POWER CHORDS, BLAST BEATS, AND ACCORDIONS: UNDERSTANDING INFORMAL MUSIC LEARNING IN THE LIVES OF COMMUNITY COLLEGE STUDENTS

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by

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The purpose of this multiple case study was to explore the experiences of informal music learners at a community college. In this study, the views and understandings of participants provided diverse perspectives into individual lifeworlds, which are informed by social, economic, and cultural conditions. Purposeful sampling was used to provide information rich cases. Specifically, maximum variation and criterion sampling guided the researcher in selecting eight distinct participants with divergent perspectives, attitudes, and positions.

This investigation was directed by three research questions. First, how do informal music learners at a community college pursue musical studies and describe their experiences? Second, based on participant experiences, how do these beliefs and ideas influence their musical understanding? Third, what aspects of how music is learned do participants perceive as being beneficial to other musicians?

To gather rich and descriptive information, data collection included formal interviews, group interviews, and observations. An interpretive approach to data analysis was utilized to explore, understand, and give meaning to responses. As a constructivist, the author aimed to analyze data with respect to the idiosyncratic understandings and beliefs of each participant. Further, in this multiple case study a cross-case analysis was implemented to emphasize findings and maintain the singularity of each case. Research revealed that members used similar and varied approaches to pursue musical studies, utilize resources, and convey learning processes, which included reliance on listening, observation, repetition, collaboration, seeking guidance, and trial-and-error. Findings uncovered how self-taught musicians illustrated prolonged musical engagement, varied learning approaches, emphasized aural skills, and perseverance in completing musical tasks, which are critical to music education.

DEDICATION

To my wife and children with whom I share my lifeworld.

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I am most grateful to the members of my dissertation committee who provided valuable insights, gave considerable amounts of time, and guided me in completing this dissertation. First, I would like to thank my advisor Dr. Craig Resta for his mentorship and council throughout the entire research and writing process. His direction was especially valuable when I needed additional advice about a myriad of topics or needed to be pushed to meet his constant, but vital, deadlines, which I believe were essential for completion. Second, I would like to express my appreciation to Dr. Alicia Crowe for her advice, especially in the field of educational research. Third, I am compelled to thank Dr. Christopher Venesile for his suggestions and tips related to music education research. Fourth, I would like to say thank you to Dr. Andrew Shahriari for his review and research recommendations. Fifth, I would like to express my gratitude to Dr. Richard Serpe for his guidance related to this study. In addition, I would like to show my thanks to Dr. Patricia Grutzmacher (Professor Emeritus) for encouraging me to consider the accessibility of my research to practicing teachers with varying views.

Editing a document of this size is an arduous task; in response, I asked a few acquaintances to help me review my dissertation. Specifically, I thank my good friend Dr. Ryan Robinson for his knowledge and assistance in reading and rereading my document, which led to many suggested edits. I would also like to say thank you to my sister Vanessa Owens and brother-in-law Robert Faulkner for their aid in looking over selected chapters of my dissertation.

In addition, to the advisors, friends, and family, I need to thank the participants because without them, this study would have never taken place. I appreciate the time they spent sharing their experiences and beliefs with me. Further, I am grateful for their willingness to openly

discuss their understanding with ease and transparency. While they are unnamed in this study, I would also like to show my appreciation to the external reviewers and peer debriefer who took the time to evaluate and review my research questions and various components of this research.

Finally, I need to thank my wife and children. To my wife, I thank her for her patience and willingness to embark on this endeavor with me, which required a complete life change during the Ph.D. course work and lengthy discussions about music education, which she politely endured. Also, I am very grateful to her for her sacrifice and encouragement during this venture. To my children (Milton, Quentin, Pierce, and Beatrix), I appreciate their resolve when Dad could not build with *Legos* or play outside because he was working on his dissertation. However, I am humbled by the many times they provided reprieve from lengthy writing sessions, requested piggyback rides late at night, or as they sat on my lap as I worked.

CHAPTER I

INTRODUCTION

To be educated is not to have arrived at a destination; it is to travel with a different view.

(Peters, 1965, p. 110)

Background

As I sit at my desk typing this study, I am compelled to drum on the desktop, computer, or anything that is within striking distance. My need to drum is an essential part of my being. Drumming is my passion, my spirit, and my obsession. Drumming is not simply something I do; instead, it is the one thing I must do. As a musician and music educator, drumming serves as the core of all my musical endeavors and ideas. In the same way, how I learned to drum informs my understanding of how music is taught and studied. Unlike many of my peers, I began learning my instrument informally; that is, without the use of formal music instruction from a private instructor or school music teacher. Instead, my musical origins were rooted in self-exploration and discovery.

As my aspiration and enthusiasm for the drums grew, I sought other musicians and mentors to further my musical understanding. This included forming a death metal band with fellow teenage musicians, reading drum magazines, drumming along with recordings, and watching videos of well-known heavy metal drummers. Initially, I emulated the drumming techniques and styles of rock drummers, such as Lars Ulrich the drummer for *Metallica* and Igor Cavalera the drummer for the Brazilian thrash metal band *Sepultura* (Walser, 2014). Soon after, my grandfather introduced me to jazz drummers, such as Art Blakey, Philly Joe Jones, and

Buddy Rich. After a few years of drumming on my own and with other informally trained musicians, I found my way into the high school band and eventually the community college jazz ensemble.

Once I commenced formalized music instruction in the school, I began to identify a paradox that existed between formal and informal music training. As a result, I lived, and still live, in a third space occupied by formal and informal practices. Wang (2004) defined a third space as embodying contrasting ideas, understanding different cultures, and honoring multiplicity. As a Chinese woman who went to graduate school in the United States, Wang identified the dichotomy amid Chinese and Western cultures. As a result, she conveyed that relationships, self-understanding, and differences must be handled and understood in a new way. Like Wang, the coexistence of two different cultures within myself creates conflict and disharmony. As I experience the polarity of formal and informal music learning, I seek a space that encourages and embraces interactions between the formal and informal.

Music education studies have substantiated the value of informal music learning as an important component of musical discovery, which can be applied to music teaching (Campbell, 2002; Folkestad, 2006; Green, 202; Walderon, 2011). While music education is commonly understood as a formal endeavor, Folkestad (2006) encouraged music education scholars to investigate music learning in a variety of contexts and locations. Likewise, Kratus (2007) recommended that music educators observe and embrace how music functions in society, instead of how it is maintained and utilized in schools. As a result, he urged music educators to look at music teaching and learning that occurs out of the school and focusing on personal, individualistic, technological, non-classical, less formal, homemade, and solo methods of music instruction.

Reflecting on my encounters as a music educator, I have witnessed many students in scholastic and collegiate music classes who have had musical experiences that are similar to my own. Yet, each student brings approaches that are unique with his or her own noteworthy backstory, endeavors, and successes. The strategies used by informal learners can provide valuable insights for music teachers, which is the subject of this inquiry.

Purpose

Learning music informally is not new. In fact, for centuries if not millennia musicians learned to play music informally in solo and collaborative settings. For instance, the advent of music printing in the Renaissance prompted Luis de Milán to compose *El Maestro* for *vihuela,* a guitar-shaped Spanish lute. His anthology provided vihuela tablature and instructional techniques for amateur self-instruction (Griffiths, 2010). In seventeenth century England, commoners and aristocrats informally created, learned, and performed folk music in homes and public houses (Lloyd, 1967). During the nineteenth century, music learning thrived in the United States as an informal endeavor via oral and aural traditions (Nettl, 1976). Popular blues musicians in the early twentieth century, such as B.B. King, learned to master musical instruments informally. For example, as a boy B.B. King learned music by listening to recordings on his Victrola Record Player, which "went beyond [his] Sears and Roebuck instruction books" (McGee, 2005, p. 23).

The examples above provide a snapshot of events and experiences related to informal music learning. While the events are not intended to be an exhaustive chronology of musical informalities, which is beyond the scope of this study, the list of happenings encapsulate the ever-present existence and nature of informal music learning. Like the self-taught musicians of the past, informal music learners today are informed by and adapt to the world they live in by experimenting and problem solving in creative ways (Green, 2002).

Informal learning is an impromptu and untaught process of gaining knowledge and understanding. In any discipline, gaining knowledge and skills via trial-and-error, observations, and self-direction is the natural way that people learn (Marsick & Volpe, 1999). In music, informal learners engage in extemporaneous and self-guided collaborative and autonomous activities that further their understanding (Green, 2002). Musicians learn to play by testing out their instrument by means of trial-and-error, observing the techniques of other musicians, and seeking resources that will improve their abilities.

The purpose of this study was to explore the experiences of informal music learners at a community college from diverse backgrounds. To achieve these aims, it was my intention to probe the methods, resources, and strategies used by informal learners to gain insights that could inform music teaching and learning. Specifically, eight informally trained community college students with diverse life experiences, different musical abilities, and various musical interests provided eight unique situations in this multiple-case study. The participants in this study play a variety of instruments, have differing ethnic backgrounds, and learn in a variety of ways. The music learning experiences of each participant provided insight about how individuals comprehend and navigate their musical lifeworld.

Need for the Research

Mark (1996) stated that informal learning in music education has been overlooked and "we could well learn something about teaching and learning that the study of music instruction in schools can't teach us" (p. 119). Aligning with the dictate presented by Mark, I have examined music learning as it occurs organically outside of schools. This provides awareness regarding how self-taught musicians learn, which can inform music educators to improve practice.

Specifically, my intention was to investigate self-efficacy, musical discovery, and natural happenings of a diverse group of informal learners.

So, why was this study needed? Why should the lives of self-taught community college musicians be examined? Informal music learners continue to self-study and engage in meaningful musical activities without structured guidance. The approach and experiences of participants have, in some way, led to an intrinsic lifelong pursuit of music learning. Kelly (2009) stated that the purpose of music education should be to provide experiences and skills that will promote self-directed musical interest. Informal learning is an essential component of music education because students inevitably leave the classroom and will hopefully continue to play their instrument or sing for life. If sustained musical involvement is an aim of music education, then understanding how informal music learners understand is significant because self-taught musicians make autonomous musical decisions, initiate musical studies, and continue to make music on their own.

Reimer (2002) noted that music education should place an emphasis on intrinsic ideals that have meaning for the individual, which is exhibited in informal learners. Jaffurs (2006) stated that studying informal music learning outside of the school could provide an understanding of the acquisition and sustaining of knowledge derived from informalities. If music educators explore and apply informal music learning research into their classrooms, students may be better prepared to engage in self-directed music learning, which could foster prolonged musical interest and engagement.

Kratus (2007) observed that technology has ignited a shift in how people experience and learn music. He identified changing musical interests and accessibility, via technology, as a reason for the disengagement between music in academic settings and musical experiences in the

prevailing culture. Technological innovations, such as *YouTube* and *GarageBand*, have made music making and learning an autonomous endeavor. For example, an individual with the appropriate software (*GarageBand, Logic,* or *FruityLoops*) can create a complete piece of music—including all instruments (drums, guitar, violins, horns, and so on)—with no assistance and no other musicians. In the same way, music technology is ever-present in the lives of students and central to their musical involvement and learning (Walderon, 2011). Informal music learners use ordinary and familiar resources, which includes music technologies.

A recent National Endowment for the Arts (2012) study found that during their entire life, only 16% of adults in the United States participated in musical activities in academic settings. However, 24% of adults learned music without the aid of a teacher. In addition, 36% learned music in both informal and formal settings. This same study revealed that less than 9% of adults had studied arts of any kind in the last year. Results of the National Endowment of the Arts (2012) study illustrated the prevalence of informal music learning as an exclusive endeavor experienced by many adults in the United States.

Additionally, Lim (2012) examined music learning in the lives of senior citizens in northeastern Ohio, which included experiences with music in schools, churches, private lessons, family, and so on. Lim found that self-taught musical activities were the only category that retained its frequency during and after school music instruction. Based on the aforementioned studies, it is easy to discern an interest in informal music learning in the United States. Thus, a study of informal leaners can provide valuable insights to potentially reshape and vitalize music teaching and learning.

There is a limited amount of research that investigates music learning in an environment that exists outside of academic settings. Heath (2001) observed that learning in any subject that

occurs beyond the classroom is rarely examined. Likewise, the limited amount of research examining informal music education in the United States, specifically looking at a diverse group of learners, signifies a need for this study. Shifting musical interests, changing demographics, and technological innovations, elucidate a need to examine musical learning outside the classroom, which can provide further understanding of informal music learning.

Research Questions

To guide this study, I have spent a great deal of time contemplating, developing, and conceptualizing each research question. Moreover, great care was taken to ensure that each research question was broad enough for exploration and aligned with desired topics (Bryant, 2004). I also acknowledge that creating research questions in a qualitative study is difficult because of the flexible nature of this method of inquiry. The following research questions are directly linked to relevant literature, as suggested by Gay, Mills, and Airasian (2009).

Based on a thorough review of the literature related to informal music learning, this qualitative inquiry addresses the following research questions.

1. How do informal music learners at a community college pursue musical studies and describe their experiences?
2. Based on participant experiences, how do these beliefs and ideas influence their musical understanding?
3. What aspects of how music is learned do participants perceive as being beneficial to other musicians?

From the above questions the following can be gained. First, each informal music learner has a different experience that can provide valuable insights and an appreciation for unique and diverse perspectives. Second, beliefs are derived from cultural and personal experience. Third, the individual beliefs and concepts related to practical knowledge can provide an awareness of

the multifaceted nature of musical understanding. Fourth, based on information derived from participant responses and experiences, music education practice can be reshaped, reevaluated, and reimagined to improve practice.

Overview of the Study

In this multiple case study, I explored the experiences of informal music learners from a community college with diverse backgrounds. As recommended by Stake (2006), it was my intention to illustrate how the phenomenon is seen in different circumstances. By investigating the understandings of informal music learners, music teachers can gain insights about informalities and other ways of learning, which can be adapted to reshape music curricula and practice (Green, 2002).

To gain an understanding of the lived experiences of informally trained community college musicians, I used a multiple-case study design framed by a constructivist lens. Specifically, the unique nature of each case was investigated, thus allowing an exploration of the divergent and compelling attributes of participants (Yin, 2014). As recommended by Creswell (2014), I have chosen a multiple-case study to seek rich descriptions of bound cases, which is established by time and place. Specifically, I am interested in probing the distinct characteristics of individual early college musicians.

To seek diverse and information-rich cases, I used maximum variation and criterion case sampling to select eight purposefully chosen participants. As recommended by Hatch (2002), my objective was to utilize maximum variation sampling, which solicits individuals with contrasting perspectives related to the same phenomenon. By using this sampling method, I obtained participants with different perspectives, attitudes, and positions. Furthermore, maximum variation sampling allowed me to understand differences and shared outcomes derived from a

diverse group of learners (Patton, 2015). In addition, I used criterion sampling by seeking individuals who match preset criteria. In this study each case included individuals who were enrolled at a community college and learned to play music informally.

The aforementioned sampling methods are both purposeful. Patton (2015) described purposeful sampling as a strategy that aligns with the case being examined, research questions, and data being collected. Each participant in this multiple case study was purposefully selected to ensure that individuals are informal music learners and provide varied perspectives related to the phenomenon of informal learning. In addition, convenience sampling was used, which was based on who was available (Ritchie, Lewis, Nichols, & Ormston, 2013). At this community college participants were initially selected based on the availability of informal music learners. Further, my position as a faculty member where the research was conducted allowed me to develop relationships, make connections, and collaborate with participants, which is central to qualitative inquiry. With this in mind, I will later describe specific steps I took to utilize ethical protocols and remain removed from any position of authority with participants in this study.

To gather rich and descriptive data, I used formal interviews, group interviews, and observation. Interviews were structured, semi-structured, and in-depth (Hatch, 2002). The structured component included preconceived questions, which extracted semi-structured elements; thus, leads were followed to gain further understanding. To achieve greater comprehension of the potentially distinct perspectives and similarities of participants, I used small group interviews. Last, observations provided additional insights concerning practice habits, implementation of music learning resources, and an eyewitness account of each informal music learner.

To convey authenticity to the voice of participants, I used an interpretive approach for data analysis and give meaning to the data. Transcription commenced as early as possible to ensure that data was fresh, recorded thoroughly, and accurately understood. To assist in the accuracy of data collection, I used memoing to provide a methodological, personal, and substantive method of making sense of the data. Schram (2006) identified memos as an implement for recording notes and ideas as data unfolds. Maxwell (2012) likened memoing to fieldnotes or transcriptions, which provide a guide for memory and additional examination. My interpretive understanding aligns with Yin (2014), who observed that multiple possible realities might be assumed in case study research, which are dependent on the observer. As a result, the steps of interpretive analysis that were used will be discussed further in chapter three.

Concerning trustworthiness, my intention was to accurately depict the thoughts and experiences of each participant. To generate a trustworthy study, I collected enough data to achieve saturation, employ meticulous documentation, and implement member checks. My intention was to immerse myself in an ongoing collection of data until saturation was reached and my questions had been answered. Copious documentation and authentic transcriptions provided accurate documentation (some two-hundred pages). Member checks were applied to validate and ensure participant response accuracy and an expert reviewer evaluated interpretation of the findings for authenticity.

I have an ethical responsibility to protect personal information, preserve integrity, and safeguard potential ethical dilemmas. To provide confidentiality, I secured all data in a safe location (locked drawer in my desk) and use pseudonyms throughout the study, which were chosen by participants. It was my intention to be candid, honest, and transparent during participant interactions. Since I am a faculty member at the community college where this study

was conducted, ethical dilemmas were possible. To prevent this problem, students from the classes I teach were not asked to participate. In fact, research was focused on a diverse group of non-music major student musicians. Moreover, I conducted this study with Institutional Review Board (IRB) approval from Kent State University and the community college where the study took place.

Scope of the Study

Data collection occurred at a community college in the Midwestern United States. I purposefully chose this location because it provided access to musicians from an array of musical, social, economic, and ethnic backgrounds. In general, community colleges attract a wide range of students with varying interests, ages, and situations (AACC, 2014). Specifically, this institution is comprised of students from sister cities with contrasting ethnic and socioeconomic situations. Eastlake is 88% Caucasian and Westlake is 89% African American. In addition, this community college draws students from Lake County that includes a major metropolis, multiple mid-size cities, a vast amount of rural communities, and a Native American reservation. Thus, cultural and economic context is varied. As a result, this location served as an ideal setting to explore the lives of diverse community college musicians.

It was my objective to investigate the lived experiences of eight community college musicians with different understandings. However, this was not limited to ethnic backgrounds. Instead, it was my intention to seek participants that play an array of instruments, such as guitar, flute, percussion, voice, and so on. Moreover, I sought to ascertain insight about informal musical understanding as it related to the multiplicity of cultural experiences, which are remarkable to each individual.

Once I received approval from the Kent State University Institutional Review Board (IRB), I recruited participants in humanities courses, drum circles, and campus open mic (microphone) sessions. To clarify, open mic (pronounced open mike) sessions were casual performance activities held at the college, which included a multitude of musicians from an array of musical, instrumental, and ethnic backgrounds. It was my intention to begin data collection at the end of the spring 2015 semester and continue data collection into the summer months. The end of the spring term provided sufficient time to make contacts, select participants, and begin data collection. In addition, the summer provided more flexibility to schedule individual interviews, observations, and group interviews. The community college campus provided an optimal space for most interviews. However, to accommodate participant schedules interviews also occurred in coffee shops, at the beach, and other locations. In an attempt to understand the experiences of each case, observations were also conducted in public spaces where musical practice and performance naturally occurs.

As recommended by Hatch (2002), it was my intention to begin data analysis and transcription early to ensure that data was fresh; thus, information could be revisited and re-worked as needed. Once data was transcribed and analyzed, it was shared with participants to safeguard accuracy and gain participant approval. To achieve saturation, the entire data collection and transcription process took about sixteen weeks. This provided enough time to build trust with participants and gain rich meaningful descriptions of participant lives.

Delimitations

The intent of this study was to examine eight distinct cases of informally educated community college musicians. I sought data that illustrated the attributes and experiences of each informal learner. Therefore, it was my intention to identify delimitations to ensure that

circumscriptions are placed on the study, thus ensuring the research does not expand out of proportion (Phelps, Sadhoff, Waberton, and Ferrara, 2005).

As previously mentioned, community college students are derived from a myriad of backgrounds. In this multiple case study, maximum variation was achieved by looking at individuals with assorted musical, ethnic, socioeconomic, professional, and cultural situations. Participants played a variety of musical instruments, to include drums, flute, guitar, piano, electric bass, ukulele, beat boxing, and voice. The type of musical styles they listen to, such as rock, hip-hop, and country, also varied. Participants included male and female students who are African American, Asian, Latino, Native American, and Euro-American. Moreover, students were from working class and lower middle class backgrounds (AACC, 2014). While it was not a requirement for this study, many students were working their way through school. Musicians came from rural and urban areas, which are characteristic of the student population of the institution. Initially, it was my intention to focus on traditional age college students. However, this did not accurately represent the span of community college student ages. In response, some non-traditional community college musicians were included in this study.

I acknowledge that no study is without bias. As a result, my understanding of this study is informed by my experiences being raised in a working class home, learning music informally, and being a former community college student. Yet, it is not my intention to validate my pre-conceived notions about informal music learning. Moreover, I understand that case study researchers have a tendency to confirm pre-conceptions based on prior understanding of the issue, which is needed for case study research (Yin, 2014). As noted by Asmus and Radocy (2006), the prior knowledge and education of the researcher is valuable to make selections and decisions related to participants. My background and training as an informal music learner,

researcher, and music educator was beneficial in selecting a mixed group of informal music learners.

Definition of Terms

To ensure that the reader and I have a similar understanding of terms that are unique to this study, it is important to provide a list of definitions. In fact, Sampson (2012) identified definitions and the explanation of idiomatic language as an essential component of the dissertation process, which is an organized study of a topic. In addition, Bryant (2004) cautioned that terminology could be misunderstood if no effort is made to adequately define jargon, technical language, and related expressions. This includes phrases that are complex or uniquely defined to fit the needs of the study (Phelps et al, 2005). The following definitions should provide clarification of important terms used in this study. Specifically, it will clarify the lens I used to understand these concepts.

Informal learning is the process of gaining knowledge in an autonomous or collaborative setting without formal instruction. The learner discovers how to gain proficiency, or to master a task, through a variety of resources and self-guided study. That is, there is no formal instructor or systematized approach to guide the individual, such as a music teacher. In short, the task of learning is guided, directed, and initiated by the individual (Marsick and Volpe, 1999)

Formal learning is the acquisition of knowledge by way of a systematized instructional approach. In formal learning, the teacher prescribes the information that is important for the student to grasp and the method of delivery (Folkestad, 2006). To differentiate between informal and formal learning in classrooms, Bruner (1979) stated that expository or formal learning is a teacher centered approach that places the decisions, pace, style, and content in the hands of the instructor. Currently, Hendricks, Smith, and Stanuch (2014) observed that many music educators

blend conventional and unconventional approaches to instruction by adapting to individual values, interests, and learning experiences. Moreover, Scott (2006) noticed that many music teachers utilize a constructivist approach to instruction that limits the amount of direction the teacher offers to students. For example, a music teacher may use direct instruction to provide new knowledge to students on a topic. Then students will be given the opportunity to make decisions and apply the approaches in new and self-directed ways.

Self-taught music learners have learned to play their instrument with minimal assistance from others (Merriam-Webster, 2015). That is, they work autonomously to gain insights through self-discovery and little collaboration. For example, in his biography the popular musician Sting (2003) reminisced about finding a place to practice guitar and "escape into the hermetically sealed world of his own making" (p. 61). In short, self-taught learners achieve success through individual endeavors.

Informal music learners have an array of music learning experiences. A defining feature of informal music learners is that they have musical origins that are not formalized. Thus, informal music learning is primarily self-taught. Yet, it is not limited to autonomous learning and musical knowledge that can be acquired from others without formalized instruction. For example, an informal music learner may learn to play the guitar by copying riffs with friends or listening to music on an *iPod*. While informal music learning can be autodidactic, it can also include the imitation of peers, mentors, and recordings (Green, 2008).

