy from the typical noisy, social band experience. Mr. Oakley summed up the difference:

> When they're on their own, the camaraderie aspect is gone. And now that we're in person, the instrumentation is kinda weird, and you're spaced out. I think they're happy to be back and to be playing in person, but it just doesn't feel the same. (interview, January 21, 2021)

According to the participants, band rehearsals felt different from pre-COVID times because the students could not warm up on their instruments when they came into the band room due to the 30-minute playing time limit. Mr. Oakley noted, "Everything is almost too calm. At the beginning of class it's very quiet, you have 15 to 20 students in a big band room, and they're not warming up on their own" (interview, January 21, 2021).

There were also differences in the level of camaraderie in each of the three band classes, which Mr. Oakley partially attributed to the age of the students. Concert band and symphonic band had more freshmen participants than the wind ensemble, and freshmen had only experienced high school band during COVID-19. According to Mr. Oakley, the older band students noticed the difference in atmosphere between band classes. An upperclassman in wind ensemble was working with Mr. Oakley as the symphonic band began to set up for class, and Mr. Oakley related their conversation:

> He was just like, "Man, the vibe with symphonic band is very different from wind ensemble." And I think that comes down to there just being less students in the class, because there are a lot more of them Zooming in. It tends to be a little bit younger band, they don't know each other as well. (interview, February 16, 2021)

Classroom observations corroborated the change in atmosphere in terms of a quiet beginning to each class with little to no chatter or instrument sound.

Mr. Oakley expanded further by discussing younger students' acclimation to the high school band program. Because the students had spent less time playing together and socializing in marching band and in the band room, the development of camaraderie between all the grades was noticeably slower when compared to pre-COVID school years. Even though Chloe was a junior and had been in band her entire high school career, she struggled to maintain social connections with her friends during COVID-19. In particular, many of Chloe's friends were attending school on alternate days. She said, "I have friends in the other group that I've not seen, and that's another thing, the social aspect of it...Every other day we have a different group...so that's not the fun part of it" (interview, February 5, 2021). For Chloe, band class during COVID-19 did not provide the same social opportunities as a pre-COVID band experience.

Beyond the social aspects of pre-pandemic band, Chloe and David missed the enjoyment of making music as a group. Chloe acknowledged, "It's like what the band director says, 'Oh, we need this person to play this part!' So I just feel like it's nice to have the whole band there, working together as a team" (interview, February 5, 2021). During rehearsals, Mr. Oakley often identified the missing instrument parts so that the band students would know what they should be hearing. The smaller, spaced-out ensembles were an adjustment for Chloe and David, who regretted the lack of full band sections of their own instruments. David shared what he missed the most about band before COVID-19: "Being able to hear the people around me much better, because before we were much closer together" (interview, February 5, 2021). In addition to David's

comment on socially-distanced instrument sections, Mr. Oakley speculated that the feeling of isolation in COVID-era band may depend, in part, on the instrument section to which students belong:

> I can think of examples of sections where they're very much used to playing on their own and having their own part, so it's not much of a shift for them. But then, I can think of trumpet players who are just used to being in a section of eight to 10, and being able to hide a little bit, so I think that there is a little bit of an adjustment going on there. (interview, February 16, 2021)

The participants' stories contained elements of both physical and mental distance. Chloe focused on the aspects of physical distance that inhibited socializing in band. "They have squares in the band room that you have to stay in," she said. "I think about it, just staying there, just not having the opportunity to actually say hi to people while they get to their squares" (interview, February 5, 2021). The physical distance impacted the in-person students and potentially was even more isolating for the remote students. During a symphonic band rehearsal, nine students had Zoomed in from their homes. Out of those nine, only four students were playing instruments and none of the students clapped rhythms when the in-person class did. The remote students also did not speak to the band director or any of the in-person students during rehearsal. David noted this lack of verbal communication during band rehearsals and explained the feeling of mental distance in COVID-era band:

> I would definitely say that the amount that I talk to people about band has really drastically decreased. Because you're not around people to talk about it. And then my participation, personally I feel it has also decreased, because it's kind of hard

to get into it, when it's, when you're like, it feels so far away, I guess. (interview, February 5, 2021)

David's self-assessment of decreased participation was reflective of other band members, as Mr. Oakley corroborated. When Orion High School first moved to remote instruction in Spring 2020, Mr. Oakley observed large decreases in student participation. "My top group [wind ensemble] would have been definitely better, but I would say it was probably around a third of the students who just kind of disengaged and did either minimal work or no work" (interview, January 21, 2021). He disclosed further that while participation increased during remote learning in Fall 2020, there were students who did math homework at home while listening to band class on Zoom or who simply "fell off the face of the earth" (interview, January 21, 2021). Overall, the band community experienced camaraderie from a distance in social, musical, physical, and emotional ways.

Changed Priorities

As COVID-era instruction continued into Spring 2021, Mr. Oakley's musical expectations and teaching objectives changed, as did his outlook on his job. Due to the myriad instructional changes and the district's shifting procedural guidelines over the course of the year, the level of ensemble performance was lower than Mr. Oakley would usually expect by the spring semester:

They're just not at the tone quality we would typically have...I think all of my expectations have already been kind of lowered for that reason, so then I don't notice the mask as much, or the bell cover. I think intonation has definitely been

changed for the worse, and tone quality for sure. But tone quality has been kind of

the least of my worries. (interview, February 16, 2021)

Instead of spending rehearsal time on ensemble skills such as tone quality, intonation, and blend, Mr. Oakley noticed that his focus had changed to "Just playing...and just having the kids feel like they're having a successful playing environment, and they're enjoying playing" (interview, February 16, 2021). Mr. Oakley recalled a recent enjoyable moment during symphonic band rehearsal:

It was literally the first day that we sounded like a band. We played through a

good chunk of this piece of music, and it ends with a "Hey!" Like, you yell at the

end. And we got there and I was like, "Guys, we're a band! We sound like a

band!" And you could tell that they had felt that too, that this is what it feels like

when we're firing on all cylinders. (interview, February 16, 2021)

While Mr. Oakley truly appreciated the band's reaffirmed success in playing as a group, he also saw the positive side of the individual musicianship learning objectives that he had implemented during the school year, especially the practice goals on Sight Reading Factory and SmartMusic. The remote learning format had given him a chance to realize one of his long-time goals for individualizing each student's musical growth. "I think the most successful thing that I have done is provide students with individual exercises that they can do gradually. It's kind of a thing I've been wanting to do for a long time" (interview, January 21, 2021). Another reason Mr. Oakley had more time to focus on individual student growth was that recurring large band events, such as solo and ensemble festival and concerts, were canceled. "We don't have large group that we're stressing about, we don't have Solo/Ensemble that we're stressing about...So, with there

also just being less students in the building, I have more free time during the day"
(interview, February 16, 2021).

For Mr. Oakley, perhaps the most positive consequence of the COVID-19 school
year was that the additional time and modified instructional formats helped remind him
of his favorite part of the job:

> In a given year I really feel like because of the teaching load and the student load,
> I just don't get to connect with students the way that I would like to on a one-to-
> one basis. And then when I do, I'm really happy that I did, and I'm like, ok, this is
> the fun part of teaching, getting to help these students one-on-one and really see
> their progress. (interview, February 16, 2021)

Mr. Oakley appreciated the lighter schedule of after-school events and the opportunity to
monitor each student's musical development. While he regretted that his students were
not receiving the full band experience, he hoped that he would be able to continue
helping students more individually in the future, after COVID-19.

Chapter Summary

From March 2020 to February 2021, Mr. Oakley and the band students at Orion
High School transitioned from asynchronous remote learning, to synchronous remote
learning, to hybrid instruction that included both in-person and remote students. Mr.
Oakley emphasized individual musical growth through online music software. Chloe
longed for the pre-COVID marching band experience, and David focused on expanding
his knowledge of French horn repertoire. Health regulations became habitual and band
students learned to operate in more independent, flexible instructional formats. Members
of the band community often felt socially or musically isolated but were reminded of

their primary goals of band participation. The band students were hopeful that the full

band experience would return soon.

CHAPTER FIVE

TAURUS HIGH SCHOOL, TEXAS

Taurus High School rests on a large grassy campus within a metropolitan area of Texas. The school serves 2,100 students in Grades 9-12. The student population was 71% Hispanic, 21% White, and 4% Black at the time of data collection. Seventy-seven percent of the students were eligible for free or reduced lunch. Approximately 200 of the students at Taurus High School were involved in at least one band class at the time of data collection. Band students at Taurus High School could participate in concert band, symphonic band, honors band, marching band, jazz band, and/or a percussion class. The band program teachers included one head director, one assistant director, and three traveling middle school directors.

Mr. Thomson is the head band director at Taurus High School. He taught high school band at two smaller Texas schools for a total of 8 years before moving to Taurus, where he was in his 4th year. A typical day for Mr. Thomson included teaching honors band and jazz band at the high school before traveling to two separate middle schools to assist Grades 7-8 bands and one Grade 6 band. I was especially curious to see how a large, competitive Texas band was approaching COVID-era instruction. During the last half of Spring 2020, all instruction was remote and asynchronous. Since the beginning of Fall 2020, the school district had operated in-person although the students could opt for virtual instruction.

At the time of data collection, I had never physically visited Taurus High School and had not seen Mr. Thomson in 15 years. I first met Mr. Thomson when he was finishing his undergraduate music education degree and was assisting my high school

marching band as a drill technician. (At the time, I was a senior in high school.) While I was pursuing my own Bachelor's degree in music education, we conversed occasionally via Facebook, where I usually asked for advice about playing percussion instruments or preparing for job interviews. I sat down to the Zoom call in February 2021 with anticipation for reconnecting with an old acquaintance.

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Participants

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I conducted interviews with Mr. Thomson and band students Sarah, Josh, and Marie. Later, band students Tyler, Chris, and Anthony joined Sarah and Marie in a focus group interview. In their interviews, the participants discussed how COVID-19 altered band objectives, communication methods, social participation in band, and personal goals.

Mr. Thomson: The Pragmatist

Mr. Thomson appeared on Zoom for an interview just after returning to his high school band office from his duties as a traveling teacher. He sat in front of his computer as if ready to jump up at a moment's notice to assist band students. At one point in the call, he did just that, quickly putting on his mask to step outside the office and answer a student's question. On his return, he volunteered candid information about the experience of wearing a mask in Texas: "Masks suck. That's just kind of a logistical thing. You get tired, it's 8 or 9 hours a day, you're outside, and it's 100 degrees out. I'm walking around kids, so I've got to have my mask on" (interview, January 20, 2021). On further inquiry, Mr. Thomson explained his district's indoor mask policy for band: band students could pull their masks down to play and could remove a mask to drink water. As the head of a high school marching band of 150 students with strong relationships to two middle

school programs, Mr. Thomson followed a busy schedule, was practical in his teaching, and practiced straightforward verbal communication.

Mr. Thomson's approach to band instruction during COVID-19 inevitably included short-term planning and simplification of musical goals. In Spring 2020, Taurus High School switched abruptly to remote learning after spring break, with the teachers being notified 2 days before the start of remote learning. For the band classes, Mr. Thomson said, "We started doing some assignments, we did scale studies, we did SmartMusic, and recordings of the school song which I compiled all together" (interview, January 20, 2021). These and other remote musical assignments replaced preparation for the University Interscholastic League (UIL) contest, the spring concert, and the band's performance at the graduation ceremony. Over the summer, Mr. Thomson planned cautiously for Fall 2020 ensemble classes:

> We had a marching band show picked out, but we scrapped that show because it was expensive. We paid $2,000 to have that show written for us. And this is going to sound bad, but I didn't want to waste that show. You know, I didn't know what was going to happen. I didn't know if football season was going to get canceled. And once you start playing it, you're not going to pull it out again the next year. So we shelved that show and I went to a stock show. (interview, January 20, 2021)

The stock marching band show included easier music arranged from pop songs and was a practical decision, because the school district's strict quarantine regulations impacted the marching band attendance throughout the season. The quarantine process extended to any student and teacher who felt unwell or had an ill family member. Mr. Thomson gave

several examples of how band classes could not rehearse or proceed normally because of group quarantines:

> It has been difficult with the quarantines. So a kid will come in, and his dad will test positive, and he's out for 2 weeks...I've seen my one percussion class, which has 11 kids in it, twice all year where it was everybody in that class together....We would take the band to a football game, and out of 150 kids on the roster, we would have 90 or 95...I mean, three of the five staff members were out at the same time once. So it's just a revolving door of kids going in and out, and it's making it challenging. (interview, January 20, 2021)

Although quarantining continued to affect band rehearsals in late February 2021, Mr. Thomson finally began to feel as though he could plan further ahead. "Now I think I'm able to prepare up until contest...We're going to try to do a pre-UIL contest, we're going to try to host a festival. But we have a grasp on it now" (interview, February 24, 2021). Despite the fact that Taurus High School offered in-person classes since the beginning of Fall 2020, Mr. Thomson was only beginning to reach a sense of equilibrium in rehearsal preparation in late-February 2021.

During Fall 2020, Mr. Thomson noticed elements of regression in how the middle and high school band students acted as well as in their musical skills:

> Kids are more immature this year. Losing that last part of the semester, they just didn't mature like they normally do. They didn't get to graduate and go on to the next stage. So a lot of our 6th graders feel like they're still 5th graders. (interview, January 20, 2021)

Mr. Thomson speculated that the irregular progression of student maturity and COVID-related isolation over the summer might have been the reason the students had difficulty engaging in band during the fall:

> It was more difficult to motivate them than I thought it would be...basically being isolated for the 6 months and they were probably just playing video games for 9 hours a day. They were really hesitant to come back and really start working. (interview, February 24, 2021)

Despite the slow start as students became accustomed to band during COVID-19 as well as the forgotten musical skills that had to be retaught, Mr. Thomson did notice one positive difference in the students' growth. Prior to COVID-19, there was usually an amount of regression in band fundamentals over winter break, especially for middle school beginners. However, this year Mr. Thomson felt that the bands were able to pick up where they left off and keep progressing: "So it was a lot of three steps forward, two steps back, three steps forward, two steps back. And we think with that process, it was just more ingrained. It felt like we just hit the ground running" (interview, January 20, 2021). Mr. Thomson attributed the phenomenon to the fact that the band instructors continuously retaught musical skills throughout the school year, in order to catch up with students who had been quarantined or absent. Regardless of the benefit of reteaching, Mr. Thomson recognized the many challenges of COVID-era instruction, including the feeling of only planning for the immediate future, the impact of quarantining, and the regression in his students' musical skills.

Mr. Thomson reflected on the events of Fall 2020 and would have made some different decisions in hindsight:

We didn't go to a marching contest this year. I kind of wish we would've...There

were bands that went to contest and they had 40 kids quarantined, and the judges

understood. Knowing that now, I kind of wish we had just gone ahead and done it,

but you make the calls with the information you have at the time. (interview,

January 20, 2021)

Mr. Thomson was surprised that marching band contests had continued, that football had

crowned a state champion, and that many competitive events had still gone on during the

pandemic. Looking back, Mr. Thomson would have made different choices regarding not

only attendance at marching band contest but also logistical decisions:

I didn't think it would be as normal as it is. You know, I just expected it all to be

much, much worse. And had I known then what I know now, I would have done

stuff more normal band-wise. I wouldn't have made some of the decisions I've

made. (interview, February 24, 2021)

For example, Mr. Thomson implemented spacing at home football games that kept the

band further away from the audience, and would have made a different choice in

hindsight in order to add to school spirit. Mr. Thomson's plans for the remainder of the

Spring 2021 semester were more "normal" compared to a pre-COVID school year, and

included student participation at Solo and Ensemble Festival and UIL large ensemble

contest. He hoped to give his bands back some of the events they lost during Spring 2020

cancellations, including an in-person outdoor concert for the community.

Sarah: Thoughtful Freshman Clarinetist

Sarah joined the Zoom interview quietly, and left the video feature off throughout

our 20-minute talk. As she shared her experience in band during COVID-19, I formed a

mental picture of an observer, someone who enjoys social activities but considers her words carefully. Sarah added to how the Fall 2020 marching band season was impacted substantially by the number of students in quarantine:

> At the beginning of the year, there were barely any band members due to most of us getting sick. Most of us had to go quarantine. There were about 50%, maybe less, healthy students. It made our marching season very empty. Now thinking about it, we are very lucky that our school didn't consider canceling band for the rest of the year. (interview, February 1, 2021)

In addition to "empty," Sarah used the word "lonely" to describe the marching season. She also felt lonely during other band classes when several of her friends were in quarantine. Sarah questioned her continued participation in after-school music activities because of safety concerns and the possibility of not seeing her friends: "There's been times where I wanted to just not participate in the after-school stuff, but then, we were able to have after-school activities and extremely safe measures, so it's been difficult but we're doing it" (interview, February 1, 2021). Sarah's reason for continuing with school music activities was simple: "Well, band is fun" (interview, February 1, 2021). Sarah was reassured by the music program's safety measures, which included masks and social distancing, although 6-foot spacing could be problematic during some band activities. Sarah described one instance where the marching band was traveling to a football game: "Unfortunately, one of our buses was gone, so we had to have a lot of people on the buses. But we all kept our masks on" (interview, February 1, 2021). Even with safety planning, Sarah noticed that many of her friends in band or members of her friends'

families contracted COVID-19 in Fall 2020, and she felt isolated when friends were in quarantine.

As a freshman, Sarah compared her middle and high school music experiences. Positive experiences in middle school music classes made her excited for band in high school, and she regretted that COVID-19 changed or canceled some expected activities: "Well, I just miss more of the after-school activities, but I'm a freshman, so I don't really know what it's like in high school" (interview, February 1, 2021). Sarah's favorite after-school activities included marching band and traveling with the band. "Activities where we would go on a bus...Because back in our marching season, we would go to the football field, we would watch the football game and like, be able to still perform, and then perform our marching stuff. That was the most fun part" (interview, February 1, 2021). Even during COVID-19, the Taurus High School marching band traveled to nearby schools for a limited number of away games, although activities such as an annual slumber party shut-in with band members and regular band concerts were canceled. Sarah engaged in the band activities that were still ongoing during the pandemic and looked forward to the potential for future high school band experiences.

Josh: Conscientious Sophomore Clarinetist

Josh opened the Zoom chat with a smile and a polite request to his younger siblings to play together while he was doing his interview. There were two more interruptions from his siblings during the Zoom call, and each time, Josh was a kind, patient older brother. As a sophomore, Josh had experienced two high school marching band seasons, one pre-COVID and one during COVID-19. His stories about band participation highlighted his adaptable nature as well as his willingness to explore new

opportunities. Josh joined several music activities for the first time in the 2020-2021 school year:

> I feel like, since we have a lot more free time, I'll sign up [for extra music ensembles]. I would actually never sign up for clarinet choir but like, since everyone else was doing it, I was like, ok, I guess I'll join. And then there was full orchestra, and I wouldn't do that either. But it seems like more and more people have been joining into stuff and doing other stuff so I thought, ok, I might as well join into that too. (interview, February 4, 2021)

Josh's comment about having more free time was in reference to the lack of social activities outside of school that he used to participate in prior to COVID-19. "It's because usually you would go to like a friend's house, we always had other stuff going on. With COVID-19 around there's a lot less stuff to do, and we've had more time to sign up for stuff" (interview, February 4, 2021). The additional musical activities now consumed a large portion of Josh's time: "The last 2 weeks, I've had after-school rehearsals every day except for Thursday. Because it was always clarinet choir, and then full orchestra. Yeah, I've had fun doing those rehearsals" (interview, February 4, 2021). Josh was developing as a high school musician from watching his peers participate in music and from his curiosity about the different aspects of the music program.

Josh was also in the process of changing his self-perception as a musician. Quarantining may have been an impetus for setting new musical goals:

> I think it was right when we were getting quarantined...I felt like I'd been wanting to play my clarinet more then...After that, I was practicing a lot, and then whenever we came back, we had a show planned...I wanted to play 3rd part

because that was my mindset you know. But he [Mr. Thomson] moved me up to

playing 2nd, so I started playing 2nd and had gotten pretty good at it, so I tried

playing 1st and I ended up getting good at that. But then the show got canceled. So

after that I've been wanting to play harder music. (interview, February 4, 2021)

While Josh was disappointed that the Spring 2020 concert had been canceled, it did not

hinder his motivation to play more difficult clarinet parts and continue improving. He

was confident in the fact that if he kept practicing, he would be able to play harder music.

The quarantining of Josh's classmates provided another reason to refine his clarinet

playing: "Whenever other people get quarantined, you have to step up to the plate since

more and more people are getting out of band" (interview, February 4, 2021). Josh's

leadership mindset was developing alongside his musical skill, as he thought about his

bandmates and about what the band needed. Josh also found a YouTube video of the

Pyware drill for the band's stock marching show. His YouTube research demonstrated

initiative and curiosity:

I've seen like, animations of band on YouTube. So I watched what our show is

supposed to look like, and then I watched a video that I got from our own band,

and it looks nothing like that. And there's all these people missing. So yeah, it's

definitely a lot smaller. (interview, February 4, 2021)

Josh recognized how quarantining had changed the overall impact of the marching band's

show, but he was happy to take advantage of the many musical activities his school had

to offer.

Marie: The Senior Drum Major

Marie had a way of talking that made every topic sound valuable and interesting. Even when exchanging initial comments about the weather (Texas had just received a massive snowstorm) she sounded engaging, with an agreeable "Yeah!" at the beginning of many sentences. Marie was also sincere and confident on the Zoom call as she shared her performance experience on the bass clarinet, baritone saxophone, and recently, the tenor saxophone. Fully immersed in band goals, leadership, and musicianship, Marie was the head drum major and a senior in the Taurus High School band program. She spoke enthusiastically about the band's assignments, activities, and competitions until reaching the topic of COVID-19. Marie revealed that she had recently been sick with COVID-19 and that the illness derailed her personal band goals in the Spring 2021 semester.

Marie contracted COVID-19 just before the recorded auditions were due for the All-Region and All-State band ensembles in January, 2021. She recorded the required etudes from quarantine while experiencing breathing difficulties from the disease. Members of Marie's family had COVID-19 around the same time, which kept Marie in quarantine longer as she waited for every family member to be healthy again. She described the experience of being a remote, quarantined student while trying to finish her All-State audition:

> I was a bit out of the loop considering that I really only have four classes, and of course three out of the four are band...And I really, I strongly disliked it, and I so badly, every single week, asked, do you think we're going to get out next week? And it just kept passing around throughout my family. It was probably a month of quarantine, definitely the worst thing I've ever been a part of. On top of that, ok,

you're going to spend your birthday in quarantine, but remember like the same

day, you need to get your recordings done. (interview, February 11, 2021)

Marie described the after-effects of COVID-19 as not being able to phrase her music

properly because she needed to breath more often. Although she did not have a successful

All-State audition, Marie did well at the Solo and Ensemble contest hosted at Taurus

High School a few days after she was released from quarantine. The overall experience

gave Marie a mature perspective on her own work ethic:

> I didn't get the results I wanted this year. But you had to kind of take that with,
>
> ok, you got these results, but you also had COVID. Overall it definitely showed
>
> me what my work ethic should be. Instead of being like, oh, I'll work this out a
>
> little bit later, it's like, no, you need to actually kind of learn how to put time
>
> aside...Because if you don't, you're honestly never going to get the chance to
>
> really make progress. That's definitely been my biggest thing in trying to get
>
> better and work around COVID. (interview, February 11, 2021)

Before the formative experience of contracting COVID-19, Marie had completed

a busy Fall 2020 marching season as the head drum major. In this position, Marie felt

responsible for the other band students. She worked closely with the leadership team,

which was comprised of section leaders and fellow drum majors, in order to project

positivity, motivate the band, and establish an atmosphere of band community:

> I would say the seniors are kind of on a mutual understanding...Definitely a lot of
>
> my leadership [the leadership team] this year, really stepped it up. You always
>
> saw people getting up, dancing, just, I think they really got it going just with

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positivity. All it took was just a smile on your face, and just a little bit of pep in

your step, and they had it going. (interview, February 11, 2021)

Marie believed that the leadership team generated more enthusiasm than in a pre-COVID

year, with the goal of showing the other students that band could still be fun and exciting

even with safety regulations. Marie observed how every band member had grown closer

during the Fall 2020 semester:

Maybe you're not even on the official leadership team, I think there's been a lot

more opportunities to be a good friend, be a good peer...And I feel as though a lot

of people really did get to step up and be there for each other. (interview,

February 11, 2021)

As further evidence of how the band had grown together over the year, Marie provided

examples of the leadership team putting together small gifts for every student in band and

texting each other to communicate about students in need. Marie experienced a great

number of successes and disappointments during her COVID-19 school year and

wrapped up her interview by offering an optimistic comment: "I just definitely hope that

it can go up from here!" (interview, February 11, 2021).