Community college student is a term that is both simple and difficult to define. Simply put, a community college student attends a community college. Yet, there is no single set of criteria that defines a community college student; instead, students can come from an array of backgrounds. The AACC (2014) found that community college students represent nearly half of

the undergraduate students in the United States and that half of community college students are women. In addition, the AACC found that the bulk of African American and Hispanic undergraduates are from community colleges. The myriad of reasons that students attend community colleges makes it difficult to differentiate between them and university students. As previously mentioned, the only real distinction is that community college students attend a community college; though, their reasoning is varied. While this is only a brief list, some of the reasons students may attend a community college are the following: Trying to save on tuition costs, looking to transfer credits to a four year institution, and need class flexibility because of employment or children (AACC, 2014).

Traditional student is an individual who enrolls into college immediately following high school (18-19), goes to school fulltime, and completes his or her undergraduate degree in about four years. Large portions of traditional college students begin their academic endeavors at a community college (Deil-Amen, 2011).

Non-traditional students are college students who do not fit the aforementioned criteria of a traditional student. This includes individuals that work full time, attend school part-time, left school and returned, or many other possibilities. The National Center for Educational Statistics identified the following seven criteria to distinguish non-traditional college students: delayed enrollment, part-time student, works full time, financially independent, has dependents, single parent, or has no high-school diploma. In addition, the American Association for Colleges and State Universities identified “non-traditional as the new traditional student” (Pelletier, 2010, p. 6).

Music in this study is not restricted to a single idiomatic expression of organized sound; instead, it is understood as instrumental and vocal sounds that are situated in a variety of cultural

vantage points and situations. In addition, music includes classical (Western art music), folk, and popular genres that have specific cultural implications. That is, there are theoretical and cultural elements that are directly linked to what music is based on predetermined prescriptions. Yet, the different interpretations and forms of music are not hierarchical; instead, music from different genres and cultures are valued and respected equally (Nettl, 2014). Traditionally, music may be defined as any sequence of sounds purposefully modified to please the ear (Merriam-Webster, 2015). Yet, a contemporary definition of music is the ordering of sounds and silence, which does not include subjective elements (Kerman and Tomlinson, 2012).

Musician includes anyone who makes music on his or her instrument or voice (Merriam-Webster, 2015). In this study, the individual must be actively engaged in the process of making music. For example, an individual who is listening to music in their car may sing along or keep the beat on the steering wheel. While this goes beyond passive music making, it does not make the individual a musician. A musician pursues musical achievement in someway, which can take on many different forms. For example, a punk musician may tediously practice a guitar lick to achieve mastery or a hip-hop artist may spend hours developing grooves to accompany his rhythmic poetry. It is commonplace for the term musician to be associated with professional instrumentalists, this study recognizes a musician as anyone who is engaged in serious music making at home, with a garage band, or anywhere. Serious music making is manifest in individuals who are working on music with careful consideration and specific goal in mind.

Musical style includes musical literature from an array of idioms. In addition, each style can include variations within that genre. For example, the music of the *Beatles* is different than that of the *Rolling Stones*. Yet, they are both rock bands from Britain in the 1960s. Of course, early *Beatles* tunes that used a *Mersey Beat* and were inspired by *skiffle* (British rock style from

the late 1950s). In contrast, later *Beatles* works contained elements of Indian classical music, European baroque music, blues, and rock-n-roll. For example, *Penny Lane* combined rock music and classical motives from *Brandenburg Concerto* by Johann Sebastian Bach (Martin & Hornsby, 1979). While it is difficult confine musical styles to preconceived and limited characteristics, *Table 1* provides some general stylistic considerations.

Style	**Typical Instruments**	**Characteristics**
Rock	Electric guitar, electric bass, drum set, vocal(s)	Guitar driven music that commonly uses overdrive and distortion. Heavy backbeat on the drums. Yelling or harsh vocals are common.
Hip-hop	Drum machine, rapping, vocals, turntables	Busy drum grooves with a heavy emphasis on lower frequencies. Lyrical rap vocals. Addition sounds and instruments are generated using synthesizers and samples.
Country	Steel string acoustic guitar, lap steel guitar, drum set, fiddle, vocalist	Vocals are identified by an emphasis on the country accent. Guitar acts as the primary instrument for accompaniment. There is interplay between strong and weak beats.
Classical	Traditional orchestral instruments, such as violin, viola, cello, bass, French horn, clarinet, oboe, bassoon	Organized vocal and instrumental music that is based on Western European traditions. Usually this music has many parts and is multifaceted.
Folk	Steel string guitar, banjo, mandolin, accordion, vocal(s)	Traditional music with varied instrumentation. Themes are usually about hardship or everyday life. Harmonies tend to accentuate the tonic and fifth.

Table 1. Musical Styles. Information in this table is adapted from Yudkin, J. (2012).

Beyond a simple definition of musical style, the musicians that play a particular genre commonly utilize vernacular that is stylistically specific. The following definitions include colloquial language that is used by participants in this study. Prior to a description of musician language, a definition of classical, folk, and popular music is included. Each definition is

intended to provide order to the multiplicity of potentially broad musical genres previously described by Nettl (2014).

The musical genre commonly found in concert halls and opera houses is called *classical music* or *Western art music.* The classical music tradition includes instruments and stylistic elements derived from European origins (Sandow, 2007). Musical instruments in this practice typically include violins, woodwinds, brass, percussion, and voice. Examples of composers in this musical style are Ludwig von Beethoven, Gustov Holst, Pyotr Ilyich Tchaikovsky, Leonard Bernstein, and the like. Further, Miller & Shahriari (2009) identified classical music in terms of societal value. Specifically, they noted that classical music is considered to be hierarchically the best because it requires specialized training to master technical complexities of the music.

Classical musicians use the following terms, which were identified by Barrett (2012).

- *Clams* are missed notes during performance or practice.
- *Football* is a long note, typically a whole note.
- *Hairpins* are sharp contrasting dynamic changes, or dynamic changes in general to include crescendos, decrescendos, forte piano, and the like.
- *Axe* is a classical musicians instrument, while commonly associated with guitars in the rock idiom, classical musicians use the term axe to identify any instrument, such as a violin, saxophone, or cello.

The type of music that is widespread among leisure consumers and has a variety of meanings to different people is *popular music* (Miller & Shahriari, 2009). While there are connoisseurs of popular music, the casual listener is the primary patron. In the United States, popular music includes Hip-hop, Rock, Alternative, Punk, Country, and so on. Popular music takes on a variety of forms based contemporary social interests, political movements, and to include political cultural change (Walser, 2014). Guitar and voice are the forefront instruments in most popular music with drums, bass, and piano also playing a central role.

Popular music terms include the following vernacular (Walser, 2014).

- *Riff* is a repeated musical idea that acts as the rhythmic and harmonic foundation of a section of a song.
- *MCing* is the act of raping over a hip-hop groove. This can be done using improvised or preconceived lyrics.
- *DJing* is the action of operating and manipulating rhythmic and harmonic sound utilizing a turntable or drum machine.
- *Blast beat* is a drumming approach that requires fast successive rhythm on the snare drum and bass drum. This technique is commonly used in metal and punk rock styles, which are subgenres of the rock idiom.

A musical tradition that is passed on orally and dependent on the circumstances of the people that create it is known as *folk music.* That is, the lyrical content, musical influences, and instruments used are directly linked to cultural influences and what is available (Cohen, 2015). Cohen added that folk music is constantly in a state of change and evolution. As a result, it is difficult for musicologists, anthropologists, ethnomusicologists, and other scholars to define. In short, folk music is defined as a traditional musical style that utilizes acoustic instruments and is transmitted orally. Typical folk music may include lullabies sung to children, tunes like *Old Dan Tucker*, and instrumental pieces, such as *jigs, strathspays,* and *reels* (Scottish folk music styles).

Folk music terms include the following colloquialisms.

- *Roots music* is a term synonymous to folk music. It includes music that has the same defining characteristics of folk music previously discussed.
- *Oldtime music* is used to describe traditional European folk tunes, which can date back to the Renaissance and Middle Ages.
- *Moldy fig* is an older musician who plays traditional music and is not interested, or accepting, of modern folk music.

Musical instrument, or *instrument,* will include any device used to make musical sounds (Merriam-Webster, 2015). Traditional instruments consist of flute, guitar, drums, violin,

trombone, accordion, human voice, and so on. Yet, it also includes beat boxing, MCing, DJing, buckets, technology, and variety of unconventional instruments.

A collective of amateur musicians who play music together to a local audience or just for fun are called *garage bands*. Typically, garage bands play music in the rock genre (Punk, Alternative, and the like) and rehearse in a garage, warehouse, or home (Jaffurs, 2006). Garage bands vary in size, instrumentation, and quality of their equipment. Musicians in this type of ensemble are commonly self-taught

Throughout the course of this study, participants used a multiplicity of vernacular terms to describe their musical experiences, such as *biting*, *crunchy*, *hypness*, *ramblin'*, *twangy*, and many others. While participants used some of the phrases presented in this chapter, most colloquialisms used were idiomatic and genre specific; thus, many terms were not found in previous literature. In response, the unique words used by individuals in this study can be found in Appendix A.

Conclusion

This chapter outlined key elements related to the study, illustrated the need for the research, identified the purpose, and listed the research questions. Moreover, constructivist underpinnings used in this study were described, which clarified an emphasis on gaining insight related to understanding the unique experiences of a diverse group of informal music learners. Terms and vernacular that are needed to assist in understanding this inquiry were also provided.

Chapter 2 provides a review of the literature, which will be divided into the following sections: roots music and informal learning, everyday music learning, popular music and informal learning, a catalyst to formal instruction, informal music in the classroom, creativity and improvisation, technology and informal music learning, and bringing the literature together.

Chapter 3 includes the method, which conveys an explanation of the methodological approach, theoretical framework, participants, data collection, data analysis, trustworthiness, and ethics. In Chapter 4, the findings of each case will be reported and discussed. Chapter 5 provides a detailed discussion based on participant experiences. Last, Chapter 6 presents a conclusion and implications to improve the practice of music education.

By looking at informal music learners at a community college, participant experiences have the potential to inform music educators and improve practice. The diverse backgrounds of community college students and their inclination to continue playing their instrument can provide an awareness of musical learning and understanding that is seldom examined. In addition, informal music learners have a propensity to explore, engage, and play music on their own. Examining the experiences of informal music leaners at a community college can provide valuable insights to add to the breadth of music education literature. This study is situated in music and non-music literature related to informal learning, which is the topic of the next section.

CHAPTER II

REVIEW OF LITERATURE

Knowing where we come from will determine where we'll go.

(Flanagan, 2014)

Introduction

This review inspects seminal research literature related to informal music learning in a variety of contexts, both nationally and internationally. While informal music learning is not a new concept, research related to informal music learning is a nascent field of study. Research on informal learning in music education has origins that can be found in anthropology, sociology, and ethnomusicology. In this review, studies from scholars outside of music education are also appraised that are linked to the study of informal music learning.

As recommended by Jesson, Matheson, and Lacey (2011), this review provides a comprehensive and rigorous search of relevant literature, which identifies, appraises, and summarizes closely connected studies. To identify relevant research literature Google Scholar, EBSCO, ProQuest Dissertations and Thesis, university library resources, and related databases for journal articles, books, and dissertations linked to the topic of informal music learning were used. To determine the studies that required further examination, abstracts were read, first chapters were examined, and table of contents were previewed. Sources were included in this review if they addressed informal music learning or a closely related field, such as informal learning in social contexts, home environments, or educational settings. Omitted studies did not include insight on informal music learning, provided little connection to self-taught vernacular musicianship, or had little relevance to the field music education. Once collections of potential

sources were gathered, publications were reviewed for relevance and academic rigor. Each related source was then summarized and added to this literature review.

The purpose of a literature review is to probe previous research to gain a better understanding of the questions and topic at hand (Yin, 2014). In response, this review is guided by the topic and research questions to attain a better understanding of informal music learning. This literature review includes the following sections: (1) Roots Music and Informal Learning; (2) Everyday Music Learning; (3) Popular Music and Informal Learning; (4) A Catalyst to Formal Instruction; (5) Informal Music in the Classroom; (6) Creativity and Improvisation; (7) Technology and Informal Learning; (8) Bringing the Literature Together; and (9) Conclusion. The categories in this review were selected from the emergence of centralized themes related to the field of informal music learning. As a result this appraisal illustrates a natural progression of informal music learning research as it unfolds over time, which begins with folk music and concludes with technology based music learning.

Roots Music and Informal Learning

In his investigation of traditional music making in the United Kingdom, Cooke (1978) provided a comparative analysis of informal and social music activities in Gaelic speaking Scotland called *ceilidh* (pronounced kay-lee)*,* which is a compulsory and unspontaneous music performance that occurs in informal settings. Cooke discussed the fluid and improvisatory nature of folk musicians that play the same tunes in a myriad of ways. In fact, the re-creative ability of folk singers emerged as essential component of musical self-ownership. Cooke observed that in the *ceilidh* tradition children learned how to play music by observing, imitating, and listening until they have something to contribute. Last, Cooke discussed the musical learning process in folk societies, which illustrated the significance of learning repertoire orally and aurally.

Similar to the informal learning in Scottish music traditions, Miller and Shahriari (2013) discussed informal music training and community music making in Irish and Chinese cultures. They observed that Irish traditions focus on informal music making as a family and community at *seisiún ceoil* (pronounced sesh-oom chole), which is an informal jam session where musicians of all levels and ages make music. Likewise, *jingju* (pronounced jing-joo) is a form of Chinese musical theatre that is learned formally in government schools; yet, it is traditionally taught informally in opera companies at the local level. Wang (2012) observed that informal Chinese traditions are concerned with generating an ethical education by making music to achieve mind-body unity. Thus, music is made in a harmonious environment to achieve tranquility, such as playing *guqin* (pronounced koo-chin) a plucked Chinese zither, next to a stream or under a tree.

In her philosophical inquiry, Thram (2012) examined the cultural implications of informal music making in the Shona culture. The Shona, a tribe from Zimbabwe, learn music informally as a collaborative endeavor. *Ngano* is a type of musical folk story that invites anyone in the village to participate. In fact, ability levels are irrelevant and everyone in the community is permitted to engage in music making, which also provides a spiritual connection to ancestors. The stories have some basic structural components, yet no two stories are exactly the same and each member improvises and interjects their own voice. As a result of making music together, Thram (1999, 2012) reported that community members felt a sense of energetic rebirth.

In Nova Scotia, the Cape Breton fiddling traditions were on the brink of extinction in the 1970s. Graham (2006) examined Cape Breton fiddle traditions, which were informally passed by families and community members in Canada. In response, the fiddling traditions were added to the schools to help preserve the music and informal learning continued as an important component of fiddle playing. The Cape Breton fiddling tradition yielded a musical and social

connection between families, individuals, and community, which aligns with the philosophical work of Maxine Greene. During a series of lectures at the Lincoln Center, Greene (2001) stated that "it's a matter of posing questions on both sides and of loving the questions that merge with one another, questions about living in the world, and creating communities and collectives, caring for each other, making each other feel worthwhile" (p. 159).

In his ethnographic investigation of informal music learning and transmission, Reginald Nettel (1944) documented and examined community musicians that made music for fun. In his interviews, he found that trained musicians had negative views of informally trained amateur musicians. Nettel observed that town musicians that learned informally generated high quality music, which he identified as equally important when compared to the music of well-known professional artists. Further, Nettel noticed disharmony and separation between the amateur musicians and formally trained town musicians. He concluded that a musical social hierarchy was maintained and established because musicians who learned informally were viewed as inferior to their formally trained peers.

Blacking (1973) provided a comparative analysis of South African Venda musicians musical structures, social elements, intellectual activities, and improvisations to musical practices in classical, rock, pop, country, opera, folk, and other musical styles that he stated dominate cultures with Western-European musical origins. In his ethnographic study, Blacking discovered universals in music transmission and cognitive processes—such as the transmission of music aurally and orally—that are central to informal music learning. Similarly, a variety of research literature stressed the value of folk music and its homegrown traditions as a model for informal learning in academic settings (Ruess, 1979; Waterman, 1973; Nettl, 1976).

Everyday Music Learning

Social anthropologist Lave (1989) studied the routine activities of people in everyday life, which illustrated the importance of autonomy in learners of all ages. Like learning an instrument independently, Lave (1989) and Lave and Wenger (1991) observed that engagement in what appears to be the mundane and ordinary is not what it seems. Instead, the individual perceives the everyday problem solving activities as concrete, relevant, and meaningful. Lave presented five studies of apprenticeship that looked at the everyday experiences of Yucatec midwives, Vai and Gola tailors, naval quartermasters, meat cutters, and non-drinking alcoholics. She found that routine activities are integral to individual conceptions of knowledge and modification of practice.

Stemming from the aforementioned social and everyday encounters described by Lave (1989) and Lave and Wenger (1991), Harwood (1998) studied music learning in young children that occurred informally on a playground. Specifically, Harwood investigated music learning that transpired as children played musical games, such as clapping and singing, at an after school program for African American girls. In his study, Harwood examined what children learned and how they tried to learn it. He found that context was central to what students musically can do and what they will do. He found that a student might appear to be musically competent in one situation, yet, incompetent in another. For example, a student may appear to understand polyrhythms on the playground and be unable to clap two against three when asked. As a result, Harwood found that learning style, environment, and culture were essential to consider.

Swanwick and Tillman (1986) also investigated the informal compositional techniques of playground music. Derived from their study of seven hundred children's songs, Swanwick and Tillman (1986) identified an eight-mode sequence for musical development that began with

imitation and led to mastery. They found commonality in the methods used by children making and learning playground music. In contrast, Marsh (1995) found no single music learning sequence to fit children's informal music making in her ethnographic study of Australian children. Instead, Marsh concluded that context was essential to the mode of learning.

DeNora (2000) examined the everyday lived experiences of non-musicians in her ethnography. Specifically, DeNora looked at women's musical encounters and experiences in aerobics classes, karaoke jam sessions, department stores, and other daily activities. DeNora reiterated the importance of context and individual preference to musical actions. Offering a different perspective, Reimer (2012) concluded that gender is essential to further understand identicalities, similarities, and differences of musical identity. Reimer also observed the utilitarian view presented by DeNora, perceived musical responsiveness exclusively as a process toward social ends.

Marsick and Volpe (1999) reviewed a number of studies related to informal learning in work environments. Based on their findings, informal learning can be distinguished by the following features. First, informal learning is integrated as an essential part of daily routines. Second, it is precipitated by intrinsic and extrinsic occurrences. Third, informal learning is not a highly conscious affair. Instead, it is a subconscious phenomenon. Fourth, it is not evoked purposefully; rather, it is a haphazard and unpredictable event. Fifth, it is an inductive occurrence realized by experience. Last, informal learning is a social event that is linked to and informed by others.

The following diagram is adapted from Marsick and Watkins (2001) model for enhancing informal and incidental learning. Their theory is built from the idea that informal learning emerges and develops from everyday encounters, which are situated in a given context. In this

diagram, everyday encounters are found at the core because all other events are directly linked to everyday encounters.

Figure 1. Model Linking Informal Learning to Daily Life. This figure is adapted from Marsick, V. J., & Watkins, K. E. (2001).

In *Figure 1* above, the outer circle represents the context of each experience (Marsick and Watkins, 2001). So, the context that the experience occurs directly influences the interpretation and choice made by the individual. However, individual experiences are not hierarchical or chronological; instead, as people make sense and take action of their situation, choices, and learning, they encounter constant fluctuations. For this reason, the model includes no arrows because the steps are not sequential or predictable. Marsick and Watkins did note that the trigger, or initial occurrence, is often unexpected and unpredictable.

Marsick and Watkins (2001) found that informal learners are guided by context, past experiences and solutions, and potential courses of action. Learning decisions are made based on individual knowledge that the task can be achieved. As a result, new skills may need to be acquired; thus, the person seeks the required competency. In addition, the individual assesses the resources that are required to achieve the skill. This can include possessed skills, financial needs, and learning resources. Last, intrinsic motivation and a willingness to learn the needed capabilities also determine if the person will precede working toward the intended result. Of course, each of these actions is continually assessed during the informal learning process.

Popular Music and Informal Learning

The idea of using popular music for school music instruction is nothing new. In fact, in 1967 at *The Tanglewood Symposium*—a meeting comprised of education, business, and political leaders to discuss the future of music education—committee members endorsed the expansion of musical repertoire "to include music of our time in its rich variety, including currently popular teenage music" (Choate, 1968, p. 139). In addition, a special panel was commissioned to discuss the relationship of rock and popular music in society and the schools (Bruck, Stahl, and Williams, 1968). As a result, popular music was recommended as an ideal idiom and mode for teaching music.

As Cutietta (1991) and Humphreys (2004) observed, the use of popular music in the classroom was opposed by many; therefore, the message of *The Tanglewood Symposium* declaration was, and still is, perceived by many as a new idea. Recently, Perlmutter (2015) observed that rock bands and popular music are beginning to appear with greater frequency in music classrooms. There have been also been efforts by NAfME to embrace popular music as a

viable method of music instruction. For example, the council for IN-ovations hosts an online forum related guitar, drumming, and other modes of popular music making (NAfME, 2015).

Finnegan (1989) provided a comparative analysis of formal and informal music learning of popular musicians in a British town. In her analysis, Finnegan found that self-taught musicians had similar social conventions, expectations, and musical complexities to formally trained musicians. Finnegan examined locations, such as the home, church, teenage hangouts, and the like, where music was learned informally. Even in informal settings, Finnegan noted that music "does not just happen naturally in any society, but has to have its recognized time and place, its organization of personnel, resources, and physical locations" (p. 193).

Adding to the work of Finnegan, Westerlund (2006) recommended garage bands as a model for building musical expertise. Campbell (1995) also examined how garage band musicians learned. In her qualitative study, she observed and interviewed adolescent garage band rock musicians and found that aural musicianship, social interactions, and diverse influences were essential to musical transmission. Additionally, a number of studies about informal music learning in garage band settings are linked to social context and individual interest (Folkestad, 2006; Green, 2002; Jaffurs, 2006).

In 1999, the academic journal *Research Studies in Music Education* released a special issue on popular music in music education. In this issue, the varying approaches utilized by informal learners and importance of context emerged as a constant theme (Marsh, 1999). In particular, Barry and Walls (1999) study—which examined future non-music educators' reactions to various musical styles and their appropriateness for classroom instruction—found that popular music had the highest level of personal preference. Yet, teachers were hesitant in

selecting popular music for classroom instruction and found it inappropriate for classroom teaching.

In her groundbreaking qualitative study, Green (2002) interviewed fourteen musicians who learned informally between the ages of fifteen and fifty in London, England. Specifically, Green examined the lived experiences of popular musicians who played instruments such as guitar, bass, and drums in a variety of genres. She also found that solitary learning was vital to the learning processes of amateur musicians. Green also observed that social implications played a crucial role in musician development. In addition, purposive listening, composition, improvisation, copying, and playing music that the musicians enjoyed surfaced as major themes. Specifically, Green found that "informal music learning practices and formal music education are not mutually exclusive, but learners often draw upon or encounter aspects of both" (p. 59). Moreover, copying of musical riffs, licks, and tunes served as a major source for informal learners. Still, Green (2002, 2008) noted that there is no single method used among informal learners. For example, some popular musicians teach themselves to play by ear, books, tablature, or rely on family members. In addition, Green found that the technical aspects of playing are of little value to young musicians.

In their investigation of the sociological foundations of informal learning and popular music, MacDonald, Hargreaves, and Miell (2002) used a blend of qualitative and quantitative studies to examine the development, construction, and negotiation of musical identities. MacDonald et al. found that professional and amateur musicians identified proficiency, self-accomplishment, and fluidity as important elements in music learning. Likewise, Soderman and Folkestad (2004) explored Swedish hip-hop ensembles outside of academic settings. Specifically, relationships between the grooves, music, and lyrics emerged as a dominant

characteristic of hip-hop in an informal setting. Similar to the previously mentioned studies, linguistics and musical identity remained salient themes in their work.

Gaunt (2006) investigated cultural implications, social interactions, and informal music learning of African American girls on the playground, which developed into complex musical structures utilized in making and learning hip-hop. As a result, she found that the syncopations, harmonies, and other musical components of hip-hop are derived from everyday musical interactions. Likewise, Gaunt identified the musical happenings as informal and essential in developing a musical style that is distinctively African American. Further, Ibrahim (1999) studied African immigrant and refugee youths in Canada who gained cultural and linguistic influence from hip-hop. The music provided cultural implications that were essential in the formation of identity and cultural investment.

A number of studies found garage bands as a model suited for school music instruction (Allsup, 2008; Davis, 2005; Folkestad, 2006; Jaffurs, 2006; Westerlund, 2006). In her dissertation, Jaffurs (2006) explored the interactions and self-learning process of three garage band musicians. Communication, collaboration, and power structures emerged as central themes in her study. Specifically, Jaffurs examined the interactions of three rock band musicians during rehearsals held in their basement throughout the summer, which led to a culminating performance at a middle school. She found that trust, respect, and support played a key role in the interactions of participants. In addition, collaboration and flexibility between members emerged as integral to the ensembles success.

Allsup (2004) examined social interactions and power structures between rock band musicians outside of schools. Based on his observations, Allsup found that garage band musicians utilized a democratic process where musical decisions, pacing, and other factors were

determined collaboratively. From his findings, Allsup recommended that school music ensembles could place more focus on the process and less attention on performance. The work of Allsup was derived from the banking concept described by Freire (1968/2000), which placed the teacher as the knower, thinker, and ultimate authority in a classroom. Owens (2014) observed that the music teachers position as the utmost authority is perpetuated through tradition and teacher training. To alleviate the hierarchical power structure in the music classroom, the democratic process embraced by popular musicians was recommended as a model for music instruction.

In addition to the above investigations of garage bands, Davis (2005) examined how high school rock band musicians constructed musical meaning and engaged organically in the learning process. Peer teaching, exploration, and collaboration emerged as vital components of student interactions in his study. Davis found that the students were self-motivated and spent substantial amounts of time making music as a collective. In fact, social relationships emerged which influenced musical and personal identities.

A Catalyst to Formal Instruction

Building from educational psychology, Andress (1980) advocated for an experiential approach to music learning in young children. Specifically, Andress provided rationales for a child centered approach to music instruction, which looked at the environment, role of the teacher, and learning processes. To provide a foundation of the psychology of informal learning, the theories of Vygotsky (1978) are important to consider. In his study of psychological processes, Vygotsky found that parents and teachers have a profound social influence on children. As a result, social interactions make a child an active and vital participant in the learning process. Thus, knowledge is constructed informally.

Campbell (1989) added that music is transmitted to the child in a participatory event, which enables the child to discover, invent, and manipulate musical content through social interaction. As a result, music in young children is transmitted informally through musical interaction, facial expressions, and verbal communication. Similarly, Bruner (1979) found that "the child comes to manipulate his own environment more actively and achieves gratification from copying problems" (p. 92).

Bruner (1979) distinguished between the expository and hypothetical modes of learning. In the expository or formal mode of learning, everything—to include the rate, approach, and content—is chosen by the instructor. In the hypothetical mode, students make decisions, formulate solutions, and actively contribute to the learning process. The hypothetical, or informal, mode of learning is a method of discovery. Bruner concluded that an emphasis on discovery learning allows a learner to transform content for practical use and problem solving. Marshall, Sears, Allen, Roberts, and Schubert (2007) observed that many of the theories and works of Bruner have been formalized and adapted to serve systematic instruction, such as standardized tests. However, the application of Bruner's theories into a classroom is complex; as a result, his theories are continually misconstrued during implementation.

Drawing from educational psychology, Gordon (1984) identified children's musical play as an essential component of music learning. He found that informal learning is linked to musical behaviors and dissimilar thinking in natural and classroom settings (Gordon, 1984, 1997, 2003). Specifically, Gordon found that musical babble and informal guidance was an important precursor to school music instruction. Just as babies and small children learn language by absorbing the conversations around them, Gordon (2003) emphasized that small children should learn music in the same way they learn their native language. Like language listening and

speaking skills, music listening and singing vocabularies should be developed as a natural process in children before they enter the classroom (Gordon, 2003). To reiterate this point, Freierabend (1997) observed that language is learned naturally for five or six years before reading and writing skills are introduced; in the same way, music should be developed informally for five or six years before musical reading and writing are presented.

Music educators are beginning to adapt and apply what they have learned and observed about informalities into classrooms. National Association for Music Education (NAfME) initiatives, such as popular music forums (NAfME, 2015) and guitar teaching workshops (McCarthy, 2012), illustrate recent initiatives to blend of formal and informal approaches into music classrooms. NAfME publications, such as *Teaching Music*, offer articles related to adding informalities into music classrooms. For example, Moore (2014) presented an article that encouraged music educators to add collaborative song writing to their curriculum that embraces informalities.

Informal Music in the Classroom

In their case study of the *Homebrew Ukulele Union* at the University of Illinois, Thibeault and Evoy (2011) examined a ukulele class for music and non-music majors, which implemented constructivist approaches to music learning. In the classroom, constructivist learning is an interdependent process that allows students to construct their own meaning (Huang, 2006). In the ukulele class, students constructed their own instrument, selected music, arranged music, and found performance venues. As a result, the repertoire included an array of musical styles from J. S. Bach to Miley Cyrus. Thibeault and Evoy (2011) stated that the course was designed to ignite a passion for music and foster an enjoyable and sustainable model for lifelong music making.

The previous example concentrated on informal learning in a university setting; yet, the bulk of current research is centered on music in secondary schools. In her groundbreaking work on instrumental teaching, Mills (2007) advocated for the use of self-discovery and exploration in music classrooms. In her study, Mills showed that students only spent a small part of their personal practice time working on teacher assigned tasks. Instead, students spent a large portion of their practice time improvising and figuring out popular tunes that were interesting to them. As a result, Mills found that learning a musical instrument outside of the classroom on the students own is not necessarily easier, nor does it imply a lower set of standards. Instead, Mills recommended informal approaches derived from student interest for music classrooms.

Mills examination aligned with Maxine Greene (2001) who observed that educators should look for "what is taken for granted" and utilize the arts to "pose a range of questions that never occurred to them before" (p. 16). Furthermore, Mills (2007) advocated for educational freedom and relevance, which aligned with Greene (1988), who stated that "education for freedom must clearly focus on the range of human intelligences, multiple languages and symbol systems available for ordering experience and making sense of the lived world" (p. 125).

Purse, Jordan, and Marsters (1998) recommended that music teachers embrace informal and collaborative approaches to music instruction utilized by popular musicians. Specifically, they stated that music teachers should jam, or play music, along side the students instead of conducting. As a result, the teacher can make music along with students, provide a model for stylistic interpretation, and embrace informalities.

To test the idea of democracy and freedom in the music classroom, Berg (1997) added peer-to-peer collaborative approaches to two chamber groups at different high schools. Chamber ensembles were ideal because they can be student led and require collaboration for success. Her

goal was to implement informal strategies in the music classroom similar to approaches used in the home and outside of school. Ensembles in her study were student directed and student initiated. The data collected was focused on the type of music rehearsed, verbal activities, and non-verbal interactions. Derived from her study, Berg found that student led peer interaction might be able to provide insights that music educators can use to enhance their methods.

In her mixed methods study, Lucy Green (2008) implemented the informal approaches used by popular musicians, such as self-directed music learning from recordings, to over 1,500 pupils in 21 schools in the London area. Like Mills' (2007) study, Green (2008) found that autonomy was essential to deviating from the reproductive methods used in music instruction, which inhibit students from using or finding their musical abilities. Furthermore, Green observed a natural fluency of informal learning when applied to music classrooms, which was prevalent in students' everyday life. Piaget (1971), found that experiences that relate to everyday life allow the learner to assimilate new knowledge to existing knowledge, or schemata. Yet, Green noticed that students had to relearn how to learn music naturally. In alignment with Piaget's cognitive theory, Green found that the informal strategies she implemented resulted in a heightened musical awareness among students rooted in their prior knowledge.

In college music classes, Conway and Hodgman (2009) recommended cooperative learning groups as a formal and informal learning experience. Formal learning groups would have specific task and follow specified procedures. For example, a cooperative-learning group may engage in a harmonic analysis of a piece of music using a specified template. In addition, Davis (2001) recommended that formalized learning groups also maintain consistent personnel. In contrast, Conway and Hodgman (2009) recommended informal learning groups that can look

at any query at any time. For example, students may be asked to figure out complicated musical passage without the guidance of the instructor.

In a study that examined music learning in six Australian community music ensembles, Schippers and Bartleet (2013) found that community musicians were intrinsically motivated and shared common instructional approaches. Specifically, they observed that no grades or contracts were associated with ensemble participation in any of the community groups. Instead, members participated in music learning on their own and without clear-cut incentives. Mutual negotiations between the director and participants prompted didactic instruction and peer learning, which promoted natural musical development and collaboration. This approach combined formal and informal methods, which was evident in the sensitivity to musical differences, learning styles, and abilities. They found that the overarching intent was a commitment to inclusive musical practices.

Creativity and Improvisation

According to the National Association for Music Education Standards it is imperative that music students are able to "improvise melodies, variations, and accompaniments" (NAfME, 2016). Interestingly, Emmons (2004) stated that music educators felt the least prepared to teach improvisation. In fact, a study conducted by Bernhard (2013) of 196 undergraduate music majors showed only slight confidence in future music educators' ability to improvise. Surprisingly, vocal jazz educators also reported a lack of confidence in their ability to teach improvisation (Ward-Steinman, 2007).

In contrast to experienced musicians who struggle with improvisation, children seem to be born with a natural propensity to be creative. Campbell (2002) found that children contrive and invent expressive behavior, such as music, in unique and quick-witted ways. The creative

behaviors of a child are a result of trying out ideas and mimicry. As an outcome of varied cultural and musical experiences, musical knowledge and understanding is related to the idiosyncratic thoughts generated from external influences, such as family, friends, and school. While the first musical experiences of a child are generally from the home, Slobin (2000) observed that children eventually graduate to musical experiences at school. Campbell noted that this includes songs on the playground, media, and other sources. Eventually, school music programs provide students with common repertoire derived from the greater super-culture. Yoshino (1992) defined a super-culture as a hypothetical common group that is composed of subcultures that interact with one another.

In contrast, Wagner (2012) conducted a multiple-case study of innovators in a variety of fields. He found that the central component to fostering innovation was creativity. Specifically, he showed that creative play in childhood produced inventive, original, and imaginative individuals who found success in their fields. In his interviews the systematic methods of schools were repeatedly identified as inhibiting creativity. Like Wagner (2012) and Campbell (2002), Robinson (2006) added that children have a natural propensity for creativity. When referring to current educational trends he stated, “we don’t grow into creativity we grow out of it, or rather we get educated out of it.” To illustrate this point in music education, Mantie (2012) observed that musical performance in schools is analogous to quotation, instead of creation, because the musicians do not create. Instead, they are expected to play exactly what is written on the page in an attempt to recreate the composer’s intentions.

In their quantitative study, Woody and Lehmann (2010) found that self-taught musicians were able to replicate musical excerpts by ear quicker than formally trained musicians. In addition, they found that vernacular musicians utilized different processes that were more

efficient when playing by ear. Woody and Lehmann also observed that formally trained musicians placed more time and effort on technical skills required to play their instrument, such as fingering or embouchure. Conversely, self-taught musicians spent little time on technical aspects, which seemed automatic and natural. To improve aural skills and creativity, Brinkman (2010) and Emmons (2004) recommended embracing non-Western European musical traditions that commonly utilize informalities.

To improvise and create music, Green (2002) recommended that students compose, experiment, and replicate music through self-facilitation. Of course, not all music students improvise, compose, or play at the same level of expertise (Allsup, 2008; Kratus, 1994). In her study of informal and formal music learning in Australian schools, Augustyniak (2014) found an array of challenges when teaching improvisation in the classroom, which were directly related to the students ability level and previous experience. While the resources utilized were similar, such as *YouTube* and *iPods*, the complexity and ability levels were varied.

Prouty (2012) compared two top university jazz programs, which illustrated some inconsistencies in methods used to teach improvisation. Prouty (2012) found that the one institution required its students to complete basic ear training and music theory courses prior to learning basic improvisation. In contrast, the other university had students learn improvisation informally during a specially designed improvisation course. While he did not indicate a preference for one approach or the other, Prouty suggested that improvisation is not an exclusively informal phenomenon; instead, it is a combination of formal and informal practices.

Technology and Informal Music Learning

Technological advancements have always made lasting impacts on music and music learning. Boespflug (1999) observed that technological innovations in music education are

reinstating a paradigm shift similar to the launch of the piano in the 1700s. Until the eighteenth century the harpsichord was the aristocratic instrument of choice. At the end of the eighteenth century, advancements in manufacturing techniques and construction made the piano more versatile and less expensive than the harpsichord. As a result, musical performance and practice, which was once reserved for the socially elite, was made accessible to a broader audience. Likewise, music education today that occurs outside of schools is being reshaped by technological innovations, such as the Internet and electronic instruments that cultivate informal music learning. Boespfug stated that music educators should embrace technological changes or inevitably face extinction. Fortunately, a number of studies have focused on technology, music learning, and informalities.

Prensky (2001) observed that students today are digital natives who have always interacted with technology. Music education research has acknowledged the value of technology, such as *YouTube*, *GarageBand*, and *MixCraft*, which have a profound impact on informal music learners. Green (2002) stated that the development and expansion of music reproduction, advancements in recording technology, and the Internet have made music increasingly accessible and ever-present.

In two cyber-ethnographic studies, Walderon (2009, 2011) explored informal approaches, interactions, and exchanges between informal learners in a virtual music community. In both studies, Walderon found that social interactions and community were essential components of learning music informally among online folk musicians. In addition, participants demonstrated an understanding of musical knowledge, historical components, and theoretical elements derived from self-interest. Walderon (2009) observed that online musicians continually shared resources, manipulated technology to fit music learning needs, provided feedback, and helped each other.

In their study of undergraduate students, Madge, Meek, Wellens, and Hooley (2009) found that *Facebook*—a social networking website—was used by students to create social connections and learn informally. Madge et al. also found that participants never used *Facebook* for formal instruction. In music education, Freeman and Troyer (2011) used texting, instant messaging, and collaborative document editing to generate a collaborative digital music environment. This allowed participants to improvise and create music in real time in a virtual space. Likewise, members of the Princeton Laptop Orchestra used similar methods to cultivate a cooperative musical environment that was similar to the everyday musical experiences of students (Trueman, 2007). Williams (2011) recommended using *iPads* to promote creative music making. All of the previously mentioned studies fostered informalities as students learned in autonomous and collaborative settings,

Examining why musicians participate in online music communities, Salavuo (2006) found that community participation was important; however, music emerged as the central purpose for group interaction. In addition, nearly all participants indicated that making music alone was an important reason for participating in the online community. Even in online music communities, social interaction played a central role in informal learning. The findings of Salavuo and Walderon (2009, 2011) align with the previously discussed social learning theories of Lave (1989), Lave and Wenger (1991), and Wenger (1998), which identified informal education as a social phenomenon.

In her qualitative study of informal learning in three contrasting Australian secondary schools, Augustyniak (2014) found that intensive listening, analyzing, and imitating occurred when student musicians learned songs informally. Specifically, students used technology such as *YouTube, iPods*, CDs, and TV programs to grasp musical repertoire. Furthermore, Augustyniak

found that participants frequently used drum and guitar tablature to learn songs and excerpts. She further observed that student musicians mastered songs via repetition using the previously mentioned technologies.

Bringing the Literature Together

The literature reviewed in this chapter illustrated how informal music learning is an everyday occurrence in many, if not all, cultures. Based on the discussion related to folk music, informal music learning is an organic and inclusive occurrence. Celtic, Shona, Chinese, and other music cultures provide an idiom of music learning that spans across generations and is linked to daily life. In the folk music traditions previously discussed, oral/aural traditions prevailed as the dominant method of musical transmission by informal learners. Most studies related to informal music learning as a social and multigenerational encounter have been situated in cultures outside of the United States.

Using oral/aural methods of music learning as an impetus to formalized instruction, Campbell (1989) observed the importance of musical play in small children. Similarly, Gordon (2003) identified the value language acquisition and musical guidance via oral/aural traditions before musical instruction begins. These studies illustrated the importance of oral/aural music making and learning as an independent and valuable endeavor, which occurs naturally as children are exposed to music early in life.

Based on the aforementioned studies, the nature of informal music learning in amateur musicians is not a singular construct; rather, it is multifaceted and influenced by an array of factors. Social and culture elements impact how individuals view, understand, and experience music. DeNora (2000), Harwood (1998), and Marsh (1995) found context to be a central component of musical preference and actions. Of course, context is unique to every situation.

Therefore, the musical and cultural happenings of one person may not, or perhaps will not, be similar to another. As such, there is a need to study the informal music learning experiences of individuals with divergent perspectives and experiences.

The bulk of literature related to informal music learning was concerned with popular music and musicians. This was stimulated by the work of Green (2002) and has led to a number of other studies. This included studies that added popular music in the schools (Allsup, 2008; Davis, 2005; Folkestad, 2006; Westerlund, 2006), looked at popular music in the home (Campbell, 1995; Wilson & Block, 2011), and investigated popular music making in digital idioms (Salavuo, 2006; Walderon, 2009, 2011). However, few of these studies focused on the autonomous nature of informal learners. Specifically, all of the studies were concerned with social musical environments, to include the technological studies. Yet, informal learners spent a large amount of time working alone. While social implications are important because they can easily be linked to classroom instruction, autonomous musical discovery and creation need to be examined further.

The literature in this review illustrated the social, cultural, and musical factors that influence informal music learners. The studies looked at informal music learning in a variety of settings. However, there is little research that investigated informal music learning in undergraduate musicians. Moreover, I found minimal research related to informal music learning in amateur community college musicians. In addition, a number of studies applied informalities into the music classroom. Still, few studies investigated informal learning under natural and inherent conditions.

Conclusion

In this chapter, a review of literature related to informal music learning from a historical, sociological, cultural, psychological, and philosophical perspective was presented, which provided methodological, historical, and theoretical background needed to conduct this research. While the field of informal music learning is an emerging field of study, it is evident that a firm foundation of research exists. While a handful of quantitative studies related to informal music learning are available, researchers and scholars have focused predominantly on qualitative methods of inquiry because of the unique and varying nature of informal learning.

Research related to informal music learning has focused on professional musicians, semi-professional musicians, beginning musicians, children, and secondary school students. While there has been a limited amount of research related to informal learning and collegiate musicians, a gap in the literature exists that requires the investigation of informal music learners in a community college. In addition, many studies in the field of informal music learning took place internationally or in settings with homogeneous ethnicities. Thus, little research has investigated a diverse group of informal learners in the United States. This study seeks to fill that gap by investigating the experiences of a diverse group of informally trained community college musicians in the Mid-Western United States; thus, adding to a developing field of research.

In the subsequent chapter, the methodological and theoretical framework for this study will be introduced. A summary of participant experiences and understandings will be presented in Chapter IV. In Chapter V data will be analyzed and thoroughly discussed. Last, Chapter VI will provide an overview of the study, discussion of the findings, suggestions for practice, and implications for future research.

CHAPTER III

METHOD

> *What appears real to one person will not seem real to another, we want these multiple realities to be recognized.*
>
> (Stake, 2006, p. 34)

Introduction

It was my intention to ignite a discourse about informal music learning by eavesdropping into the lives of eight informally trained community college musicians. To gain insight about their experiences, I wanted to learn how each musician engages, interacts, and creates music on their own. Aligning with my research questions, I wanted to probe how informal music learners connect, interpret, perceive, and understand their musical experience. I have selected qualitative inquiry because I comprehend the world not as a fixed, measurable, agreed upon, and quantifiable entity. Instead, I view the world as having "multiple constructions and interpretations of reality that are in flux and that change over time" (Merriam, 2002, p. 2).

DeNora (2000) observed that the phenomenon of informal music learning is an everyday lived experience of many musicians, if not everyone. By exploring the day-to-day lived experiences of informal music learners, the data gathered from eight instrumental cases can provide insights to further music education practice. Froehlich & Frierson-Campbell (2013) identified instrumental cases as common situations that constitute a value and representation that is transferable beyond the case itself. Related to generalizability, Stake (2006) indicated that the complex, situated and problematic relationships of individual ordinary experiences informs and broadens disciplines of knowledge. Thus, qualitative research links the relationships between the ordinary cases to the generalizable purview. As a result, "generalizing remains in the mind of the researcher" (p. 10).

This chapter explains the qualitative methodologies and methods that were used to understand informal music learning. Core elements of the method will be clearly laid out to include data collection, data analysis, trustworthiness, and ethical considerations. The approach that was utilized to engage participants will be discussed. In addition, a theoretical framework is offered to provide the reader with an understanding of my constructivist worldview.

Research Method

As a researcher, I have always been compelled by methods of inquiry that focus on the remarkable, distinct, and peculiar attributes of individuals. For this reason, I have chosen qualitative inquiry for this study. Specifically, I want to focus on obtaining rich and detailed data using qualitative inquiry in a way that statistical research does not. I am concerned with gaining an in-depth understanding of idiosyncratic situations and perceptions. As Merriam (2002) observed, qualitative researchers are concerned with "how people do things and what meaning they give to their lives" (p. 19). Likewise, I am interested in how informal musicians do things, how they find meaning, and what influences their musical lifeworld.

Schram (2006) described qualitative inquiry as focusing on what unfolds naturally and organically. Hence, there are no elements or factors that are manipulated or established by the researcher. In qualitative research, the investigator has to be prepared to "go with the flow of change" (p. 8). Constant modifications require the researcher to be flexible to the timing and interactions determined by the participants. Qualitative inquirers expect that reality is understood and informed by social, cultural, situational, and contextual elements (Stake, 2006).

It was important to decide on an appropriate number of cases to investigate before participants were selected, thus allowing a number that was manageable and conducive to in-depth examination. Stake (2006) observed that more than ten cases will be difficult for a single

researcher to handle, yet, less than four cases is insufficient. To gain a rich understanding of selected cases, I selected eight purposefully identified individuals for this study. Participants were selectively interviewed to ensure that each case aligned with the research questions and purpose of the study.

In qualitative research the researcher is responsible for the selection of relevant and meaningful cases. Therefore, I realize that I played an important role in choosing individuals who were valuable to this study. To select participants, I adhered to following primary criteria for case selection: (1) Case relevance, (2) Case diversity, (3) Appropriate context and complexity of cases (Stake, 2006). In short, the selection of unique cases revealed how the phenomenon of informal learning appears in different contexts.

Yin (2014) asserted that a multiple-case study and a single-case study utilize the same framework; the distinction is in the design. In addition, Herriott and Firestone (1983) found that results from multiple-case studies are more persuasive and compelling than single case designs. Stake (2006) stated that multiple-case study research demands that cases be similar to each other. In this multiple case study, participants have learned to play their instruments informally and attend a community college. Furthermore, each participant is an individual with a unique and dynamic perspective to be examined.

As Yin (2014) observed, the essential component of a case study is the case itself. What makes multiple case studies distinct is the examination of several unique cases. The examination of multiple cases in this study provided differing perspectives related to the phenomenon of informal music learning. The experiences of informal learners are unique and informed by differing social, economic, and cultural conditions. For example, accessibility to technology may differ based on socioeconomic status or the use technology may be avoided all together based on

belief. An investigation of the diverse cases in this study provided insight into the approaches used by music learners with varying perspectives and experiences.

Stake (2006) found that quality multiple case study research can be done in a few months by a single researcher. Specifically, the size of the study is essential to consider. A researcher must maintain a number of cases that are manageable and answer the research questions. In fact, Stake observed that multiple case study research is ideal for doctoral dissertations because the PhD student leads the study, collects data, and analyzes data.

Theoretical Framework

My understanding of informal learning has been constructed from my experience as a self-taught musician and music teacher, which is shaped in context of my working class upbringing. While I have been formally trained as a musician in academia, my nascent experiences as a self-taught drummer are ever present in my understanding of the world. I also acknowledge that my understanding of music, music learning, and culture are a result of my upbringing in a white laboring class family, which is specific to my situation and experience.

As a constructivist, my ontological assumption is that the world is not absolute or fixed. Each individual understands and interprets the world from a discrete perspective and experience. This aligns with Stauffer (2013), who stated "you and I may be in the same place but experience it in different ways" (p. 440). Thus, socially constructed realities provide separate and distinct meaning for each participant (Guba & Lincoln, 1994). Howe (2001) stated that individuals are not shaped by sociological and cultural norms alone. Instead, people actively craft and influence existing presupposed behaviors and social arrangements, which influence their being.