Sarah, Marie, Tyler, Chris, and Anthony: The Focus Group

Three additional band students joined the Zoom focus group interview. While

they did not participate in individual interviews, they were enthusiastic about

participating to some degree and were happy to converse with their classmates as a

group. Tyler was a sophomore French horn player, Anthony was a sophomore

saxophonist, and Chris was a senior trumpet player. Both Tyler and Anthony were part of

the band leadership team with Marie. Absent from the call was Josh, who had a prior

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commitment at a cousin's birthday party. During the focus group interview, the five

students discussed the band's strategies of communicating and socializing remotely,

shared a few humorous memories, and reflected on their changing musical goals.

As a whole, the five students agreed that the use of technology for communication

had enhanced the band experience, and that the newly-implemented communication

methods were likely to remain in place in future years. The leadership team used

Facebook's Messenger app to keep each other informed of any band announcements,

schedule changes, quarantines, or efforts to support a student in the band. The band

students also were encouraged to communicate with the band teachers via email. Tyler

and Anthony pointed out how students could email the director about any issue and

receive a quick response. Tyler mentioned, "You could email the band director before,

but I feel like now you have to do it more, because you have to do less in-person contact"

(focus group interview, February 18, 2021). Anthony added details of how the band

directors had implemented virtual communication:

> We made like this little band app thing, and you could go and find out any
>
> information you didn't know. All of the music was online if you needed it, so you
>
> could print it off...There's a lot of stuff we just didn't think to do until this year,
>
> and it's really nice having it. (focus group interview, February 18, 2021)

The students took advantage of the increased use of technology to find humorous ways of

lightening the mood during COVID-era band. For example, Tyler created a YouTube

channel for the band where he posted funny vlogs using photos and video from summer

marching band camp. Being able to share stories and pictures with each other, and to

quickly communicate about any and all band-related items, seemed to assist both the students and the band directors in developing rapport and a cohesive band community.

During the focus group interview, some of the stories from the individual student interviews were reiterated and expanded. Similar to Josh, Anthony appreciated the extra time to practice his instrument, without the busy schedule he would have had in a typical year. He explained how his musical skills had changed: "COVID kind of put everything else out the door...I kind of took the time just to practice a lot more" (focus group interview, February 18, 2021). Like Marie, Chris was wistful about his senior year and overall high school band experience, and found that the COVID-19 school year emphasized the value of band. Chris shared, "I feel like it helps me look back and appreciate band a lot more. COVID basically really enhanced my experience in a way. It was completely different...but even then it still had its moments" (focus group interview, February 18, 2021). In summary, Tyler, Anthony, and Marie focused their leadership team efforts on finding new ways to enhance the band experience for their fellow students. Anthony developed a deeper connection to his own music-making and Chris appreciated the time he was able to spend in band despite COVID-19.

Themes

Overall, the participants invested in the goal of making the year as normal as possible, including maintaining high musical expectations; however, some of the band students readjusted their self-expectations regarding musical skills. There were numerous performance and social events that the participants were unable to experience because of cancellations, but they fondly remembered those events and their band traditions from previous years. Mr. Thomson and the students noticed a more intent focus on developing

a supportive, compassionate band community. Four themes arose from their combined experiences. The themes of Trying for Normal, Individual Musical Accomplishment, Canceled Memories, and A Culture of Kindness are described below.

Trying for Normal

Mr. Thomson and the band students consistently compared the COVID-affected school year to a typical school year. Moreover, they seemed to pursue as normal an experience as possible in band, which stemmed from two reasons: the band's competitive traditions and Mr. Thomson's goals. Mr. Thomson and the band students were accustomed to a competitive musical standard and looked forward to attending several UIL band contests throughout the school year. Mr. Thomson wanted to approach band class in a way that was consistent with the students' expectations and incorporated as many pre-COVID aspects as possible in order to lessen student stress. During classroom observations, it was apparent that band rehearsals were proceeding as regularly as Mr. Thomson could manage. For example, Mr. Thomson walked around the room during rehearsal rather than staying fixed on the podium, and he also removed his mask occasionally to demonstrate an instrument embouchure or to drink bottled water. In a typical year, several instrument-specific clinicians would help the students prepare for Solo and Ensemble Festival. There were no modifications to this practice during COVID-19, and guest teachers were welcomed to the band room in-person to work with students on their musical skills. As Mr. Thomson shared,

> I try to make it as normal as possible. Obviously the masks on, but, that puts a
> damper on stuff. Just this week, we went back to arcs. We got approval from our
> district that we can go back into our arcs for the band, which helps a ton...You

know, I can start fixing stuff. So that makes it even a little bit more normal.

(interview, February 24, 2021)

The example of returning to "arcs," the usual set-up for the rows of students in the band room, showed how Taurus High School slowly was returning to a pre-COVID normal, which both Mr. Thomson and his returning students looked forward to.

The band students often compared pre- and post-COVID band experiences and discussed which aspects seemed typical of previous school years. Josh found few distinctions between band before COVID-19 and during the pandemic: "Well, it's basically been the same as last year, except, we just have to wear masks and we didn't get to do marching band UIL. So I think that's the only difference" (interview, February 4, 2021). Marie's comparison centered around the music that the band performed:

I mean, we had a kind of a normal experience, but at the same time, you have to kind of take in everything and realize, this is not that normal. Considering my junior year, we really started off with a really strong marching show. That probably was our best show we've ever had...And going into this year, with a simple little show, with little pop songs...You could kind of see the difference in the excitement. (interview, February 11, 2021)

The Taurus High School band program had a strong tradition of participating in UIL marching contest, and the absence of such an anticipated event stood out to both Josh and Marie as few other differences did.

Another aspect of trying for normal was evident in how Mr. Thomson and the students described the band activities that were "still" available during the 2020-2021 school year. Sarah conveyed her happiness that the music program offered after-school

orchestra and sectionals. "We still did afterschool activities. We took them into extremely safe measures, so I'm happy that we got to do fun activities while in a pandemic" (interview, February 1, 2021). Mr. Thomson added to the list of musical activities that were offered and spoke about how the band room was still open to students before and after school:

> We're still doing our full orchestra, and they'll go to contest here in 2 weeks. So that's still happening. I had a group of five kids who just wanted to play, so they are working on some woodwind quintet. It's like, we want to play this! Okay. So they've been coming after school and working. So there's still that stuff going on. (interview, February 24, 2021)

Marie also found a hopeful prospect in many of the similarities in available band activities. "There's been lots of opportunities where kids get to still perform and you get to still look forward to football games...We still get to have good music, in concert season I don't think there's much of a difference" (interview, February 11, 2021). Marie's focus on engaging band repertoire and the other students' enjoyment of meeting in the band room after school to play music may have been connected to Mr. Thomson's unwavering music teaching objectives. "My band teaching objectives before COVID? Same thing. I want them to get a little bit better at their instrument every day" (interview, February 24, 2021). However, there was a deeper reason that Mr. Thomson strived to create a feeling of normalcy for his students:

> This year has been full of abnormal circumstances. With masks, quarantines, new rules, sickness, and in some cases, deaths of family members, I wanted band to be the safe place that they [the students] have known for years. Even though we did

have new restrictions in place, I wanted the atmosphere and culture to be the

same. Which means we still work on fundamentals, and I still hold them to high

expectations. (email response, April 7, 2021)

Mr. Thomson and the band students were surprised by how normal the school year felt,

despite COVID-related abnormalities.

Individual Musical Accomplishment

The band students described moments of individual musical success that occurred

during the 2020-2021 school year. In response to feeling less purposeful in group

ensemble rehearsal, Sarah, Marie, Josh, Anthony, and Tyler self-evaluated their personal

musical routines. For Sarah and Marie, the prolonged time spent at home during

quarantines helped put their work ethic in perspective, as the majority of their academic

and musical work was self-directed. Sarah laughed as she said, "This year has made me

practice at home and not be lazy" (interview, February 1, 2021). Sarah noticed the

maturation of her clarinet playing skills, which she attributed both to longer practice

sessions and learning to be more independent. "Well, I guess my musical skills developed

at a faster rate than usual," she said. "We would all have to be practicing a lot more at

home. So, we're learning to teach ourselves the music" (interview, February 1, 2021).

Josh, Anthony, and Tyler also found themselves practicing their instruments more at

home. Josh mentioned, "Whenever I got quarantined earlier I had my clarinet with me, so

I got to catch up on a lot of like, music, playing, I got to practice a lot more" (interview,

February 4, 2021). Anthony's and Tyler's individual practice regimens led to increased

self-knowledge and enjoyment of ensemble playing. Anthony reflected, "Because I

practiced more alone, it was easier for me to progress myself in the group as well. So it

kind of makes concert band and jazz band a little bit easier, because I understand myself more" (focus group interview, February 18, 2021). Tyler agreed that personal practice had enhanced his connection to ensemble playing:

> Yeah, like Anthony said, I feel like this year, I've really practiced more...And I just became closer with band. I joined jazz band this year and learned to play different instruments, so it really got me more into band. (focus group interview, February 18, 2021)

Marie also transitioned to a new instrument for jazz band and was enthusiastic about the change. "At the beginning of this year, Mr. Thomson moved us around, especially for jazz band, we lost a lot of people...So instead of playing baritone sax, I got to play tenor sax, so it's a lot more enjoyable I think" (interview, February 11, 2021). Summing up the endeavors of all five students in pursuing their individual musical growth, Marie acknowledged, "I feel like it's more of a 'patting yourself on the back' this year, and it's a bit more of an individual accomplishment than it is as a whole" (interview, February 11, 2021). Sarah, Josh, Marie, Anthony, and Tyler experienced the quiet pride that came from excelling in solo instrument performance.

Canceled Memories

In a typical year, the Taurus High School band would have had a busy schedule filled with concerts, performances at sports and community events, music contests, band banquets, award ceremonies, and social get-togethers. When COVID-19 began in March 2020, all of those activities were canceled, and Mr. Thomson and the band students felt the damage. "We lost our contests that year, we lost our banquets, it was hard on those seniors for sure," Mr. Thomson said (interview, January 20, 2021). Josh shared another

example of a band opportunity that he enjoyed in the past and lost during COVID-19: "We didn't get to travel. I did miss doing that because I miss seeing all the other bands play and show their shows to us, so, that's what I miss" (interview, February 4, 2021). There were repercussions for the students' overall band experience in the 2020-2021 school year, as each canceled event would have benefited the students' personal and musical growth.

> Marie, currently a senior, keenly felt the effects of COVID-19 cancellations:
> I would say one of the worst feelings I have ever witnessed definitely tied into the saying "hard work down the drain"...when COVID-19 had its first outbreak was probably around the same time we began to plan for our UIL State Solo and Ensemble trip in Austin, Texas. When I was told that not only was the entire band missing out on this, but the entire district, it was as if someone had punched me in my stomach, and I remember crying for hours over this. I had advanced on two ensembles to the state level with skills that I had worked on for months just to be told it would not happen. (written response, February 11, 2021)

At the end of Spring 2020, Marie was notified remotely that she had earned the position of head drum major. She felt equally excited and depressed about the opportunity. In Fall 2020, Marie's efforts were focused on encouraging all the band members to engage with band objectives and connect with each other, although the impact of COVID-19 made this difficult:

> We had no away games, no competitions, it was hard to see a purpose in doing anything for marching band. Throughout the year there was only so much I could do to encourage kids to feel excited, motivated or even positive about the

lackluster show we had for the year. I can't pinpoint direct experiences, but I will

say as a whole COVID-19 ruined my last marching season and I will forever feel

dull looking back on it (written response, February 17, 2021)

Mr. Thomson empathized with Marie's experiences. When Marie contracted COVID-19

in early Spring 2021, the disease caused breathing difficulties that made it difficult for

her to play bass clarinet and tenor saxophone with enough air. Mr. Thomson worked to

help Marie not worry about small musical details as she recovered:

This year she was our best shot at making the All-State band. She's a fantastic

player. She works really, really hard. But she got COVID a week before her

audition. And so she didn't do as well at her audition. And then we were working

on her really difficult solo for Solo and Ensemble, and she made a comment, she's

like, "I just, I can't do the phrasing the way it's written. I have to breathe more

often." It's like, well, then you need to breathe more often. And like, you just

have to realize that you are recovering from this life-threatening disease.

(interview, February 24, 2021)

Marie experienced many setbacks due to COVID-19 cancellations and the side effects of

having the disease. These experiences were vastly different from the senior year that she

envisioned prior to COVID-19.

The Taurus High School band students were in large part unable to participate in

the usual, pre-COVID traditions of socializing, having parties, and spending time

together outside of school. Marie explained, "Typically, you get together, bond, throw

these parties that show you how one another act and stuff like that. But this year we

didn't really get to build that connection" (interview, February 11, 2021). Mr. Thomson

also missed the social component of band and being able to provide bonding experiences

for his students:

> Like the social part of it, you couldn't do stuff, you couldn't have the parties, you
>
> couldn't go outside and just play volleyball at the end of a summer band night, or
>
> just have a movie night, or we couldn't hand out popsicles, or there was no food
>
> before football games...Everything just needed to be you're here, and now you
>
> need to go and be away, because I need to clean everything. So I miss that part of
>
> it. (interview, February 24, 2021)

The band students replaced large gatherings with smaller get-togethers, especially among

the older high school students and the marching band leadership team. Tyler related, "I

spent a lot of time with Marie and Anthony this year because of leadership. And I

remember all the little things we did, like went to restaurants after games, and all the

laughs we had" (focus group interview, February 18, 2021). Marie's advice for all band

students during COVID-19 was, "Take the time to get to know the people around you,

because eventually you're going to all be stuck online again, and you're going to kind of

regret that you didn't know more about them" (interview, February 11, 2021). While

there were many experiences that were canceled during the pandemic, the band students

found their own ways to build social connection.

A Culture of Kindness

The difficulties of the COVID-19 school year helped to unify the band directors

and students in cultivating a more compassionate community. Mr. Thomson and the band

students noticed a shift in how they took care of each other and appreciated their time

together. According to Mr. Thomson, the atmosphere of the band room changed over the last year:

> I would hear the words "Shut up!" you know, kid to kid across the room, like, a lot over the last couple years. So that was my goal, like I don't want to hear that word anymore, I don't want to hear "shut up." And so from that point of view, I feel like everything's a much more positive, safer environment. (interview, January 20, 2021)

Mr. Thomson went on to further describe the shift in the band environment in reference to how the band was redefining success:

> I think success is changing maybe a little bit. You know, in the past it was, "How many kids did you have make the all-region band?" You know, that was the barometer of how successful you were...And so this year it's maybe more about do we feel like the kids are here in a safe environment, and whoever is here is enjoying it, and they're helping the group. And so I'd say, from that side of it, I feel like the culture here is a lot better, it's more family-oriented. I mean I think this year, because of COVID, it kind of made us focus on that a little more. (interview, February 24, 2021)

The Taurus High School band grew less focused on success as a competitive ensemble and more focused on the closeness of the band community during COVID-19.

The band students noticed the positive change in the band environment and felt that their band teachers were more supportive. Marie mentioned the assistant band director's "silly" antics during remote learning: "I feel like it was to help maintain the connection between the kids through the screen...I would say that we've all gotten a bit

closer this year" (interview, February 11, 2021). Josh shared about the support he received when Mr. Thomson was "understanding" about the length of time it took to learn a new musical part or complete a band assignment (interview, February 4, 2021). Mr. Thomson had in fact made a concerted effort to focus on students' stress levels and challenges with COVID-19 both at school and in their home lives, and to alter band requirements as necessary. Mr. Thomson provided a pertinent example:

> There's a kid who's really struggling right now. He has missed so much time because of whatever, home-life, COVID. I don't know everything that's going on, but it's not great. And so we're doing our playing tests today, and he, you know, he started crying. And so it's like, okay, talk to me at the end of class. And so you pull them aside, and it's like, man, I'm more than happy to hang out and talk with you if you need. And so I'm more compassionate, more lenient, open to helping them out. (interview, February 24, 2021)

As a team, the band directors endeavored to provide a kind and understanding environment for the students through their actions and individualized attention.

The feeling of kinship between students also was demonstrated through peer support. Sarah noticed an increase in her classmates' patience and believed that the new band environment would last post-COVID. Chris felt comfortable enough around supportive peers to be more open and communicative, where in previous years he did not talk very much to others in band. "This year, it definitely felt a lot more involving, compared to previous years. I even speak a lot more compared to before" (focus group interview, February 18, 2021). Band members formed a support system for remote students as well. Classmates had delivered Marie's instrument to her doorstep, and the

band leadership team also delivered gifts to other students during quarantine. Marie explained how the band culture had improved overall:

> So many people that are like, come on, let me help you. Just giving that hand, just so much more of a positive environment. It's a lot nicer, and something that we see a lot more around us now...I am thankful the people within my program were able to find comfort in kind words from peers and directors. (interview, February 11, 2021)

During COVID-19, Mr. Thomson and the students discerned a shift toward a kinder and less competitive band environment. While Mr. Thomson and the band students looked forward to being able to attend competitive events after the pandemic, they also appreciated how the band culture had changed in terms of peer interaction.

Chapter Summary

From March 2020 to February 2021, Mr. Thomson and the band students at Taurus High School transitioned from asynchronous remote learning to in-person learning that consistently was interrupted by periods of quarantine for individuals or groups at a time. Mr. Thomson aspired to keep band objectives the same in terms of high musical expectations and celebrating the victories and musical growth of his students. Band members and the leadership team collaborated to make the band year as normal as possible, although they unavoidably struggled with canceled events, socials, and concerts. Some band students grew in their individual musicianship through home practice and increased small ensemble participation, while others utilized communication technology to promote closeness as a group. There was tension between band students' expectations and the realities of learning and performing during COVID-19. Mr. Thomson and the

band students also earned self-knowledge of their own musical or personal stamina, and

unified in support of each other.

CHAPTER SIX

CANIS HIGH SCHOOL, COLORADO

Canis High School sprawls across an expansive, landscaped lot in a suburban area of Colorado, within view of a large park and lake. At the time of this study, the school was 10 years old with a total of approximately 2,300 students in Grades 9-12. The student population of Canis High School was 78% Hispanic, 13% White, 6% Asian, 1% Black, and 2% two or more races. Many of the students were English language learners, and all school communications were distributed in both English and Spanish. Seventy-nine percent of the students lived in low-income households and were eligible for free or reduced lunch.

COVID-19 disrupted accessible transportation and technology for Canis High School students and their families. During the 2020-2021 school year, the district did not offer transportation to and from school because the continual changes in remote vs. in-person formats and number of students and teachers in quarantine created logistical issues for the bus system. In an attempt to simplify transportation needs for families, the school district decided to operate either fully in-person or fully remotely. When operating in-person, students had to find their own transportation to school. However, remote learning presented its own challenges, as many Canis High School students had limited access to reliable WiFi, although Canis did have a 1:1 Chromebook initiative. In order to help local families with Internet access, the district bought as many hotspots as possible and partnered with Xfinity, which donated time-limited household hotspots for free.

In response to the strict COVID-19 safety guidelines that the state of Colorado implemented in Summer 2020, Canis High School organized the students and teachers

into cohorts, or groups of approximately 70 students who would learn together. If one student in the cohort contracted COVID-19, the entire cohort and the cohort's teachers would be quarantined for 2 weeks. Canis High School operated on asynchronous, remote instruction in Spring 2020 and switched to synchronous, in-person instruction in Fall 2020 for approximately 1,600 students. The number of students and teachers in quarantine often caused the entire school to switch to synchronous, remote instruction for 1-3 weeks at a time. The remaining 700 Canis High School students attended all-remote school through the high school's virtual academy, a pre-COVID platform run by separate staff. The virtual academy expanded during COVID-19 in order to alleviate the number of students in the physical school building.

The Canis music program offered band, choir, orchestra, and guitar classes on a block schedule with 90-minute class periods. Band students at Canis could choose to participate in symphonic band, wind ensemble, marching band, jazz band, and/or pep band. Some of the band students played a second instrument in orchestra, although the COVID-19 cohort schedule forced some students to choose between band or orchestra for the 2020-2021 school year. The band director at Canis High School, Ms. Campbell, was highly recommended in the field. I had not visited the school in-person and had only communicated with Ms. Campbell via email. I opened Zoom with great anticipation, looking forward to meeting Ms. Campbell virtually and hearing about the band program.

Participants

Ms. Campbell and four of the band students completed remote interviews. Ms. Campbell discussed her strategies and planning for COVID-era instruction and shared personal advice for balancing life and work during a pandemic. The band students, Jon,

NC, Emilia, and PewPew, related their experiences with music during COVID-19 and their fluctuating levels of motivation during the course of the pandemic.

Ms. Campbell: The Advocate

Ms. Campbell signed on to Zoom from her office in the band room, with a brilliant smile and a brightly-colored collage of Hogwarts houses and band pictures on the bulletin board behind her (a previous year's homecoming theme, as it turned out). She exhibited friendliness and a sense of adventure as she shared stories of her early years of music teaching and of 6 months in Ghana where she had taught music and English to children and adults. Settled now in Colorado, Ms. Campbell was in her 3rd year of teaching at Canis and 7th year of music teaching overall. She spoke earnestly about her band objectives, her students' needs, and her efforts to personally encourage each individual student as they navigated learning during the pandemic.

Ms. Campbell appreciated her school district's organized response to the COVID-19 pandemic, yet felt distressed about the negative effect of the cohort system on the band program. She pointed out that her district was one of the first in Colorado to announce their Fall 2020 plan for in-person instruction, with a virtual academy run by separate staff. Since the school building was 10 years old with a fairly new air filtration system, Ms. Campbell was one of the only band directors in the district allowed to have 30-minute rehearsals with wind instruments. However, the process of cohorting meant that school counselors did not schedule many students in their preferred electives, as elective classes would have taken the students out of their assigned cohorts. Ms. Campbell explained,

At first, they were telling kids, no, you cannot take this elective at this time

because it's not your cohort. And then I had 12 kids on my roster. I was like, ok, I

understand what you're doing, but you're going to destroy us, and my kids come

to school for band. So you have to release that a little bit. But that [more flexible

enrollment for electives] was not a thing until the third week of school. I ended up

getting back like 90 of my kids, but I had 180 last year. (interview, February 18,

2021)

Ms. Campbell met with school counselors and administrators to explain the problems

with cohorting and elective class enrollment. She also utilized the NFHS aerosol study

(NFHS, 2021) to calm worried members of the school administration:

Unfortunately, that choir, the super-spreader event in Washington state I think it

was, has put up a lot of roadblocks despite all of the scientific evidence that has

been produced....I have all of the scientific research that shows if we take the right

precautions that it's ok. I'm following them to a T. I still get people that are like,

well, maybe we should reevaluate that. And it's like, don't you dare take that

[band class] away from my kids. Because for some of them, the only thing

keeping them going is the fact that they can come play for 30 minutes twice a

week. (interview, February 18, 2021)

Further explaining the need to advocate for band participation, Ms. Campbell referenced

her students' deep attachment to being in band:

My students really don't do well online. A lot of them live in traumatic homes, or

they haven't had a home. COVID has really, really hit this population, harder than

a lot of others. So they're safe here, they feel safe here, they do their work here.

(interview, February 18, 2021)

Ms. Campbell knew that several of her students were only able to practice their instruments at school due to lack of space at home, having to walk home, or difficult home environments in general.

During the remote, asynchronous format in Spring 2020, Ms. Campbell identified the challenges of remote learning in terms of connecting with her students and keeping them on track with schoolwork. Ms. Campbell realized that she needed to devise Fall 2020 band projects that could be accomplished whether school was virtual or in-person. She also wanted assignments that were musical and that would encourage student creativity and address the needs of her students during the stressful time of COVID. Inspiration first struck in Summer 2020:

I was walking my dog, and all of a sudden I was like, what if they made their own method book? Because method books don't really work for my kids. They're not translated [from English to other languages], it's music that they don't really connect with, it's a bunch of white people they don't really care about that made it...So, that is the structure of our year. And the fact that we stopped playing in March, and I was like, by the time I see them again, they'll potentially not remember how to play their instrument at all. (interview, February 18, 2021)

Ms. Campbell implemented the method book project as five units in which high school band students (a) reviewed instrument fundamentals, (b) discussed how to teach musical skills on their specific instrument, (c) described how to read musical notation, (d) composed instrument-specific exercises, and (e) designed their method book layout. The
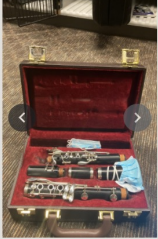
last unit was for students to input their method book into individual Google sites and share the sites with elementary or middle school music students in the district. The outline of the method book units and instructions for Unit 4 can be found in Appendix B. Samples of the students projects are below in Figure 6.1. Ms. Campbell motivated her students by telling them, "This is your legacy. For years to come, people are going to learn from your method book, and say, 'Eddie taught me how to play the drums.' COVID is going to cement you in our school band's history" (interview, February 18, 2021). Ms. Campbell also hoped the method book project would serve as a recruiting tool with the elementary and middle school students.

Beyond the year-long method book project, Ms. Campbell designed other activities to help the band students deal with stress and create music without wind instruments. Teaching on a block schedule meant that the students could play wind instruments for 30 minutes of a 90-minute class. Ms. Campbell prepared mindfulness exercises and group drumline rehearsals to fill the remaining time. During the first 5 minutes of each band class, the students engaged in meditation, laughter, and other activities that encouraged feelings of calmness and safety. They also formed a drumline ensemble where the entire band class rotated on bass, snare, tenor drum, and cymbals and developed rhythm-reading skills.

Figure 6.1

Colorado Method Book Examples

Instrument Assembly and Safety

How to Assemble the clarinet:

1. Place case on floor label up
2. Open clasps and case
3. Take out the smaller, upper body piece of clarinet
4. Take out the bigger, lower body piece
5. Put small body piece into the lower body piece carefully and aligning the keys
6. Take out the bell
7. Place bell on the bottom of the body pieces
8. Take out the barrel
9. Place barrel on the very top and gently twist together
10. Take out mouthpiece and put that on the very top
11. Wet reed in mouth
12. Place reed aligned with mouthpiece
13. Carefully place ligature over reed and mouthpiece

1

Posture

What is Posture and Why is it Important?

Posture is the way your body is positioned, and for best results in your playing, you must have good posture! It makes your sound have great clarity and you look nice while doing it!

What to look at in this picture

This is a great example for good posture! Some important details are:

- Straight back
- Bringing the sax to you, rather than craning your neck
- Relaxed shoulders
- Fingers on appropriate pads

And what you can't see is that his feet are to stay flat on the ground.

His straight back will make his airflow very strong, making his sound strong as well and that is what we are striving for!

2

1

How To Breathe

Haven't I been breathing my whole life? Yes, yes you have, but now you have to breathe for a whole new companion, aka, your saxophone.

How to Produce Good Air and Sound

When getting trying to get a big, full breath, **your upper body should be similar to how it would be when playing**– to maximize lung capacity.

The air doesn't come from your nose or mouth, **breathe from your stomach/ diaphragm.**

When exhaling from your mouth, think of how you want your sound to be. **One long, steady stream of air.**

Mini Breathing Exercises

1. Breathing in for a count of four, sizzle for four
2. Breath in for a count of four, sizzle for a count of two
3. Entirely fill your lungs through your nose for a count 4 and out for a count of 4
4. Deeply inhale through nose for count of 2 with closed mouth, release through pursed lips for count of 4
5. Breath in for count of 2 through nose, out through mouth for a count of 4

When doing these exercises, for each inhale, slowly raise your hands above your head. And for each exhale, lower your arms.
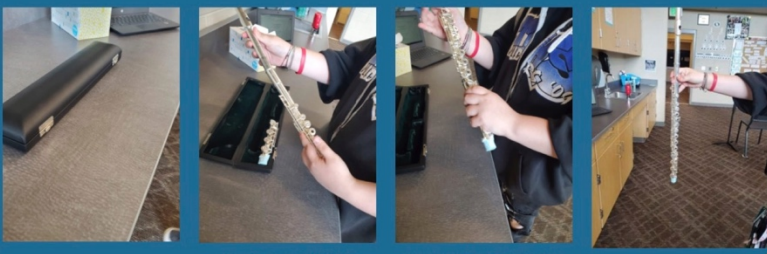
3

How to put together a flute (insert your instrument name here):
1. Make sure the case is were the flute is up right
2. Undo the latches of the case and open the case
3. Grab the body of the flute and the head joint
4. When you put them together make sure you don't push on the keys that hard/ don't push on them at all, line it up with the keys
5. Now grab the foot joint and put it on the opposite side of the flute and put it how you would like you pinky to sit on the key

Piccolo
1. Make sure your case is up right
2. Unlatch it and open the case
3. Take the head joint and body and put them together (When you put them together make sure you don't push on the keys that hard/ don't push on them at all, line it up with the keys)

connecting the head to the body   connecting the foot joint to the body

4

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Ms. Campbell had several reasons for choosing to teach drumline:

> They love drumline. And I don't have good drumline percussionists right now for marching band. So you know, kind of killed all the birds with one stone. Now all my students can split basses, they can all play the quads, they can all play snare, they can all play cymbals, they know how a drumline works. So, and no wind [playing], and it's ensemble playing, it's rhythm reading. (interview, March 30, 2021)

Ms. Campbell deliberately chose band projects based on the needs she saw in her students. The method book project created an opportunity for students to understand their band instruments more deeply through teaching them to others. The mindfulness exercises gave students a much-needed moment of focus during the school day, and the drumline allowed for a fun, active ensemble experience. In addition, the drumline rehearsals ensured that the marching band in future years would be supported by a strong rhythm section.

As the 2020-2021 school year continued, a few COVID-19 restrictions lightened and the band program was able to plan safe versions of the typical end-of-year events. The adult population of Canis High School had reached a 93% vaccination rate, and the teachers could now wear a mask of their choice rather than the full KN95 mask and a face shield combined. In place of a final concert, Ms. Campbell was preparing for a socially-distanced performance of the band and orchestra playing *Pomp and Circumstance* and a medley of songs from the movie *Moana*. She also was starting a virtual band for students in Grades 4-8 who had not been allowed to play wind instruments since the pandemic started. These small signs hinted at a post-COVID future.

Ms. Campbell was extremely proud of her students for their fortitude during COVID-19 and their ability to make the most of the brief amount of instrument-playing time they were allotted:

My students have always been pretty resilient because the vast majority of them are living in poverty and are living through trauma, and just have to move forward and figure things out on their own. They were told they had to wear a mask to play, they wear a mask and they play. They can't sit right next to their buddy and they can't be hugging and high-fiving all the time, so they step back. And we can't play for more than half an hour, but when we do, they just savor it, and they're much more conscientious musicians. And it just feels like no matter what COVID has thrown at them, they're like, ok, well, here we go. It hasn't beaten them down in the ways that I thought it might. (interview, March 30, 2021)

Ms. Campbell also appreciated how the year of pandemic teaching slowed down the band's demanding schedule of performances and allowed her to connect more individually with her students:

I feel like this year has really given us great perspective as a department, as a school, as a field, to stand back and say what is really important and valuable for our students and for us...I feel like I've been able to connect with all of my students on a deeper level, because we're not stressed out about all these concerts, and these performances, and this parade, and that field trip. We're making music because we want to, and we love this. And how lucky are we that we're still doing it, even though all of the craziness has happened this year. So, yeah, it's been the strangest, awful, wonderful breath-of-fresh-air year. (interview, March 30, 2021)

Teaching band during COVID-19 had given Ms. Campbell the time to prepare creative, musical projects for her students that she hoped would encourage their lifelong musicianship. Her strategies also were meant to address students' emotional needs by providing a relaxing space for focused work during the pandemic, and to keep students connected whether they were at home or at school.

Jon: Adaptable Freshman Tuba Player

Jon was on the Zoom call early, with his video turned off. Materializing immediately at the first introductory "Hello," Jon gave the appearance of someone who was always online, ready to chat with anyone who happened across his screen. A freshman who recently switched to tuba from tenor saxophone, Jon also played string bass for 4 years in orchestra. He seemed experienced for his years and knowledgeable of music, as demonstrated by his mature conversation and references to the musical skills that he and his classmates were learning.

Jon had an inquisitive personality and was interested in applying his talents in new ways, including becoming more involved with tuba, percussion, and learning bass lines to popular songs on his tuba. He also recognized that the band needed a tuba player and felt he could fit the niche. As Jon described,

> I wanted to try out different instruments than tenor saxophone. I did it [tried new instruments] last year in middle school, then started on tenor saxophone this year. But then we had a student teacher that played tuba, so I just decided, why not? There weren't any tubas at the time, so I just decided, why not, let's go with tuba, let's try a new instrument. And I really liked it. (interview, March 16, 2021)

Jon was enjoying developing his tuba playing and was proud that Ms. Campbell had complimented him on how quickly his playing improved. Because Jon could not easily transport the tuba for home practice, he prepared for band in other ways:

> Musically, just trying to practice as much as I can, listen to the different notes, go through the fingerings as well. Because right now, I don't think I would be able to fit a tuba where I live because I live in such a small place, but I always listen to music. (interview, March 16, 2021)

At school, Jon often would ask Ms. Campbell to play his note on the piano, so that he could match the pitch. Jon's adaptable nature helped him take advantage of available opportunities to grow as a musician.

COVID-19 protocols pushed Jon to make a change in how he approached his classwork and music practice. He observed how the abrupt transition to remote learning caused both his musical ability and the band's performance level to regress:

> When I first heard about COVID I didn't think much of it. I was really doing good at tenor [saxophone]. But then as soon as COVID hit, we thought we were going to be on break for 2 weeks. Then afterwards I heard that cases are going up, major lockdowns are happening, I was really just stressed out and I couldn't play because my instrument was at school and we were months on months without going to school. So I kind of lost some skill there with tenor sax. But then once we got back to school, we're still playing and it kind of just set us back a little bit. (interview, March 16, 2021)

Jon reflected on how unexpected the first few months of COVID felt and regretted how the band's and his own musical skill declined. However, he witnessed the band rebuild its musical level as his own work ethic received an equivalent boost:

> Before COVID I was really not good with my grades and I used to procrastinate a lot. Then as soon as COVID hit, I realized it's not a good idea to procrastinate and leave everything behind. So I just decided to leave that, and I began doing my work more often, studying for things, getting things right. And I'm just so glad I improved on so many levels on things that I wanted to improve. (interview, March 16, 2021)

Jon responded to COVID-related circumstances by finding ways to improve academically and musically. None of the COVID-19 restrictions seemed to dim Jon's enjoyment for music activities, and he hoped to continue playing string bass and tuba throughout his high school career.

NC: Nonchalant Freshman Saxophonist

NC signed into Zoom several minutes early. He delivered each sentence immediately and with unruffled certainty, sometimes in a monotonic way. A freshman alto saxophone player, NC had experienced less than one year of high school band yet seemed to take every COVID-related regulation or band activity as a matter of course. According to NC, switching to remote learning was an easy transition: "We're not doing anything different, at least for me to learn on the Chromebook since I already know all the extensions and everything to do with the Chromebook" (interview, March 17, 2021). NC described his participation in band as the same as it was prior to COVID-19, and

found that safety regulations were nothing more than minor annoyances. In regard to wearing a mask and playing saxophone at the same time, he shared,

> It's nothing really different. It's just that since it's a Velcro opening at the mouth, the Velcro kind of gets onto the mouthpiece and like into your lips. It's hard to put the mouthpiece through it without shifting your reed. (interview, March 17, 2021)

NC seemed accustomed to the ways the Canis High School band was operating under COVID-19 and did not seem concerned with the changes to band assignments or the lack of time spent playing his saxophone.

NC was less indifferent toward his own musicianship, however, and felt challenged by the band music. He was honest in assessing his musical skills and also had a clear sense of self. He recognized that playing in high school marching band was more difficult than playing in middle school band:

> I'm not as good as I thought I was, especially when I moved into marching band. It was a huge step up from what I was used to. Like now I have to learn how to march and play at the same time. I have to play in high and low registers, which I'm not used to yet. (interview, March 17, 2021)

Nevertheless, NC was confident in his ability to contribute to the saxophone section in symphonic band rehearsals: "I've been the support, since I usually help in my section. So it's not really anything new, like treading my own trail, playing my music." NC was as comfortable in his capacity to learn under COVID regulations as he was with playing in band. He had been quarantined during the last half of October 2020, and then the school moved to all-remote learning for the remainder of the fall semester. NC recalled, "The

day before I was supposed to go back, the district decided to close all schools, so I was stuck at home until second semester" (interview, March 17, 2021). Even the long period of remote learning did not faze NC, and he expressed his adjustment to learning from home and to COVID rules:

> I find that I adapted very quickly. Like, the masks don't bother me as much. The cleaning, not too much. The social distancing isn't much of a problem anymore. I'm not really that social, like, I'm fine with being alone. (interview, March 17, 2021)

NC's unflappable nature served him well during the irregularities of the COVID-19 school year. He continued practicing his instrument during a long quarantine, and seemed to learn easily whether playing with his peers in the saxophone section or individually accomplishing Chromebook assignments.

Emilia: Careful Junior Saxophonist

Emilia presented a stylish appearance when she entered the Zoom call, both with her relaxed demeanor and her pixie haircut. Her screen froze soon after she said hello, and she calmly signed off and back on again. There were several more technical glitches in video and audio over the course of the interview, and each time Emilia waited patiently, repeated her answers, and only once shared that she wished the "WiFi situation" could be improved; it had been a problem during remote classes and conversations with friends, too (interview, March 1, 2021). Emilia had been in band since 4th grade and currently played the alto and baritone saxophone in the Canis High School wind ensemble and marching band.

Emilia adopted a cautious approach to school and band participation during COVID-19. Both she and her family focused on making safe decisions when Canis reopened in-person in Fall 2020. Emilia described, "When I was starting to go back to school, my mom was hesitant, so I kind of held back a little bit...When we got into routines again, it felt safer, and I was able to immerse myself slowly" (interview, March 1, 2021). Emilia appreciated having band back in her schedule and enjoyed the method book project and drumline rehearsals because they felt normal while seemingly aligned with COVID safety regulations:

> She [Ms. Campbell] started us with cadences when it was safe. So no wind instruments because we were waiting for our bell covers. And that was really cool because we got to learn percussion and we still do that like daily, so that's new for us. Yeah. And now we're doing songs, like 30 minutes at a time...It's refreshing, like a sense of normalcy almost. (interview, March 1, 2021)

The gradual return to wind band rehearsal after waiting weeks to receive band bell covers and instrument masks allowed Emilia to acclimate slowly to COVID-era band while enjoying a new musical activity.

Upon returning to school in-person, Emilia noticed how the pandemic might cause her classmates to alter their opinions of band. Emilia commented on a change in how music was rehearsed during the 30 minutes of wind instrument playing per day:

> Now, because we have the time, we get to focus on how we build our music. We get to focus on the little parts, like when there's a harmony that seems really basic, we get to make it big and as dramatic as we can. And see all the little things

we could do as a musician to make our music the best we can. (interview, March

1, 2021)

Emilia was highly reflective on how band rehearsals had changed during the pandemic.

She expressed the desire to continue the new band routine post-COVID: "Later on, our

rehearsal times will grow. I hope that we take the same amount of time to focus on the

little things that we do now, not just playing to play, like we used to focus on before"

(interview, March 1, 2021). The "little things" Emilia referred to were the personal and

musical components of the mindfulness, method book, drumline, and rehearsal activities

combined with the feelings of relaxation and having more time. Emilia speculated on

how the focused musical experience would make her fellow classmates feel in the future:

> I think that COVID will make everyone a lot more appreciative of what we make
>
> of band...Now we realize what we had, and what we don't now, and we get to
>
> appreciate what we're safely able to do. (interview, March 1, 2021)

For Emilia, COVID-era rehearsals became immersive spaces to enjoy playing and go

further in-depth on specific musical skills. Considerate of safety regulations, Emilia

valued how the band refrained from playing wind instruments until the safety equipment

arrived and appreciated the additional activities, especially the group drumline

experience.

PewPew: Nostalgic Senior Multi-Instrumentalist

PewPew joined the Zoom call with a tired smile. She seemed friendly and happy

to chat, but as PewPew shared band stories, she portrayed an air of a long-suffering

student who was trying to make the most of her senior year despite numerous obstacles.

As it turned out, PewPew was Zooming from quarantine and had been out of school for 2

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weeks, along with the rest of her cohort. As she described, this was a fairly usual occurrence:

> Yeah, I got quarantined a lot. Not because I ever got sick, but because for some reason I was in constant contact with people that had tested positive. And it wasn't just me, it was a lot of kids. If one kid was in our classroom, the whole classroom would get quarantined, including the teacher and the students in their six other classes. (interview, March 16, 2021)

Being in quarantine made PewPew feel detached from her many music classes; as a multi-instrumentalist, she played violin and cello in orchestra, flute in band, and was one of three drum majors in the marching band for the 2020-2021 school year.

The quarantine interruptions during her senior year as well as the adjustments to some of the typical, pre-COVID music activities were fairly discouraging for PewPew. For example, she was slotted to play both flute and violin in the canceled full orchestra and was in quarantine while her fellow band students designed a marching band light saber fight that the other two drum majors performed. In orchestra, PewPew was underwhelmed by the smaller number of students in rehearsal and the music selections, which she felt were not challenging enough:

> We just sit there and play over exercises. It gets kind of boring. Not the teacher's fault or anything, but it's what we can do. It was never boring before COVID because you got to play, and there were more kids too. (interview, March 16, 2021)

PewPew felt there was less pressure to play well in both band and orchestra than there had been in previous years. She also experienced less demand to perform at the highest

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level in core academic classes, which were International Baccalaureate (IB) courses with exit exams. PewPew laughed as she said, "The teachers keep telling us this is the best year to be in IB. Especially for the tests, because it's more easy for us to pass" (interview, March 16, 2021). PewPew was disgruntled by not having a normal senior year, especially in terms of holding her academic and musical achievements to a high standard.

PewPew pursued individual music development during the COVID-19 year, perhaps to replace missed group experiences. She practiced several violin solos in orchestra at school and at home during quarantine. PewPew was enthusiastic about learning new music which she demonstrated in her advice for other music students:

> I really do like classical music. I listen to it in my free time. I would say, explore different pieces, especially for your instrument, and if you find a piece that's really cool and you're like, I wish I could play it, then print it. And start practicing, even if it's a little beyond your playing ability. Just practice it. Something to keep you motivated. (interview, March 16, 2021)

PewPew was energized by reaching personal musical goals and happy to recognize the development of another musical skill during COVID. As a drum major, she practiced conducting skills and felt that she had improved her sense of tempo:

> Before it was difficult. Not for just me but like the rest of the band to know if they were on time. But I recently, like, this year I became drum major, and my tempo has to be so on-point. And so when I'm actually playing an instrument I notice when other people are not on time. (interview, March 16, 2021)

Despite the positive examples of musical growth, none of PewPew's COVID-era experiences could compare to her favorite band memory:

The most memorable for me is my first game. Because usually when we have

games we have potluck, because no one's allowed to go home, so we have to eat

there. And so there's just a bunch of food, and I remember being like really full,

like satisfied, like it was nice and warm, and then we got to play. And then after I

came back home I was so tired, but it was a nice tired and I just fell asleep

immediately. (interview, March 16, 2021)

PewPew reminisced about previous school music events that were currently unavailable

due to COVID-19 safety regulations, and was feeling apathetic about the current school

year as she waited to get out of quarantine. PewPew found the decrease of large ensemble

music-making opportunities disheartening but still appreciated the prospect of developing

individually in her private practice.

<div align="center">**Themes**</div>

Three themes arose from the combined data from Canis High School: Always

Ready, Introspection, and Building Community. Ms. Campbell's careful planning and

introduction of the method book project helped to create continuity across remote and in-

person instruction and allowed the band students to feel equipped to handle the quick

transitions in instruction. Both Ms. Campbell and the four band students developed an

introspective quality through mindfulness, self-evaluation, and focused musical listening.

Finally, the Canis High School band program responded to COVID-19 with increased

musical communication, social connection, and overall support for others.

Always Ready

The band community at Canis High School underwent substantial setbacks during

COVID-19. One challenge was the cohort system combined with the strict quarantine

rules, which resulted in a quickly-changing band population and overall decreased numbers for the 2020-2021 school year. The quarantining, along with the lack of school-provided transportation, required the school district to switch regularly from remote to in-person instruction. Ms. Campbell explained the resulting school schedule in Fall 2020: "The fall got a little rough, because it would be like, 2 weeks in-person, a week at home, a week in-person, 2 weeks at home, 3 days in-person, a week at home. So that got tricky" (interview, February 18, 2021). Ms. Campbell redesigned band assignments and goals in order to accommodate for the challenges.

Ms. Campbell's method book project kept the band motivated, working, and prepared. Emilia's casual description reflected the success of instructional transitions in band:

> I think for half of the semester we had to go remote. Yeah, we were always ready. We have been maintaining a project throughout the year of building a method book to be able to give to a beginner. So through the whole year we're just building on that, so whenever we go remote we always have something to go to. (interview, March 1, 2021)

The five separate units of the method book project were organized in a logical manner for the students to follow from home or at school. Additionally, Ms. Campbell created descriptive rubrics for each step of the method book project (see Appendix B), so that the band students could follow their continuing progress. The band students also were able to select which level of involvement they believed they could manage, and Ms. Campbell clarified the grading system that accompanied the students' choices:

We're in Unit 4, which is the composition unit. And they get some voice and

choice in this one, because there are 10 different compositions they can do. And if

they do all 10 they'll get the highest grade, if they do eight of them they'll get the

next grade, if they do six of them they'll get the passing grade. (interview, March

30, 2021)

Ms. Campbell's efforts to provide a lasting project that could be accomplished online and

in-person gave her students a sense of stability, and the element of student choice allowed

her students to participate at their own pace. As the method book project progressed, Ms.

Campbell noted that the students' compositions were improving their self-analysis skills:

There are five instrument-specific exercises. So for a flute player, it might be, I

need to practice the notes going above the staff, because it's really hard to use my

air and play high. So it's getting them to think about, what is hard on my

instrument? And it's been fascinating, watching them be like, "Oh yeah, I still

struggle with this." Huh, you could use the exercise you just made, hm.

(interview, March 30, 2021)

The further the students progressed on the method book project, the more clearly they

were able to communicate their own instrument-playing strategies to others.

Ms. Campbell's endeavored to help her students learn to function online but also

encouraged student-led activities. Ms. Campbell recorded numerous instructional videos

using Screencastify, a Chrome extension for screen-recording, so that band students were

able to see and hear her as she walked them through band lessons. When she was able to

rehearse in-person, Ms. Campbell reassured the students that they would have support

when going remote: "The videos are there if you're ever remote and I'm not there to

teach you!" (classroom observation, March 11, 2021). She created virtual rhythm worksheets and posted recordings to add to the students' online learning routine. Ms. Campbell elaborated, "My biggest goal was that they could access materials wherever, whenever. Because I don't know when I'll see them. I just want them to access their musical growth wherever, whenever. Digitally" (interview, March 30, 2021). During in-person rehearsals, Ms. Campbell worked to instill a sense of ownership in the students. In one example, she encouraged the students to help construct the marching band show. One of her drum majors found the "Star Wars" parade music, and one of the trombone players had the idea for the marching band to split in half on the field, creating an aisle for a drum major light saber battle. Ms. Campbell assisted her students in realizing their show design by writing drill. The first time the band rehearsed the light saber battle on the parking lot practice field, Ms. Campbell was enthusiastic: "Yay! I love when ideas work!" (classroom observation, March 8, 2021). These combined experiences virtually and in-person, as well as the purposeful, student-led projects, seemed to bolster the students' readiness to cope with the uncertainty of COVID-era instruction.