It is also my understanding that social interaction plays a significant role in shaping and informing the lifeworld of individuals. Habermas (1987) stated, "the lifeworld always remains in

the background…in a mode of taken-for-grantedness" (p. 131), which provides the underlying constitution of what individuals believe, decide to do, and who they are. Further, Habermas indicated that shared common understandings, which are developed in social groups via direct interaction, affirm individual values and an identification of self. Likewise, Goffman (1986) noted that social interactions are made meaningful through interconnecting frames that direct the interpretation of occurrences, which are used to inform beliefs, determine societal roles, develop routines, and make sense of social life. In essence, everyday interactions with family, friends, and others, are processed as meaningful experiences to form and have an impact on individual values, norms, and identity.

Epistemologically, I understand that the researcher and participant are linked together as co-constructors because knowledge is not objective. Instead, knowledge is symbolically constructed (Hatch, 2002). Schram (2006) added that a constructivist researcher does not claim to be unbiased in the collection of subjective facts. Rather, participant views are mutually established. As a result, it is impossible for the researcher and participant to be impartial and distant. The researcher gains insight from participants via collaboration and shared experience. So, human creation of meaning is subjective; yet, it does not abandon the premise that objectivity exists. Instead, the circular dynamic of subject and object is manifest as pluralism (Crabtree & Miller, 1999). In short, the social construction of reality is the primary tenet embraced by constructivists. A graphic representation of the theoretical framework used in this study is presented in *Figure 2* below, which illustrates the link between participants and researcher.

Figure 2. Co-constructors of Reality. Visualization depiction of the theoretical framework for this study.

In his philosophical discourse about the application of Deweyan concepts to music education, Vakeva (2012) stated the following:

> We do not experience the world as mere onlookers, occasionally captivated by its beauty. Instead, we actively participate in its process, and it is from this participation that all experiences, including consummatory experiences, emerge … he [Dewey] did not concur with the idea of experience as mind's content, but reframed it as an active, dynamic relationship between the experiencer and what is experienced (p. 96).

Likewise, Reimer (2003) observed that social condition profoundly influences understanding and meaning, this includes musical meaning. Reimer continued by stating that such influences pervade every aspect of human life because they are specific to location, time, and social space. Dewey (1938) concluded that knowledge is not constructed through passive observations; instead, knowledge is actively constructed.

Savery and Duffy (1996) defined constructivism as the philosophical premise of how people know. They identified the following as essential to the constructivist view: (1) Understanding is in our interactions with the environment; (2) Cognitive conflict or puzzlement

is the stimulus for learning and determines the organization and nature of what is learned; (3) Knowledge evolves through social negotiation and through the evaluation of the viability of individual understandings" (p. 136).

Charmaz (2014) provided a description of how constructivism is applied to qualitative research. While Charmaz stated that qualitative designs are commonly associated with grounded theory, her description of constructivist underpinnings can be related to multiple case designs, which is used in this research. This approach provides a subjective emphasis on meaning, assumptions, and feelings, which aligns with the co-construction of participant reality embraced in this study. Specifically, this approach requires the researcher to be immersed in data with the intention to accurately depict participant realities; as a result, participant narratives are discovered during the research process and considered foremost in reporting the final outcome (Charmaz, 2000). Further, *Table 2* provides an illustration of constructivism in qualitative inquiry.

Characteristic	Constructivist Approach
Conception of the Real World	The world is made real through people's beliefs, views, and actions. Therefore, there is not a readily discovered form in which the world exists; instead it emerges.
Analysis Method	The method will be modified and refined based on participant constructions of reality. Yet, there is no presumption about a generalizable truth concerning reality. As people interact, the intention is to identify the meaning.
Researcher role	As a participant and observer, the researcher contributes to emerging concepts and classifications with participants. Data collected is co-constructed by both participants and the researcher.
Nature of Data	Data reveals participant feelings and interpretations as implicit as well as absolute. It is possible that data will remain as intuitive and impressionistic.
Establishing Trustworthiness	Based on findings, concepts and hypothesis can be derived which may be applied to similar research problems.

Table 2. Constructivism in Qualitative Inquiry. Adapted from Charmaz, K. (2014).

By viewing the world through a constructivist lens, I assume my own outlook and interpretation of reality. Yet, I recognize and embrace the notion that others perceive and construct the same reality in different ways. In this study, participants were active in constructing and interpreting their perception of informal music learning. An advantage of this approach was close proximity and collaboration with participants, which was integral in narrative construction. This co-construction better enabled me (the researcher) to understand participant views, beliefs, and actions. From this constructivist perspective, I sought to understand and explore the experiences and beliefs of informal music learners, which provided a rich and descriptive view of their lifeworld.

Engaging Participants

In order to generate a rich description of each case, I used purposeful sampling, criterion sampling, and maximum variation sampling. In addition, there is an element of convenience sampling. Stake (2006) stated that a peculiar feature in selecting participants in multiple-case study is that they will be partially identified before the study begins. While I did not have a list of predetermined individuals selected before this study began, I used specified criteria to select a diverse cohort, which guided participant selection.

Schatzman and Strauss (1973) noted that purposeful sampling is essential to qualitative inquiry. Specifically, selective sampling guides the researcher to choose participants that align with the aims of the research, which takes into account age, gender, race, status, and other essential components. Moreover, Patton (2015) observed that by using purposeful sampling, the researcher ensures information rich cases that are vital to make sense of participant lifeworlds. Likewise, this study sought information rich cases that were unique and provide ample information. Schatzman and Strauss (1973) noticed that after a number of visits to a site, the

researcher would begin to know who should be selected for the study. My position as a faculty member at the community college provided a beneficial position to purposefully recruit ideal candidates.

Maximum variation sampling was used to determine potential participants for this study. This method seeks participants with diverse backgrounds and understandings of a phenomenon (Hatch, 2002). Furthermore, Patton (2015) observed that maximum variation sampling allows the researcher to provide rich descriptions, understand differences, and investigate shared outcomes. Froehlich and Frierson-Campbell (2013) acknowledged the value of examining a diverse population to obtain different viewpoints from an array of backgrounds. In addition, Patton (2015) recommended selecting a small sample that has considerable diversity to document the uniqueness of each case and shared experiences, which are significant because they emerge from heterogeneity.

To achieve maximum variation sampling, African American, European American, Native American, Hispanic, and Asian American participants were purposefully sought out. Furthermore, I examined male and female participants and solicited participants with an array of ranges, which included traditional (18-22) and non-traditional college students. As previously defined, non-traditional college students come from a variety of situations, ages, and backgrounds (AACC, 2014). Variation in participant musical preference, type of music played, and instrument choice was also considered to achieve variation.

To ensure that individuals included in this study had experience with informal music learning, this study used criterion sampling to select participants. Patton (2015) identified criterion sampling as a method of selecting participants by setting predetermined criterion, which elicits cases that are rich with information and detail. Participants were selected based on the

following criteria. First, participants had experience as an informal music learner. In all cases, musicians/participants had experience developing musical skills and learning music without the aid of a music teacher. Second, students were enrolled at the community college where the study took place. While each case in this study is unique, participants shared the experience of informal music learning. Of course, how each participant solves musical problems, experiences music learning, and understands music is varied. The diverse student population examined in this study is commonplace in community colleges (AACC, 2014). To select a diverse cohort of musicians, a mixed group of musicians was identified, considered, and chosen, based on musical interests, race, sex, and musical instrument played, to represent different perspectives and backgrounds.

As observed by Hatch (2002), Marshall (1996), and Patton (2015) there is an element of convenience sampling in many, if not all, qualitative studies. Ritchie et al. (2013) defined convenience sampling as an approach that locates and selects participants based on accessibility and practicality. While convenience sampling does not provide the primary method of sampling in this study, the nature of the research is reliant on who is obtainable. While every effort was made to purposefully sample a diverse group of informal music learners, participant selection was bound by who was available.

Population and Setting

The college is situated in a location that provides diverse demographics related to race, gender, age, social class, musical preference, and instrument choice. In fact, the student population was derived from Eastlake and Westlake (pseudonyms), which are sister cities. Each city has about 10,000 inhabitants. In addition, the surrounding areas are rural and will be referred to as Lake County. Related to ethnicity, Eastlake is 88% European American and Westlake is

89% African American. Lake County is predominantly European American with pockets of other ethnic groups. The median annual household income for Westlake is less than $20,000. Conversely, the median annual household income for Eastlake is a little above $50,000 (Census Bureau, 2010). The Eastlake community thrives on tourism from a neighboring metropolis. Westlake has a few corporations that still exist; however, many industries have shutdown or departed.

Padilla (2004) stated that identifying individuals in different ethnic groups is complex. Therefore, the researcher must be culturally sensitive to accurately depict characteristics of the group and their culture. Moreover, Padilla cautions scholars who engage in research with culturally diverse populations. Specifically, there is a tendency to make comparisons related to social class, academic standing, and other factors. To avoid the confounding and stereotyping of cultural groups it is vital for the researcher to understand unique cultural features. In this qualitative study participants describe and define their own ethnic and cultural identity.

Eight cases were selected to render multiple realities, anticipate rival explanations, and yield a greater sense of strength, as recommended by Yin (2014). I selected individuals based on ethnicity, gender, instrument, and age. Initially, my intention was to examine three or four cases; however, such a small population did not represent enough ethnic and musical variety to understand differing realities. Simultaneously, to large a population would have been unmanageable for qualitative case study (Stake, 2006). The eight participants listed below illustrate the features of this diverse cohort with varying perspectives. Below, *Table 3* provides basic entrant descriptions. Further, individuals are listed in this table in the order they are presented in chapter four.

Participant	Ethnicity	Gender	Instrument	Age
Emily	European American	Female	Piano and Voice	20
Charlie	European American	Male	Bass, Guitar, and Ukulele	28
Diaz	West African	Male	Piano, Drums, Guitar, and Bass	28
Jake	Native and European American	Male	Drums and Guitar	19
Anya	European American	Female	Guitar and Voice	18
Joe	African American	Male	Rapping and MCing	20
Rachel	Asian	Female	Ukulele, Voice, and Flute	22
Lucas	Mexican American	Male	Guitar	19

Table 3. Participant Descriptions. This table is derived from the student population at the community college used in this study.

The above list was compiled from participant discussions and observations. However, the simplicity of this chart does not respect the complex nature of individual identity. A more thorough description of participants can be found in the fourth chapter of this study.

Data Collection

As previously stated, data was collected using personal interviews, group interviews, and observations. Specifically, initial and follow-up interviews were conducted to gain insight of participant experiences. Group interviews were implemented to further investigate informal learners perception and understanding. Participants practice routines were observed to discern how resources and approaches were implemented. Using an array of data collection techniques was essential because what would be found was initially unknown. The different methods of data collection ensured triangulation, which provided validation and confirmation of information

from a variety of sources (Hatch, 2002). Further, external reviews and saturation of data was part of this process to ensure data reliability.

To gather in-depth information from participants, I conducted two semi-structured interviews. Hatch (2002) identified formal interviews as a planned part of the study that is structured, semi-structured, and in-depth. Interviews were structured because they were setup in advance, run by the researcher, and guided by specific questions. Interview questions were based on questionnaires utilized in the following studies: (1) *How Popular Musicians Learn* by Green (2002); *An Exploration of Band Students Experiences with Informal Learning* by Jones (2005); (3) *Lessons from a Garage Band* by Jaffurs (2006). Interview questions were derived from the previously mentioned studies because each investigated informal music learning in settings outside of the school, which is compatible with this study. Specifically, interview questions related to informalities were adapted to fit this study. The interview questions used in this study can be found in Appendices B and C.

In order to further explore each case, interviews were probe-based, meaning that structured questions and materials served as catalysts to gain further insight. It is common for qualitative researchers to spend little time on standardized questions because non-standardized questions are more applicable (Stake, 2006). In addition, the insights of expert reviewers were used to critique and review my research questions. The reviewed questions can be found in Appendix C and a description of the reviewers is available in *Table 5*, which can be found in the trustworthiness section of this chapter. As recommended by Creswell (2014), once data was collected and initial reports written, a peer debriefer enquired to establish the gathering of valid data, which will be discussed further in the trustworthiness section of this chapter.

As outlined by Hatch (2002), interview questions adhered to the following guidelines: (1) are open ended; (2) use familiar language; (3) are clear and concise; (4) are neutral and not biased; (5) respect and value informant opinions; (6) relate to research objectives and questions. Related to the sixth point, as interview questions were considered and developed, the research questions were salient and connected to queries and discussions during the interviews, which were pertinent to the research objectives. The semi-structured interviews in this study were used to follow leads when necessary and probe each finding to acquire an in-depth understanding, which provided descriptive and thorough data. Price (2000) recommended using a dialectic approach to guide informal aspects of interviews, which allows participants to freely tell their story. Likewise, this study embraced a dialectic approach guided by individual responses.

To keep interviews casual and build a good rapport with participants, discussions using colloquial language and casual gestures fostered a relaxed environment. In addition to maintaining a casual demeanor during structured interviews, a friendly affinity during conversations was genuinely actualized from sincere interest in member life stories. Hatch (2002) identified informal interviews as unstructured conversations using colloquial language that take place at the research site. Creswell (2012) recommended that researchers avoid a power dynamic by fostering an environment that is open and promotes dialogue. Yin (2014) noted that informal interviews provide valuable insights about participant perceptions to guide further discussion. Furthermore, Yin observed that informal interviews, or interviews in general, should not serve as the predominant source of data collection.

In addition to individual interviews, group interviews were used to provide essential data in a different setting. Kitzinger (1995) indicated that group interviews provide a process that allows participants to explore and clarify their ideas by deliberating and interacting with others.

This approach is especially useful for tapping into information that may not be accessible using traditional interview methods, such as formal and informal individual interviews. In this study, group interviews are included to produce new and additional details about participant experiences as informal music learners. Frey and Fontana (1991) observed that group interviews provide an arena for participants to be stimulated by each other. Likewise, group interviews in this study allowed participants to build from peer responses and enabled me, the researcher, to better understand participant perspectives.

As recommended by Frey and Fontana (1991), the group discussion further investigated questions from the initial interview and my interpretations. To provide a natural environment where participants could freely converse, a group interview took place in an inconspicuous meeting room on campus. To clarify, many of the meeting rooms at the college have large windows that would make interviewees highly visible and possibly uncomfortable. In response, a less intrusive meeting space, such as the green room that has a sofa and confortable chairs, was utilized. Furthermore, my office or music classroom was avoided to evade inadvertent appearance of an instructor to student hierarchy.

Formal and group interviews were recorded using *GarageBand* recording software on my laptop computer. *GarageBand* was used for clarity, storage, and transcription. Stake (2006) provided a robust list of tips for documentation and data storage. The data storage methods related to this study include keeping a log, linking data gathering and writing, giving the researcher responsibility over data storage, sharing files electronically, duplicating data routinely, labeling of statements needing further clarification, and beginning transcription when the data is clear.

Yin (2014) identified observation as an essential component of case study research because each case exists and occurs in the real world. Therefore, the case should be observed in the environment where it occurs. To discern and understand informal learning as it occurs organically, participant observation is essential. Participant observation occurred at the location where informal music learning takes place, such as a park, garage, rehearsal studio, living room, beach, school hallway, or any other location. The locations were chosen so participants could rehearse in natural and familiar settings. Once a practice location was determined an observation commenced at a time that was convenient for the individual. Data collection occurred in the summer, so, flexible times were important for successful data collection. Ethically, observations were restricted to public locations that were comfortable for participants. For example, if the informal music learner regularly practiced in his or her bedroom, an alternative location was determined so the participant and researcher felt secure and content.

Initially, it was my intention to conduct one-hour observations. However, this was quickly reconsidered as the practice session duration varied between participants. In response, the observations varied in length to correspond with an authentic representation of participant practice routines. Sessions lasted about forty-five minutes, but differed in structure and location to meet the practice needs, interests, or scheduling of each study member. During observations, field notes were used to record data. Field notes provide descriptions of the actions, context, and situation from the vantage point of the observer (Hatch, 2002). Of course, this was done with as much detail as possible and recorded with enough detail that quotes and other happenings could be written down verbatim (Wolcott, 1995). As recommended by Hatch (2002), during the field note process close attention to detail, retaining naiveté by suspending judgment, and immediate jotting of notes was considered.

To provide a clear depiction of data collection, a timeline was developed. The itinerary underwent a number of changes during the data collection process resulting from modified participant schedules. This clearly laid out agenda helped keep me on task and the study moving forward. Below, *Table 4* provides a timeline of the research design steps.

Procedure	Dates	Action
Expert Review	February 15 - 28, 2015	Submitted and received responses from expert reviewers
IRB Approved (See Appendix D)	March 26, 2015	Prepared documents and received approval (Level 1)
Proposal Defense	April 10, 2015	Defended proposal with committee members and discussed needed edits
Graduate Studies Committee (GSC) Approval	May 1, 2015	Received a formal letter of approval from the GSC.
Participant Recruitment	May 1-30, 2015	Recruited participants at the community college
Initial Interview	June 1-17, 2015	Conducted initial interviews
Group Interviews	July 1-15, 2015	Conducted group interviews
Observations	July 16-30, 2015	Observed participant practice routines
Follow-up Interviews	August 1-15, 2015	Conducted follow-up interviews
Transcription	August 1- October 30, 2015	Transcription of interviews and field notes
Member Check	November1-15, 2015	Conducted member checks with all participants
Peer Debriefing	September 13-29, 2016	External reviewer examines document data to provide an impartial view

Table 4. Research Design Steps. This chart is a projected timetable that has been developed by the author, which has been updated regularly.

Data Analysis

To respect and preserve the unique vitality and personal situation of each case, cross-case analysis was used in this study. As recommended by Stake (2006), the cross-case analysis

approach emphasizes case findings and maintains the singularity of each case. In addition, interpretive analysis was used to provide a systematic approach, which gives meaning to the data. The purpose of data analysis is to organize and interrogate the data to see patterns, identify themes, and explain what was found (Hatch, 2002).

It was my intention to begin the data analysis process early to ensure that data was fresh and questions can be revisited and modified as needed. I also acknowledge that the data is never totally complete. However, as recommended by Hatch (2002), I did not yield until my research questions had been answered. Yet, prior to organizing and examining data for themes, codes, patterns, relationships, and interpretations, I transcribed interview data and organized memos (Hatch, 2002).

Memos were used to recall and understand daily findings. Specifically, memos were written down after interviews and observations. Typically, I would stay in the interview location for a few moments and write anything that I perceived as compelling from the session. Memos were also recorded at the conclusion my transcriptions utilizing a similar process. That is, once I completed my transcription I would jot down any memos, which helped keep key findings and interpretations fresh for analysis. Groenewald (2004) observed that memos reflect what a researcher "hears, sees, experiences, and thinks in the course of reflecting on the process" (p. 13). Hatch (2002) added that memos should be used as a starting point to identify salient interpretations and as a catalyst to organizing data. As recommended by Miles, Huberman, and Saldaña (1984), this study used memoing that is conceptual, goes beyond the codes, and focuses on the situation. Memos are personal, methodological, substantive, and "are one of the most useful and powerful sense making tools at hand" (p. 96).

Once all of the data was collected and transcribed, individual cases were examined and cross-case analysis was used to identify merging themes. In his multiple-case dissertation, Veneskey (2014) analyzed each case as comprehensive unit prior to cross-case analysis. Yin (2014) identified cross-case analysis as a technique that considers each case as a separate entity and looks at how individual cases contribute to the larger unit. Furthermore, cross-case analysis relies on argumentative interpretation. In place of numeric tabulations, argumentative interpretation analyzes the similarities and differences between cases to deduce a naturalistic generalization. To generate theme-based assertions, I used a three-point hierarchy of importance, which includes the following: high importance, middling importance, and low importance (Stake, 2006).

To understand case findings, I used an interpretive model to analyze all interview data, which was derived and constructed from data by probing more than the analytic (Denzin, 1989). I used the following eight steps in my interpretive analysis: (1) read all of the data; (2) record impressions from past research; (3) read data for impressions and record; (4) find salient interpretations; (5) reread data and code; (6) draft a summary; (7) review interpretations with participants; (8) revise summary to align with interpretations (Hatch, 2002).

To code and identify themes, descriptive and literal coding was used. Saldana (2013) recommended descriptive coding as a method to identify specific topics from participant responses. Using descriptive coding, my approach was to review each statement, identify the core idea, and label the central topic(s) as a single word or phrase alongside each passage. To determine codes, data was read and analyzed to establish reoccurring and salient ideas, concepts, and connections. For instance, participants learned their instrument by listening; so, the multiple examples of learning aurally were coded as learning by ear. Once all topics were identified, a

categorized inventory was created. A categorized inventory is an index of related excerpts and topics (Saldana, 2013). For example, all phrases coded as "repetition" were extracted from the transcription or field notes and inserted into a separate file to generate a categorized inventory. Literal coding (or In Vivo coding), is similar to descriptive coding with the exception that the codes generated are verbatim quotes of participant responses, which respects authenticity of participant voices (Saldana, 2013). Each excerpt was evaluated for salient quotes, which capture the essence of the phrase. To distinguish literal codes from descriptive codes, quotation marks were used.

While Stake (2006) and Yin (2014) recommended sticky notes, strips, and other non-technological methods of coding. In this inquiry, *NVivo* qualitative software was used to assist with arranging data, identifying themes, organizing merging ideas, and coding. *Figure 3* illustrates the data analysis process using *NVivo* software recommended by Bazeley and Jackson (2013), which will be discussed in further detail in the subsequent paragraphs

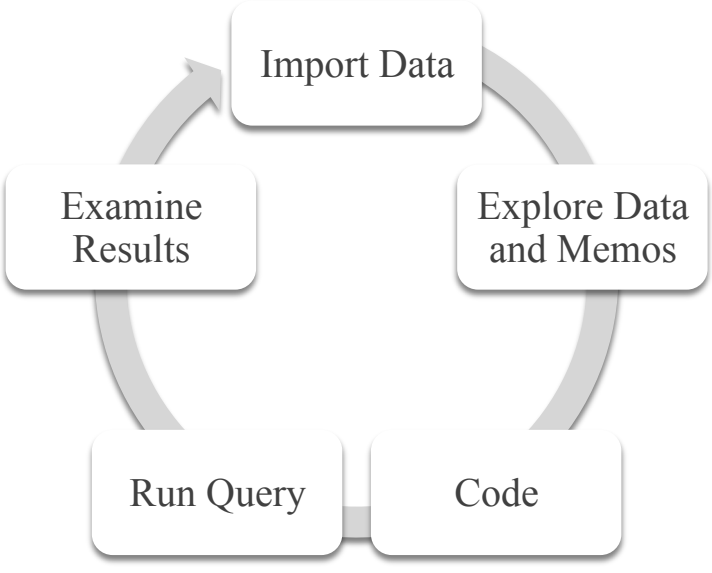

Figure 3. Data Analysis Process. This figure is adapted from Bazeley & Jackson (2013).

To ensure confidentiality, interview data, group interview information, and observation records were secured in a flash drive, which was kept in a locked cabinet in my office. Audio interviews were recorded using *GarageBand* on my laptop computer and saved onto a flash drive after the completion of each interview session. Once data had been transcribed, it was inserted into *NVivo* and password protected. As an additional precaution, participants were assigned pseudonyms and the true name of participants was not recorded or included on any data, to include this report.

After this, transcription data was entered into *NVivo*. Specifically, individual interview data, group interview data, and field notes were imported. Then data and memos were combined and reviewed. Using the interview questions as the impetus, the auto code function was used to find initial codes and themes. In addition, key concepts derived from further examination were extracted to generate codes and themes. Nodes were generated from findings.

Codes were found by looking for salient ideas, connections, and word phrases that recurred in the data. Specifically, by digging through the data codes emerged. Once data became repetitious and the research questions were answered, saturation was achieved and the collection of data concluded. There were no predetermined codes or themes; instead, themes emerged from the participant responses. Codes, memos, and themes were analyzed to make sense of imperative ideas, principal associations, and determine findings. The results were examined and visual representations were used to illuminate results for presentation in this document. Once data analysis was complete, the reflective process and writing commenced. As soon as a draft of findings was composed, participants were sent copies of their portion to initiate member checks. Finally, an external scholar reviewed the contents and asked questions about the data, which was considered in the final report.