Introspection

Ms. Campbell recognized the need for the band students to self-examine and adjust their anxiety levels during COVID-19. Using her previous experience and concern for her students as inspiration, she created daily mindfulness activities to mitigate stress levels. The band community was unsurprisingly stressed during the pandemic and the resulting instructional transitions, quarantines, and lack of regular interaction with classmates and teachers. All four students had been in quarantine at least once, and both PewPew and NC had been in quarantine for extended periods of time (longer than 2

weeks). Emilia, Jon, and PewPew each struggled with their motivation to continue completing school work during remote learning. Emilia explained, "As a student, I realize that I'm really dependent on having a stable environment to work in, like a classroom. Just having something to rely on" (interview, March 1, 2021). For Ms. Campbell, stress was already a familiar part of her job prior to COVID: "I worked 70 hours a week. Just, we shouldn't be doing that. It's not fair to ourselves, and it's not fair to our students who aren't going to get the best versions of us from that way of life" (interview, March 30, 2021). In addition to working long hours, Ms. Campbell also described the emotional needs of her position:

> I think my program's a little unique from other high school band directors in that my kids, because they don't have a lot of stable adults in their lives, I am that adult. I've had to work a lot in my personal life on compassion fatigue and secondary trauma, because they all bring it right here into this office. (interview, March 30, 2021)

Knowing her own and her students' emotional needs prior to the pandemic, Ms. Campbell had some idea of how COVID-19 was going to place stress on the band community.

Initiatives for communication, mindfulness, and musical relaxation in the band classroom helped Ms. Campbell and the band students manage COVID-related pressure. During remote, asynchronous instruction in Spring 2020, Ms. Campbell learned how COVID-19 was affecting her students by sending out regular emails and surveys:

> A lot of surveys, like a quick Google survey of like, what do you like that's happening right now? What is bumming you out? Is there anything I can do to

change band to make that better? Which was helpful, just getting them to talk to

me as much as possible and tell me what's going on in their life and in band, has

helped me navigate what they need from me. (interview, February 18, 2021)

The band students' survey responses helped Ms. Campbell acknowledge their challenges

and alter band instruction accordingly.

During the 2020-2021 school year, Ms. Campbell continuously planned

mindfulness exercises to encourage her students' self-reflection and create a centered,

relaxed space for her classes. A book entitled, *Burnout: The Secret to Unlocking the*

Stress Cycle by twins Amelia and Emily Nagoski inspired the mindfulness exercises.

Drawing from the sample mindfulness activities suggested in this book, Ms. Campbell

designed 5-minute daily exercises that guided her classes in breathing, meditation, music

listening, and laughter. Emilia named mindfulness as her favorite activity of the school

year and said,

I like that this year she [Ms. Campbell] has been incorporating a lot of

mindfulness, especially taking time to do some meditation or explaining that type

of stuff with us trying to get us to understand our bodies. That's really cool that

she's putting that now when we need it. That's not really band-related, but it's

nice. (interview, March 1, 2021)

Jon agreed that the mindfulness exercises were a helpful and refreshing change of pace

during his school day:

Sometimes people can come really stressed from another class that they don't

like, or they come really hyper like me because before band I have weight

training...So what happens is we take a minute or three minutes, sometimes we

listen to these really peaceful audios, we do stretching and just sort of centering

back and being able to be ready to learn...Yes, I think they really do help...I even

fell asleep once. I was just so comfortable that I fell asleep, and then when I woke

up, I was just really relaxed and ready to play. (interview, March 16, 2021)

Ms. Campbell was pleased with how the exercises set up her students for productive band

rehearsals and helped them connect with themselves and each other. She planned to

continue including mindfulness in her band classes post-COVID:

I'm definitely going to keep them. I went into this year knowing that we all

needed that, myself included. We just needed that moment to connect with

ourselves and each other. Realizing that we're okay, we're safe, because

everything is so out of control...Like, COVID is here, there's nothing we can

actually do to make it go away, so how can we stop being stressed about it. And

the transformation of them walking in my room, doing mindfulness. They are so

focused, especially my freshman. So focused, so ready to go, more open with me

and more open with each other. And I can tell when we haven't done it.

(interview, March 30, 2021)

The mindfulness activities were crucial in preparing the band students for rehearsal and

giving them a much-needed restful moment during the school day.

The student participants were avid music listeners at home, and the additional

meditative listening at the beginning of band class seemed to focus the students' listening

skills even further. Emilia surmised that concentrating on listening at the beginning of

class improved her aural ability to pick out musical details when the whole band was

playing, including rhythms and how each section fit into the ensemble. PewPew and NC

listened to music to adjust their mindset or help them work productively. PewPew listened to classical music at home, which helped keep her motivated to practice outside of school. NC listened to different types of music depending on his mood, a habit of his even prior to COVID-19. NC explained how he chose music to listen to while working: "Anything that can keep me focused, like something groovy, not something that will get me too distracted" (interview, March 17, 2021). Overall, the students' musical routines along with Ms. Campbell's implementation of mindfulness and meditative music helped create spaces for the band community to relax and recognize their points of stress during COVID-19.

Building Community

The arrival of the COVID-19 pandemic caused an abrupt separation of the Canis High School band students from their friends, teachers, classrooms, and musical instruments. Despite the challenges of switching to online classes and feeling disconnected, the band had a high participation rate during the rest of the Spring 2020 semester. Ms. Campbell said that overall participation in online band assignments was approximately 85%, and elaborated on why involvement remained at a high level:

> They missed school. We had just completed our regional band competition, the
> week before we shut down. We shut down the weekend we were supposed to
> open the musical. And so, we were really tight, and I think they were just so
> desperate to interact with each other, they were like, I'll do my band homework,
> that's fine. (interview, February 18, 2021)

The band formed a close network leading up to COVID, and as soon as possible, Ms. Campbell and the band students began rebuilding their community and finding virtual, musical, and in-person ways to reconnect with each other.

The band students interacted in various social and musical ways during the 2020-2021 school year. Group drumline rehearsals were new to the band program, and the students found themselves communicating musically across the socially-distanced but in-person classroom space. Learning and performing drumline cadences became a teambuilding activity that was part of daily band class. PewPew described the rehearsals: "This year we practice a lot with rhythm. There's usually just percussion. Percussion worries about themselves, but like this year we kind of dived into like the bass drums. Everyone did" (interview, March 16, 2021). Rather than only thinking about how to perform one part on their instrument, drumline rehearsals engaged students in understanding multiple parts, as they regularly switched between bass, snare, tenor drum, and cymbals. The percussion students also were responsible for helping the rest of the band learn to play and read drumline music. Emilia shared:

> I just think the cadences are really cool. Because everyone is learning something new, and then the percussionists are doing something new as well and trying to teach everyone else. And trying to get everyone else communicating. It's cool. Everyone's building new relationships. (interview, March 1, 2021)

Musical communication also expanded in the jazz band class. Ms. Campbell related an example from a jazz lesson on improvisation:

> The students in the room were having musical conversations. They were picking up actual notes and lines from each other. They were calling and responding in

ways that we hadn't even talked about. They were just so happy to be in the same

room and playing music. And just giggling, and making jokes. And two kids who

weren't friends before this year are just like buddies now...And it's the best, like

COVID has not destroyed my kids, at least not in the band room. (interview,

March 30, 2021)

By interacting musically through drumline performances and jazz improvisation, the

band students became involved in each other's successes and learned more about each

other, resulting in a stronger community.

The band students responded to the stress and separation that COVID-19

produced by supporting each other and working together as a band. Jon discovered how

ear-training could improve his tuba playing and wanted to share what he learned with

others: "I think ear-training would be one skill that I'm working on and that I could be

able to use and try to help other students use that same technique into becoming better

musicians as well" (interview, March 16, 2021). NC also noticed how band students were

trying to teach each other musical skills on their instruments in a caring and supportive

way. He stated that the band was not a competitive space and believed that students were

working together:

Probably to not push each other as hard, like not trying to like, going too fast,

more like trying to keep up with each other and to know, like, ok, I'm where you

are, I know what you're going through, and I'm here as a support. (interview,

March 17, 2020)

Ms. Campbell also appreciated how the students had come together as a supportive

group:

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I think we've just all across the board been able to develop deeper connections. I'm not so focused on the shiny concerts and competitions and marching. I feel like I can know all of my students, and show that I care about them as humans in a better, deeper way than normal. (interview, March 30, 2021)

Ms. Campbell took note of the sincere enjoyment that her students drew from being together, whether they were playing remote games on their Chromebooks or learning a new band piece in-person. In another poignant example of the band students' social connection and reliance on each other, Ms. Campbell shared the story of how two students reacted upon returning to in-person school:

Band this year for them has been their lifeline. My first day in person, probably 2 weeks in when I finally got my band kids back, I watched two of my senior boys hug each other like their lives depended on it. They hadn't seen each other since March. And I should, you know, I was like, ooh COVID you shouldn't be touching, but I couldn't stop it. They were almost in tears, they were just so happy to be in the same room, to be in the same band again. (interview, March 30, 2021)

The band at Canis High School was a close-knit community that Ms. Campbell and the students rebuilt over the course of the COVID-19 pandemic. In some ways, Ms. Campbell felt as though all the essential components of band were still in place:

In spite of all of the odds we've faced this year, band has continued. We have still made music, and we have still become this family in this safe space. My students are more resilient than ever, more excited about band than ever, and just grateful. So yeah, everything has changed yet nothing has changed in this room.

(interview, March 30, 2021)

Chapter Summary

From March 2020 to March 2021, Ms. Campbell and the band students at Canis High School adapted to COVID-19 safety regulations, band rehearsal in increments of 30 minutes, and online instruction despite technology and WiFi glitches. Ms. Campbell strived to offer projects that were engaging, musical, and beneficial to the continuation of the band program. Her organization of the method book project into small units with clear instructions helped the band students feel prepared in both remote and in-person formats. Ms. Campbell encouraged introspection and mindfulness through activities that enhanced band students' focus and calm, and she personally benefitted from spending time on relaxing the mind and body. Jon, NC, Emilia, and PewPew navigated long periods of quarantine, but discovered musical abilities in new instruments, drumline ensemble, or in practicing complicated solo repertoire. Most important, the band students felt supported by each other and by Ms. Campbell as they revitalized a caring, musical community within the band room.

CHAPTER SEVEN

CROSS-CASE ANALYSIS AND DISCUSSION

In multiple case methodology, researchers often compare and contrast several cases in order to more fully understand the quintain. The "quintain" is the object or phenomenon that is the central focus of the study (Stake, 2006). In the current study, the quintain was the experience of high school band teachers and students during the COVID-19 global pandemic. The three representations of the quintain were high school band programs in three states: Ohio, Texas, and Colorado. Chapters 4, 5, and 6 contained a description of the themes that arose from the collected interviews, classroom observations, and written responses from each site. Each case was described fully in order to demonstrate the variation in the teachers' and students' approaches and to give each site equal consideration before commencing with cross-case analysis.

After researchers analyze each case separately, they employ strategies for cross-case analysis in order to find not only the similarities between cases but also what is "unique to each" (Stake, 2006, p. 39). In the current study, the themes were constructed from the combined data and include consideration of the original research questions, the theoretical framework, and prior literature. The themes and subthemes in this chapter may not be generalizable to other settings or other experiences. Given the quickly changing nature of the pandemic and the corresponding reactions of state departments of education, school districts, and individual teachers, there may not be a typical or conventional example of COVID-era high school band. However, transferability might be possible to a certain extent. The use of thick description and the careful selection of sites

that vary from each other enhances the possibility of the results transferring to other settings (Merriam & Tisdell, 2016).

The cross-case analysis includes four themes that represent both the differences and similarities between the high schools in Ohio, Texas, and Colorado. Discussion of these similarities and differences will lead to assertions about the quintain, which will be presented in the following chapter. The resulting cross-case analysis themes in the current study were (a) Responding to Student Needs; (b) Self-Motivated vs. Group-Motivated; (c) Hybrid Band Community; and (d) Predictions for the Future.

Responding to Student Needs

Mr. Oakley, Mr. Thomson, and Ms. Campbell each constructed classroom goals and lessons that they believed would be best both musically and emotionally for their students. As they planned for remote instruction, they considered their band students' access to and knowledge of technology. The subsequent widespread use of online music teaching activities is covered in the first subtheme, Technology Learning Curve. The details of how each teacher approached planning for the 2020-2021 school year are discussed in the second subtheme, "Plan For All Three." The third subtheme, Realizing Long-Held Goals, refers to particular learning activities that each teacher wanted to enact in their classrooms. The final subtheme, Emotional Well-Being, includes examples of how the teachers responded to students' COVID-related stress and emotional reactions. These subthemes are centered around only the band teachers' perspectives.

Technology Learning Curve

The launch of remote, asynchronous instruction in Spring 2020 was accompanied by a flurry of newly-incorporated technology. The three high schools were at different

stages of technological preparedness for moving to remote instruction. Orion High School had already been operating with a 1:1 Chromebook initiative for several years. Taurus High School and Canis High School became 1:1 with Chromebooks in response to COVID-19, so that each student had a device to access the Internet and classroom materials. Ms. Campbell was surprised and happy at her district's quick response: "COVID happened and all of a sudden we miraculously had 1:1. I'd only ever had a Chrome cart with 25 Chromebooks. I never used them in band because I never had enough. Now they all have one and it's awesome" (interview, February 18, 2021). Ms. Campbell's school district also partnered with Xfinity to provide as many hotspots as possible to the district's students.

The school district leaders in Texas and Colorado recognized the need for students' access to online classroom materials during remote learning. Taurus and Canis had high percentages (over three-quarters) of students from low-income households, despite their locations in suburban or urban affluent areas. Student access to WiFi and technology, especially among families living in poverty, was one of the main concerns of educators world-wide during school closures in 2019-2021 (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021; Katzman & Stanton, 2020; Kuhfeld et al., 2020; Nichols, 2020). Students without ready access to the Internet were less likely to receive school notifications and much less likely to participate and complete any school coursework, causing their academic growth to pause or decline. Over 70% of the band directors in Hash's (2021) survey indicated that their districts provided students with a device and/or Internet access during the school shutdown, in the same way that Ms.

Campbell's district had provided more Chromebooks and WiFi access for Canis High School's students.

Ms. Campbell estimated that 85% of her band students continuously participated in remote learning in Spring 2020, which would place her program in the "high participation" category in Hash's (2021) survey. The majority of teachers who reported high participation in the survey taught at mid- to high-income schools, which made Ms. Campbell's program an exception, as the majority of the student population at Canis High School represented low-income households. Mr. Thomson and Mr. Oakley each reported a moderate level of student participation during remote learning, which in Hash's (2021) survey was 40-59% student involvement. Mr. Thomson reflected on his Spring 2020 student participation: "To be honest it was about 50% that I didn't see at all. They just shut down for that last 6 weeks. Fifty percent of them would do some of the work" (interview, January 20, 2021). Given all three school districts' efforts to supply devices and Internet access to students, it may have been that issues of accessibility were not the main factor influencing band student participation in these music programs.

The use of technology for student engagement and music learning grew during remote learning and continued to a certain extent into the 2020-2021 school year. The three band teachers all used online tools to create musical instructions and lessons for their students. Mr. Thomson and Mr. Oakley both utilized SmartMusic (www.smartmusic.com), a web-based tool for music practice and assessment, to assign practicing goals on the music repertoire the band was already rehearsing, although spring concerts were canceled. Ms. Campbell and Mr. Oakley used Screencastify (screencastify.com) to record videos explaining how to navigate Google Classroom, and

to remind students of assignment guidelines or due dates. Ms. Campbell planned 2 days each week that were either focused on social music listening or growth of academic music skills. Ms. Campbell described,

> Once a week we would have some kind of musical, inspirational, "let's talk about how cool this is" music activity, like watching videos, sharing videos, basically just devouring YouTube. And then 1 day a week we would do more theory, like an ear-training based activity that was mostly rhythm reading. (interview, February 18, 2021)

Ms. Campbell and Mr. Thomson utilized the Chromebooks and musical learning software or websites in order to encourage their students to grow in musical skills and to enjoy music. However, it was Mr. Oakley who implemented the most technological resources and experimented with previously-unknown virtual tools. Mr. Oakley asked students to record weekly videos using Flipgrid, a communication method that could be used inside Google Classroom in order for students to post video responses to topics or assignments (https://info.flipgrid.com/). He also began the routine of online activities that later became his master spreadsheet of individual student growth in Fall 2020. These online activities included musical activities and lessons from Music First, Sight Reading Factory, SmartMusic, and uTheory (utheory.com; www.musicfirst.com; www.sightreadingfactory.com; www.smartmusic.com). Mr. Oakley recalled, "I ended up using Music First. I had its whole suite of programs, it's another practice program similar to SmartMusic, but it also ties in Sight Reading Factory. And then you can also buy modules for theory, it has Auralia and a bunch of different things in it" (January 21,

2021). After a spring of experimentation, Mr. Oakley decided to retain the Sight Reading Factory, SmartMusic, and uTheory exercises during remote learning in Fall 2020.

All three band teachers utilized varied music learning software programs rather than attempting remote music rehearsals as a large group, and there are likely several reasons for the lack of large ensemble activity. First, many band students may have left their instruments at school over spring break, and the band teachers were dealing with the logistical issue of placing instruments back in the students' hands. Second, the teachers potentially discovered or already were aware of the difficulty with latency and the audio limitations of Zoom, Skype, and Google Meet that Rofe et al. (2017a) and Kruse et al. (2013) described. Technology is not yet readily available with the necessary bandwidth and audio quality for remote group rehearsal to be worthwhile. Third, the teachers saw more value in alternative assignments rather than a large amount of time spent recording and piecing together the parts for one band piece. Consequently, each of the band directors' online instructional assignments were designed to be completed by individual students. With the exception of guided music practice in SmartMusic and the YouTube music sharing assignment that Ms. Campbell offered, software was used to help the band students develop in notation and rhythm reading, sight-reading, scales and key signatures, and music theory. In 2020-2021, Mr. Oakley was the only band teacher with remote students on Zoom during band rehearsals throughout the school year, and these students played along with the band but stayed muted on their videos. Remote learning created a much more individualized musical experience for band students.

The three band teachers needed to become more proficient with technology in order to properly implement remote learning opportunities for their students. Mr. Oakley,

Mr. Thomson, and Ms. Campbell did not report struggling to learn and teach with the various music software, although they did use many of the virtual programs for the first time that year. Prior literature on technology use in the music classroom includes many examples of the need for professional development (Bauer et al., 2003; Reese et al., 2016; Dorman, 2016) or conversing with fellow professionals in-person or via digital forums to share resources (Brewer & Rickels, 2014; Thorgersen & Mars, 2021). Many music teachers did post questions to Facebook groups such as GoogleClassroom for Music Teachers, iBand Directors, and E-Learning in Music Education during the initial months of COVID-19 (www.facebook.com). Ms. Campbell and Mr. Thomson did not mention looking to online forums for advice on using classroom or musical technology, but Mr. Oakley did consult an unspecified band directors' forum. In particular, he referenced the numerous virtual ensemble compilation videos that began to appear on social media after live concerts were canceled:

> It's hard not to compare yourself, but looking at the band directors' forum, and seeing what people are posting, like, "Look at this video that I made!" While yes, it's great for students to have this experience [making a video collage of individual band players] I don't know that that experience is teaching them something more than working individually and getting feedback along the way. (interview, January 21, 2021)

The creation of a virtual ensemble required editing the students' prerecorded video and audio together in order to create a collage performance. These ensemble videos were similar to Eric Whitacre's popular virtual choirs or the simpler arrangements made using an app such as Acapella (Cayari, 2016; 2018; 2020). None of the three band directors in

the current study created such a virtual performance, and in Mr. Oakley's case, it was because he felt that his students would learn more by working individually with the music software regimen.

The ever-expanding use of technology in remote music classrooms during Spring 2020 caused issues of access, low student engagement, and a lack of musical group activities. However, the new uses of classroom and music software that the band teachers discovered also led to increased individual attention for students' musical growth, as well as a guide for students to use in continuing to progress during the pandemic. The band teachers approached the technology learning curve over time, and continuously added to their remote classroom techniques.

"Plan For All Three"

Over the summer, Ms. Campbell, Mr. Oakley, and Mr. Thomson found themselves building three separate plans to fit remote, hybrid, and in-person instruction. Ms. Campbell described her school's instructions for planning at the end of the Spring 2020 semester: "The way it was left was, the fall could be in-person. It could be hybrid, where we're doing in-person and remote. It could still be fully remote. So plan for all three, and we'll let you know" (interview, February 18, 2021). The time-consuming and expansive preparation required to plan instruction in three distinctive ways because of COVID-19 uncertainty also was noted in recent research by university professors (Joseph & Lennox, 2021) and community school music teachers (Salvador et al., 2021). Joseph and Lennox (2021) faced redesigning lessons to fit the students' home environments without knowing whether the students had access to musical instruments. This experience was similar to the three band teachers in the current study, who taught asynchronous,

online instruction with music technology for 6 weeks but were unsure of how to plan for the fall semester until they knew whether their students would be allowed to play band instruments. Mr. Thomson worked closely with the district's fine arts director but was frustrated by the inability to make a cohesive plan until late in the summer:

> Planning just sucked, because the rules were changing every couple of weeks. It was, you can rehearse now, but only with 25% capacity, and then, what's capacity? I have 120 kids in the band hall in normal marching season. Is that capacity? Well no. And then they came up with an equation: you take the square footage and you divide it by 6 and a half, and that's how many people you can have. So that stuff kept changing. It was always a moving target trying to get going this year. (interview, January 20, 2021)

Similarly, Mr. Oakley refrained from making any detailed plans until he had a better idea of his district's choice on instructional format: "I had a batch of general ideas of what I could do in either case [remote or in-person] but I did not spend a ton of time planning out things in detail because I knew that they were all going to change" (interview, January 21, 2021). The nature of band was what made planning for remote or hybrid instruction so problematic; the band teachers had to wait and see whether they would be allowed to use wind instruments and rehearse their ensembles at all.

The band teachers' planning for potential in-person band instruction was contingent upon not only their district-level decisions but also the performing arts aerosol study that the National Federation of State High School Associations (NFHS) released. The study contained recommendations specific to the spread of COVID-19 in music and theater classes. Initial findings were released in July 2020, with further findings released

in August 2020 and throughout the school year (NFHS, 2020a; 2021). Bands were advised to maintain a 6-foot square around each instrumentalist and a 9x6-foot rectangle around trombone players. Band rehearsals were considered safe if they were held in a ventilated room for 30 minutes at a time, with masks on both the instrument players and the instruments. Mr. Oakley and Ms. Campbell were proactive about providing the aerosol study information to their administrations, and their high school band programs followed the aerosol study guidelines precisely. While Ms. Campbell and Mr. Oakley relied on the aerosol study to guide their instruction, Mr. Thomson relied on the state and school district decisions regarding what was permissible and safe for the band program. Mr. Thomson followed the aerosol study recommendations to a certain extent, but without the bell covers for instruments or masks with slits for instrument mouthpieces. As an example, band students at Taurus High School pulled down their masks to play and put them back on when they were not playing their instruments. There was some flexibility in the instructions to socially-distance the band students, based on the large numbers of band students in the middle schools near Taurus High School. The varying safety regulations implemented across the three sites may represent only a small sample of the potential variability in band room practices across the United States regarding safety during COVID-19.

The unpredictability of planning during COVID-19 led to the teachers' creation of band objectives and projects that band students could complete regardless of format. For example, Ms. Campbell designed the method book project, a lasting endeavor that could be completed "whenever, wherever" and could "live in Empower, their virtual learning system...but is still musical and enticing" (interview, February 18, 2021). Mr. Oakley

designed the master spreadsheet of scaffolded individual musical skills such as rhythm reading, theory, and sight-reading, and said, "I need something for them to be doing regularly whether we're online or hybrid" (interview, January 21, 2021). Ms. Campbell's and Mr. Oakley's approaches were aligned with Kaschub's (2020) recommendation to be "pivot-ready" (p. 19). In contrast, Mr. Thomson wanted to maintain consistency for his students by not introducing a brand new class project. Once he knew that his students would return to in-person instruction, he selected band repertoire for the year, planned rehearsals, and continued to assign weekly playing tests. The only difference was that weekly playing tests could be recorded and submitted online, whether the students were at school or in quarantine. Mr. Thomson hoped to keep the band atmosphere and culture as similar to pre-COVID years as possible, in order to provide a more constant, comforting environment to his students. The band teachers all pursued extremely different teaching goals and considered how their students could best learn whether band was offered in-person or online.

Another factor that Ms. Campbell, Mr. Oakley, and Mr. Thomson pondered in their plan for Fall 2020 instruction was how to make each assignment and band goal achievable. The band teachers planned preemptively, choosing easier repertoire or altering assignments in order to address the regression in musical skills that long absences from regular band rehearsal caused. Mr. Oakley's structured his spreadsheet around students choosing levels of music they felt were within their ability, and Ms. Campbell's method book project encouraged band students to self-evaluate as they reviewed what they had learned early in their music careers. Their projects were designed to motivate students' self-directed learning, a strategy found to enhance students' well-

being (Shieh & Allsup, 2016; Weidner, 2015). Ms. Campbell and Mr. Thomson adjusted group rehearsal repertoire and chose simpler marching shows because they wanted to ensure their marching bands could learn and perform it despite rehearsals interrupted by student absences due to quarantining.

Essentially, the band teachers responded to their school districts' fluctuating recommendations and the overall uncertainty of preparing for teaching during COVID-19 by planning achievable lessons that could be completed safely online or in-person. Although the resulting band structure varied across sites, all the band teachers were all motivated by the desire to meet their students' musical needs. Despite planning for remote, hybrid, or in-person instructional formats, the band teachers believed they had more planning time throughout the school year than in pre-COVID years. This extra time allowed each of the teachers to realize long-held goals for their music classes, which are discussed in the next subtheme.

Realizing Long-Held Goals

COVID-19's considerable impact on the traditional components of an American band program created a space where the band teachers could deviate from their typical routine and form new teaching objectives. Each of the band teachers implemented an in-depth musical project during the 2020-2021 year that fulfilled a long-held teaching goal. Mr. Oakley and Mr. Thomson implemented new projects that presented advanced musical learning to some, if not all, of their band students. Ms. Campbell found a way to begin addressing overarching issues affecting her students, including the presence of racial diversity in the field of music education and the relevance of music education for

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her students. The band directors' new projects arose from various motivations but came about because of COVID-19 circumstances.

Concerts, performances in the community, pep band performances at indoor sporting events, and large ensemble competitions are regular elements of high school band (Elpus & Abril, 2019; Hash, 2012; Kelley & Demorest, 2016; Kelly & Heath, 2015; O'Leary, 2019; Pendergast & Robinson, 2020). All of these band events were canceled at the three high schools in this study in Fall 2020, with the exception of socially-distanced marching band rehearsals and performances, which were held outdoors. These changes created extra time to think, plan, grade assignments, and complete the small essentials of a teaching position. Regarding the more relaxed band schedule, Mr. Oakley shared,

> Now that we're back in-person, honestly, my days are less busy. We don't have
> large group [contest] that we're stressing about, we don't have Solo/Ensemble
> that we're stressing about. There aren't as many students in my room on my off
> periods, so I can just do work and not be distracted. (interview, February 16,
> 2021)

Ms. Campbell also noted that the lack of large events to prepare for decreased her stress level: "We're not all stressed out about all these concerts, and these performances, and this parade, and that field trip. We're making music because we want to" (interview, March 30, 2021). Mr. Thomson had the same feeling and was grateful for the additional mental space the cancelled events gave him. He reflected,

> So the pandemic and everything kind of slowing way down. I don't have to think
> about that [how to structure rehearsals] like I used to. I've got different things I've
> got to think about. But I don't just have this continual thought running through

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my head on how to fix band for tomorrow. And it lets me be, maybe a better

husband, a better father. Because I can be more in the moment while I'm at home.

(interview, February 24, 2021)

Whether it was the increased amount of time for instructional planning or the altered

mental capacity that pandemic living caused, each participant was able to implement a

goal that they never had time to try before COVID-19.

Ms. Campbell's goal to represent her students in music education, along with the

unique situation of COVID-19, inspired her to implement the method book project. Ms.

Campbell's teaching objectives with the method book project went beyond musical skills,

because she knew the majority of her students came from minority populations. As she

described,

I really need to make sure my students feel seen in music education, and that they

feel like they're not an outsider...I really want to make sure, through projects like

the method book project, where they get the voice and choice, that they get to

bring in their culture from home and they get to decide what we want to present to

the world and who we are as a band program, who they are as musicians.

(interview, March 30, 2021)

Ms. Campbell was unique in formulating a project that she believed checked the boxes

for relevance to her students, lasting value to others, and recruiting for future band years.

By guiding each student in the creation of a method book for their specific instrument

and sharing the finished product with the middle school students in her district, she hoped

to contribute to her students' perceptions of their place in music education.

Mr. Oakley and Mr. Thomson also found time to implement a musical goal that they always wanted to include in their band instruction. Mr. Oakley constructed a database of scaffolded student activities in sight-reading, theory, and instrument practice time that each student could progress through at their own pace. He described his goal:

I think the most successful thing that I have done is provided students with individual exercises that they can do gradually. It's kind of a thing I've been wanting to do for a long time. You always have that problem that, you have students that are in your program for 4 years, and they're all at very different levels of their development...We couldn't really work on ensemble skills, so it allowed me to do things that I don't usually get to do, which is to work on those individual skills in a progressive manner. (interview, February 16, 2021)

Mr. Oakley's sequential database of student skills allowed him to show his students that he cared deeply about their individual musical development. For Mr. Thomson, the time to pursue advanced musical skills came in jazz band. He explained,

Usually we're getting asked to come out and play all these banquets at this time of year. So you know, we still learn music, we've still got our book of charts that we know, but we've been transcribing a lot more this semester. And, it's something that I've always kind of wanted to do. We don't have a concert coming up, so let's sit down and let's transcribe this solo of *Blue Train*, or whatever. So it's kind of nice in that regard, to be honest. (interview, January 20, 2021)

Ms. Campbell, Mr. Oakley, and Mr. Thomson had the time and mental capacity to carefully prepare and implement an advanced musical project for their students that possibly would not have happened prior to the pandemic. Their reports of students'

success with these projects seemed highly beneficial. Looking beyond the musical development in their classes, the band teachers were aware that COVID-19 was negatively impacting their students' emotional well-being, and they took a variety of steps to mitigate that effect. These strategies are discussed in the final subtheme below.

Emotional Well-Being

Ms. Campbell, Mr. Oakley, and Mr. Thomson began the 2020-2021 school year with the understanding that as COVID-19 continued to impact school and home life, it would continue to affect their students mentally and emotionally. The teachers' beliefs that their students might need positive emotional reinforcement during the pandemic were reflected in concurrent literature (Calderón-Garrido & Gustems-Carnicer, 2021; Katzman & Stanton, 2020; Lacoe, 2020). In a pre-COVID study, Lacoe (2020) found a consistent relationship between feeling unsafe at school and lower test scores among middle school students, who also were more likely to stay at home if they felt vulnerable at school. If the current pandemic has caused students or their parents anxiety over contracting the disease, those students might choose to stay home or be distracted from learning at school (Lacoe, 2020). Katzman and Stanton (2020) and Calderón-Garrido and Gustems-Carnicer (2021) examined the effects of online learning on teachers and students during COVID-19. Katzman and Stanton (2020) found that 81% of Harvard College undergraduates reported that their emotional health worsened in Spring 2020 after switching to remote learning. The researchers recommended increasing social emotional learning strategies, such as grouping peers in online classrooms to decrease isolation (Katzman & Stanton, 2020). Calderón-Garrido and Gustems-Carnicer (2021) surveyed 355 primary or secondary teachers in Spain, and 60.6% of the teachers saw the

need to include emotional aspects in their classes, such as music listening exercises to alleviate anxiety. The three band teachers in the current study also incorporated lessons early in Spring 2020 that focused on enjoyable music listening, though these were not as prevalent during the 2020-2021 school year as the teachers experimented with other strategies.

Each teacher modified their teacher demeanor in small ways or added communication methods in order to respond to student stress. For example, Mr. Oakley refrained from isolating individual instrument parts during in-person band rehearsals as he might have prior to COVID-19. His reason for making the change was that the students were playing in smaller groups due to COVID-19 restrictions or quarantines, and the smaller ensemble size made each student's playing more obvious. Mr. Oakley did not want the exposure of playing a solo or of not knowing their instrument part well to add to the student's overall stress during COVID-19. The other change Mr. Oakley made was in communication. He adopted a policy of honesty when communicating with his ensembles, saying,

> Part of my strategy has just been trying to be very honest with the students about why we're doing what we're doing, and explaining to them why things are different. I did a lot more of that in the fall when we were all online, just saying, look, I know that we would rather be playing together. But I want you to learn and become better musicians during this time, so that when we do come back, we can just get right into doing that and making music. (interview, February 16, 2021)

During classroom observations, Mr. Oakley and Ms. Campbell regularly encouraged students to think about the progress they made throughout the school year and to look forward to future band performances.

Along with altering their communication styles, the directors increased the frequency of personal communication with students through a mixture of emails, phone calls, virtual feedback, and in-person individual conferences. Ms. Campbell began sending out weekly Google Form surveys to check in with her students and ask if there was anything she could do to improve their lives or their band experience. Regarding the survey results, Ms. Campbell shared, "They [surveys] were helpful. Just getting them to talk to me as much as possible and tell me what's going on in their life and in band has helped me navigate what they need from me" (February 18, 2021) Mr. Thomson regularly consulted with students at the end of in-person rehearsals, especially those students who were struggling in class. In one story of recognizing a student's stress, Mr. Thomson related how he met individually with the student for a calming conversation:

> You're able to sit down and talk to them. He's working a lot, he's struggling. And so, trying to help him prioritize stuff...We're trying to dive in a little more and figure out what's going on behind the scenes. (interview, January 20, 2021)

Each band teacher deliberately increased forms of communication in order to understand and respond to their students' worries during COVID-19.

Ms. Campbell had an additional idea of what would create the most comfortable, reassuring space for her students in the classroom. She structured mindfulness activities that opened each class with meditation, music listening, laughter, or other exercises. The use of meditative music listening to relieve anxiety was similar to one of the strategies

teachers described in Calderón-Garrido and Gustems-Carnicer (2021) survey. One respondent suggested that activities on the "unconscious use of music. On music and emotions" could be beneficial for students (Calderón-Garrido & Gustems-Carnicer, 2021, p. 8). Ms. Campbell's mindfulness activities were designed to help students find a focused mental space from which to ready themselves for band rehearsal, thereby lessening their stress level for a few minutes a day. Ms. Campbell's students reported that the mindfulness exercises were helpful, and both Ms. Campbell and her students hoped to continue them after COVID-19. Ms. Campbell expressed her goal behind the exercises: "I went into this year knowing that we all needed that, myself included. That we just needed that moment to connect with ourselves and each other. Realizing that we're okay, we're safe, because everything is so out of control" (interview, March 30, 2021). The mindfulness exercises were the most apparent and continuous measure that any of the three teachers attempted in order to support the band students' emotional well-being.

Self-Motivated vs. Group-Motivated

The band students in Ohio, Texas, and Colorado demonstrated self-motivated musical efforts but also were motivated by their peers and the needs of the ensemble. The students' work ethics and personalities likely accounted for the many stories of personal music goals and the themes of self-motivation and helping others. Out of the 12 students interviewed, four served on their band's leadership teams and two of those were drum majors in their school's marching band. Marie, the senior drum major in Texas, made it her personal responsibility to recruit more Texas students for the focus group interview, which is the reason that Tyler, Chris, and Anthony joined the Wednesday evening Zoom call. David, who was not on his band's leadership team, expressed his desire to go to

college for music. The prevalence of student participants who were highly self-motivated and involved in music likely influenced the current study's results. In some cases, the students' resilience aided them in becoming more self-motivated. In other cases, the students grew closer to their band peers and focused on the group effort to create music and support each other. The three subthemes in this section describe the band students' perspectives and include Acceptance, Self-Motivated Work, and Helping and Being Helped By Others.

Acceptance

While the high school students shared fond memories of their favorite moments in band pre-pandemic, they accepted the safety regulations and rehearsal routines of COVID-era band. The freshmen acclimated quickly to the pandemic version of band because the high school setting was a new experience. As Sarah acknowledged, "I'm a freshman, so I don't really know what it's like in high school" (interview, February 1, 2021). The sophomores, juniors, and seniors may have adjusted more slowly, as they shared numerous comments about the band activities that they deeply missed. Chloe, Emilia, Marie, and PewPew regretted the lack of social opportunities, whether it was playing together with friends in pep band or having fun at band parties and picnics. Emilia poignantly shared, "I miss the football games so much. So much. It's just nothing like the stadium lights and the stands and playing pep tunes with your friends" (interview, March 1, 2021). David, Josh, and PewPew also discussed the musical engagement that they missed from full band rehearsals and live concerts. David provided a lively description of the rehearsals of a favorite band piece from his freshman year:

We were playing this amazing piece of music, *Abram's Pursuit*, I forget who it's

by. And it's just action-packed. I wouldn't say like 24/7, but through the entire

piece it's just amazing. And the band director got so into it, everybody really did.

And the interactions that we had during that time, between the students and the

director was just phenomenal. I've never experienced anything like it. (interview,

February 5, 2021)

Although the upperclassmen remembered the experience of high school band pre-

pandemic, they also appreciated aspects of COVID-era band. As Chris reflected,

"COVID basically really enhanced my experience in a way. It was completely

different...but even then it still had its moments" (focus group interview, February 18,

2021). The student participants transitioned into accepting the band activities that were

possible or not possible during COVID-19.

The band students recognized that their band teachers and schools were making

decisions for their safety, and they had grown accustomed to or even engaged in the

currently-offered band opportunities. Many of the band students were grateful that band

was not canceled completely and reflected on the ongoing band options. The students at

Canis High School particularly enjoyed the opportunity to learn how to be a part of a

drumline. Marie assessed the Taurus High School offerings: "There's been a lot of

opportunities where kids get to still perform and you get to still look forward to football

games. And right now in concert season, we still get to have good music" (interview,

February 11, 2021). The students were accepting of the changes to in-person band, such

as only rehearsing for 30 minutes at a time.

There was a possible trend in the students' amount of enthusiasm for band activities during COVID-19 based on their age. Younger students tended to express interest in band participation and upperclassmen were more vocal about their dislike of the changes to band rehearsals and repertoire. Josh, a sophomore, joined clarinet choir and full orchestra for the first time. He advised, "If something is hard, you just have to keep practicing, and if you're quarantined just keep practicing" (interview, February 4, 2021). Chloe, a junior, more bluntly said, "We haven't really done any marching, so I kind of hate that" (interview, February 5, 2021). The exception was Canis High School, where the four students were quite positive about the mindfulness activities, method book project, and opportunity for all-band drumline rehearsals and performances. Jon, a freshman, was enthusiastically playing both tuba and percussion. He reflected,

Once we got back to school during COVID, we're still playing and it kind of just set us back a little bit. I think as we use the method book project we are able to progress much faster, learn much quicker, get those same skills that we lost...and get a much better skill set and get it really good. (interview, March 16, 2021)

PewPew, a senior, also was enjoying the various band activities at Canis, especially full-band drumline:

We've been focusing on different kind of aspects of music that we never focused on before. So it's just like when I told you about the bass drums, and like how we've been practicing the rhythm. That's been really cool. (interview, March 16, 2021)

Students at Canis High School were the most enthusiastic about band in the 2020-2021 school year. The students at Orion and Taurus also showed commitment to musical and

social development through the band program although they experienced less variety in band activities than the students at Canis. Further exploration would be required to determine if the age and grade of the band students influenced their level of acceptance for band activities during COVID-19.

Self-Motivated Work

Many of the band students in the current study demonstrated internal self-motivation in growing academically and musically during COVID-19 (Evans, 2015; Renwick & Reeve, 2012). The quality of student self-motivation has not yet appeared in existing research on education during the pandemic (Alshehri et al., 2020; Kuhfeld et al., 2020; Salvador et al., 2021). Kuhfeld et al. (2020) analyzed historical events such as Hurricane Katrina and projected an overall decrease in student attendance and participation in schools around the United States during COVID-19. Furthermore, Kuhfeld et al. (2020) predicted a general regression of students' knowledge and skills at all grade levels and approximated that students would begin the Fall 2020 semester with 50% of the typical learning gains in math. Regression and lack of student participation during COVID-19 has become more than a prediction, as university professors and community music schools saw a drop in enrollment and student engagement during Fall 2020 (Alshehri et al., 2020; Salvador et al., 2021). In the current study, there may have been regression in instrument-playing ability because students had limited access to their instruments in Spring and Summer 2020. Jon noticed how his musical skills decreased slightly: "I kind of lost some skill there with tenor sax. But then once we got back to school, we're still playing and it kind of just set us back a little bit" (interview, March 16, 2021). However, Jon also observed how quickly he regained his instrument ability.

Eight band students demonstrated self-motivation in forming their own goals for music learning. While they might have struggled with a lack of motivation during COVID-19, especially early in the pandemic, the students were resilient and driven. Researchers who studied hybrid learning formats prior to COVID-19 attested that students must be self-motivated, self-disciplined, and independent learners in order to succeed in online or partially-online instruction (Lei & Lei, 2019; Pulham & Graham, 2018). In the current study, Anthony, David, Jon, Josh, Marie, NC, PewPew, and Sarah progressed musically and/or academically by finding new practice strategies and by realizing their own individual abilities. Anthony described the benefits of increased instrument practice at home:

> I kind of took the time just to practice a lot more and I got to know myself as a musician better, just because I had more opportunity to practice. And because I practiced more alone, it was easier for me to progress in the group as well.
> (interview, February 18, 2021)

Josh and Sarah also found that they advanced more quickly on their individual instruments through increased practicing at home. Jon could not practice on his tuba regularly because of the large size of the instrument and limited space at home, but he still found ways to work on his musical knowledge outside of school through music listening, ear-training exercises, and studying instrument fingerings or his sheet music. Anthony, Josh, Sarah, and Jon all demonstrated self-motivation to continue growing as musicians during COVID-19.

The band students also believed in their abilities to advance in varied school subjects if they tried, showing positive internal self-efficacy (Hewitt, 2015; Rojas &

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Springer, 2014; Schmidt, 2007; Zelenak, 2015), despite the external condition of COVID-19. David, Jon, Josh, NC, and PewPew realized that they could progress academically based on their individual efforts, and sometimes surprised themselves with how their accomplishments in writing and completing homework had grown. Jon and Josh both recognized how improvement followed goal-setting. Jon shared,

> I learned that I can improve on what I'm doing...As soon as COVID hit, I realized it's not a good idea to procrastinate...I began doing my work more often, studying for things, getting things right. And if I don't make it I just keep on trying again. (interview, March 16, 2021)

Jon saw his grades improve in every class due to his new work ethic. Similarly, Josh gained confidence in his instrument-playing and continually practiced in order to move to harder music:

> This year I felt like, my mindset has changed a little bit. It went from, if I can get this hard music and I can keep practicing it, sooner or later I'll be able to play it. So I've actually been wanting to play more harder music. (interview, February 4, 2021)

The students also developed their own strategies for staying motivated while waiting for the return of full band rehearsals. NC and PewPew said that listening to music helped them to stay focused while completing Chromebook assignments, while David and PewPew both looked up solos for their instrument outside of band assignments. Marie was recovering from COVID-19 and incrementally regaining her health and breath support for instrument playing. She still completed an All-State recorded audition and a live performance at Solo and Ensemble Festival within a month of being ill.

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The eight band students showed outstanding self-determination that may have been part of their personalities prior to COVID-19. It is possible that students who were active in band and self-motivated represented the majority of the student population in this study. The students' self-motivation also may have been an adaptation to pandemic living. Researchers have found that secondary music students can benefit from focusing on task-oriented coping strategies and personal goals during stressful situations (Matthews & Kitsantas, 2007; Nogaj, 2020). By increasing the amount of time spent practicing instruments and listening to music, the band students in this study fulfilled individual goals and improved their self-efficacy during an uncertain time.

Helping and Being Helped by Others

The band students from each high school described a feeling of closeness that came from forming new relationships with each other and from commonly-shared goals. Even during a school year when band rehearsals were smaller and socially-distanced, there were still many instances of peers exchanging musical and personal support. The social components of ensemble participation can include emotional support, developing friendships, and a sense of belonging to a family or community (Campbell et al., 2007; Matthews, 2017; Parker, 2018). Each of these components was evident in the combined data from the three high schools, demonstrating how band students could still feel like a cohesive, supportive group during COVID-19.

Band students at each of the three sites recognized how their classmates were helping and being helped by each other. One element of how the Texas band drum majors and section leaders worked together to help their peers was their use of Facebook Messenger. Marie, Tyler, Anthony, and the rest of the band leaders chatted using this

social media platform to keep track of which students were in quarantine and which students needed support. Salavuo (2008) discussed how the use of social networking platforms could enhance the CoP in music classrooms; the group chat in the Taurus High School band was a prime example. Marie also shared how the leadership team tried to improve group morale through making small gifts for each of the band members and through purposefully dancing, smiling, and acting with positivity at football games and marching band rehearsals. David and Sarah in Ohio and Emilia and NC in Colorado noticed peer assistance in the form of musical advice. David suggested that everyone in band could help each other improve on their musical part, and Sarah provided an example of feeling musically supported in the clarinet section: "Some of my other classmates, they'll say things like, it's ok if you get this wrong, or, you just have to practice this. Here, let me play with you, and stuff like that" (interview, February 1, 2021). Emilia also offered an example of the group drumline rehearsals at Canis High School, where the percussion students taught everyone else how to play drums and read drumline music. NC advocated for a balance where band classmates would "not push each other...not trying to, like, go too fast, more like trying to keep up with each other and to know...I know what you're going through, I'm here as a support" (interview, March 17, 2021). The students' description of working together with their peers on band music was an example of mutual accountability, where each group member is responsible for the group result (Wenger, 1998).

Emilia, Marie, and Tyler described the feeling of community in their band programs. Tyler noted, "I feel like this year, I've got to know more people...became closer with everyone else" (focus group interview, February 18, 2021). Part of the

students' sense of closeness manifested as sharing goals. Emilia related, "I just think the music class in general makes me feel more connected...In band it's always a team ensemble, something that we're working for together...We're all friends, and that's how it feels" (interview, March 1, 2021). Marie experienced a similar sentiment regarding how the Taurus High School band came together: "It seemed as though everybody still had the same ending idea or goal in mind" (interview, February 11, 2021). Working toward a common goal is one of the signs of a Community of Practice (CoP), where each member of a community collaborates on a joint enterprise (Wenger, 1998). Joint enterprise requires the members of a community to collaborate on group decisions. Instead of collaborating to create a masterful performance, the band students unified to create the most positive, engaging experience that they could during COVID-19. The band students in Colorado and Texas worked together to mutually create a supportive classroom community.

In order to succeed in band during COVID-19, the Colorado, Ohio, and Texas band students came to terms with the activities that were and were not possible due to safety regulations. While they missed several social and musical events from previous years, they also continued to enjoy being in band and saw the positive attributes of some of the new band projects. The majority of the students represented in this study were highly self-motivated, as shown by increased instrument practice at home and setting musical goals for themselves. However, the students also were motivated by their desire to act as a community, and they shared examples of how they and their classmates tried to help each other stay positive during COVID-19. In analyzing how the band students formed a cohesive musical group, elements of Wenger's (1998) Communities of Practice

theory began to appear. CoP theory is discussed in further detail in the next section, which addresses teacher and student collaboration during COVID-19.

Hybrid Band Community

The band programs in Ohio, Texas, and Colorado existed in a hybrid-type instructional format during the 2020-2021 school year. In Ohio, the first quarter of the fall semester was entirely online, and band students completed individual practice, sight reading, and theory assignments while receiving individual feedback from the band director. When Orion High School returned to in-person instruction, quarantine groups of approximately four to nine students joined each band class via Zoom and played along on their instruments from home. In Texas and Colorado, the high schools were in-person from the beginning of Fall 2020. Students who were in quarantine had little contact with the bands. They did not join video calls synchronously with the in-person band rehearsals, but were expected to continue working on remote assignments such as weekly playing tests (Texas) or the method book project (Colorado). In Texas, students who were in quarantine also completed remote private lessons with one of the band directors. Because the number of students in the band room shifted regularly and students at home were removed temporarily from the band's activities, hybrid learning and quarantining essentially recalibrated the operation of a true Community of Practice (CoP) (Wenger, 1998; 2002; 2009). The discussion below is informed by CoP, the theoretical framework for this study, and by noteworthy aspects of the band programs that were impacted by COVID-19.