Bringing Participants Together

Participants were recruited during visits to college humanities courses and campus open mic sessions (see Appendix E). Individuals who had learned music informally and were interested in participating in this study were found and recruited. As recommended by Yin (2014), participant selection was elective and directly related to the needs of this multiple-case study. That is, participants were purposively selected because they had learned music informally, provided case diversity, and were inclined to participate. While criterion and maximum variation were observed when choosing participants, case selection was limited by availability, which is a requisite of convenience sampling. To achieve contrast among cases, variation in ethnicity, gender, musical interest, musical instrument, and age was considered.

Once an initial group of ideal participants was identified based on the aforementioned criteria, eight individuals were contacted to engage in the initial interview. During this process two perspective members did not respond, despite multiple attempts to contact them via phone and email. Fortunately, other likely participants with similar attributes were available and contacted. Eventually, initial interviews were scheduled for all members. Of this group, only one individual did not take part in the initial interview and was unresponsive to rescheduling attempts. In reply, another self-taught musician was recruited, met the aforementioned criteria, and actively contributed to this study. In due course, eight informal music learners from a community college formed the cohort for this inquiry.

Once confirmed, each member participated in an initial interview, observation, follow-up interview, and group interview. First, all interviews were recorded and transcribed. Transcription occurred mostly between interviews with some transcriptions happening at the end of the process. The initial individual interview served as the starting point for data collection and was

used as a catalyst for additional questions. Second, a solo practice session was observed where field notes were recorded. Derived from the initial interview and practice observations, a second individual interview was conducted, which provided an in-depth examination of participant views and beliefs. Third, a group interview was convened with questions based on the aforementioned activities. In the group interview, shared and differing perspectives emerged from verbal answers, which will be discussed in detail in Chapter IV and V. Once data was transcribed, member checks were sent via email to all participants.

The challenges that occurred during the interview and observation process were predominantly related to scheduling. A few of these difficulties were as follows. On a few occasions participants did not show up to scheduled appointments; thus, appointments had to be rescheduled. There was no consistency with the times that individuals could meet; so, interviews and observations occurred at various times and locations. This included early morning, mid-day, evening, weekday, and weekend interviews and observations. Two of the participants transferred to different institutions before the end of the summer. While they were not yet officially taking classes at the new institution at the time of the exchange, they had moved to new cities. In response, web-based videoconference sessions were scheduled to complete the interviews. Prior to completion of this study, one individual moved two hours away from the college where the case study took place. Consequently, his observation and follow-up interview commenced in the new city.

The data were coded once they were collected and transcribed. In this study coding was heuristic and cyclical, as recommended by Saldana (2013). Heuristically, reoccurring details derived from the data resulted in the emergence of a lengthy inventory of codes and themes. From the original list of themes, links were identified that led to the creation of codes, as

recommended by Richards and Morse (2013). Of course, this was refined and revised multiple times during this process. In this study coding was cyclical; therefore, coding required successive analysis of data and codes to filter, underline, categorize, and make sense of participant responses and actions. The following figure illustrates the coding process used in this study.

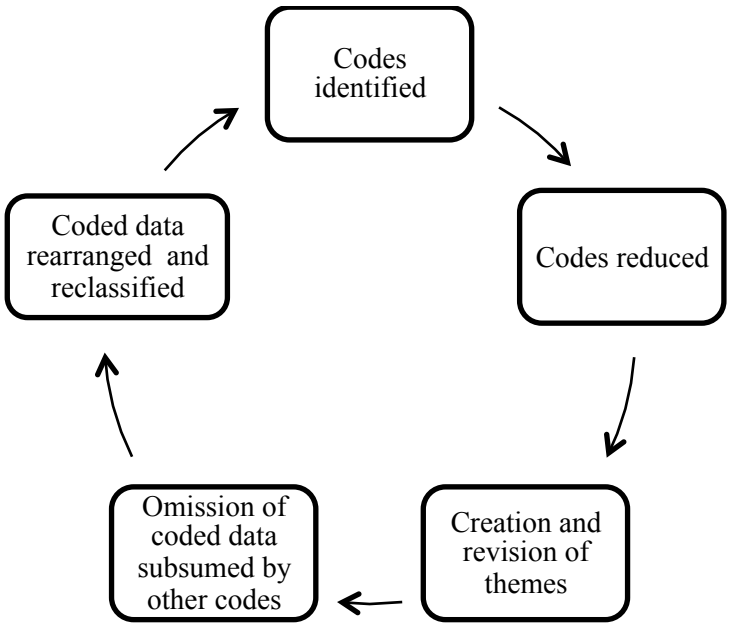

Figure 4. Coding as a Cyclical Process. Illustrating the process used in this study as recommended by Saldana (2013).

Initially, all of the data were reviewed and codes were identified. After multiple rounds of coding, a final list of themes and codes was determined.

To convey and identify important findings, determine commonalities, and variations between cases, the following process, as recommended by Stake (2006), was implemented. First, cases were read as a whole, which included systematic note taking based on initial findings. Second, cases were examined simultaneously to determine typical and atypical attributes. Third, the findings were reviewed, sorted in *NVivo*, and rated on importance (high, medium, low) to understanding informal music learning. Fourth, the strongest findings were identified and tentative assertions were made and written. Further, findings that supported the strongest points

were sought. Once tentative assertions were thoughtfully considered and the most compelling findings determined, final assertions were made and included in this report.

Trustworthiness

In order to depict the views, words, and thoughts of participants, I ensured that this study was guided by saturation, careful documentation, and reflexivity. As with many multiple-case studies, I could not predetermine the length of time that was required to complete this study. Before data was collected, I anticipated that it would take about three months (it took five months to collect data). Thus, my objective was to achieve saturation. Merriam (2002) defined saturation as the point where "you begin to see and hear the same things over-and-over again, and no new information surfaces as you collect more data you begin to see" (p. 26). In response, I used prolonged engagement to achieve saturation and build trust between participants and myself.

To accurately depict participant perspectives and understandings, it was my intention to achieve thick description of data from recorded interviews, field notes, accurate transcription, and copious documentation. Furthermore, I used member checks to validate responses and confirm interpretations via feedback from the participants (Hatch, 2002). That is, participants were asked to read the transcriptions and confirm my interpretations. As a result, I am responsible for reporting and interpreting participant experiences and worldviews. Data collection and analysis occurred throughout this study, which allowed me to probe emerging ideas and reveal findings.

In addition to member checks, expert reviewers provided differing perspectives about interview questions and a peer debriefer examined my interpretations for bias. Lincoln and Guba (1985) noted the importance of external reviewers to look for assumptions and bias that may not

be visible or obvious to the researcher. Denzin (1989) recommended outside critics to avoid redundancy and challenge procedures. To examine my interview questions, three expert reviewers who are respected music education scholars, provided insight regarding interview questions. The letter sent to each expert reviewer can be found in Appendix F. Further, *Table 5* provides a brief description of the expert reviewers used in this study.

Reviewer	**Description**
No. 1	Professor emeritus in music education at a tier one research institution. This reviewer has been published and frequently cited in multiple music education journals. Areas of interest include creativity, music curriculum, amateur music making, and music education philosophy.
No. 2	Professor of music education at a tier one research institution. Seminal scholar in the field of music education and ethnomusicology. Areas of research include community music, world music education, and early music education. Widely published author with a number of publications are commonly used in music teacher training courses.
No. 3	Associate professor of music education at a tier one research institution. This individual has served as a reviewer for three music education journals, written music education books, and published multiple articles. Areas of research include diversity in music education, immigrant populations, and choral instruction.

Table 5. Expert Reviewers. This information in this table was derived from the biographies of the expert reviewers. However, citations have been omitted to ensure confidentiality of the reviewers.

Further, once data was collected, transcribed, and written in this report, a peer debriefer reviewed data to ask questions and provide an impartial perspective. According to Creswell (2014), the role of the peer debriefer is to keep the researcher honest and ask complicated questions about the meaning and interpretation of data. In addition, this reviewer challenged assumptions and considered alternative interpretations. Once reviewed, sections of this study were refined to provide an objective and honest representation of data.

In this study I acknowledge my role as the data instrument; therefore, it is important that I am reflexive about my inquiry to "critically reflect on the entire research process" (Schwandt, 2001, p. 224). As suggested by Merriam (2002), it was my intention to be transparent about my assumptions and bias. Yet, I acknowledge that I am not a blank slate; instead, my background informs my interpretations and relationship with participants. As a qualitative researcher, I cannot distance myself from participants because that would inhibit my ability to obtain rich and descriptive data, though I have worked to remain objective as part of this process. Still, I acknowledge that no qualitative study is perfect; however, by utilizing the aforementioned strategies related to saturation, documentation, and reflexivity, it was my goal to provide a trustworthy study.

Ethics

Regarding ethics, I interviewed and observed informal music learners at a community college where I am a faculty member, which presented potential ethical dilemmas. As an interviewer, my intention was to establish a good rapport with participants that encouraged them to be open and honest. Therefore, I conveyed and maintained transparency in my intentions and actions with participants during this study. In addition, I acknowledge my role as a faculty member and teacher of undergraduate participants. Specifically, I hoped to maintain an environment that promoted professionalism and allowed participants to feel comfortable.

To eliminate potential ethical conflicts based on the teacher and student hierarchy, I interviewed non-music major students only. This is logical for two reasons. First, music majors are engaged in the process of formalized music instruction at the community college; thus, they will not meet the aforementioned participant criterion. Second, this approach alleviates potential

ethical dilemmas because I am not their teacher. In addition, participants are able to dropout of the study at anytime without providing a reason.

To ensure confidentiality, all participants were given a briefing and consent form to explain the entire research process and my intentions with the data (see Appendices G and H). Confidentiality was assured by keeping audio recordings, interview transcriptions, field notes, and memos in my flash drive, which was locked in a cabinet in the my school office. Participants chose a pseudonym, which was used in the final report and appendices. No specific individual, school, or department was identified during data transcription or this final report.

Conclusion

In this research, it was my objective to understand the experiences, beliefs, and lifeworld of eight purposefully selected community college musicians who learned music informally. Using a multiple-case study design, my intention was to examine a diverse group of participants, which provided valuable insights into music teaching and learning.

This chapter illustrated how purposeful sampling, maximum variation sampling, criterion sampling, and convenience sampling were used to recruit and identify participants that align with research questions. The research questions outlined in this chapter focused on the following: musical informalities, participant beliefs and experience, diversity, and music learning. Group interviews, personal interviews, and observations were used to gather rich and descriptive data. Cross-case analysis provided a thorough and descriptive investigation of data. Saturation, prolonged engagement, member checks, triangulation, peer debriefing, reflexivity, and rigor outlined in this chapter was linked to trustworthiness. In addition, ethical considerations were made transparent and align with guidelines set forth by the Institutional Review Board at Kent State University.

In Chapter IV, a detailed analysis of the data derived from participant interviews, group interviews, and observations will be discussed. Specifically, the chapter will focus on background information and detailed descriptions of participant beliefs and experiences. Chapter V will provide a detailed analysis of the findings and their meaning. In Chapter VI, the significance of participant experiences—as it relates to music education—will be considered. Of course, a central component of this qualitative study is the participants and their unique perspective as informal music learners, which is the topic of the next chapter.

CHAPTER IV

CONVEYING EIGHT CASES OF INFORMAL MUSIC LEARNING

Introduction

In this multiple-case study, eight participants who learned to play musical instruments and sing informally were interviewed and observed. The individuals were non-music majors enrolled at the same community college in the mid-Western United States and came from dissimilar backgrounds. Social, cultural, and musical backgrounds are varied among the participants and played a key role in understanding their lifeworlds. Emily, Charlie, Diaz, Jake, Anya, Joe, Rachel, and Lucas (pseudonyms) were selected as the contingent in this study. In all cases, informal endeavors served as the primary method of music learning. Participants were traditional and non-traditional students, had academic aspirations in different areas, and played music regularly.

To gain an understanding of each case, data were predominantly gathered from individual and group interviews, with the intention of revealing the participants' views and beliefs. To gain further insight concerning the actions of each informal music learner, field notes were taken during observations of participant musical practice. In this chapter, summarized documentation is presented to describe the context and worldview of each member. Specifically, the purpose of this chapter is to introduce each participant, thus providing an overview of her or his situation, background, musical preference, musical influence, and music learning.

Case summaries provide a report of participant situations, influences, preferences, informal learning methods, resources, and learning processes. A description of the six categories is as follows. First, situation descriptions include an account of participant backgrounds, such as age, sex, ethnicity, gender, residence, voice style, musical instrument, and first musical

encounter. Second, influence descriptions include individuals and accounts that made a lasting musical impact on each person. Third, preference information includes the musical style of each individual, which contains the listening and playing interests for each participant. Fourth, a description of how each participant learned to play music informally is given. Fifth, a table of resources is provided, which includes a concise summary of how the individuals used learning implements. Sixth, the processes the participants used to learn music is summarized. Specifically, what approaches, resources, and methods were used will be discussed.

Emily: Gothic Rock Pianist

I really love this song; so, I'm going to spend hours and hours learning it.
(Emily, individual interview one, June 8, 2015)

Situation

As a child, Emily remembered watching the credits of her favorite anime cartoon films and being captivated by the music. During the concluding credits, she would sing along to the chorus and verse, which were in both Japanese and English. Eventually, she saved up her money and purchased a small, inexpensive keyboard from a large retail store. Reflecting on her first keyboard she said the following.

> I had gotten a very cheap piano from a Target and it was like on clearance sale, it was like twenty bucks…I thought it was really cool because the keys lit up when I would play. (Emily, individual interview one, June 8, 2015)

While she recalled a number of problems with the keyboard, she also remembered enjoying her time playing music on it.

Describing herself as an *angsty teen* [sic], Emily listens to *punk rock*, *alternative rock*, *indie pop*, *gothic rock*, and classical music (see Appendix A). She is a nineteen-year-old European American female majoring in elementary education. She plans on transferring to a four-year university to pursue her bachelor's degree and teaching credential. Emily lives in a

small town in Lake County that is about thirty minutes from campus. She plays the piano and sings.

Reflecting on how long she has been singing, Emily said, “I’ve been singing my whole life, but, everyone says that” (Emily, individual interview one, June 8, 2015). By her junior year in high school, Emily noted that she was singing more frequently and with greater confidence She also began playing the piano at twelve years old. But, she had many breaks in her playing until she was about sixteen. At that time she felt that she was able to comfortably and unreservedly express herself musically.

Influence

When asked what her musical influences were, Emily identified her friends and movies as the primary sources of her musical inspiration. Regarding her friends, Emily stated that watching them play music was motivating and inspiring. Specifically, she said “I really got inspiration from my friends because they would just be playing and I would think that it was so cool and I thought, I want to do that” (Emily, individual interview one, June 8, 2015).

As far back she could remember, Emily would sing songs from animated films. Recalling a conversation she had with her mother, she said the following “like my mom told me that when I was little I would sing along to Disney movies, but, I think everyone did that” (Emily, individual interview one, June 8, 2015). As a child, she remembered looking forward to the movie end credits so she could listen to the music. She distinguished the music as having three distinct categories, which here happy and upbeat, slow without vocals, and quiet with vocals. She was drawn to the quiet vocal music and she would sing along with “the songs that no one ever heard of at the end of the movie” (Emily, individual interview one, June 8, 2015).

Preference

In addition to singing songs from animated films, Emily prefers acoustic music, oldies, gothic rock, punk rock, and classical music. Though she adamantly indicated that she does not like country music, rap, or music with a lot of screaming, the music she enjoys playing and hearing is related to her mood at any given moment. Typically, her musical selections are based on the lyrics because, for her, the lyrics supersede all other musical elements. Of course, this is not always the case. She said that sometimes she just ignores the meaning of the lyrics and focuses exclusively on enjoying the music itself. When discussing this concept she said the following.

> Like when it comes to the *Beatles* its just fun stuff that you don't really think about what the lyrics mean. You just listen to it because it's just a catchy. (Emily, individual interview one, June 8, 2015)

As a vocalist and pianist, she said that what she plays is usually about the lyrics.

Arrangements of cover songs and original compositions are the type of music that Emily likes to play. In fact, she prefers to play slower softer pieces, which she identified as prettier and more pleasing. An example of her arranging a piece of music to fit her stylistic preference was when she reworked an upbeat pop song for piano. Recalling this arrangement Emily said the following.

> The song *Timber* by *Ke$ha*, I made a jazz arrangement of it. It's a jazz piano piece but it's a lot more different than the actual song. But, I like to take stuff like that and make it my own. Like, I make it that softer, prettier type of music. Instead of the spur poppy techno, and make it into something people would listen to at a concert or something like that. (Emily, individual interview one, June 8, 2015)

In short, Emily enjoys modifying musical pieces so they become her own.

Emily identified the vocal timbre of the original artist as an important component related to her musical preference. She said, "I've recently come to the realization that, um, if a singer has

a certain tone quality or like a certain accent about their voice, then I find it more interesting and more appealing" (Emily, individual interview one, June 8, 2015). Specifically, she found that a lot of music sounds the same, so she prefers vocal styles and timbres that sound different from what is regularly played on the radio.

Learning

The first step Emily took when she learned a tune was to listen. Before she figured out a song note-by-note or read music notation, she said that she "listened to it first" (Emily, group interview, August 24, 2015). She believed that reading sheet music prior to listening was difficult, time consuming, and complex. As a result, Emily noticed that listening allowed her to make sense of melodies, chords, and musical elements. She described the process she used when learning a song by ear in the following passage.

> Um, I listened to it first. I learn the lyrics, if it's like a popular song or whatever. Um, I sit down at my piano and listen for the notes. I try to find out what key it's in and what the chords are and everything. The tempo, I figure out what goes where, but I have to figure out the lyrics before I start working music wise. (Emily, group interview, August 24, 2015)

While the above passage described her approach to learning popular tunes, Emily mentioned that she also listened first when learning classical piano music.

According to Emily, listening to the music after she learned a song was essential for checking and ensuring accuracy. She simply stated, "I just go back and try again and listen to the music and, um, try to do it" (Emily, individual interview one, June 8, 2015). Emily described a feeling of annoyance when she learned a tune from a popular American musical in the wrong key after meticulously listening to it. As a result, she had to relearn the entire piece in the original key. In addition, Emily frequently checked the accuracy of a song she learned by recording herself. While she revealed that she did not like the sound of her own voice on recordings, she

was often content with her piano playing. When she had difficulty figuring out chords by ear, Emily said she would find chords on various Internet websites. Evidence of how she checked for accuracy was illustrated during her observation in this study. During her observation, she would listen to an excerpt of the song a few times, try to play it, and repeat this process until she mastered the musical selection.

Emily mentioned that her experience collaborating with others was limited. However, she felt that playing with other musicians was important. Her collaborative musical experiences included mimicking other musicians, asking musical peers for advice, and harmonizing with friends. She believed that mimicking other musicians was inspiring and enjoyable. Discussing this approach she said the following.

> Um, if someone's playing a certain way it's fun to watch, it's cool to see if I can mimic what their doing. Sometimes I'll ask, hey can you show me what you're doing there? Like do this, and this, and this, it's really fun. I enjoy watching other people play for sure because it works. (Emily, individual interview two, August 8, 2015)

She emphasized that the individuals she copied were not teaching her; instead, she would watch and then try to figure out what they were doing. As indicated, she believed it was important to inquire of other musicians. When she discussed musical collaboration, Emily said, “It’s always good to have another person to talk to, I mean hey what am I doing wrong here” (Emily, group interview, August 24, 2015). She also recalled informally harmonizing with friends at school and other locations. For example, Emily told the story of how she and her friends harmonized as they rode home in a car from a punk rock concert. She identified this experience as enjoyable and something she did frequently.

Emily utilized social networking websites to solicit feedback from others. She recalled posting a video online and said the following.

> It was a video, and I got feedback and I use the feedback to fix a few things. I was like okay, I'll give it a try, if I like it better I'll stick with it; but, if not I'll do it my way. (Emily, individual interview two, August 8, 2015)

In fact, Emily indicated that she preferred direct and blunt criticism with clear suggestions to make her a better musician. She also responded to online videos of other musicians to get ideas and provide constructive criticism. She described this process as a "give-and-take and you get to help other people expand other ideas" (Emily, group interview, August 24, 2016).

With some music, Emily said that she did not really think about how she figured it out; instead, she just did it. She believed that her piano proficiency was greater than her vocal ability; though she liked to do both.

> I just sing and play, I don't really think about it. I don't like to think about it; if I'm home alone I'm going to bang on the piano and belt it out. Even though it might not sound good. (Emily, individual interview two, August 8, 2015)

She stated that she never had formal vocal training and she just sings. When asked how she determined chords and voicing on the piano, Emily said that once the song is in her head, she will write down the chords and figure out the melody.

Initially, Emily had a few lessons on piano, which she recalled, "I had a piano teacher for a little while, I can't remember how long [laughs], but it didn't last very long" (Emily, individual interview one, June 8, 2015). On her own, she remembered working on reading music and encountering challenges. As she progressed on her own, Emily said that she "started reading stuff that was way too difficult for me at the time and … would attempt to play it… it was always a struggle" (Emily, individual interview one, June 8, 2015). Eventually, she figured out the patterns and could play them with ease.

When Emily reflected on how she acquired technique on her instrument, she remembered the importance of the inexpensive keyboard that her parents gave her as a child, which lit up and showed her the correct fingerings.

> Keep in mind this was when I was in seventh grade [laughs]. I though it was really cool that it had a song bank that played certain things, like the first on an entry would be like *Beyond the Sea* and it would tell you the different fingerings to do, and it was just was really cool, and I thought that it was awesome that a keyboard could do that. So, I was like I can do that on my own. (Emily, individual interview one, June 8, 2015)

Eventually, Emily memorized songs included in the prerecorded sound bank and determined that she could learn without the tutorial. Later, she added her own chord accompaniment to learned melodies. She felt that this feature was important because it trained her to use both hands. Emily said that she still played music she learned from this keyboard, such as *Für Elise* by Ludwig von Beethoven.

Comfort was another factor she considered when technique was determined. While she said that she didn't think about technique separately, Emily indicated that she used whatever approach was comfortable for her. When asked how she acquired technical proficiency, Emily said it is "just what's comfortable for the piece…I'm obviously not going to have my pinky always tapping the same note" (Emily, individual interview one, June 8, 2015). During her observation, her approach appeared to become more relaxed with the tunes she seemed familiar with. In short, she stated that, "if I like my way better then I'll stick with my way" (Emily, group interview, August 24, 2015).

To acquire technical proficiency, Emily indicated that watching videos and listening to audio examples was essential. This was especially important when she had difficulty figuring out specific technical components of a song. When using web-based videos, Emily said that she would watch them over-and-over until she mastered what she wanted to accomplish. However,

she felt that this was difficult to achieve and said, “I always have trouble putting together what I'm hearing and what I’m doing to the same level, but when I get it I’m like yeah” (Emily, group interview, August 24, 2015).

Resources

To learn music, Emily used books, online resources, radio, and a light-up keyboard. When selecting music learning tools, Emily said that she used whatever was comfortable for her. She preferred online tutorials, which featured another musician slowly demonstrating a song. In addition, she used a blend of chords, lyrics, and sheet music when learning tunes. All of the learning implements were used in conjunction with listening. *Table 6* below illustrates the music learning resources used by Emily.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Method books, popular music song books, books with classical piano repertoire	Used to learn technique, how to read music, how to learn a popular song, and to learn classical works	"Just music books. Whether it's like a beginner's book teaching how to read bass clef or if it's something with a ton of classical music or something with popular music, I'm a huge fan of the music of Owl City, so, I have a few Owl City books that are fun and just read and attempt to read" (Emily, individual interview one, June 8, 2015)
Internet	*YouTube*, internet search engines, video tutorials, print sheet music, lyrics, chord charts, audio recordings, social networking websites	Used to find chords, find lyrics, print sheet music, view tutorials, listen to songs, and get feedback from others	"Oh yeah, I guess I'm just comfortable using sites that I know. I get all my chords from that. Like *YouTube, YouTube* tutorials are the bomb. Or if I need lyrics I'll go on to *Metrolyrics*" (Emily, group interview, August 24, 2015).
Other	Light-up keyboard, radio	Keyboard used to learn basic songs and note identification, radio used to become familiar with songs and select songs to learn	"I loved that keyboard…it would tell you the different fingerings" (Emily, individual interview one, June 8, 2015).

Table 6. Self-learning Musical Resources: Emily. This table is constructed from interviews and observations in this study.

Process

The process Emily used to learn popular music and classical music varied. She said that when learning a popular song on the piano she would find the lyrics online and then experiment. Then, she would listen to it and try to find the first note of the song. Once she listened and found the starting pitch, Emily described her process of replicating the song below.

> Yeah, I ended up listening to it once or twice and I would try to mimic it and I would try to put chords to it, I would try to do certain octave jumps, just make it into a four chord and then see what I could do with that, you know, just have fun with that. (Emily, individual interview one, June 8, 2015)

In contrast, when learning classical music Emily indicated that she would read the music and learn the work note-by-note. She also stressed that she did not deviate from the original work because it would not be correct. Likewise, she would listen to a classical piece while learning it.

When asked to describe how she learned a passage of music, Emily systematically described her approach in the following statement.

> It has steps; you know step one, step two, step three. It's similar to what I do now because I break down the chords and I just play the melody with the right hand and the chords with the left to start out. Then, I add notes to both hands then I just break it down. Step one is I just figure out the chords. Step two; I add the right hand to the chords. In step three; I make adjustments to the chords and any rhythms and add anything that goes along with the song. (Emily, individual interview two, August 8, 2015)

During her observation in this study, Emily used the process described above. On piano, she played the chords using a lead sheet from an web-based source, played the melody in the right hand, and added singing as she self-accompanied. She mentioned that putting the chords and lyrics together was difficult. In addition, she used audio and online videos to listen to the songs and check her work, which Emily said, “I think that looking up chords and just listening to videos is a lot of help” (Emily, individual interview two, August 8, 2015).

To solve musical problems, Emily said that "there have been times where I'm stuck at the keyboard for hours and I'm trying to get it right" (Emily, individual interview one, June 8, 2015). With the complicated music that she was determined to play, Emily said that she would keep working at it until it is right, which may take a number of practice sessions. Over time, she noted that some sections would inadvertently get resolved. When a tune required a lot of work to master, she said that repetition and persistence were key to success. Emily remembered an experience when she was preparing for a performance and could not get her hands to coincide, which illustrated her determination.

> I do, I do. I keep trying…I woke up at like two in the morning and finally figured it out, but it took so long to just do it. I don't know why. I thought I had it, I guess not. This is hard for me. (Emily, individual interview two, August 8, 2015)

During her observation in this study, Emily would play excerpts of songs over-and-over until she achieved success.

Repetition played an important role in how Emily learned music. She said that her approach to learning was a combination of trial-and-error and playing music over-and-over. For her, most musical excerpts had to be repeated five to ten times before she would achieve mastery. Likewise, Emily used repetition when practicing a song on the piano and when listening to the tune. To master the melody, lyrics, and chords, Emily said, "I listened to the song on repeat a bunch of times until I know the vocals well enough so that I can put whatever I need to behind it" (Emily, individual interview two, August 8, 2015)

When working on music, Emily played what she wanted to play when she wanted to play it. She described her practice routine as very disorganized and moving from song-to-song based on her interest.

> I just go all over the place when I play, I really do, I go all over the place. If something reminds me of another song I'm going to delve in to that, as well just the practice because it's fun to combine stuff and what not. (Emily, individual interview two, August 8, 2015)

As a warm up, Emily said she played scales long ago; however, she abandoned that practice because “it got really boring” (Emily, individual interview one, June 8, 2015). Instead, Emily preferred playing familiar songs to warm up. Further, she did not have a set practice time, which she said the following about.

> Practicing just comes whenever I feel like playing, if I feel like I should play, then I will. There's really no set time, there’s no oh I need to practice because, I really don’t have to. I would love to say that I practiced everyday, but I just don’t. (Emily, individual interview one, June 8, 2015)

If a piece of music was too difficult, Emily modified the chord changes, rhythms, or other musical items to make it work for her. Regarding her musical edits, she said the following.

> Um, if its too difficult. Like I said something is in B, I hate B, I hate B so much. I’ll just take it down or take it up, whatever works whenever I feel is best for the song and sound. Um, I don't really like a rhythm I’ll change that up. (Emily, individual interview two, August 8, 2015)

She added that changing the keys was not an issue for her because she played alone and did not have to worry about other musicians. When learning a song in a different key, Emily would look for resources in similar key signatures; however, if it were not available she would transpose the song on her own and use videos to observe the patterns used.

Another element that was spontaneous in her practice session was improvisation and making custom arrangements. Emily said she liked to write poetry and put it to music. Like her unplanned practice, she would improvise at various times of the day. She recalled improvising in her room and making a game out of playing in different keys, such as creating songs using only accidentals on the keyboard. Emily described her method of creating as “I find a melody then

add some chords...I try things and stop, if I don't like how something sounds, I'll keep trying" (Emily, individual interview two, August 8, 2015).

Charlie: Playing Bass to His Baby

I'm a father; I'm a fulltime working father and when
I come home my instruments are just kind of out on display.
So if I get five minutes I grab the guitar off the wall and just strum, I play.
(Charlie, Individual Interview two, 2015)

Situation

Since he used his birthday money to purchase a bass guitar at the age of thirteen, Charlie learned to play guitar, ukulele, piano, and bass on his own. He is a thirty-one year old European American community college student. He works full time as a landscaper, is married, and has a daughter. He described his home as musical in many ways, but a challenging place to practice.

When asked about his practice habits, Charlie stated that the amount of time he has to make music is "a little restricted with the baby and wife" (Charlie, individual interview two, August 9, 2015). In his home, he described a small corner dedicated to his musical instruments, which also included his toddler's tambourine, whistles, and other musical toys. He attempts to practice his instruments whenever he can and expose his daughter to music. Describing his musical interactions with his daughter, he said, "When I'm playing I'll get my bass off-the-wall, I tell her this is the bass, and have her strum it, and she does, so, that's a cool moment" (Charlie, individual interview two, August 9, 2015).

Reflecting on his first musical experiences, Charlie recalled playing guitar for the first time at the house of his cousin at the age of seven. As he watched his cousin play guitar, he became intrigued and eventually expressed an interest in the instrument. In response, his cousin let him try it and Charlie thought that the chance to play the guitar was amazing. Looking back, he found that he had always been around the guitar.

Recalling on his first encounter with the guitar, Charlie replied, “I didn’t even have the idea that I was gonna play bass” (Charlie, individual interview two, August 9, 2015). He considers bass guitar his primary instrument and when he plays with other musicians he identifies bass playing as his mission. When he was in middle school, he began playing bass to fulfill a needed role in a garage band.

> Truth be told about the bass guitar, is that I was in middle school, I was in a middle school band, there were four of us, I was the singer actually, so, and how good can eleven and twelve year olds be on an instrument in a full band, trying to be cool, I guess. But, the bass player was pretty bad, so, I had the idea, and you know, eighth graders are mean. (Charlie, individual interview one, June 12, 2015)

Reflecting on this experience, he noted that his first encounter as a bass player was based on necessity, though he found the instrument to be appealing from the beginning.

Another instrument Charlie plays is the ukulele. The first experience he had on the ukulele resulted from seeing an advertisement display at a major chain music store. Reflecting on this occurrence he stated the following.

> I was at *Guitar Center*, this is when, you know, they display really cheap ukuleles. Anyone can pick them up. The ukuleles themselves were on this cardboard rack, with like metal to hold the ukuleles, they had a cardboard cut out that had a chord chart right there. So you could literally just pick it up, look at the chord, and literally strum that chord…I was like yes, lets bring it home, lets take it, totally. (Charlie, individual interview one, June 12, 2015)

He found the ukulele easy to play and suitable for making his own songs. In addition, Charlie associated the ukulele with tranquility and simplicity. Specifically, he found that as he played the ukulele his worries just went away as he escaped into his own musical world. Reflecting on his time playing ukulele, he said, “I’m in my own little world with this piece of nylon” (Charlie, individual interview one, June 12, 2015).

Influence

The largest musical influence Charlie remembered from his youth was his stepdad. From the age of eight, he recalled the profound musical impact of his stepdad who was an eighties and nineties rock drummer. He reminisced about the access his stepdad provided to lots of music.

> Um, I knew he was a drummer and he had like this giant CD rack, so, really early on I was exposed to all that. He had these really big speakers and really nice CD player and I would just listen to all that. (Charlie, individual interview one, June 12, 2015)

As a kid, Charlie remembered digging through CDs and listening to as much music as he could.

His stepdad took him to purchase his first electric bass and show him a few basics. However, he said that these encounters were "never like full-on lessons" (Charlie, individual interview one, June 12, 2015). While he pointed out the musical impact his stepdad had, he also noted that "he influenced me so much, the more I think about it, but I never personally saw him physically play the drums" (Charlie, individual interview one, June 12, 2015).

Discussing his musical environment and instruments, Charlie commented that "I've just always been around them" (Charlie, individual interview one, June 12, 2015). In addition to his stepfather, he had a cousin that played the guitar. When he was seven years old he went to the home of his cousin and he was captivated; that is, he had an urge to play the instrument. During that time, his cousin allowed him to experiment, which he found intriguing. Charlie believed that this was an important component in shaping his musical interest and his eagerness to learn string instruments, such as the guitar and bass.

When asked about other influences, Charlie mentioned some popular musicians that play the type of music he listens to. Specifically, he mentioned the virtuosic electric bass player Les Claypool from the band *Primus* (American rock band), which he cited as having a sizeable impact on his playing and he considered him to be so good that he was "like an alien" (Charlie,

individual interview one, June 12, 2015). In addition to bass players, he noted that Anthony Green from *Circa Survive* played a major influence on his musical style. He admired the musical ability, audience command, and overall presence of these musicians.

Preference

Rock, disco, polka, bluegrass, heavy metal, and classical music are the genres Charlie says he listens to. In short, he will play anything as long as it is good because "if it's a good tune, it's a good tune" (Charlie, individual interview one, June 12, 2015). When asked what bands he prefers to listen to, he listed bands such as *Avett Brothers* (Folk Rock), *Circa Survive* (Rock), *Thrice* (Rock), and *Norma Jean and the Chariots* (Metalcore).

When discussing the type of music he liked to play, Charlie said a simple band with two musicians, such as a drummer and guitarist, is ideal. He stated that the music should be "real *twangy*, real grungy…um, single string notes, some strums, you know just simple guitar work" (Charlie, individual interview one, June 12, 2015). Of course, this varied from instrument to instrument. For example, he considered his guitar style as *twangy* (see Appendix A) and simple; yet, his ukulele playing he considered to display completely different stylistic features. Specifically, he stated, "when I play ukulele…I involuntarily write sad songs, that's just what I do" (Charlie, individual interview one, June 12, 2015).

On the bass, Charlie stated, "I like to *slap-and-pop* (percussive bass timbre produced by hitting and pulling strings), I like to play sweet little melodies, I should say" (Charlie, individual interview one, June 12, 2015). He identified the bass as an instrument that he was drawn to early on. He said that "it's a sexy instrument...I just look at a bass guitar and its pretty. I think that keeps me playing that instrument, the sounds you can get out of it" (Charlie, individual interview

one, June 12, 2015). Musically, he prefers a mix of personal compositions, original tunes, and whatever he is compelled to play based on his mood.

When determining what style of music he is going to play on various instruments, Charlie said, "I think it's just what naturally comes out of me at that point" (Charlie, individual interview two, August 9, 2015). To him the instruments are stylistically related. When discussing different styles on different instruments, he said the following.

> Ukulele is just soft, lovely, and easy strumming. The bass is usually derived from what I may have written on guitar, just simple melodies, some heavier. I play a lot of heavier tunes and some beautiful melodies that I tend to come across, I just go with it. (Charlie, individual interview two, August 9, 2015)

In all cases, he differentiates musical preference based on the instrument he has in his hands and his feeling at the time.

Learning

When coming home from work, Charlie would play his music really loud while paying attention to the musical intricacies. He said that he had a general idea of how to transfer what he heard onto his instrument. In fact, he said that he was almost always correct when he attempted to play it on the bass guitar. He described how he learned a song by ear in the following passage.

> When I'm going to learn a tune I'm going to use my ear…I know where this tone, is, I know where this tone is (making shapes with his left hand), or I know the general area where I think that tone is. So, if I'm going to learn a song personally I just turn it on and start playing. Usually, it only takes me about thirty seconds or so to find the like grounding, like root area where I'm going to start from. (Charlie, individual interview one, June 12, 2015)

He also mentioned that he spent a lot of time listening to music everyday, which was done in the car and at work. When attempting to figure out a melody, riff, or *lick* on the bass (see Appendix A), Charlie said that he did not use a recording. Instead, when learning a song by ear he said,

"I'll just sit there and try to play it…I've heard the song during the day so many times its just burned into my mind" (Charlie, individual interview one, June 12, 2015).

When he listened to songs, Charlie noted that he compartmentalized different parts to figure them out. Specifically, he separated each instrument in his mind to focus on what he was trying to learn. Regarding this learning approach, he stated the following.

> I think being able to separate things allows you to hear what you're looking for. So if you want to learn that song, I think it's a great ability to have to just go ahead and separate everything else and then learn the bass, in my case. I just stop everything else and tune in and listen to what each instrument is trying to do.(Charlie, individual interview two, August 9, 2015)

He did not listen to the music exclusively for the bass. Instead, he said that he listened to everything in the songs to include the bass, guitar, drums, and vocals, which he identified as cues.

For Charlie, hearing what sounded incorrect was important to his manner of learning music. If something did not sound right, he would find the correct pitch by trial-and-error. When he learned a melody, lick, or riff incorrectly he said the sound was "piercing, I guess it's too intense, it's crunchy" (Charlie, group interview, August 25, 2015). Further, he indicated that he did not focus on the key signature; instead, he just learned pitches, which he called *tones*.

Charlie sought advice from other musicians when he could not figure out a riff or lick. He recalled one instance where he wanted to learn the song *Blackbird* by the *Beatles.* He saw a musician at the community college playing it on the guitar and asked him how to do it. They sat down and the other musician took the time to show him how to play the song. When asked to reflect further on this event, he said:

> He didn't just play it once. He played it because I asked him to play it. Then, I got to visually see it and there are a few chords I don't ever play. Then he just showed me how to do that and that was just the process. After that I knew what those chords were

> and I went home and pieced it together and now I can play *Blackbird.* (Charlie, individual interview two, August 9, 2015)

Charlie continued by saying that collaborating with other musicians allowed him to become exposed to the approach others use. He said this is especially helpful when he gets stuck on a concept and does not know how to play something. Collaborating would allow him to ask another musician for guidance.

When learning from his peers, Charlie said that other musicians usually break a concept down by methodically showing him where to place his fingers, stopping to display hand shapes, or slowly strumming a pattern. He identified the combination of hands-on playing with his peers and watching other musicians play, as essential for learning something he cannot master. Simply put, Charlie said, "He just showed me how to play it on guitar" (Charlie, group interview, August 25, 2015).

According to Charlie, jamming with his friend Leo in Florida was an important part of his music learning experience. Recalling one occurrence with Leo, he said the following.

> When we were living in Florida and we were sitting in the kitchen he came up with this, he came up this little de de de de [sings descending lick and imitates with fingers], but it was supposed to be the lead riff over a rhythm guitar part. But, that just like instantly spoke to me, this was amazing, so, we started collaborating and it became a song. I mean, we went and had it recorded and all that. (Charlie, individual interview one, June 12, 2015)

While he was not in a band at the time of the interview, Charlie established that he valued making music with others as often as he could.

On the ukulele, Charlie said that what he plays and how he "learns just comes naturally" (Charlie, individual interview one, June 12, 2015). He indicated that he played and experimented. As a result, overtime he learned by playing along with recordings. He expressed that if he hears a wrong note, he just corrects it. When asked about how he learned on his own,

he said by playing and "if your not taught and you just want to learn something, you just do it" (Charlie, individual interview one, June 12, 2015).

When asked how he acquired technical proficiency on his instruments, Charlie said that he gained insight by watching web-based videos of other musicians and by playing with others, such as friends. Referring to his use of online videos, Charlie said, "Everything is hands-on, plus a couple videos on slapping-and-popping because no one ever really taught me" (Charlie, individual interview two, August 9, 2015). Additionally, he recalled watching famous bass players and conferring with friends to learn technique. He remembered seeing one of his favorite bass players slap-and-pop and afterward went home to practice for hours, until he achieved his goal.

> Watching one of my favorite bass players…slapping-and-popping, I remember I tried it for the first time and I wasn't articulating it properly to the hit the octave, I slapped it with my thumb [laughs] and I popped the other note with my ring finger and it sounded great, I was like ah. It's kind of like that whole Eureka moment…so, that was a cool moment for me. (Charlie, group interview, August 25, 2015)

Once he saw how it was done, Charlie would practice until he learned the concept.

Charlie put forth extra effort to ensure that he learned technical elements correctly, even when a riff or lick was complex. He recalled his devotion to learning something correct in the statement below.

> I try to make sure I'm doing the riff correctly. For whatever reason, like a Steve Harris song, you know *Iron Maiden*. Very hard, very fast, but I want to do it exactly how I'm supposed to do it, because I think that makes you better. (Charlie, individual interview two, August 9, 2015)

Occasionally, when a lick or riff was too difficult Charlie said he would modify it so it worked for him. When trying to master technique, he would use a metronome to make certain he was in time and slowed down to check note accuracy.

Resources

When asked what type of resources he used, Charlie initially mentioned listening to radio. Eventually, he discussed other music learning resources, such as method books, online sources, tablature, audio recordings, and video. While he used a few professionally published resources and relied heavily on his ear to learn music, Charlie noted the inconsistencies in web-based music learning tools when he stated, "You can look at the same song on the same website and you get totally different chords; so, it's just up to you to figure out what's right" (Charlie, group interview, August 25, 2015). A description of the resources he used is provided in *Table 7* below.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Method books	Learn basic technique, learn notation, learn tablature	"I think it was *Intro to Bass Basics* or something like that that I was learning how to like learn notation and like this note is an A or this note is a G. That was a really good book that I still use today" (Charlie, individual interview one, June 12, 2015).
Internet	*YouTube*, Google search engine,	How to play a song, look up videos of musicians playing tunes, see virtuosic players, find and listen to audio recordings, technique acquisition (how to slap-and-pop)	"With today's technology, you can quickly *Google* a song and the chords that go with it and just learn how to play it. If you know what the song sounds like your golden and if you know kinda what your playing" (Charlie, individual interview one, June 12, 2015).
Tablature	Tablature websites and method books	Uses tabs and listening to learn a tune	"I started off playing *tabs*… I can read tabs and I can use my ears. I'm slow at notation but I know what the notes are" (Charlie, individual interview one, June 12, 2015).
Other	Radio, VHS with band videos,	Selecting songs, active listening to learn a tune	"I think my favorite thing to do every single day…I listen to the local rock radio station all day, when I think about that, it's pretty cool" (Charlie, individual interview two, August 9, 2015).

Table 7. Self-learning Musical Resources: Charlie. This table is constructed from interview and observation data.

Process

Charlie described the process he used to learn music as being done when the urge to play struck him. For example, if he wanted to learn the chords for a song, he would pick up his bass and play different combinations until he could figure it out. When asked to describe the process he used to learn music, Charlie said the following.

> Probably run through a couple scales, pick my brain of something I was thinking of earlier then try to lay it down on the instrument, or whatever. (Charlie, individual interview one, June 12, 2015)

He discussed the importance of listening to a song over-and-over; thus, repeatedly playing a musical excerpt until he achieved mastery. In addition, Charlie mentioned that on many occasions he would learn a song that he heard earlier, which was stuck in his head. He said that if he knew the song well enough, he wouldn't listen to it when practicing. If needed, Charlie said that he used tablature and online videos to work on a song.

Playing along with an audio recording was another approach Charlie used to learn a song. He described this approach when he said, "I'll sit there and play along with it…if I get stuck or I fumble, I usually go back to the beginning and start all over" (Charlie, individual interview one, June 12, 2015). When playing without the recording he felt it was important to use a metronome; however, he revealed that he only used it about half the time when practicing. In addition, his aural approach to learning songs required sizeable amounts of time listening and practicing. At the time of this study, he said that he could figure out the general characteristics of a song in about five minutes, though this was not always the case. For Charlie, understanding and learning the details of a song required lots of time and focused study, which was a combination of listening and trying to find notes.

To identify and remedy musical problems in his playing, Charlie would detect and resolve issues by attentively listening and correcting musical mistakes. He believed that his experience playing had provided him with a solid foundation to identify musical errors, which he talked about in the following excerpt.

> I don't know. I hope I'm not sounding like a jerk but I know when this note sounds right or if it's off just a little bit, then I fix it. In my head, I know what it sounds like, I've heard it twice that day, so I go home when it's pretty fresh in my head, I've been listening to it all week and I just play it, it's easy. (Charlie, individual interview two, August 9, 2015)

When he heard an error, Charlie slowly played strumming patterns, incorrect chords, or other musical problems until he identified the issue, found a solution, and executed it correctly. Charlie would also check the transitions made when moving from one *chord shape* (see Appendix A) to another. Or, if he could not figure out a melody, he said he would sit and play the first few notes until it was figured out. He used his singing as an example of hearing and correcting pitch errors. While he iterated that he was not a singer, he was confident that he could hear pitch errors when singing or harmonizing and adjusted his pitch when needed. Charlie simply stated, "I know if I'm out of pitch or I'm hitting the right notes because it just doesn't sound right" (Charlie, individual interview one, June 12, 2015).

For Charlie, asking fellow musicians or searching the Internet were other approaches to solving musical problems. His friend Leo worked in a guitar shop and frequently jammed with him. When Charlie encountered a musical problem he was confident that Leo would have a solution. When playing with other musicians, he said it was easy to seek advice for musical problems.

> If someone's playing guitar or someone's playing bass, you know, if you're near them or spending some time with them, I say hey how do you play that? Then they show you. (Charlie, individual interview one, June 12, 2015)

While Charlie did say that he used the Internet to solve some musical problems, he stressed that it was infrequent because someone like him "just doesn't have the time to sit down on *Google* or sit down at my computer and hit play, hit rewind, and sit there and play, because I don't" (Charlie, group interview, August 25, 2015).

When asked what process he used to learn a song, Charlie reiterated that he played the bass riff, chord progression, or other musical concepts over-and-over again. He illustrated the importance of repetition in his learning process in the following statement.

> Over-and-over-and-over-and-over-and-over-and-over again. Play the riff over-and-over until you are literally sick of it or until your fingers bleed and you can't play anymore. You know, or until you have to go home or go to bed or whatever it is. (Charlie, individual interview two, August 9, 2015)

If a musical passage was too difficult, Charlie said that he would play it and replay it slowly until it was mastered. He would also use repetition when he messed up. However, he said that he would not just review the segment that he misplayed; instead, he would start from the beginning to play the song in its entirety, which he would do repeatedly.

Charlie believed that being a father made it difficult to have a practice regiment; so, he picked up his bass guitar whenever he could, which was intentionally positioned in his living room so he could see it. Charlie said that he practiced "when daddy gets some alone time" and what he played was "whatever comes out of me at that moment" (Charlie, individual interview one, June 12, 2015). During his observation in this study, the varied nature of his practice routine was evident. Occasionally, he would abruptly stop while playing a tune, to then play another riff, or he would change styles in the middle of groove, which would lead to focused practice on another song or musical idea.

Diaz: Jazz Pianist Who Carries Drums on His Head

I know if I can hear it I will pick it up quicker; so, listening is the way I learn.
(Diaz, individual interview one, June 10, 2015).

Situation

When he was first exposed to the drums, Diaz met a church pastor who could play a few *grooves* (see Appendix A) and it fascinated him. Once the pastor discovered that he had an interest in music, in particular drumming, he had Diaz put all the smaller drums into the bass drum and carry it to the church. When they arrived at the church, the pastor made him set it up. Reflecting on this encounter, he said that his pastor told him, "Here is the drum set…I will teach you how to play" (Diaz, individual interview two, August 12, 2015). Later, Diaz noted that the pastor did not teach him anything formally; instead, he just watched.