As noted in earlier chapters, a CoP is a physical or virtual space where learning takes place and where community members work together under the same conditions

(Wenger, 1998). Social interaction allows members of a CoP to negotiate learning and develop a sense of belonging. Each of the high school band programs in this study represented a CoP, where each of the community members (band teachers and students) mutually engaged in the practice of band, developed a shared repertoire, and were accountable to each other for the success and continuation of the group.

A true CoP incorporates mutual engagement, joint enterprise, and meaning-making (Wenger, 1998). These attributes were present to some extent in the COVID-impacted high school bands, but none of them manifested in the same ways as before the pandemic. Mutual engagement is formed by social interaction and relationship-building between members of a community. The high school band students in this study were unable to converse easily before and after class because of social-distancing rules. The students in Ohio and Colorado did not participate in social band events such as riding the bus to away games for marching band or staying after school for live performances. In another example, Chloe mentioned that she disliked not seeing her friends, who attended school on alternate days in Orion High School's system. There were still elements of relationship-building at each school (e.g. Facebook Messenger chat groups, sharing musical advice in band), but large events like band banquets and parties were nonexistent. The band teachers and upperclassmen agreed that the lack of mutual engagement was most difficult for band freshmen, who did not have preexisting relationships with other band members. As Marie recounted, "There are so many kids that came to summer band and they're like, 'Who are you? Who are you?' And I bet you, if we never did the remote things [if there were in-person meetings instead of remote], they might have had a better understanding of who we were" (interview, February 11,

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2021). The pandemic presented challenges to social interaction that slowed the formation of the band community in Fall 2020.

The pandemic also hindered the high school bands' achievement of joint enterprise. Joint enterprise is a negotiation between members of what will happen and how it will happen (Wenger, 1998). Joint enterprise includes mutual accountability, where community members rely on each other to participate and bolster the goals of the CoP (Wenger, 1998). Mr. Oakley attempted to have group discussions with the band classes via Zoom, his district's online meeting tool:

> If you're trying to have a conversation, it's just not organic. You know, it's just awkward and people don't want to talk because they don't want to interrupt somebody, or somebody starts talking and somebody else at the same time. So doing large discussions is just not conducive in an online setting. (interview, January 21, 2021)

According to Mr. Oakley, online conversations made it extremely difficult to build a rapport with the students or to accomplish group decision-making. Another hindrance to mutual accountability was that most of the online assignments were completed individually. The isolation of continuously working on Chromebook assignments alone, without as much time spent on group rehearsals, may have made it difficult for students to feel as though they were working toward a common goal. Other researchers noted that the individualized nature of music during COVID-19 was a detriment to the development of interpersonal skills (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021). Still, participants in the current study attempted to maintain joint enterprise. Marie described how the band leadership team at Taurus High School worked to motivate all of the band

members through positivity. In addition, all three high school marching bands still learned a halftime show, and Ms. Campbell incorporated full-class drumline rehearsals so that the band students could experience a more cohesive ensemble. The concept of joint enterprise still existed during COVID-19, even though participants often operated more individually.

In a CoP, members negotiate meaning as they decide what intrinsic value group participation carries (Wenger, 1998). The formation of meaning occurs both individually and as a group, as community members develop relationships with each other and further understand the community's purpose. As Wenger wrote, "Even routine activities... involve the negotiation of meaning, but it is all the more true when we are involved in activities that we care about or that present us with challenges" (1998, p. 53). For band seniors Marie and PewPew, some of the music activities offered during COVID-19 were underwhelming when compared with prior years' accomplishments. Marie regretfully said,

> Considering my junior year, we started off with a really strong marching show. That probably was our best show we've ever had. I would say, in the history of high school, we haven't really had a show like that. And going into this year, with a simple little show with little pop songs, definitely I think took the motivation out of a lot of kids. (interview, February 11, 2021)

Over the course of their high school band careers, Marie and PewPew continuously attributed meaning to growing in individual musical skills, presenting detailed marching shows to an audience, and preparing challenging ensemble music for concerts or contests. For PewPew, her participation in the school orchestra became less meaningful:

Pomp and Circumstance, that's the graduation song. But we've been playing like

the really basis of it, like just quarter notes, not the actual piece...And, I don't

know, that makes my brain hurt. Not because it's difficult but because it's so

boring...I'm just like, why am I doing this, I'm going to graduate, I'm not going to

play the song. (interview, March 16, 2021)

For Marie and PewPew, some music activities lost meaning during COVID-19, whether

they were no longer challenging or whether they were preparing to leave the community

through graduation.

The descriptions of meaning-making in musical communities from the current

study are consistent with prior research (Adderley et al., 2003; Fitzpatrick, 2014; Parker,

2016). Parker (2016) asserted that communities of practice are more collective than

individual, because the choir teachers she interviewed referred to the communal sense of

joy that arose from ensemble performance. Both Fitzpatrick (2014) and Adderley et al.

(2003) noted that supportive friendships created the most meaningful experiences for

community members. In the current study, there were several examples of peers

supporting each other through stressful experiences (e.g. delivering instruments to peers

in quarantine, using a group chat to stay in touch). However, the band teachers and

students may have felt less connected to each other because of the decreased amount of

time spent in group rehearsal. The high school students in Adderley et al.'s (2003) study

valued the sense of accomplishment and increased self-confidence they received from

performing for audiences. During the pandemic, live performances with spectators were

canceled, with the exception of outdoor marching band shows at football games.

Several researchers examined online communities of practice where novice music teachers (Bell-Robertson, 2014), band directors (Rickels & Brewer, 2017), banjo players (Waldron, 2012), or players of Irish music (Waldron, 2011) share information, empathize, and pursue common interests. Research on hybrid learning formats is more rare, especially where the aspects of a CoP live in multiple places around PK-12 music learning. Waldron (2012) notably discussed the overlap of the offline and online versions of the Banjo Hangout community, which is more similar to the hybrid CoP band programs in the current study. These hybrid band communities could be enhanced through additional social or advice forums for band students to communicate with each other, as well as more group projects.

The attributes of a true CoP appeared in an altered state in each of the band programs during the 2020-2021 school year. The joint enterprise and mutual engagement of the band community, as well as the meaning-making process of the individual band students, continued but were diminished during the pandemic. Although band classes did not provide the same opportunities, band students appreciated the support of their peers, developed new musical goals, and found different ways to participate in band. These changes represented resilience in the band communities and community members.

Predictions for the Future

There were two subthemes that regularly appeared in the data regarding how participants believed COVID-19 would impact the three band programs in the future: technological strategies and retention. The three band teachers utilized technology for communication with students and for band assignments, which the band students believed would reappear in future years. The band teachers also expressed concern about band

enrollment after COVID-19 and formed new recruitment strategies to retain middle and high school band students. These developments seemed likely to alter the band programs for at least a year after the pandemic and potentially for the duration of the teachers' employment.

Technological Strategies

Participants agreed that technological additions to the band classrooms would continue into future school years. During the 2020-2021 school year, the participants primarily used technology for communication and classroom administration. The band teachers and students often found these technological methods highly convenient. The Taurus High School band program used an app to broadcast band announcements and their classroom site to share digital sheet music and administrative forms. Anthony noted how the new system simplified band procedures:

> It's been available some place, we just hadn't implemented it. Like the music being online...Usually it was a thing you had to go and get, but now it's readily available. So there's a lot of stuff we just didn't think to do until this year, and it's really nice having it. (interview, February 18, 2021)

Marie, Tyler, and Anthony and the rest of the band leadership team also used Facebook Messenger to communicate with each other. The band teachers used classroom software, such as Canvas, Google Classroom, and Flipgrid, to collect and grade assignments and provide remote feedback. Mr. Oakley was happy with the time he saved on grading by utilizing SmartMusic and Sight Reading Factory to observe how his students were improving. He was able to link his own master spreadsheet with each student and view how each student was progressing through the scaffolded musical skill assignments:

I tried to do something similar my second year here I think, where I had built this

spreadsheet for every kid. But it was just too cumbersome, there was just no way

that I could keep up with it. But this works, because I do everything on one master

spreadsheet and it just gets pushed out to theirs...I have all these resources, I see

how they can fit together, I know how the technology works to make it

manageable. (interview, January 21, 2021)

Technological developments helped Mr. Oakley implement one of his goals for the band

program, and he planned to continue applying what he learned in future school years.

Technology made aspects of band administration easier during the pandemic, but

this might be one of the only changes that the band teachers planned to keep. As Mr.

Thomson said, "With the exception of us now figuring out how to use technology and the

Zoom stuff, there's not much of COVID that I want to keep around (interview, February

24, 2021). Mr. Thomson also mentioned how the Taurus High School principal warned

teachers of becoming too comfortable with using technology:

We want to be careful with the online stuff, because when a kid comes in [for

help], it's really easy to say, well, it's on Canvas, just go look at it and go figure it

out. That we don't get rid of that human interaction still. I think we'll want to be

careful about that part of it. (interview, February 24, 2021)

Mr. Thomson and his principal's concerns were related to child behavioral and

psychological research that began to build around COVID-19. For example, Vanderloo et

al. (2020) wrote about harm reduction strategies to combat the increased screen time of

students during remote learning. While Mr. Thomson saw the value of having

instructional materials easily accessible online, he also worried that creating the virtual

classroom would limit his ability to develop rapport with his students and provide them the personal help they needed.

Retention

The other subject that regularly appeared in the combined data from the three sites was band retention. The band teachers considered how COVID-19 might affect short-term and long-term band enrollment. Mr. Oakley wondered whether band freshmen would re-enroll because their experience of high school band was so unusual:

> One of my biggest concerns right now is we're getting ready to go into registering for courses for next year and I am worried about my freshmen. They have not really had a normal band experience and they don't know what band's like at the high school. So that worries me, that retention-wise, I'm going to have a hard time...Music directors always think about retention and are stressing about it, but this kind of adds a new level to it. (interview, January 21, 2021)

Ms. Campbell thought about recruiting at the high school-level. Band enrollment at Canis High School already was halved from prior years because of the way the school assigned students into cohorts. She was attempting to bring students back to the band after a year-long hiatus. Ms. Campbell described, "I've been on a recruiting rant more than usual. Every kid I see in the hallway I'm like, 'Hi, remember me? Hi, do you still want to be in band?'" (interview, February 18, 2021). Both band directors primarily recruited at the middle schools, but due to COVID-19, both were overly concerned with the retention of high school musicians in their programs.

The band students had their own predictions about retention in middle school and enrollment in high school band. Anthony deliberated,

There's a lot of good things that are coming from it [COVID-era band], just

because of, like, directors progressing the way they teach. But it's also making a

lot of kids drop out of band because they're kind of seeing all of the boring stuff

more. A lot of people in middle school don't want to do band. So, I feel like for 3

or 4 years there's going to be a little drop in the number of kids that are joining

high school marching band. (interview, February 18, 2021)

Anthony felt that some parts of band during COVID-19, including the increased number

of online assignments, might cause middle school students to avoid band. Marie

responded to Anthony:

I would say I agree, but I actually get to go intern at the schools and some of those

kids are excited. Some of them are not excited, but I'm sure it's a lot more boring

in middle school than it is high school. That's how I felt as an eighth grader.

(interview, February 18, 2021)

Marie hoped that the excitement of moving to high school from middle school might still

influence middle school students in their decision to try high school band. All three band

teachers and Anthony and Marie were wary of how a year of COVID-19 might affect

middle school students' elective choices.

The participants of the current study were not alone in their concerns for future

band enrollment. Numerous music teachers contributed their methods for recruitment and

retention in response to an open call from Texas Music Educators Association (TMEA,

2021). Some of the band teachers' strategies included weekly check-ins with students via

Zoom or Google Meet, weekly emails to parents, and high school band students acting as

mentors for younger students via Zoom (TMEA, 2021). As schools move past COVID-

19, it is unclear how remote learning and interrupted middle school band offerings will affect band programs over the next 3-5 years.

Chapter Summary

The quintain of the current study was the experience of high school band teachers and students during the COVID-19 global pandemic. The themes (a) Responding to Student Needs; (b) Self-Motivated vs. Group-Motivated; (c) Hybrid Band Community; and (d) Predictions for the Future were constructed from a consideration of the original research questions in order to describe the quintain. Overall, the three band teachers sought to plan instructional activities that would be effective in remote or in-person formats and would meet their students' learning and emotional needs. The band students initially struggled with COVID-19 before learning how to participate as fully as possible in band whether remote or in-person. The combination of virtual and in-person lessons resulted in a hybrid format where teachers and students adjusted to new forms of mutual engagement in support of the band community. Finally, the participants believed that COVID-19 would have a lasting impact on band program retention and increased technology use in the band classroom.

CHAPTER EIGHT

ASSERTIONS AND IMPLICATIONS

While the effects of COVID-19 on music education are only beginning to be realized, some preliminary assertions might be useful for high school band teachers and their students who wish to examine their own practices in comparison with the approaches of the participants in this study. These assertions also might be important for music education researchers in examining similar topics. According to Stake (2006), assertions are drawn from merged findings and help researchers understand the quintain. The quintain in this study was the experience of high school band teachers and students during the COVID-19 global pandemic of 2020-2021. I used Stake's (2006) Worksheet 5B from "Track II: Merging Case Findings" (see Appendix A) in order to develop four assertions about the quintain (p. 58):

1. Remote and hybrid instructional formats are more suitable for developing individual musicianship skills rather than ensemble performance skills.

2. Remote and hybrid instructional formats create opportunities for band students to develop autonomous learning skills.

3. More flexibility in high school band duties gives teachers the freedom to reimagine the band classroom.

4. Social interaction and community-building are integral to learning in high school band.

This chapter will provide explanations for these assertions, followed by implications for the field of music education, for music teacher educators, and for band teachers. An implication for the field of music education is as follows:

1. Monitor technology use and its effect on student engagement after the pandemic.

The implications for music teacher educators include:

1. Prepare preservice music teachers to utilize classroom and music technology.

2. Prepare preservice music teachers to implement social emotional learning strategies.

The implications for band teachers include:

1. Consider extended band recruitment and retention strategies for the foreseeable future.

2. Recalibrate group cohesiveness to address behavioral regression.

3. Sustain the inventiveness strategies that band teachers developed during remote and hybrid teaching.

Assertions

Individualized Online Band Instruction

Remote and hybrid instructional formats do not allow for effective group ensemble rehearsal, but can be beneficial in developing individual music skills. Researchers noted that music teaching and learning became more individualized during COVID-19 (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021). Technology deficiencies are one of the main reasons that remote and hybrid performers cannot rehearse together in real time. In prior research, latency and audio lag was an issue during remote music instruction (Duffy & Healey, 2017) and new technology had to be built to address audio issues in remote group rehearsals (Rofe et al., 2017a). In the current study, only one site attempted rehearsals in a hybrid format, where some band students played along with the group from home via an electronic device. The remote students could hear

the band, but stayed muted so as not to disrupt the in-person band sound with latency issues, therefore not contributing to the full band instrumentation. Communication and video conferencing software will need to evolve further before music ensemble members can rehearse together from different locations.

In addition, remote and hybrid instruction has been somewhat effective in enhancing individual musical skills, such as music literacy and in private lesson settings (Duffy & Healey, 2017; Dye, 2016; Kruse et al., 2013). In primary and secondary ensembles during COVID-19, music teachers utilized remote learning to build their students' knowledge of music listening, composition, and musical artists (Calderón-Garrido & Gustems-Carnicer, 2021) and used software to develop knowledge in music theory, music history, and music literacy (Hash, 2021). In the current study, the three band teachers also employed YouTube videos, music analysis projects, and theory or sight reading software in their remote and hybrid lessons. The participants in the current study recognized the opportunity to enhance individual musical development through online learning.

Autonomy in Music Learning

Remote and hybrid band instruction can prepare music students to be independent learners. In the current study, some of the band students improved at managing their schedules, completing their assignments on time, and communicating with the band teacher from a distance. Some of the students also took more initiative with their learning and found pieces to practice for their individual instruments. One student said, "We're learning to teach ourselves the music" (interview, February 1, 2021). These self-directed

learning skills could be reinforced in the future as a relevant component of music instruction.

Prior to the pandemic, researchers found that students were most successful in hybrid learning if they were independent learners and able to self-motivate (Lei & Lei, 2019; Pulham & Graham, 2018). Music researchers also explored how students and adults can use technology to pursue individual learning goals (Kruse, 2013; Seddon & Biasutti, 2010; Waldron, 2009; Ward, 2019). A learner's sense of accomplishment upon solving a problem can be one of the main benefits to self-directed online learning (Seddon & Biasutti, 2010). The band students in the current study who developed autonomous learning skills experienced a feeling of accomplishment and might apply their newfound independence to future educational endeavors. It is unknown how far the students progressed in becoming autonomous learners during COVID-19 or whether these new skills will continue to develop upon returning to fully in-person instruction. Band teachers might continue to foster independent learning among their students after the pandemic through student-directed and autonomous activities.

Freedom in Designing Band Instruction

COVID-19 cancellations left space in band instruction that typically would have been used to prepare for live performances and contests, and safety regulations necessitated a 30-minute limit to wind band playing (NFHS, 2020a). The band teachers in this study managed to fill this space with their own creative objectives and activities, and they chose to implement new projects that aligned with long-held goals for in-depth music learning. Kaschub (2020) suggested that music teachers might take the opportunity the pandemic created to decide what "essential learnings" music students need, regardless

of instructional format (p. 19). In the current study, the lighter workload, decreased focus on live performance, and flexibility in instruction allowed band teachers the freedom to implement musical objectives that they deemed important.

Two of the band teachers chose not to focus on ensemble performance for competitions or audiences. None of the three band teachers in the current study created large virtual ensembles like those Cayari (2018; 2020) described, although many band teachers did create videos of this nature during the pandemic (Thornton, 2020). High school band programs are traditionally performance-based, with large ensemble classes such as marching band, concert band, and jazz band (Elpus & Abril, 2019; Kelley & Demorest, 2016; Kelly & Heath, 2015; Pendergast & Robinson, 2020). There is no known prior research regarding how secondary band teachers might restructure their band programs when live performance is simply not an option, but band teacher choices regarding ensemble performance during and after the pandemic warrant future study. The flexibility in instruction during COVID-19 might have allowed music teachers to reimagine the priorities of their classrooms.

In addition, the experience of having more time to focus on advanced musical skills during school and of having a lighter workload overall might only apply to some secondary, performance-based programs during COVID-19. Joseph and Lennox (2021) examined their experiences as elementary music teachers and described having a heavier workload during COVID-19. While music teachers may not have shared consistent experiences during the pandemic, it remains to be seen whether or how soon secondary band programs will return to a full schedule of live performances post-COVID-19.

Social Interaction and Community

COVID-19 cancellations included events that typically would build the band community, including social events, dinners before marching band performances, award ceremonies, and combined middle and high school band activities. The social interaction of band members is integral to the high school band experience because it develops teamwork and the ability to accomplish the goals of the group. Wenger's (1998) Communities of Practice (CoP) theory is predicated on the need for social participation in learning. Wenger (1998) described a true CoP as a space where learners develop a sense of belonging through active engagement in the practice of a community. The band teachers and students in the current study experienced fewer opportunities for social interaction during COVID-19, making it more difficult to build a band community. The other hindrance to band cohesiveness was the time the students spent in online learning. While technology offers a vast array of resources for music learning, e-learning and self-teaching often are accompanied by ineffectual self-evaluation (Seddon & Biasutti, 2010) or feelings of isolation (Kruse, 2013). In the current study, some of the band's rapport and the initial participation of band freshmen was impeded by the lack of social interaction.

Although the band community was substantially altered, there were still elements of group camaraderie and joint enterprise present. Band students utilized messaging apps to stay in contact with classmates and created humorous vlogs about band camp. Participants in the current study also reported feeling like a team, a family, or feeling as though the band members were pursuing the same goals. Working toward a common goal is one of the signs of a Community of Practice (CoP), where each member of a

community collaborates on a joint enterprise (Wenger, 1998). In addition, the social components of ensemble participation typically include emotional support, developing friendships, and a sense of belonging to a family or community (Campbell et al., 2007; Matthews, 2017; Parker, 2018). This sense of togetherness often occurs alongside musical growth, and for some band students, the musical goals can be equal to or more important than the social component (Matthews, 2017). Band students who experienced limited time as an ensemble might need to rebuild or form new friendships after the pandemic. However, band communities of practice (Wenger, 1998) maintained or redesigned aspects of mutual engagement and social interaction despite the difficulties of COVID-19.

Implications

Implications for Music Education

The music education field as a whole should monitor technology use and its effect on student engagement after the pandemic. Temporary switches to remote learning during COVID-19 caused school districts to emphasize the use of classroom technology. While remote music instruction can be a useful and enjoyable learning format for teachers and students at times (King et al., 2019; Stevens et al., 2019), the band students in the current study expressed boredom, fatigue, and low levels of engagement with Chromebook assignments and remote learning. Parents and caregivers also might be concerned with the amount of time their children are spending in front of a screen (Vanderloo et al., 2020). Music educators will need to carefully weigh the value of classroom technology in enhancing learning against the negative aspects of technology overuse.

Researchers have explored the problem of ensuring that every student has reliable access to WiFi and technology (Katzman & Stanton, 2020; Kuhfeld et al., 2020; Nichols, 2020). As remote learning continues, and if remote learning becomes a more prevalent mode of instruction in the future, schools and online academies will need to address issues of access to technology. In addition, music teachers may need to develop alternative strategies of communication and instruction for students with limited or no access to technology and WiFi. When it is safe to do so, music teachers could counteract technology fatigue among their students by increasing opportunities for partner and group work as well as participatory, action-based activities.

Implications for Music Teacher Educators

Music teacher educators could examine the specific technologies that PK-12 music teachers utilized during the pandemic in order to incorporate these into relevant teacher preparation courses. Multiple researchers have proposed that teacher preparation programs include additional training in the use of classroom technology, because of the prevalence of technology in classrooms even before COVID-19 (Bauer et al., 2003; Brader, 2009; Dorfman, 2016; Dorman & Dammers, 2015; Joseph & Lennox, 2021; Kaschub, 2020; Reese et al., 2016). The formation of social media forums such as the iBand Directors and E-Learning in Music Education Facebook groups also indicates an interest in developing technology knowledge for the music classroom (www.facebook.com). Preparing future music educators to teach in online, hybrid, and remote formats will both prepare them for varied teaching jobs and ready them to collaborate with current teachers who incorporated classroom, communication, and music technology during the pandemic.

COVID-19 also shed light on the importance of social emotional learning strategies. The band teachers in the current study did not discuss formal training in teaching students about managing emotions or stress, yet they altered their modes of communication and classroom activities to respond to students' emotional needs. Katzman and Stanton (2020) recommended preservice teacher preparation in social emotional learning, which could benefit both students during and after COVID-19 as well as teachers' emotional health. Over 60% of the music teachers surveyed in another study saw the need to respond to students' emotions in their classes during the pandemic (Calderón-Garrido & Gustems-Carnicer, 2021). Whether music teachers are working during a global pandemic or simply hearing about issues in their students' daily lives, they would benefit from an understanding of social emotional learning strategies. Scott Edgar's (2017) book on how music educators can maximize student learning through Social Emotional Learning (SEL) is a starting point for preservice music teacher development in this area. Music teacher educators might also consider partnering with child psychologists to provide emotional management resources to preservice teachers.

Implications for Band Directors

COVID-19 may have lasting implications for decreased band enrollment and retention for several years. The band teachers in the current study increased their recruiting efforts through such methods as virtual middle school bands, video announcements about band, and Google Forms to survey middle school student interest in band. Many band directors are likely concerned about enrollment after COVID-19 and can generate support in their recruitment efforts through communication with principals, school counselors, and parents. Music educator associations and group forums are

excellent resources for recruitment and retention advice (TMEA, 2021), which current

band directors can use if they face rebuilding the band program after the pandemic. Extra

considerations for band retention and recruitment will likely be important for the growth

of school bands for several years after COVID-19, until all the middle school students

who experienced interrupted elective options have transitioned to high school.