An international student from East Africa, Diaz grew up listening to *Afro-pop* (popular African Music), *Afro-folk*, and traditional East African music, which he identified as "music from my homeland" (Diaz, individual interview one, June 10, 2015). At the time of the interviews, he was a twenty-eight-year-old male community college student. His major is general studies and he plans on transferring to a four-year institution of higher education, once he completes his associate's degree at the community college.

Influence

Reflecting on his musical influence, Diaz identified his environment as being abundant with musical experiences. He pinpointed his home as a starting point for his musical happenings. He stated, "I started playing music on the drums and that happened because in my home…my family used to host a lot of musicians and they would rehearse there and the drums spoke more to me" (Diaz, individual interview one, June 10, 2015). As he was exposed to different musicians and instruments, which included traditional East African instruments and western instruments

(guitar, bass, drums, piano, and accordion), he gained an appreciation for many musical instruments and styles.

In addition to his pastor, his sister had an essential role in fostering an influential musical environment. For example, she often took him to listen to her pianist friend, George. His sister would take him to practice sessions and George would sit Diaz down right beside him. Reflecting on this experience, Diaz said the following.

> So, George would make me go in the practice sessions and he would sit me right next to him, when I was a kid, and the whole time they used to practice. They used to practice through the night, from midnight to seven in the morning, and all I did was stare. (Diaz, individual interview one, June 10, 2015)

He recalled that he sat there the entire time they practiced, just listening and watching the band play.

In addition to his sister, Diaz had a cousin who inherited a collection of gospel music Compact Disks (CDs), which he identified as having a profound influence on him. This collection contained about fifty CDs, which his cousin obtained from a friend that came from the United States. Diaz recalled that when he heard this music he was captivated by the totally new sound and the many musical possibilities. Like this experience, he believed that continually listening to new music motivated him to keep searching for innovative musical ideas to improve his ability.

Diaz identified playing with others as having a substantial effect on his musical development, especially in his church and jamming with friends. When he moved to a larger city as a teenager he was invited to play drums in the largest church in his country, where he said he was exposed to a lot of excellent musicians. Of course, he said that this was a result of his being in the congregation and the pastor recognized him and made him come up and play. He noted that playing with older and more experienced musicians taught him a lot in informal settings. For

example, older musicians would make suggestions and guide him musically. Reflecting on other musicians he said the following.

> A lot of influence comes from other good musicians that helped me grow…it was more like figuring it out. Then we'd play it again and we'll listen to it and say yeah, that sounds good. (Diaz, individual interview one, June 10, 2015)

While he did occasionally find it frustrating to play with older musicians, such as when he was asked to simplify a riff or when he was told he was playing something wrong, he recognized that the influence of older musicians in church was significant.

Preference

Diaz listens to a number of East African musicians, such as *Baaba Maal* (Afro-pop musician). He mentioned his preference for popular western musicians, such as Michael Jackson and Stevie Wonder. Gospel music was also considered a listening and playing preference. While Diaz pinpointed traditional East African, popular, and gospel music as his major styles, he indicated that jazz is at the top. In fact, he stated "if I could sum it down to just one word, I would say I play jazz" (Diaz, individual interview one, June 10, 2015).

Comparing East African traditional music and gospel music, he said:

> Our music, African music, is very simple. Its more rhythmic music, but, as far as harmony, you know nice extended colorful sounds we don't tend to use that a lot. So, the first time I listened to a gospel recording and I heard this incredible music that had so many colorful sounds, I loved it. (Diaz, individual interview one, June 10, 2015)

Specifically, he was attracted to the blend of African style drumming and western harmonies. When he considered his musical preference for this style, he said the following.

> I listened to the drummers, because I played drums as my first instrument, I heard that the rhythms that they were very African. But the way they put it together with these western harmonies, it sounded so fresh and the music kept, you know like, it kept every second it was something new I had. So, I fell in love with that music. (Diaz, individual interview one, June 10, 2015)

While Diaz noted that he has a love for gospel, he has an inclination for the musical freedom that can be expressed in jazz. Reflecting on his preference for jazz and gospel music he stated.

> I wanted to learn it and that was just a glimpse. That was before I found out about jazz and when I heard jazz, be bop, I said oh my God… it takes it to another level…what new sounds can I come up with? That's something I have found in jazz and that's why I listen to a lot of gospel, but, I think jazz takes it to a new level. (Diaz, individual interview one, June 10, 2015)

Diaz discussed his preference for the structure of a jazz tune, head-solo-head, which he found liberating because it allowed him to improvise and express his musical ideas. When asked what he was looking for in music, he found written musical notation limiting.

> I hear music inside of music, I don't want to keep to what is on paper, I think there is more beyond that…the whole concept of freedom, to express ideas and emotions, to break boundaries, I call it Gods own music for sure, jazz is God's own music. (Diaz, individual interview one, June 10, 2015)

Diaz indicated that his preference for the jazz idiom influenced all the music he plays. In short, he proclaimed that when he is making any music, "I try to make it jazzy" (Diaz, individual interview one, June 10, 2015).

Learning

When asked how he learned music, Diaz responded that everything was by ear. He said, "If I can hear it I will pick it up quicker; so, listening is the way I learn" (Diaz, individual interview one, June 10, 2015). His approach included listening to music all the time and when a song was complex, he would listen to it repeatedly. Listening played a significant role in learning both pitches and rhythm. Specifically, he recalled listening to songs, while at the piano or with his guitar in hand, and tinkering to "find the sounds" (Diaz, individual interview one, June 10, 2015) that he was trying to reproduce on his instrument. On piano, this was illustrated repeatedly during his observation. When observed, he listened to a musical clip on his computer, attempted

to play the excerpt on the piano, clicked back in the *track* (audio recording, see Appendix A) and re-listened, then played it again until it was correct.

Diaz noted that he preferred to learn tunes on his own by listening to them and figuring them out. He said that learning by ear took a long time, but he also had to learn quickly in some circumstances. For example, when he used the radio it took a long time because the songs could not be repeated. Regarding these different approaches to learning by ear he said the following:

> I'm one of those people who everything was by ear. I remember learning how to play guitar I spent months, hours, everyday I would wake up, turn on the radio and flip through station after station and whatever song was playing, I would get the guitar, and sometimes by the time I would figure what I'm hearing the song was ending and I would turn to the next station. (Diaz, individual interview one, June 10, 2015)

He also remembered receiving $300 to purchase music, which his family thought was a waste of money because he spent it all on audio recordings to listen to and learn songs.

To learn a song, Diaz separated parts as he listened to the music. Initially, he stated that what he heard on the recording was too quick. Specifically, he could hear the instruments, yet he could not distinguish the musical intricacies. After about a year of listening and trying to transfer what he heard onto his instrument, Diaz found he was able to isolate parts and figure them out. While he relied predominantly on his ear for musical learning, he also learned to read some music, which he said allowed him to check the accuracy of some jazz tunes. When listening to a song, Diaz focused on salient components and separated them to understand various elements in the musical work. Regarding his separation of parts, he said:

> I also learn songs by breaking them down to the most important parts. Sometime this things I don't really matter if you learn them or not. So I always try focus on the most important things. (Diaz, group interview, September 18, 2015)

For him, breaking down a piece included hearing chords, melodies, and other parts.

Diaz felt that listening was a valuable part of music learning and an important component of musical communication. He said:

> Ah, I think the most major aspect is obviously listening. Listening is very important for me I have learned that listening gives you what music is all about. Its feel, its emotion, its communicating, and the process of communication, just as people speak, listening is just as important as saying something. So, that's what makes it communication. (Diaz, individual interview one, June 10, 2015)

Prior to becoming a musician, he believed that his background in listening to a lot of gospel music prepared him to listen and play other musical genres, such as jazz. Diaz recalled playing with his peers, who also played by ear, and they could identify errors in his musical interpretation. He also believed that there are multiple ways to learn music. Regarding the value of different approaches, Diaz said, "I don't think there is one single way to learn, I think it is a collection because I visualize and then do it by ear and now I can read some" (Diaz, individual interview two, August 12, 2015).

When asked about the influence other musicians had on his music learning, he stated, "A lot of influence comes from other good musicians that helped me grow" (Diaz, individual interview one, June 10, 2015). He noted that listening and watching others play guided his learning; however, he also indicated that he could not identify any one person who taught him how to play. He described casual learning with his peers as listening to the music and then figuring it out together. When he played and learned music with his peers, Diaz said that his friends could hear his mistakes and then he would fix them. He valued aural skills and relied on his fellow musicians to hear inconstancies when he played a tune. He recalled, "I would never have had heard that, it takes a very experienced musician to hear that" (Diaz, individual interview two, August 12, 2015).

When collaborating with others, Diaz believed that musicians who learned like he did worked better with him. Specifically, he felt that musicians who played by ear, instead of notation or books, played best when jamming. But, he noted that playing with others, especially by ear, could be intimidating for musicians who prefer to learn another way. He said the following about playing with others:

> People are just afraid to take a risk. Like me, when I first played in the church it was so terrifying, but I did what I can and the more I listened to what's going on, the more I got it. (Diaz, individual interview two, August 12, 2015)

He indicated that once everyone listened and learned from each other, the music became *tight* (very together) and *grooved* (rhythmically danceable).

For Diaz, communication was an important component of collaborating with other musicians. He viewed musical communication as a language, which he discussed below:

> Playing with other musicians is like a language and you have to communicate and speak. We even learn how to talk as babies we have to have people we talk to. It's the same thing with music. So when you play with other musicians you constantly develop a new way of understanding how to communicate. (Diaz, group interview, September 18, 2015)

By communicating and collaborating with other musicians, he felt that his musical skills and vocabulary improved. Further, he believed that his experiences with skilled musicians in church had a lasting impact on his ability to communicate clearly to other musicians and the audience. Of course, Diaz noted that this came with some criticism from older musicians, such as, “You have to keep it simple here” (Diaz, individual interview one, June 10, 2015). While he did not initially like the critique of older church musicians, he recognized its value as he learned music.

While Diaz felt that collaboration was an important part of his music learning, he also said that some musical concepts just came naturally to him. When learning a musical excerpt or a song, he said that “no one can show you how to get there, you just have to do it” (Diaz, group interview, September 18, 2015). After church rehearsals, he recalled going home and trying to

figure out the music on his own, though he said the sheet music was not always accurate. Also, he described how drumming seemed to come naturally in the statement below:

> The whole concept of how does one man divide four pars with his body into different parts and yet come out as one sound. That was one thing that I was lucky, it was natural, eventually a friend of mine sat me on the drums and said okay let me show you, it just came naturally. (Diaz, individual interview one, June 10, 2015)

Diaz believed that he had a natural disposition for a number of musical concepts, especially rhythm, which he identified as the most complicated component of music.

When Diaz discussed how he learned on his own, he remembered a good friend giving him a *Wes Montgomery* (a famous jazz guitarist) album. With limited experience on guitar, he said that he was determined to play the whole album. After a month of figuring out a tune on his own, he was able to play one song. When he learned a complicated musical excerpt, Diaz said that he would work alone on many occasions, such as when practicing a drum groove repeatedly until he mastered the rhythms. He also taught himself to read music by spending time at home practicing with books and recordings until he understood music notation.

To acquire technique on his instruments, Diaz said, “I heard music a lot, so, I just put my hands on the keyboard and played…most of it wasn't really the right stuff, but it wasn't bad” (Diaz, individual interview two, August 12, 2015). When he turned twenty-one years old, he spent about six months practicing the piano; however, he found that technique was a shortcoming. He received a piano scale method book from a friend; yet, he could not read music. So, to resolve this issue he purchased another book, which explained how to read music notation. He stressed that he went through both books at the same time. He believed that this exercise “set a foundation for me and allowed me to build and get to where I am right now” (Diaz, individual interview two, August 12, 2015). Likewise, Diaz used a book to learn jazz harmony. He stated that he spent a lot of time working on jazz harmonies from a book because he wanted to ensure it

was correct. While he spent time on technique, Diaz stressed that feeling was more important than technical skill and that he "did not really want to be a technical player" (Diaz, individual interview two, August 12, 2015).

As he played the piano, Diaz continually looked at the keyboard. When asked why he did this, he said the following:

> For me seeing it gives me more confidence, it makes me feel like I'm in control because I didn't start by reading, if I keep my eyes up I'm fifty-fifty. I think I might play a wrong note but I don't want to because I'm not sure I make a mistake. When I look at it, the keyboard, I'm going to play the right thing. This gives me the ability to manipulate the mistakes and kind of play with it and make it sound right. (Diaz, individual interview two, August 12, 2015)

Diaz believed that looking at the keyboard ensured that he could master a piece of music. During his observation, he continually glanced at a *lead sheet* (written melody with chord symbols, see Appendix A) and the piano keyboard.

While he worked on technique when learning a song, Diaz also stated that he worked on technique separately. Describing his approach, he recalled working on *Joy Spring* by Clifford Brown (famous jazz trumpeter) and meticulously figuring out complex musical figures in the song. He recalled struggling with the excerpts and practicing them over-and-over until he achieved success. Recalling this experience, he noted that it was essential that his "fingers be in the right order" (Diaz, individual interview two, August 12, 2015). Initially, he learned technique by intently listening to recordings, then figuring out the excerpt autonomously on the piano, bass, guitar, or drums.

In addition to listening, Diaz also used web-based videos to learn technique. He recalled using the Internet when hearing a professional bassist playing licks that he could not figure out.

> I had to go to *YouTube* and the first time I saw this guy, you know, *Victor Wooten*, he was actually doing miracles on this instrument and that's how I begin to build my technical proficiency. (Diaz, individual interview one, June 10, 2015)

Using videos, he learned different technical skills that changed the way he would approach his instrument. For example, he said the following about using an online video to learn percussion technique:

> I remember I learned how to relax my leg, my feet, when I was playing. I used to use so much energy and every time I would get off the drum set it was like I had been running fifty miles… until, I was watching a video by John Blackwell, a drummer, and teaching how to play drums from your wrist instead of your whole arm…now I know there is something about relaxation and its not about power and command. So, that's how I learned technique. (Diaz, individual interview one, June 10, 2015)

Diaz used videos to gain further insight regarding technique.

Diaz believed that learning music was similar to learning a language. Like learning a language, he said that technique is not really something he thought about; instead, it is just something he did. For example, Diaz recalled learning drums by ear and not really thinking about technique until it was necessary:

> If I heard someone play [sings drum rhythm with a roll and accents], and sometimes it meant you don't know what their doing, so sometimes your ignorant and you make mistakes, sometimes those mistakes can cause you to leave a place hurting a muscle and you realize there's something they are doing right. (Diaz, individual interview one, June 10, 2015)

He would learn drum grooves or *rudiments* (drumming fundamentals); however, he did not really know what they were. As he progressed, Diaz said he still was not concerned with the technical names for what he was playing because, to him, it was all by ear. To gain these insights about technique, Diaz believed his friends and "God given talent" (Diaz, individual interview one, June 10, 2015) were essential. While he initially did not really think about technique, he did work on a concept until he was proficient.

As Diaz grew as a musician, he felt that technique was valuable. He believed that by using books, videos, and friends, he was able to acquire proficient technique on his instrument.

This was evident during his observation; his piano technique looked well formed, with curved fingers, straight wrists, and fluent fingerings. While Diaz said that he did practice technique separately from learning a song, he also acknowledged that once he mastered a skill he no longer thought about technical components; instead, he just played.

Resources

With listening being central to how Diaz learned music, many of the resources he used included an audio component. He used a variety of resources to learn music, which included method books, online resources, and audio recordings. Initially, Diaz listened to music on the radio and had to learn the tunes very quickly because he could not hear them again. Eventually, he secured additional learning devices, which he felt were useful. The table below includes descriptions of the resources Diaz used.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Piano method books, jazz song books, *Real Book*	Learned how to read sheet music, learned chord voicing, technique acquisition	"I remember a friend of mine was coming from the US and I asked him to get me a book, and I didn't even know how to read music, but I was going to figure it out. So, I sat down, it took me one month to learn one song" (Diaz, individual interview two, August 12, 2015).
Internet	*YouTube*	Watch musicians play to figure out what they were doing, technique acquisition	"When technology started advancing in my country, we started accessing *YouTube* that was very resourceful… They would breakdown the concept" (Diaz, individual interview one, June 10, 2015).
Other	CDs, Walkman, radio, television, DVDs	Figure out melodies, chords, and rhythms of a song	"I would listen to CDs or radio and find one note at a time, you hear harmony, you hear it but you don't know what it is…it took me a week to learn a whole song in the beginning" (Diaz, individual interview one, June 10, 2015).

Table 8. Self-learning Musical Resources: Diaz. This table is constructed from interviews and observations in this study.

Process

The process Diaz used to learn music evolved as he gained more experience on the piano. When he first started to play, he said that his approach to learning music was strictly by ear and it took him a long time learn a song, sometimes an entire week. Initially, he would listen and find each pitch note-by-note. At the time of this study, Diaz described his music learning process as follows: (1) He found a song he wanted to learn; (2) then he listened to the whole song about five times; (3) he took time to learn the structure of the song; (4) he committed the form to memory; (5) he then memorized the chords and melody of the entire work; (6) he found any areas that were problematic and learned them; (7) he played the song and any excerpts repeatedly until he mastered it. He indicated that this process was not done all at one time; instead, it could take a week or even a month to complete, depending on his schedule. In addition, Diaz said that when he became tired of something or did not feel like playing, he would stop and come back to it later.

During his observation in this study, Diaz set up a laptop on the piano and a book with jazz lead sheets, which he utilized in the following way during his practice session. First, he listened to an excerpt of the jazz tune. Second, he played the bass line with his left hand on the piano. Third, he listened to the excerpt again and tinkered with bass notes as he listened (a process he repeated multiple times). Fourth, he sang the melody as he played the bass line. Fifth, he played the melody in his right hand and the bass line in his left. Sixth, after listening again, he looked at the lead sheet and played a few bars using different chords. This was done in rapid succession and then reversed with the right hand, which was illustrated during this observation:

> As he does this whole sequence with the right hand playing melody, his left hand is on his MacBook Pro to start, stop, and rewind the recording, his right hand is playing the phrases on the keys, his feet keep tapping even when the recording stops, his eyes are

> moving back and forth fixed on either the music or keys or the computer. (Diaz, observation, July 28, 2015)

For all stages in the process used by Diaz to learn a tune, he listened to music repeatedly. In his first step, which was to listen, he did it a number of times to ensure he understood the song. As he practiced, Diaz used repetition to learn the music. During his observation in this study, he played the same track over-and-over in ten second increments, in longer segments, and as a whole. At times, he played excerpts many times and gradually increased in tempo. He also listened to recordings repeatedly as he worked on learning a piece of music.

Diaz said that he had a routine and plan to provide structure to his practice. Although he said, "I'm not very rigid to it," he felt that a plan provided goals and accountability. While his practice routine is not completely predetermined, Diaz said, "I wake up and say am I going to sit with the bass or piano and this is what I'm going to work on" (Diaz, individual interview one, June 10, 2015). When making goals for his practice session, Diaz would work on a song until he could proficiently play the entire song or predetermined excerpt. Of course, if he became bored he deviated from his original plan. To highlight this, he stated, "I will stop everything and change the subject and go to that so I can refresh myself up with something new" (Diaz, individual interview one, June 10, 2015).

To solve musical problems, Diaz broke down the song, slowed down, sought help from others, and checked his work. When playing a well known jazz tune, he described the importance of breaking the tune down to learn it:

> Working on a piece like *Giant Steps*, that's a song that uses so many chords, its like [sings intro melody to *Giant Steps* (song by jazz saxophonist John Coltrane) and the first time I heard it I thought how can somebody possibly improvise on such a song; but, then I broke it down and learned the chords very well. (Diaz, individual interview one, June 10, 2015)

Diaz also slowed down what he played when he encountered problems, For example, he would play the bass line slowly and eventually added chords, which he previously rehearsed, in the right hand.

Diaz sought help from others by asking musicians and non-musicians. One example was when he asked a friend to help him by having a conversation while playing piano. Remembering this occurrence, Diaz said the following:

> I know that like lately on the piano I've been trying to experiment with playing two different timings, you know and see how that feels. The freedom, sometimes I like to play while engaging myself in a conversation with someone and see, …You know, speak well while I keep the music going. How am I going to be able to do that without actually stopping the music? So there are times where I will have some friend talk to me and say yeah, just keep talking and try to be very engaged in the conversation, but, also try to keep playing in tune with what is going on and its not easy because the brain tends to want to focus on one thing at a time. But, I know its possible. (Diaz, individual interview one, June 10, 2015)

He also received guidance from other musicians, which was discussed in the learning section of this study. As illustrated during his observation, Diaz checked problematic sections in the music by looking at the chords listed on lead sheets.

As a jazz musician, improvisation was an ever-present part of the approach Diaz used to learn music. During his observation in this study, Diaz modified his embellishments as he worked on melodies. He also improvised over the chord changes as he became comfortable. Diaz mimicked other jazz musicians and later added his own variations, which he discussed below:

> When I hear somebody else do it and they do it better then I try to be creative. Sometimes I will borrow other people's ideas and sometimes I will say ok, well how can I borrow something because we all learn from each other. But then, some learn how to personalize things and make them their own and that takes a lot of creativity. (Diaz, individual interview one, June 10, 2015)

For Diaz, the creative process was an experimental approach that was part of his recurring musical practice.

Jake: Banging the Crap Out of the Drums

I just like bangin' the shit out of things…that was my little kid mentality, I want to go beat on this thing that's like really nice and fancy and it's apparently okay (Jake, individual interview one, June 16, 2015).

Situation

Growing up in a family of all musicians, Jake has been around music as long as he can remember. He is a nineteen-year-old drummer whose ethnic background is a mix of Native and European American. He lives in a rural town in Lake County, which is about ten miles from the community college. He is pursuing an associate's degree in business. While he identified the drums as his primary instrument, Jake also plays guitar, keyboard, and sings. On each of these instruments, he focuses on *classic rock* (rock music before 1990, see Appendix A) and *modern rock* (rock music after 1990, see Appendix A). Prior to entering the community college, he was homeschooled.

Reflecting on his early musical encounters, Jake remembered getting his first opportunity to play the drums when he was six-years-old. His family was playing a song at church and they needed a drummer; so, they asked him to play drums. When discussing the experience, Jake said the following.

> I like learned it and it was, like, really bad. It was really really bad, but hey, I learned it in literally like a week, so for a six year old it was decent, despite being how crappy it was. (Jake, individual interview one, June 16, 2015)

Prior to his drumming in church, he remembered that his dad gave him a small guitar, which he can still play.

After his experience playing drums at age six, Jake took a break from the drums and focused on learning the piano on his own for a couple of years. At the age of ten or eleven, he

eventually ended up in another situation where his family needed a drummer. Recalling this encounter, he said:

> Victor [older brother] was playing guitar and my other brother was singing and they were like, well we need drums, so I just got on the kit and that's kind of how it started. My dad came down later on that night, he's like ah cool I'll play with you, he ended up grabbing a bass and we were all jamming together in the basement. (Jake, individual interview one, June 16, 2015)

In his description, Jake stated that the reason he plays the drums is a combination of three things. First, being stuck on percussion because his family needed a drummer. Second, he wanted to be different than the rest of his family, who all play guitar. Last, he plays the drums by choice because "its cool to play" (Jake, individual interview one, June 16, 2015).

Influence

Playing music before he was born, his mother, father, and two brothers, had a lot of musical influence on Jake. In fact, everyone in his family played guitar. His parents played in bands prior to his birth and music has been ever-present in his life. He stated that playing music was almost expected in his house and it was "bred into him" (Jake, individual interview one, June 16, 2015). When discussing his father, Jake said that his dad had an enormous impact and was sometimes intimidating:

> My dad has played a really huge role… he told me one day after a couple of weeks of playing with him that he had fired so many drummers. That was kind of intimidating to me. I'm like, so I got to be better and play on tempo and whatever. (Jake, individual interview one, June 16, 2015)

His dad also provided some guidance by giving suggestions and telling Jake to play with finesse. His father was a guitarist; so, Jake felt that his dad could not really show him any of things he was talking about. But, he would always try the ideas that his dad suggested.