The band teachers in the current study observed elements of both musical and

behavioral regression in their band students. The musical regression leveled and began to

readjust during the 2020-2021 school year. The behavioral regression stemmed from the

absence of defining life events during COVID-19 such as 8th grade graduation

ceremonies, end-of-year band concerts, or summer band camps. Because of the loss of

these milestones, former 8th graders did not fully develop identities as high school

students. Wenger (1998) described identity as the self-perception of participants in a

community of practice (CoP) that is built over time. The cancellation of ceremonies

during COVID-19 hindered the band students' trajectories in the CoP (Wenger, 1998).

While researchers predicted that academic regression would follow interrupted

instruction and the switch to remote learning (Kuhfeld et al., 2020), behavioral regression

due to COVID-19 has not yet emerged in empirical research, and likely will. This result

of COVID-19 may have implications for high school students as they move forward

through their high school careers and in their ability to set goals and demonstrate age-

appropriate maturity. Music educators at all levels can address behavioral regression by

modeling and promoting mature actions and by contextualizing learning. Music teachers

also might collaborate with coworkers to track students' progress and respond to

observed behavioral regression. Band directors can help to recalibrate student identity through planning replacement music events or ceremonies when it is safe to do so.

In the current study, band teachers responded to shifting instructional formats with inventive lessons. These creative approaches to band learning can be fostered and adjusted to determine their lasting value. Moving forward, band teachers should reflect on their strategies and other teacher's approaches to teaching in remote or hybrid learning formats. It is unclear how the various instructional methods will temporarily or permanently change band programs.

Chapter Summary

Data from the current research led to four assertions regarding the experience of high school band teachers and students during a global pandemic. These assertions covered the suitability of remote and hybrid instruction for individual music instruction and independence in learning, the COVID-era flexibility in designing band instruction, and the necessity of social interaction to learning in high school band. I also suggested six implications that arose from the current research. One implication for the field of music education was the problem of access to technology. The implications for music teacher educators comprised recommendations for increased music teacher preparation in classroom technology and responding to students' emotional needs. The implications for band teachers included the need to consider increased strategies for band recruitment and retention, potential behavioral regression in band students, and teacher flexibility in band lesson planning. These assertions and implications inspired ideas for future research, which are discussed in the next chapter.

CHAPTER NINE

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

Summary of the Study

COVID-19 is a disease that caused a global pandemic from 2019-2021. In the United States, COVID-19 brought about a national health care emergency and temporary shutdown of schools and businesses beginning in March 2020. The Centers for Disease Control and Prevention (CDC) issued safety guidelines including mask-wearing and social-distancing. A coalition of researchers (NFHS 2020a) studied how aerosols were spread during musical and theatrical performance in order to provide safety regulations for performing arts programs. A variety of classroom software became common as PK-12 schools switched to remote learning.

This study joins the first wave of empirical research on how high school band programs navigated instruction during COVID-19. Researchers studied how music teachers prepared for remote and hybrid teaching by familiarizing themselves with new technology (Johnson et al., 2021; Joseph & Lennox, 2021) and through online discussion with coworkers (Thorgersen & Mars, 2021). These studies were supported by prior research on the experiences of music teachers and music students in online formats (Denis, 2016; Duffy & Healey, 2017; Dye, 2016; Enloe et al., 2013; King et al., 2019; Kruse et al., 2013; Rofe et al., 2017a; Stevens et al., 2019). Community music school

teachers who transitioned to online learning experienced lower enrollment and difficulties forming social connections in remote music classes (Koops & Webber, 2020; Salvador et al., 2021). Secondary music teachers in Spain and the United States utilized preexisting videos, music software, and lessons on music history and music theory when schools moved to remote instruction in Spring 2020 (Calderón-Garrido & Gustems-Carnicer, 2021; Hash, 2021). Overall, there was a focus on individual music-making over group ensemble rehearsal (Hash, 2021).

The purpose of this multiple case study was to examine teaching and learning practices in high school band classrooms that were modified due to COVID-19. I used Etienne Wenger's (1998) Communities of Practice (CoP) theory as a lens through which to design the research questions and analyze the data. Guiding questions included:

1. How do high school band teachers approach, construct, and adapt to coronavirus-era music teaching?

2. How do high school band students receive, describe, and adapt to coronavirus-era music learning?

3. How do high school band teachers and students work collaboratively toward building social and musical connections in the coronavirus-era music classroom?

4. What aspects of coronavirus-era band education do participants believe will shape future music classrooms?

To gain information regarding these questions, I used criterion-based selection to recruit three high school band teachers who had taught for more than 5 years with 3 or more years at their current postings. I conducted semi-structured individual interviews with the three band teachers and nine of their band students. I also conducted one focus

group interview with band students and collected field notes from classroom observations, journal entries, and classroom documents. Individual interviews were transcribed using Temi.com or by hand and transcriptions were sent to the participants for verification.

I analyzed the data from each site individually before conducting a cross-case analysis. First, I read through all the collected data without the research questions in mind and assigned open codes to the participants' interesting stories or events. Second, I read through the collected data specifically with the research questions in mind, and coded sections of the data that addressed the research questions. I used NVivo software to organize the codes, then created themes for each site based on the frequency and depth of the codes. Two peer reviewers assessed the themes, and two themes were altered for clarity due to the reviewers' suggestions.

I followed Stake's (2006) multiple case study analysis procedures and used Worksheet 5B from "Track II: Merging Case Findings" to synthesize similar codes across cases (p. 58). From this step, I created themes that aligned with the original research questions. The themes included (a) Responding to Student Needs; (b) Self-Motivated vs. Group-Motivated; (c) Hybrid Band Community; and (d) Predictions for the Future. From the analysis, I developed four assertions regarding the experience of high school band teachers and students during COVID-19.

Conclusions

In this study, I explored the experience of high school band teachers and students during modified teaching and learning due to the COVID-19 pandemic. Based on the cross-case analysis, I made four assertions. I suggested that remote and hybrid

instructional formats are more suitable for developing individual musicianship skills rather than ensemble performance skills. I found that band students developed independent, self-directed learning skills during the pandemic. I observed that more flexibility in high school band duties gave teachers the freedom to implement creative learning exercises with their students. I also concluded that social interaction and community-building are integral to learning in high school band, as evidenced by the current study viewed through Wenger's (1998) Communities of Practice theory.

Based on further analysis of the data and assertions, I constructed six implications for music teachers and music teacher educators. Music classes will benefit from monitoring technology use and its impact on student engagement after the pandemic. Preservice music teacher programs should consider expanding preparation in classroom and music technology and social emotional learning strategies. Band teachers likely will need to consider increased retention and recruitment strategies and take steps to address musical and behavioral regression among band students after the pandemic. Finally, band teachers should sustain the creative instructional strategies that were developed during remote and hybrid teaching.

Further Research

The current research was inspired by the momentous nature of COVID-19's impact on PK-12 education. A global pandemic is a historic occurrence, and one that deserves documenting. Thousands of music teachers around the United States were challenged by COVID-era teaching strategies. The findings of the current research generated multiple questions.

Hash (2021) conducted the first known large-scale survey of primary and secondary band teachers' strategies in COVID-era remote learning in the United States. Further survey research in the same vein could corroborate Hash's results and collect information about choir, orchestra, and general music teachers' strategies and perspectives. This research is necessary because the majority of existing studies on teaching music remotely were conducted prior to the pandemic, and the researchers focused on private music lessons rather than ensemble classes. There is also a scarcity of research on remote music teaching with PK-12 students.

The current study's participants were experienced band teachers with over 5 years of experience. However, there were numerous band teachers whose student teaching semester and first year of teaching occurred during COVID-19. Future qualitative research can explore the experiences of these young teachers who began their careers in unusual circumstances and make comparisons to existing research on first-year music teaching. Kaschub (2020) mentioned the importance of supporting new teachers during COVID-19, and Joseph and Lennox (2021) examined the experience of a novice music teacher. Future studies could build from these and other researchers as post-COVID teaching evolves.

Other areas of consideration inspired by the current study include music student work ethic during remote and hybrid learning and the use of mindfulness exercises in school music programs. Future research regarding music students' self-motivation during COVID-19 could stem from prior studies on student self-efficacy (Bandura, 2010; Schmidt, 2007; Zelenak, 2015) or student self-determination (Evans, 2015; Renwick & Reeve, 2012). Mindfulness and meditative exercises proved helpful to students' focus in

the current study, and researchers could further examine the benefits of these strategies for music students. The research suggestions included here are all preliminary in the context of COVID-19, as further empirical research to inform these ideas will be published over time.

Summary

At the time of the current study's completion, COVID-19 affected the traditional end-of-year performances of high school bands for the second spring semester in a row. Some concerts were recorded in empty auditoriums with band students arranged 6 feet apart and wearing masks. Some graduation performances of *Pomp and Circumstance* were prerecorded or live-streamed at outdoor ceremonies. Many high school band teachers were preparing for a return to more regular summer band camps, but there remained some uncertainty as to whether school actually would operate without COVID-related safety measures in Fall 2021.

There were hopeful signs that the United States was recovering from the effects of the pandemic. The Food and Drug Administration (FDA) issued an emergency use authorization to the first COVID-19 vaccine on December 11, 2020. The vaccine came from Pfizer-BioNTech, and was followed on December 18, 2020 by a second vaccine, from ModernaTX, Inc. (U.S. Food & Drug Administration, 2020). On May 11, 2021, the CDC reported that 116,576,359 people had been fully vaccinated (CDC, 2021c). Some states reached low enough COVID-19 case numbers to remove mandatory mask-wearing requirements (Colorado Department of Public Health and Environment, 2021). These developments indicated potential for further easing of restrictions in Summer 2021.

During COVID-19, teachers around the world experienced an abrupt change to how they taught and how they interacted with students and coworkers. Band teachers approached teaching during COVID-19 in varied ways. The approaches represented in this study included focusing on individual musicianship, pursuing consistency and normalcy in band objectives, and creating music activities that encouraged students to look beyond themselves. While the longevity of band teachers' pandemic-era approaches is unclear, high school band communities will continue to flourish.

APPENDIX A

WORKSHEET 5B: MERGING CASE FINDINGS (Stake, 2006)

WORKSHEET 5B. A Matrix for Generating Theme-Based Assertions from Merged Findings Rated Important

Merged Findings	From Which Cases?	Themes							
		1	2	3	4	5	6	7	8
Merged Finding I									
Merged Finding II									
Merged Finding III									
Merged Finding IV									
Merged Finding V									
Merged Finding VI									
Merged Finding VII									
Merged Finding VIII									
Merged Finding IX									
Special Finding I									
Special Finding II									
Special Finding III									
Special Finding IV									
And so on									

The Findings are Case-based, not Theme-based. From an entry in a cell at the intersection of a Merged Finding with a Theme comes impetus to compose an Assertion. H = high importance; M = middling importance; L = low importance. A high mark means that for this Theme, the Merged Finding or Special Finding is of high importance. Parentheses around an entry means that it should carry extra weight when Assertions are being drafted. The notation "ATYP" within a cell means that its situation warrants caution in drafting an Assertion.

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Worksheet 5B.
A Matrix for Generating Theme-Based Assertions from Merged Findings Rated Important

		Themes (Rated High, Middle, Low, which means how important the merged finding is in describing the quintain.		
Merged Findings	From Which Cases?	1 Ohio	2 Texas	3 Colorado
I. Classroom technology (Chromebooks, Flipgrid, Google Classroom, Screencastify) and music software or websites (SmartMusic, uTheory, Sight Reading Factory, IMSLP) can benefit individual music skill development. There was much less focus on large ensemble playing and performance during COVID and in remote/hybrid learning. Individual playing was much higher of a focus.	1,2,3	H	H	H
II. Remote and hybrid learning formats require student self-motivation and self-discipline. Students are most successful when they can be independent learners.	1,2,3	H	H	M
III. Band teachers developed new skills and new ideas that they can apply in future years. Band teachers had more time and flexibility to try advanced musical skills or new approaches to music instruction.	1,2,3	H	L	H
IV. Remote and hybrid learning is isolating. Students felt distant from the band and from each other. Teachers felt distant from students and felt like they could not develop as much rapport. Band students missed social interaction with friends most, and also missed	1,2,3	H	M	L

full band rehearsals and band sound.				
V. Some students replaced large empty portions of their time with music activities. For some students, COVID was a wake-up call to work harder, realize time is valuable, and be more appreciative of band.	1,2,3	M	M	M
VI. Band teachers felt the need to provide more emotional support for students. Students needed reassurance of safety.	1,2,3	L	L	M
VII. The experience of COVID-19 caused students to appreciate band more and appreciate each other more. Students felt closer to each other, especially when they supported each other in response to difficulties due to COVID.	1,2,3	L	M	M
VIII. Band teachers were worried about recruiting and retention.	1, 3	M		L

APPENDIX B

The Method Book Project Calendar

All dates are subject to change.

Unit 1 - Foundations of Success

Date Assigned	Assignment	Due Date
9/8	Method Book Exploration	9/11
9/8	First Steps to a New Method Book	9/11
9/14	Book Layout Outline	9/18
9/21	Instrument Assembly	9/25
10/6	Instrument Care and Safety	10/9
10/12	Instrument Posture	10/16
10/19	How to Produce Air and Breathing Exercises **AND** Beginning Articulation Exercises	10/23
10/28	Research Famous Musicians	11/6

Unit 2 - Making the First Sounds

Date Assigned	Assignment	Due Date
11/2	Google Sites	11/13
11/9	Making the First Sounds	11/20
11/16	First Note Exercises **AND** First 3 Notes and First 5 Exercises	12/4
11/30	First Scale Exercise	12/4

Unit 3 - Learning to Read Music

Date Assigned	Assignment	Due Date
12/7	Beginning Flat.io	12/11
12/14	Intermediate Flat.io	12/18
12/21	**WINTER BREAK**	**1/1**
1/5	Beginning Notation Reading	1/8
1/11	Introducing the Staff	1/15
1/19	Introduction to Rhythm Reading	1/22

Unit 4 - Composition of Simple Exercises and Songs

Date Assigned	Assignment	Due Date
1/25	Flat.io Review	1/29
2/1	Instrument Specific Exercise 1	2/5
2/8	Instrument Specific Exercise 2	2/12
2/16	Instrument Specific Exercise 3	2/19
2/22	Instrument Specific Exercise 4	2/26
3/1	Instrument Specific Exercise 5	3/5
3/8	Simple Song - 3 Notes	3/12
3/15	Simple Song - 5 Notes	3/19
3/22	**SPRING BREAK**	3/26
3/29	Simple Song - 8 Notes	4/2
4/5	Simple Song - Free Choice	4/9

Unit 5 - Review and Publish

Date Assigned	Assignment	Due Date
4/12	Book Order and Creative Layout	4/16
4/19	Cover Design	4/23
4/26	Communicate with Elementary School	4/30
5/3	Method Book Reflection	5/14
5/17	Method Book Reflection Part 2	5/21

Name:

Instrument Specific Assignment 4 Due 2/26

Directions to earn a 3:

Create an instrument specific exercise for your method book that works on one specific skill.
    Percussion - write for Bells or Snare Drum.

Skill options:

Lip slurs	Note leaps	Articulation	Fingerings
Playing high	Playing Low	Slide positions	Paradiddles
Playing loud	Playing soft	Chromatic Notes	Whatever you can think of!

Name it after the skill you are working on or give it a fun name.
    For example) An exercise that works on playing higher notes can be called "Higher Notes Exercise" or "High in the Sky Exercise." Your choice.

Requirements:
    4-8 measures
    In 4/4
    Uses whole, half, quarter, and 8th notes and rests (Percussion can use 16th notes)
    In Concert Bb Major

Show your work by either taking a screenshot and adding it below.
    OR downloading a PDF of your Flat.io work and adding it to your locker.

What skill is your exercise working on for your instrument?

Why is it important to work on that skill?

Add your exercise below or add it to your locker.

Name:

<table>
<tr><td colspan="4">

Directions to earn a 3.5 or a 4:

Create an instrument specific exercise for your method book that works on one specific skill.
    Percussion - write for Bells or Snare Drum.

Skill options:
</td></tr>
</table>

Directions to earn a 3.5 or a 4:

Create an instrument specific exercise for your method book that works on one specific skill.
    Percussion - write for Bells or Snare Drum.

Skill options:

Lip slurs	Note leaps	Articulation	Fingerings
▉▉▉	Playing Low	Slide positions	Paradiddles
▉▉▉	Playing soft	▉▉▉	Whatever you can think of!

Name it after the skill you are working on or give it a fun name.
    For example) An exercise that works on playing higher notes can be called "Higher Notes Exercise" or "High in the Sky Exercise." Your choice.

Requirements:
    8-16 measures
    In 4/4, 3/4, or 2/4 time
    Uses whole, half, quarter, and 8th notes and rests (Percussion can use 16th notes)
    In Concert Bb Major, Concert Eb Major, or Concert F Major

Show your work by either taking a screenshot and adding it below.
    OR downloading a PDF of your Flat.io work and adding it to your locker.

What skill is your exercise working on for your instrument?

Note leaps

Why is it important to work on that skill?

Flute players play many notes with the exact same fingerings. The only difference being how you blow the air.

How will it help students like playing your instrument?

Teach them higher notes and the interesting mechanic on how your air controls the octave.

Add your exercise below or add it to your locker.

Leaping Through the Staff

Instrument Specific Assignment 4 Grading Rubric

	4	3.5	3	2.5 or less
Flat.io Set Up	Flat.io document is set up correctly for your instrument with 8-16 measures in 4/4, 3/4, or 2/4 time in Concert Bb, Eb, or F Major with a unique title.	Flat.io document is set up correctly for your instrument with 8-16 measures in 4/4, 3/4, or 2/4 time in Concert Bb, Eb, or F Major with a unique title.	Flat.io document is set up correctly for your instrument with 4-8 measures in 4/4 time in Concert Bb Major with a unique title.	Flat.io document is not set up correctly, does not have your instrument, is in the wrong key, in the wrong time, or has the wrong titles.
Questions	Answers questions completely and thoughtfully with at least 3 complete sentences.	Answers questions completely and thoughtfully with at least 2 complete sentences.	Answers questions completely and thoughtfully with at least 1 complete sentence.	Does note answer questions clearly or does not write in complete sentences.
Skill	Exercise addresses 1 instrument specific skill accurately, is interesting and melodic to play, and is playable for beginning band students.	Exercise addresses 1 instrument specific skill accurately, is interesting to play, and is playable for beginning band students.	Exercise addresses 1 instrument specific skill accurately and is playable for beginning band students.	Exercise does not address 1 instrument specific skill accurately and/or is not playable for beginning band students.

APPENDIX C

INTERVIEW QUESTIONS

Teacher Individual Interview 1:

1. Please describe your music teaching career.

2. Please describe the classes you currently teach.

3. How did you navigate the transition to remote teaching last spring?

4. How did you prepare for coronavirus-era teaching before Fall 2020?

5. How would you describe your band teaching objectives before coronavirus?

6. How would you describe your band teaching objectives during coronavirus?

7. What are your musical goals when approaching coronavirus-era education?

8. What are your strategies for approaching coronavirus-era education?

9. Could you share a story about your successes in teaching so far this school year?

10. Could you share a story about your students' successes in learning so far this school year?

11. What have been the main challenges to teaching band during COVID-19?

12. What have you learned about yourself as a band teacher since the pandemic began?

Teacher Individual Interview 2:

1. How has coronavirus-era education impacted how you interact with your students in band?

2. Have you and your students worked on any musical activities that you would like to repeat next year?

3. Could you share a story about how your students have approached band this year?

4. Are your band students participating in musical activities outside of school?

5. When reflecting on the school year so far, what has been the most unexpected part of teaching band during coronavirus?

6. When reflecting on the school year so far, what has been the most unexpected part of how your students are learning music during coronavirus?

7. Describe how the experience of coronavirus-era education has influenced your plans for future teaching.

Student Individual Interview:

1. What is your grade level and main instrument?

2. How long have you played in band?

3. Describe your band experiences this year.

4. How has your participation in band changed during coronavirus?

5. What band activities have you enjoyed the most this year?

6. How have your musical skills developed this year?

7. What have you learned about yourself as a musician since coronavirus began?

8. What have you learned about yourself as a student since coronavirus began?

9. Could you share a story about one of your favorite band experiences?

10. What aspects of band before coronavirus do you miss the most?

11. What aspects of band have you enjoyed this year?

12. Is there something new you have done in band this year that you would like to continue to do next year?

13. What advice would you give to other band students about making the most of band during COVID?

Student Focus Group Interview

1. Describe how you, your classmates, and the band teacher communicate in an in-person class.

2. Describe how you, your classmates, and the band teacher communicate in a remote class.

3. What helps you to feel more connected to the music classroom this year?

4. Describe your ownership of your learning experiences this year.

5. How do you think COVID-19 will change band in the future?

APPENDIX D

STUDENT JOURNAL PROMPTS

Writing Prompt 1

Please respond to the following two questions:

1. Describe your most positive experiences during coronavirus-era band class.

2. Describe your most negative experiences during coronavirus-era band class.

Writing Prompt 2

Please respond to the following two questions:

1. What aspects of band before coronavirus do you miss the most?

2. What aspects of coronavirus-era band would you like to keep in the future?

INFORMED CONSENT DOCUMENT BAND TEACHERS

Case Western Reserve University EST. 1826

INFORMED CONSENT DOCUMENT

High School Band Communities of Practice During COVID-19: A Multiple Case Study

You are being asked to participate in a research study about the experience of teaching high school band during the COVID-19 pandemic. Please read this form and ask any questions you might have before agreeing to participate in this research.

Bethany Nickel, a PhD Candidate at Case Western Reserve University, is conducting this study with Dr. Nathan Kruse, a music education professor.

KEY INFORMATION

Purpose
The purpose of this research is to explore how high school band teachers and students are experiencing and negotiating the process of band teaching and learning during the COVID-19 pandemic. Data will be collected through interviews, written responses, classroom observations, and classroom teaching materials. Findings from this study could assist schools and universities in learning more about band teaching and learning during COVID-19.

Procedures and Duration
Data collection is expected to take 3 weeks. **Data will be collected entirely remotely, and the researchers will not visit the band classroom in person.** Data collected will include two classroom observations, two interviews with you, one focus group interview with band students, individual interviews with band students, and two written responses from band students. This study is likely to take 6-10 hours of your time. Please refer to the Detailed Consent section below for a complete description of study procedures.

Reasons You Might Choose to Volunteer For This Study
Participation in this study may help you and your band students reflect on the nature of band education during COVID-19. Participation in this study may help you share your experiences with other band teachers and assist in your professional development. Participation in this study may assist music educators in learning more about pandemic-era band education.

Reasons You Might Choose Not to Volunteer For This Study

This study will take up 6-10 hours of your time during an already busy and stressful year due to COVID-19. This study requires the use of technology for remote classroom observations and remote interviews, which may present minor difficulties in classroom set-up.

<u>Voluntary Participation:</u>
If you decide to participate in the research, it should be because you want to volunteer. There is no penalty or loss of benefits for not participating or for discontinuing your participation.

<u>DETAILED CONSENT</u>
You were selected as a possible participant because you teach high school band at a large school in a suburban area that is affected by COVID-19. We hope to recruit high school band teachers and their students to volunteer for this research. Please read this form and ask any questions that you may have before agreeing to participate.

<u>Procedures</u>
If you agree to participate in this research, we would ask you to do the following things:
1. Review the information in this form and decide whether you would like to participate in the study. If you would like to participate, provide a digital signature on this consent form.
2. Participate in two audio recorded interviews (up to 60 minutes each).
   ☐ YES, I CONSENT to being audio recorded. I also understand that I can change my mind.
   ☐ NO, I DO NOT CONSENT to being audio recorded.
3. Read the transcribed interviews to verify that the information is correct.
4. Allow the researchers to remotely observe two band classes at your school. Focus the computer camera on you and not on the students.
5. Assist the researchers in communicating with band students and their parents.

All interviews will be audio recorded. You will be asked for oral consent to participate and be recorded prior to each interview. The classroom observations will not be recorded. The consent form is provided via REDCap, Case Western Reserve University's secure drive. The recordings will be deleted as soon as the researchers have completed data analysis. All data collection at your school will be completed in 3 weeks.

You can choose to stop participating for any reason at any time. However, if you decide to stop participating in the study, we encourage you to tell the researchers.

<u>Foreseeable Risks and Discomforts</u>
There are no known risks, harms or discomforts associated with this study beyond those encountered in normal daily life. If any of the interview questions make you feel uncomfortable, you may refuse to answer them, take a break, or stop your participation in this study at any time. The possible risks and/or discomforts associated with the procedures described in this study include:
1. Activities that take some of your time.

2. Emotional stress due to COVID-19-related interview questions.
3. Additional questions from your band students or their parents related to the research study.

In order to minimize potential risk or discomfort, the researchers will be flexible with scheduling all study-related activities. The researchers will be available to answer any questions before, during, and after data is collected. The researchers will be sensitive to your requests during any part of this study.

You can also utilize the following resources to discuss sources of stress.

Crisis Text Line
Text HOME to 741741 to connect with a Crisis Counselor
https://www.crisistextline.org

National Suicide Prevention Lifeline
Call: 1-800-273-8255
https://suicidepreventionlifeline.org

Anticipated Benefits
The possible benefit you may experience from the procedures described in this study include a deeper understanding of your teaching approach to COVID-19 instruction.

The researchers hope that the results of the study will contribute to the music education field's knowledge about band teaching approaches during COVID-19 and in remote learning formats.

Compensation
There will be no costs to you for study participation. You will not be compensated for your participation in this research study.

Alternative(s) to Participation
You have the option to not participate.

Voluntary Nature of the Study
Your participation is voluntary. If you choose not to participate, it will not affect your current or future relations with the University. There is no penalty or loss of benefits for not participating or for discontinuing your participation.

You are free to withdraw from this study at any time. **If you decide to withdraw from this study you should notify the research team immediately**. The research team may also end your participation in this study if you do not follow instructions, miss scheduled visits, or if your safety or welfare are at risk.

If you elect to withdraw or are withdrawn from this research study, the researchers will discuss with you what they intend to do with your study data. Researchers may choose to

analyze the study data already collected or they may choose to exclude your data from the analysis of study data and destroy it, as per your request.

Confidentiality
The records of this research will be kept confidential. Any time information is collected, there is a potential risk for loss of confidentiality. Every effort will be made to keep your information confidential; however, this cannot be guaranteed.

In any sort of report the researchers might publish, the researchers will not include any information that will make it possible to identify you as a participant. Research records will be stored electronically in an encrypted file that is password-protected. Access will be limited to the researchers, the University review board responsible for protecting human participants, and regulatory agencies. All data will be deleted as soon as data analysis is complete.

Subject Identifiable Data
All information that identifies you will be removed from the study data.

All information that identifies you will be removed and replaced with a code. A list linking the code and your identifiable information will be kept separate from the research data.

Data Storage
Research data will be maintained in CWRU's secure drives, Box and REDCap. Only authorized individuals will have access to it. Box and REDCap are password-protected.

The audio recordings that can identify you will be:
- Stored in a secure location (CWRU Box);
- The recordings will be retained with the other research data until the researcher's data analysis is complete.

Data Retention
The researchers intend to keep the research data:
- Until analysis of the information is completed.

Your information that is collected as part of this research will not be used or distributed for future research studies, even if all of your identifiers are removed.

Significant New Findings
If any significant new findings develop that may affect your decision to participate these will be provided to you.

Contacts and Questions
The researchers conducting this study are Bethany Nickel and Dr. Nathan Kruse. You may ask any questions you have now. If you have any additional questions, concerns or

complaints about the study, you may contact them at Bethany Nickel, bjn43@case.edu, (970) 388-0552, or Dr. Nathan Kruse, nathan.kruse@case.edu.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about: (1) questions, concerns or complaints regarding this study, (2) research participant rights, (3) research-related injuries, or (4) other human subjects issues, please contact Case Western Reserve University's Institutional Review Board at (216) 368-4514 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

You may print or download a copy of this form for your records.

Statement of Consent
Your signature below certifies the following:
- You are at least 18 years of age.
- You have read (or been read) the information provided above.
- You have received answers to all of your questions and have been told who to call if you have any more questions.
- You have freely decided to participate in this research.
- You understand that you are not giving up any of your legal rights.

_____

Printed Name of Participant

_____   Date: _____

Signature of Participant:

_____   Date: _____

Signature of Person Obtaining Consent:

INFORMED CONSENT DOCUMENT PARENTS

Case Western Reserve
U N I V E R S I T Y ___ EST. 1826
INFORMED PARENTAL CONSENT DOCUMENT

High School Band Communities of Practice During COVID-19: A Multiple Case Study

You are being asked to give your consent for your band student to participate in a research study about the experience of high school band during the COVID-19 pandemic. Your band student is being asked to consider participating in this study to provide insight into the experience of band learning during the pandemic. Please read this form and ask any questions you might have before agreeing to allow your band student to participate in this research.

Bethany Nickel, a PhD Candidate at Case Western Reserve University, is conducting this study with Dr. Nathan Kruse, a music education professor.

KEY INFORMATION

Purpose
Data for this study will be collected through interviews, written responses, classroom observations, and classroom teaching materials. Findings from this study could assist schools and universities in learning more about band teaching and learning during COVID-19.

Procedures and Duration
Data collection is expected to take 3 weeks. **Data will be collected entirely remotely, and the researcher will not visit the band classroom in person.** Data collected will include two classroom observations, two written journal entries, one focus group interview, and one individual interview. This study is likely to take 2-3 hours of the band student's time. Please refer to the Detailed Consent section below for a complete description of study procedures.

Reasons Your Student Might Choose to Volunteer For This Study
Participation in this study may help your band student reflect on the nature of band education during COVID-19 and assist music educators in learning more about pandemic-era band education.

Reasons Your Student Might Choose Not to Volunteer For This Study
Participation in this study requires the technological capability to join a Zoom call. Participation in this study requires 2-3 hours of time outside of the school day. Please

refer to the Detailed Consent section below for a complete description of the foreseeable risks and discomforts.

Voluntary Participation:
If you and your band student decide to participate in this research, it should be because your student wants to volunteer. There is no penalty or loss of benefits for not participating or for discontinuing participation.

DETAILED CONSENT
Your student was selected as a possible participant because they are in high school band in an area affected by COVID-19. The principal and band teacher at your student's high school have both provided permission for this study. Please read this form and ask any questions that you may have before agreeing to allow your student to participate.

Procedures
If you and your band student agree to participate in this research, you will be asked to do the following things:
1. Review the information in this form and decide whether you would like your band student to participate in this study. If you allow them to participate, provide a digital signature, your name, and your student's name at the bottom of this form.
2. Review the child assent form with your band student. If they agree to participate, they should provide a digital signature at the bottom of that form.
3. Allow your band student to be a part of up to two classroom observations, where general classroom events and interactions will be documented. The researcher will observe remotely, and the computer camera will be focused on the band teacher and not the students. If the class is held remotely, the students have the option of turning off their video.
4. Allow your band student to participate in one remote group interview (up to 60 minutes) with other band students on Zoom.
5. Allow your band student to participate in one remote individual interview (up to 30 minutes) with one of the researchers on Zoom.
6. Both interviews will be audio-recorded and transcribed. Your student will be asked for oral consent to participate and be recorded prior to each interview.
   ☐ YES, I CONSENT to my student being audio recorded during the focus group interview and individual interview on Zoom. I also understand that I can change my mind.
   ☐ NO, I DO NOT CONSENT to my student being audio recorded during the focus group interview and individual interview on Zoom.
7. Allow your band student to participate in two written responses via the secure link provided by the researchers.

The individual and group interview with your student will be audio recorded only. No videos, screenshots, or photographs will be taken. The classroom observations will not be recorded. The written responses, consent forms, and assent forms are provided via REDCap, Case Western Reserve University's secure drive. The recordings will be deleted as soon as the researchers have completed data analysis for this study.

You can choose to stop your student's participation for any reason at any time. However, if you decide to stop your student's participation in the study, we encourage you to tell the researchers.

Foreseeable Risks and Discomforts
There are no known risks, harms or discomforts associated with this study beyond those encountered in normal daily life. If any of the interview questions or written questions make your band student feel uncomfortable, they can refuse to answer them, take a break, or stop their participation in this study at any time. The possible risks and/or discomforts associated with the procedures described in this study include:
4. Activities that take up to 3 hours of your student's time.
5. Emotional stress due to COVID-19-related interview questions.

In order to minimize potential risk or discomfort, the researchers will be available to answer any questions before, during, and after data is collected. The researchers will be sensitive to your requests and your student's requests during any part of this study.

You or your student can also utilize the following resources to discuss sources of stress.

Crisis Text Line
Text HOME to 741741 to connect with a Crisis Counselor
https://www.crisistextline.org

National Suicide Prevention Lifeline
Call: 1-800-273-8255
https://suicidepreventionlifeline.org

Anticipated Benefits
The possible benefit your student may experience from the procedures described in this study includes a deeper understanding of their learning approach to COVID-19 band instruction.

The researcher hopes that the results of this study will contribute to the music education field's knowledge about band teaching and learning approaches during COVID-19 and in remote learning formats.

Compensation
There will be no costs to you or your student for study participation. Your student will not be compensated for their participation in this research study.

Alternative(s) to Participation
You and your band student have the option to not participate.

Voluntary Nature of the Study

Your band student's participation is voluntary. If they choose not to participate, it will not affect their current or future relations with Case Western Reserve University, their school, their class standing or grade, or future band opportunities. There is no penalty or loss of benefits for not participating or for discontinuing their participation.

Your band student is free to withdraw from this study at any time. **If they decide to withdraw from this study, they should notify the researchers immediately**. The researchers may also end your student's participation in this study if they do not follow instructions, miss scheduled visits, or if their safety or welfare is at risk.

If they elect to withdraw or they are withdrawn from this research study, we will discuss what should be done any study data that has been collected. Researchers may choose to analyze the study data already collected or they may choose to exclude your student's data from the analysis of study data and destroy it, as per your request.

<u>Confidentiality</u>
The records of this research will be kept confidential. Any time information is collected, there is a potential risk for loss of confidentiality. Every effort will be made to keep your student's information confidential; however, this cannot be guaranteed. You should understand that in cases where we suspect child abuse or neglect or serious harm to self or others, we will take the necessary action in an effort to prevent such harm or injury, including reporting to authorities.

In any sort of report the researchers might publish, the researchers will not include any information that will make it possible to identify your student as a participant. Research records will be stored electronically in an encrypted file that is password-protected. Access will be limited to the researchers, the University review board responsible for protecting human participants, and regulatory agencies. All data will be deleted as soon as data analysis is complete.

Subject Identifiable Data
All information that identifies you and your student will be removed from the study data.

All information that identifies your student will be removed and replaced with a code. A list linking the code and your identifiable information will be kept separate from the research data.

Data Storage
Research data will be maintained in CWRU's secure drives, Box and REDCap. Only authorized individuals will have access to it. Box and REDCap are password-protected.

The audio recordings that can identify your student will be:
- Stored in a secure location (CWRU Box);
- The recordings will be retained with the other research data until the researcher's data analysis is complete.

Data Retention
The researcher intends to keep the research data:
- Until analysis of the information is completed.

Your student's information that is collected as part of this research will not be used or distributed for future research studies, even if all of their identifiers are removed.

Contacts and Questions
The researchers conducting this study are Bethany Nickel and Dr. Nathan Kruse. You may ask any questions you have now. If you have any additional questions, concerns or complaints about the study, you may contact Bethany Nickel, bjn43@case.edu, (970) 388-0552, or Dr. Nathan Kruse, nathan.kruse@case.edu.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about: (1) questions, concerns or complaints regarding this study, (2) research participant rights, (3) research-related injuries, or (4) other human subjects issues, please contact Case Western Reserve University's Institutional Review Board at (216) 368-4514 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

You may print or download a copy of this form for your records.

Statement of Consent
Your signature below certifies the following:
- You are at least 18 years of age.
- You have read (or been read) the information provided above.
- You have received answers to all of your questions and have been told who to call if you have any more questions.
- You have freely decided to give your student permission to participate in this research.
- You understand that you and your student are not giving up any legal rights.

_____
Printed Name of Student Participant

_____   Date: _____
Signature of Student Participant

_____
Printed Name of Legally Authorized Representative (Parent or Guardian)

_____   Date: _____
Signature of Legally Authorized Representative (Parent or Guardian)

_____   Date: _____
Signature of Person Obtaining Consent

INFORMED CONSENT DOCUMENT STUDENTS AGE 18

INFORMED CONSENT DOCUMENT

High School Band Communities of Practice During COVID-19: A Multiple Case Study

You are being asked to participate in a research study about the experience of learning band during the COVID-19 pandemic. Please read this form and ask any questions you might have before agreeing to participate in this research.

Bethany Nickel, a PhD Candidate at Case Western Reserve University, is conducting this study with Dr. Nathan Kruse, a music education professor.

KEY INFORMATION

Purpose
The purpose of this research is to explore how high school band students are experiencing band learning during the COVID-19 pandemic. Data will be collected through interviews, written responses, classroom observations, and classroom teaching materials. Findings from this study could assist schools and universities in learning more about band teaching and learning during COVID-19.

Procedures and Duration
Data collection is expected to take 3 weeks. **Data will be collected entirely remotely, and the researchers will not visit the band classroom in person.** Data collected will include two classroom observations, one focus group interview with you and other band students, one individual interview with you, and two written responses. This study is likely to take 2-3 hours of your time. Please refer to the Detailed Consent section below for a complete description of study procedures.

Reasons You Might Choose to Volunteer For This Study
Participation in this study may help you reflect on the nature of band education during COVID-19. Participation in this study may help you share your experiences with other band students. Participation in this study may assist music educators in learning more about pandemic-era band education.

Reasons You Might Choose Not to Volunteer For This Study
This study will take up 2-3 hours of your time. This study requires the technological capability to join a Zoom call. Please refer to the Detailed Consent section below for a complete description of the foreseeable risks and discomforts.

Voluntary Participation:
If you decide to participate in this research, it should be because you want to volunteer. There is no penalty or loss of benefits for not participating or for discontinuing your participation.

DETAILED CONSENT
You were selected as a possible participant because you participate in high school band in an area affected by COVID-19. Please read this form and ask any questions that you may have before agreeing to participate.

Procedures
If you agree to participate in this research, we would ask you to do the following things:

6. Review the information in this form and decide whether you would like to participate in the study. If you would like to participate, provide a digital signature on this form.
7. Allow the researchers to remotely observe two band classes at your school. The researchers will observe remotely, and the camera will be focused on the band teacher and not the students. If the researcher is observing a remote class, you have the choice to turn off your video.
8. Participate in one focus group interview (up to 60 minutes) with fellow band students.
9. Participate in one individual interview (up to 30 minutes) with one of the researchers.
10. The focus group interview and individual interview will be audio recorded and transcribed. You will be asked for oral consent to participate and be recorded prior to each interview.
    ☐ YES, I CONSENT to being audio recorded. I also understand that I can change my mind.
    ☐ NO, I DO NOT CONSENT to being audio recorded.
11. Read the transcribed interview to verify that the information is correct.
12. Write responses to the two writing prompts at the link provided by the researchers.

All interviews will be audio recorded. The classroom observations will not be recorded. The recordings will be deleted as soon as the researchers have completed data analysis. If you do not wish to be recorded, you should not participate in the study.

The consent form is provided via REDCap, Case Western Reserve University's secure drive. All data collection at your school will be completed in 3 weeks.

You can choose to stop participating for any reason at any time. However, if you decide to stop participating in the study, we encourage you to tell the researchers.

Foreseeable Risks and Discomforts

There are no known risks, harms or discomforts associated with this study beyond those encountered in normal daily life. If any of the interview questions make you feel uncomfortable, you may refuse to answer them, take a break, or stop your participation in this study at any time. The possible risks and/or discomforts associated with the procedures described in this study include:

6. Activities that take some of your time.
7. Emotional stress due to COVID-19-related interview questions.

In order to minimize potential risk or discomfort, the researchers will be available to answer any questions before, during, and after data is collected. The researchers will be sensitive to your requests during any part of this study.

You can also utilize the following resources to discuss sources of stress.

Crisis Text Line
Text HOME to 741741 to connect with a Crisis Counselor
https://www.crisistextline.org

National Suicide Prevention Lifeline
Call: 1-800-273-8255
https://suicidepreventionlifeline.org

Anticipated Benefits
The possible benefit you may experience from the procedures described in this study includes a deeper understanding of your learning approach to COVID-19 band instruction.

The researchers hope that the results of the study will contribute to the music education field's knowledge about band teaching approaches during COVID-19 and in remote learning formats.

Compensation
There will be no costs to you for study participation. You will not be compensated for your participation in this research study.

Alternative(s) to Participation
You have the option to not participate.

Voluntary Nature of the Study
Your participation is voluntary. If you choose not to participate, it will not affect your current or future relations with Case Western Reserve University, your school, your class standing or grade, or your future band opportunities. There is no penalty or loss of benefits for not participating or for discontinuing your participation.

You are free to withdraw from this study at any time. **If you decide to withdraw from this study you should notify the research team immediately**. The research team may

also end your participation in this study if you do not follow instructions, miss scheduled visits, or if your safety or welfare are at risk.

If you elect to withdraw or are withdrawn from this research study, the researchers will discuss with you what they intend to do with your study data. Researchers may choose to analyze the study data already collected or they may choose to exclude your data from the analysis of study data and destroy it, as per your request.

Confidentiality
The records of this research will be kept confidential. Any time information is collected, there is a potential risk for loss of confidentiality. Every effort will be made to keep your information confidential; however, this cannot be guaranteed. You should understand that in cases where we suspect child abuse or neglect or serious harm to self or others, we will take the necessary action in an effort to prevent such harm or injury, including reporting to authorities.

In any sort of report the researchers might publish, the researchers will not include any information that will make it possible to identify you as a participant. Research records will be stored electronically in an encrypted file that is password-protected. Access will be limited to the researchers, the University review board responsible for protecting human participants, and regulatory agencies. All data will be deleted as soon as data analysis is complete.

Subject Identifiable Data
All information that identifies you will be removed from the study data.

All information that identifies you will be removed and replaced with a code. A list linking the code and your identifiable information will be kept separate from the research data.

Data Storage
Research data will be maintained in CWRU's secure drives, Box and REDCap. Only authorized individuals will have access to it. Box and REDCap are password-protected.

The audio recordings that can identify you will be:
- Stored in a secure location (CWRU Box);
- The recordings will be retained with the other research data until the researcher's data analysis is complete.

Data Retention
The researchers intend to keep the research data:
- Until analysis of the information is completed.

Your information that is collected as part of this research will not be used or distributed for future research studies, even if all of your identifiers are removed.

<u>Contacts and Questions</u>
The researchers conducting this study are Bethany Nickel and Dr. Nathan Kruse. You may ask any questions you have now. If you have any additional questions, concerns or complaints about the study, you may contact them at Bethany Nickel, bjn43@case.edu, (970) 388-0552, or Dr. Nathan Kruse, nathan.kruse@case.edu.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about: (1) questions, concerns or complaints regarding this study, (2) research participant rights, (3) research-related injuries, or (4) other human subjects issues, please contact Case Western Reserve University's Institutional Review Board at (216) 368-4514 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

You may print or download a copy of this form for your records.

Statement of Consent
Your signature below certifies the following:
- You are at least 18 years of age.
- You have read (or been read) the information provided above.
- You have received answers to all of your questions and have been told who to call if you have any more questions.
- You have freely decided to participate in this research.
- You understand that you are not giving up any of your legal rights.

_____
Printed Name of Participant

_____   Date: _____
Signature of Participant:

_____   Date: _____
Signature of Person Obtaining Consent:

INFORMED ASSENT DOCUMENT STUDENTS UNDER 18

CASE WESTERN RESERVE
U N I V E R S I T Y —— EST. 1826

INFORMED ASSENT DOCUMENT

High School Band Communities of Practice During COVID-19: A Multiple Case Study

Participating in this study is voluntary. Please read about the study below. Feel free to ask questions about anything that you do not understand before deciding if you want to be in the study. A researcher listed below is available to answer your questions.

WHY ARE YOU RECEIVING THIS INFORMATION?
The researcher wants to tell you about a research study looking at the experience of high school band during the COVID-19 pandemic. The researcher wants to see if you would like to be in this study.

WHY ARE THE RESEARCHERS DOING THIS STUDY?
Bethany Nickel and Dr. Nathan Kruse are doing this study to learn more about the high school band student experience of music learning during the COVID-19 pandemic. The reason for the study is that there have been many changes to band education due to health and safety regulations and remote learning.

WHAT DOES PARTICIPATION IN THIS STUDY MEAN?
These activities are part of this study:
1.   You will need to digitally sign this assent form below in order to participate in the study.
2.   Your parents/guardians will receive a consent form that they will need to sign before you participate in the study.
3.   You will be invited to participate in one group interview (up to 60 minutes) with your fellow band classmates. The group interview will take place outside of the school day on Zoom.
4.   You will be invited to participate in one individual interview (up to 30 minutes) on Zoom that will take place outside of the school day.
5.   All interviews will be audio recorded. You will be asked for oral consent to participate and be recorded prior to each interview.
6.   You will receive two writing prompts, and will be asked to write a response to each prompt.
7.   The researcher will remotely observe two of your band classes. The computer camera will be focused on the band teacher and not on you or your classmates. If your classroom is remote, you can turn off your video.

POSSIBLE RISKS OR DISCOMFORTS

There are no known risks or discomforts associated with this study beyond those encountered in normal daily life. If any of the interview questions make you feel uncomfortable, you may refuse to answer them, take a break, or stop your participation in this study at any time. The possible risks or discomforts associated with the procedures described in this study include:

8. Activities that take some of your time.
9. Emotional stress due to COVID-19-related interview questions.

In order to minimize potential risk or discomfort, the researchers will be available to answer any questions before, during, and after data is collected. The researchers will be sensitive to your requests during any part of this study.

You can stop participating in the study at any time or choose not to answer any questions.

You can also utilize the following resources to discuss sources of stress.

Crisis Text Line
Text HOME to 741741 to connect with a Crisis Counselor
https://www.crisistextline.org

National Suicide Prevention Lifeline
Call: 1-800-273-8255
https://suicidepreventionlifeline.org

WILL THE STUDY BENEFIT YOU?

Participation in the study may help you reflect on the experience of being in band during the COVID-19 pandemic, or give you new ideas about how to approach band learning during the 2020-2021 school year.

HOW WILL YOUR INFORMATION BE PROTECTED?

Any information that identifies you will be removed from the interview data and written responses. Your name will not appear in any future presentation or publication of the research study. The audio recording of the interviews will be deleted as soon as the interviews are transcribed (typed out by the researcher).

You should understand that in cases where we suspect child abuse or neglect or serious harm to self or others, we will take the necessary action in an effort to prevent such harm or injury, including reporting to authorities.

WHAT IF YOU HAVE ANY QUESTIONS?

You can ask questions any time. You can ask now or you can ask later. You can talk to the researcher, your mom, dad, or guardian, your band teacher, or you can talk to someone else. You may ask any questions you have now. If you have any additional

questions, concerns or complaints about the study, you may contact the researchers at Bethany Nickel, bjn43@case.edu or Dr. Nathan Kruse, nathan.kruse@case.edu.

If the researcher cannot be reached, or if you would like to talk to someone other than the researcher about (1) questions, concerns or complaints, (2) your rights, (3) research-related injuries, or (4) other issues, please contact Case Western Reserve University's Institutional Review Board at (216) 368-6925 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

DO YOU HAVE TO BE IN THE STUDY?
You do not have to be in the study. No one will be mad at you if you don't want to be in the study. Choosing not to participate in the study will not affect your band grade. If you don't want to be in this study, you just have to tell the researcher. You can say yes now and change your mind later. It is up to you to decide.

_____   Age: _____
Printed Name of Participant

_____   Date: _____
Signature of Participant

_____
Printed Name of Researcher/Person Obtaining Assent

_____   Date: _____
Signature of Researcher/Person Obtaining Assent

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