Beyond playing drums, the type of music that Jake listened to was influenced by his parents. Jake remembered a lot of opinionated statements from his parents, which he identified as

having an impact on the music he likes and dislikes. Discussing musical influence of his parents he said the following:

> It has to do with my parents' opinion. Like growing up they would always be like rap sucks, raps crap…they hated pop, they hated rap, I felt like that really influenced what I listen to, mainly because they would turn it off and say don't listen to that. They would say this sucks…it definitely had a major hand in shaping what I listened to. (Jake, individual interview one, June 16, 2015)

In addition to his immediate family, Jake mentioned the influence of his grandmother who, he said, "was as awesome pianist" (Jake, individual interview one, June 16, 2015). He recalled that his grandmother could play the music from classical composers, such as Beethoven and J. S. Bach. He recalled the stories she would tell him about her practice routine as a child, where she would sit down for hours everyday and practice. When he was a kid, his grandmother would visit, Jake would ask her to teach him something on the piano; however, he said, "She was really impatient in her older years… and when I couldn't get it she came down on me so hard" (Jake, individual interview one, June 16, 2015).

Outside of his family, a handful of famous drummers were identified by Jake has having a profound influence on him. Specifically, he identified John Bonham (famous drummer) from the classic rock band *Led Zeppelin* as being the greatest role-model for him as a drummer. He was exposed to a number of famous drummers from the 1970s and 1980s. In addition to his family, which Jake said inspired him to play and pushed him to keep playing, he also watched videos of classic rock drummers on a regular basis, which he identified as a source of inspiration.

Preference

When asked what type of music he preferred, Jake responded, "I listen to a lot of classic rock, a lot of newer, um like newer rock" (Jake, individual interview one, June 16, 2015). He felt that he listened to and played this musical style because it is the genre that his family played, and

the type of music that he grew up with. When asked why he preferred to play rock music, he said the following:

> I like rock better because it's more straightforward, is not like candy coated, it doesn't have cute metaphors and things, like lets roll around pollinate like bees or something, you know, I don't like that, I like straightforward attitude. (Jake, individual interview one, June 16, 2015)

Beyond classic rock, Jake said he also likes to play and listen to country music because his mother exposed him to this musical genre a lot. In particular, he noted that he does not like to listen to *new country*. Instead, he prefers to listen to and play *old country*, which his mother listened to. While his grandmother introduced him to Hungarian classical music and jazz as a child, he stated that he does not prefer that musical style.

Learning

Jake mentioned that listening played a central role in how he learned to play music. He said that he listened to music in two ways. First, he listened to music to get a feel for the song. Second, he listened to a tune to break it down (active listening) and learn the parts for the song. He illustrated the importance listening played in how he learned a tune in the statement below:

> When I play something in the band I don't ever know what to play unless I've heard the tune because I don't know the feeling of the song yet. So, if I'm listening to something before hand, even if it's just one time I can get a feel of it. Like, this is doing this here and I will kind of mimic it. (Jake, individual interview one, June 16, 2015)

To get a feel for the tune, he listened to music while doing everyday tasks, such as hanging out at home, cleaning, or driving in the car. While he listened to a song to get a feel for it, Jake also played along or sang:

> If I'm driving I'm usually singing and beating on everything that surrounds me like on the dashboard and steering wheel. In the car driving listening to it, I'm just listening to it. I'm not like this goes here, and this goes here, and this isn't part of the song. I'm like whatever. (Jake, group interview, August 25, 2015)

While listening to songs leisurely, Jake would identify songs he liked and what tunes he would want to learn later on. If he wanted to learn a tune he would devote time to learning that piece of music.

When actively listening to a song to learn it, Jake said he would break it down in his mind to hear the individual parts. When asked how he broke it down, he said he listened to chord changes, rhythms, and tempo variations. On the drums, Jake listened to the snare first and then learned the other parts subsequently, such as the bass drum, hi-hat, and tom fills. While singing a tune, he said that he would not think about the drums and other instruments. Instead, he would focus exclusively on the vocals. He also listened intently to a song as he played along, which he described as follows:

> Just listening to it. I usually have my amp and the song at an equal volume so that I can hear them both. A lot of times I'll have the song just a little bit louder so I can really listen to the changes in the chords. Anything like that, but I'll listen to it really intently…I want to learn how to play the song exactly as it goes. (Jake, group interview, August 24, 2015)

In short, Jake distinguished casual listening, during which he listened to a song to fill time or enjoy it, from listening to a song with the intention to learn it.

Jake believed that collaborating with his family and others was an important part of how he learned music. His mother, father, and brother all played music, which exposed him to playing with others at an early age. As a result, Jake jammed a lot with his family in the basement, which he described below:

> We usually just go down and run each song a couple of times until we all get sick of it and I'm like let's just move on and sometimes we'll revisit it later. (Jake, individual interview one, June 16, 2015)

When jamming with his family, Jake recalled that he would often argue with his father about musical ideas and how things go. Typically, his brother and he started jamming on a song and

then his parents would come downstairs and add in. He recalled that they often listened to songs as a family and then played them together.

In addition to playing with his family, Jake collaborated with other musicians and used repetition as an approach to learn songs with his musical peers. To learn songs when he played with other musicians he said that repetition was the approach he used. Similar to jamming with his family, Jake said that when he jammed with non-family musicians, "We would also just screw around and we just knew that if someone was going to go somewhere, we would all go there too" (Jake, individual interview one, June 16, 2015). He added that this did not happen initially; instead, it took time for him and the other musicians to connect.

When he jammed with others, Jake believed skill level mattered. He found that playing with older and more experienced musicians, even if he never played with them before, made the music flow and connect. This experience and input from other musicians was important to Jake, which he described below:

> You get to play off each other, you get the feed off each other. Whenever me and my brother played together you're always bouncing stuff off each other. It doesn't matter from different instruments or not, we're always bouncing…I'll start playing something and then we branch out from there, or vice versa. It's kind of like it helped grow and think about what other kind stuff you can play, at least for me we play that song or try stuff that's more like this, you know, just stuff like that. It helps you grow. When you play by yourself all the time you're not getting that input and influence from someone else. The other person can become the driving factor to push you to be better. (Jake, group interview, August 24, 2015)

Jake added that when he played with other musicians they would notice mistakes, which may have never been noticed when playing alone, and then work together to figure out and remedy the issue. He also felt that other musicians helped him improve by sharing ideas and inspiring him to think about how he could improve.

Jake employed trial-and-error as he learned to play drums, guitar, and piano on his own. His father would tell him to play drum grooves a certain way. In response, Jake indicated that he used trial-and-error to figure it out and said, “I was like okay, but, I got to figure that out for myself” (Jake, individual interview one, June 16, 2015). Likewise, his father showed him how to play a few initial chords on the guitar; however, Jake mentioned that he learned the rest by experimenting. On the piano, he remembered watching other pianists play and later, trying to figure out what they did as he attempted to play the music.

To acquire technical proficiency on his instrument, Jake sought advice from his father and watched others. He did note that his dad was not a drummer, but always had plenty of advice to provide based on his experience playing with drummers. When he was just starting to play, Jake recalled telling his father that his arms hurt when he played; in response, his dad told him to play with his wrists. Jake added that his dad never demonstrated anything on the drums; so, he had to use trial-and-error to figure it out. Jake mentioned that the advice his dad provided “always stuck with him” (Jake, individual interview two, August 17, 2015).

Watching others play live and on videos was an approach used by Jake to acquire technical proficiency on his instrument. He recalled watching DVDs of classic rock drummers and pausing the video at moments where he could get the clearest picture of the drumsticks and hands. He would intently watch others to gain an understanding of technique that he found problematic:

> If I can't figure it out on my own, I'm going to look at how someone else is playing. Like how are they doing it, like, I'll listen to it. I'm mainly looking at how are they making that sound. I know that if I figure out how they're playing it, I'll be able to make it sound that way. (Jake, group interview, August 24, 2015)

Once Jake watched others play he would try to figure out what they were doing by experimenting on his instrument.

Resources

While he preferred not to use books, Jake used a number of resources to learn music. He favored audio recordings, videos, and web-based resources when learning songs. Further, he indicated that he used whatever was free because he lacked the funding to purchase musical learning tools. When he searched for resources online, Jake said he would enter his inquiry into a search engine and "avoid anything that looks like it has musical notation" (Jake, group interview, August 24, 2015)

Resource Code	Affiliated Resource	Implementation	Quotation
Internet	Video, audio, search engine	Technique acquisition, inspiration, figuring out how to play	"Uh, I use *YouTube* a lot. You know, different tutorials and things about how to play double bass faster and how to do things with your hands so you're not flailing about" (Jake, individual interview one, June 16, 2015).
Other	DVDs, instructional videos, audio recordings	Learned songs, grooves, and technique by listening and watching others play	"We had this DVD and I listened to this DVD like all summer and that had a big influence" (Jake, individual interview one, June 16, 2015).

Table 9. Self-learning Musical Resources: Jake. This table is constructed from interviews and observations in this study.

Process

To begin his practice on the drums, Jake would play loud grooves to just about anything. He described the start of his practice sessions below:

> I will try to warm up because if I don't, I'm total crap. I can't do anything, I think it's more of a mental thing when it comes to that. Like that, I have to warm-up, I have to loosen up. That usually entails banging the shit out of them, I don't care how loud I'm playing, I don't care how fast or slow I'm going, I want to try to just loosen up…on some random song. (Jake, individual interview one, June 16, 2015)

While he said that he did not have a defined practicing routine, Jake would listen to a song repeatedly, which he described as: "figuring it out by listening to it, on repeat until I hate it" (Jake, group interview, August 24, 2015). Initially, he enjoyed listening to the song; but eventually he would become focused and memorize the tune. On many occasions, Jake learned the guitar licks before tackling the drum part. He believed that knowing all the different parts helped him understand the song.

According to Jake, listening to videos played an integral role in his process to learn a song. He said that he would listen to a song repeatedly and play the groove slow until he mastered it. During his observation in this study, Jake played multiple grooves and fills, which he started slow and eventually sped up. He discussed this process in the following statement:

> To me if you're going to learn a song you need to actually listen to it and know how it goes. You can't really hear how it goes by just looking at a chart. You're not really going to get the full effect of how the song actually goes as far as exactly how it sounds. (Jake, individual interview two, August 17, 2015)

On the drums, Jake listened to a song and then played it. On guitar and piano, he would listen to the track and play along. He said that he would listen to what was played in different voices—such as guitar, bass, drums, and vocals—and where each part came in; so, he would know what to do. When listening to the drum parts, he intently observed what was being played on the snare drum, bass drum, hi-hat, and other percussion instruments to match the recording. He added that video recordings were also important when learning the intricacies of the drum parts.

Likewise, Jake watched videos of professional drummers when he had musical problems. To resolve inconsistencies, Jake said he would: "make a mental note of it in my head, like now

they're playing this then they're playing that" (Jake, individual interview one, June 16, 2015). After he observed what needed to be corrected, he would try it out on the drums when it was convenient. He felt it was important to listen first and then try it on the drums, instead of playing with the recording, so he could pay attention to the video. Jake said he did not always use videos; instead, he used them to learn a part when he encountered a problem. When he was challenged by musical issues that he could not figure out using a video or by breaking it down, he would modify the groove or play a similar rhythm.

Jake described his practice process as: "there's the routine, sit down and whatever comes out" (Jake, individual interview one, June 16, 2015). Even when he jammed with his family, he said that there was little structure to what they did. For example, he would start playing a groove and his family would slowly add in. Or, his brother and he would listen to a song then begin to jam. During his observation in this study, Jake quickly transitioned from groove-to-groove. He also answered phone calls and occasionally checked his phone as he paused.

When Jake was determined to learn something, he said he would play it over-and-over until it was mastered. He used this approach when working on complicated rhythms and fills. Discussing his approach to learning technically complex concepts, he said the following:

> You know, like there was this song and it had the coolest drumroll and eventually it just clicked and I hadn't been able to get it before and I was just listening to it over-and-over again. (Jake, individual interview one, June 16, 2015)

Jake used repetition to learn songs and challenging material on guitar, piano, and drums. He added, that he listened to the song repeatedly to understand what was happening musically and repetitively playing an excerpt to master a section via trial-and-error.

Anya: The Punk Rock Grrrl

If I get this feeling that I like it enough that I actually want to learn it…
I'm like, I'm going to look it up and not stop until I can play it.
Then, I just get real happy.
(Anya, individual interview, July 2015)

Situation

Coming from a musical home and being homeschooled (taught at home by her parents), Anya began her musical discoveries on the recorder. Remembering her first encounter with the recorder, she said, "I saw the recorder and I was like that looks cool" (Anya, individual interview one, May 20, 2015). She identified herself as an eighteen-year-old European American college freshman who is majoring in general studies and plans to transfer to a four-year university after completing her associate's degree. Although she considered guitar to be her primary instrument, she also informally learned flute, piano, and recorder.

On guitar, Anya remembered the first time her brother let her play, which resulted in painfully dented fingertips. Eventually, she went to a major retail store with her parents and purchased her own guitar, though she said it was not the best instrument; yet, she was excited to play. She sang a little, played some piano, and experimented on recorder; however, Anya pointed out that the guitar is her main instrument.

Influence

At home as a child, Anya listened to her mother play Disney songs on the piano, such as *A Whole New World* from her favorite Disney movie *Aladdin*. In addition, her mother played a variety of popular tunes and improvised. Reminiscing about musical influence of her mother, Anya said the following:

> Like, she messed around on the keyboard. She does know how to read music and stuff, but she never really got more advanced…but, she played all the time, she liked to play Disney songs, you know, and like old songs. I remember she played *Downtown* a lot, I

> forgot who that's by [hums melody to *Downtown* by Petula Clark]. (Anya, individual interview one, May 20, 2015)

While Anya did not consider piano to be her primary instrument, she felt that watching and listening to her mother play piano was important to her musical development.

The other big musical influence for Anya was her brother. Specifically, she believed that her brother was a source of musical inspiration that roused her interest in guitar. They were really close and she recalled musical encounters with him every night:

> He would call me down at night, before I went to bed, and I would fall asleep to him playing. That made an impact, I guess… plus, the fact that he was really happy when he played the guitar. (Anya, individual interview one, May 20, 2015)

She believed that her brother influenced her musical taste. In addition, Anya identified the pop-punk band *Green Day* (see Appendix A) as having a significant influence on her musical preference and playing style. In fact, she stated that her musical style as "totally *Green Day*" (Anya, individual interview one, May 20, 2015).

Preference

Playing the guitar since she was nine years old, Anya identified herself as a self-taught guitarist who listens to "punk and rock, yeah, pretty much just punk and rock" (Anya, individual interview one, May 20, 2015). *Green Day*, *Blink 182*, *Red Jumpsuit Apparatus*, *Sum 41*, and *Sex Pistols* were some of the punk bands that she found interesting. Compelled by the rapid strumming and fast rhythms, she noted that punk rock is the music that propels many of her musical endeavors,

Anya also enjoys classic rock (rock music before 1990) and *electronic music*, such as *Rolling Stones* and *3OH!3*. When she initially described her musical preference, she said that she listens to an array of musical styles. Further, Anya commented that she found video game music enjoyable, especially the music in the video games she played. Specifically, she liked "whatever

they put in games, like *Final Fantasy* and this game called *To The Moon,* it has the best sound track" (Anya, individual interview one, May 20, 2015).

Learning

When she discussed her learning style, Anya emphasized that she preferred to learn on her own. She said that when she was interested in a particular tune or musical concept, she would "just sit down and do that" (Anya, group interview, August 25, 2015). Active listening was important for Anya to learn music. She recalled listening to her mother play piano and then sitting at the piano and figuring out what her mother played by ear.

Learning songs on the guitar, Anya said that she listened to songs, "in order to get the gist of what you're doing" (Anya, individual interview one, May 20, 2015). Specifically, she indicated that listening to the music allowed her to learn rhythms, strumming patterns, and cues, which were not included on tablature. Additionally, she mentioned the importance of listening to figure out how the guitar part fit in the song as a whole. In addition to using her ear to pick out elements in the song, Anya emphasized her preference of learning music by ear and said, "Sometimes I might try to do something by ear…I don't really use videos at all because I find that too easy" (Anya, individual interview one, May 20, 2015).

Anya divulged that she used listening to check her musical accuracy and ensure that what she played sounded correct. When she discussed her use of listening for error detection in the group interview, Anya said the following:

> I usually listen to the rhythm and tones as well. Like Charlie said, I can tell when I play something wrong, I can tell when I do a rhythm wrong, I can tell when I don't do it right. (Anya, group interview, August 25, 2015)

Listening helped her hear inaccuracies in the tablature she used. Her ability to hear things that sounded inaccurate was illustrated in the following statement:

> It said to play an A chord but it just didn't sound right, because of the chord progression I knew it just wasn't right. Then I looked down at the comments and saw it was wrong, I used E minor for that, like that sounds much better. (Anya, group interview, August 25, 2015)

Moreover, Anya specified that she listened to a song for details and as whole when she was learning. During her observation in this study, she listened to musical excerpts before playing them (one for about thirty seconds) and she tuned her guitar by ear (without the assistance of a tuner).

Regarding collaboration, Anya felt that playing with others was important to get tips and advice about playing. Though, she mentioned that she had limited experience collaborating with other musicians. When asked about playing with others she said, "I think performance wise it's cooler to play as a group, but personally I play individually, I don't know, I think I'd like playing in a group better" (Anya, individual interview one, May 20, 2015). Specifically, she discussed the importance of other musicians to solve problems, even if they played a different instrument than she did.

When asked how she acquired technical proficiency on her instruments, Anya said by doing "pretty much whatever the book said" (Anya, individual interview one, May 20, 2015). For example, when learning to *palm mute* (see Appendix A) she used the book to grasp the basic concept. To accompany the book, she indicated that listening played a key role to ensure her palm muting sounded right. She remarked, "If it sounds right, I'm usually pleased with it" (Anya, individual interview one, May 20, 2015). She used diagrams and chord symbols in books to learn chords and fingerings on guitar. However, this was not in isolation. Anya also used her ear to check chords and the Internet to ensure that she was using the proper technique.

Anya used trial-and-error to acquire technique on her instruments. When discussing her first encounters with the flute, she remembered getting her instrument well before the book and experimenting to generate a sound. She said the following about this occasion:

> I tried sitting with different postures, I would just kind of adjust my mouth different ways and adjust the flute and I would practice and practice and eventually I was like this sounds good. I might need to do this or twist it a little bit more that way. (Anya, individual interview two, August 13, 2015)

On the guitar, Anya used a similar approach to learn technique. During her observation, she would stop and adjust her posture, hand position, or slowly arpeggiate a chord until it sounded correct.

When asked about her approach to music learning, Anya said that for her "pretty much it's what is convenient" (Anya, individual interview two, August 13, 2015). Her music learning was driven by self-interest. While she would meticulously deconstruct an excerpt to achieve mastery, the music she practiced was completely self-directed.

Resources

When asked what resource she used the most, Anya quickly responded with, "I would have to say, it's a blend" (Anya, individual interview two, August 13, 2015). She selected resources based on convenience and availability. Regarding web-based music learning tools; she selected tablature and online videos by rating and difficulty. Below, *Table 10* provides a description of the resources Anya utilized, how she used them, and excerpts from her interviews.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Method books	Learned technique, such as holding a pick, palm muting, and strumming.	"For guitar…it's called a *Girls Guitar Method* by Hal Leonard. Pitches had pretty colors and illustrations. Yeah, I guess it's different for girls, its pretty" (Anya, individual interview two, August 13, 2015).
Internet	*YouTube*, How-to websites	Provided instructional videos, diagrams, tips, and feedback from peers.	"If I really have trouble I might use something like *Wikihow*, figure out what sounds right, then during the process I might look at *YouTube*" (Anya, individual interview one, May 20, 2015).
Tablature	Guitar tablature	Used to learn songs; however, listening was essential because no rhythms were included. Used the tabs to figure out notes in songs that she could not comprehend by listening alone.	"I go to particular parts and read it, usually on tabs, but if I have trouble I'll go back to that and, you know, kind of break it down, um, and listen to it for the rhythms" (Anya, individual interview one, May 20, 2015).
Other	Audio recordings, neck sleeve (placed on guitar neck to show chords), sheet music	To get a feel for the song and become familiar with the tune.	"You know the slips that you put on the fret board that show you how to do it…I got the materials to teach myself" (Anya, individual interview two, August 13, 2015).

Table 10. Self-learning Musical Resources: Anya. This table is constructed from interviews and observation data

Process

When asked what type of structure she used in her musical encounters, Anya said, "I just do it, whatever I want to" (Anya, individual interview one, May 20, 2015). After some further discussion, she described the process she used when learning a tune on the guitar as looking over the song, tinkering with the chords, working on left hand to master chord shapes, and putting it all together. She supplied a thorough description in the following quote:

> Well, once I find it on the computer or I get the sheet music for it, um, I'll kind of, I'll skim the chords or melody, or whichever one I want to do. Usually its chords because I like the way it sounds on the recording and just kind of mess around with that and go over the fingerings and such. I usually work on the verse for a little bit. First of all, I like to try to play it all the way through because I'm just that type of person. Sometimes it'll sound okay and sometimes it won't. And I'll go back and focus on the things that were harder or difficult and then separate it. You know, to make sure that I'm doing right chords in the right rhythm. That's usually how I play it, yep. (Anya, individual interview one, May 20, 2015)

During her observation in this study, Anya used her computer to look at chords for songs she was working on. That is, she would scroll down the page, look at her guitar and try a lick, look at the computer, and repeat this process several times.

Breaking a song down to learn the different components was considered valuable to Anya, especially when she found a section to be problematic. She described her process of breaking down a tune as such:

> If I have trouble in a certain area I'll go back to that and you know, kind of break it down; um, and listen to it for the rhythms. If I want to know a rhythm, I'll play through it several times. If I really have a hard time, I might use something like *Wikihow* to figure out what sounds right during the process…I might look up a *YouTube* video. Like for a particular part or maybe look up a few covers of a tutorial of it to see what I'm doing wrong. (Anya, individual interview two, August 13, 2015)

Further, Anya said that she would listen to the song in five or ten second intervals, and then eventually attempt to play the excerpt. On the first few attempts, she played the snippet slowly.

Eventually, she would speed up and play the segment at tempo and integrate it into the entire piece. To achieve success, Anya said that it was done over-and-over.

To learn a new song or solve musical problems, Anya stated that she tried "really getting familiarized with the notes, like memorizing what the notes are and where they are on the fingerboard" (Anya, individual interview one, May 20, 2015). She described this process as taking days, sometimes weeks, of practicing chords. She commented that she really focused on the shapes of the chords to become as familiar with them as possible. Regarding this process, she said the following:

> Its easier to think of shapes because when you first begin you have to look at it all the time, but your hands know that they need to make the shape, although this [makes shape with hand], that's how I know it's easier. I don't just look at the tabs a lot of times I use trial and error figure out the chord shapes. (Anya, individual interview one, May 20, 2015)

She would check the notes she learned on the guitar with the piano, to ensure accuracy. Figuring out the strumming patterns also required her to be familiar with the song. Anya stressed that she would listen to a song repeatedly to get the rhythms and strumming patterns. During her observation, she regularly stopped playing and checked her hands and computer for accuracy.

When Anya encountered a problem learning a song, she said that she would look up a solution on the Internet. To solve musical problems, she looked at tablature and videos simultaneously. However, if she could not get a particular part, for example understanding how to play the strumming pattern, Anya would find an online tutorial that showed her how to do it. She also discussed how she experimented with different licks until she mastered them. Frequently, this would include the use of online videos to get further details.

For Anya, repetition was essential for mastering a song. To learn a musical concept that she had difficulty with, she described her approach in the following excerpt:

> Just doing it over-and-over. There's really no other way to do it. It's really difficult and you have to get used to how your hand moves. What I usually do as I think about what I'm going to move my hand, like half way when I'm done playing the previous chord that usually helps me. (Anya, individual interview one, May 20, 2015)

She stated that this process requires many repetitions. Specifically, she said, "after doing that like a bunch of times, like fifty times, you can get the right sound" (Anya, individual interview one, May 20, 2015). This was further demonstrated during her observation in this study, when she would stop and play an excerpt repeatedly (Anya, observation, August 6, 2015).

Joe: The Guy with the Hip-Hop Grandma

It was fresh, just improvised. Like people knew if you wrote it because it would come off too smooth. You can tell if someone's not freesylin'.
(Joe, individual interview one, May 22, 2015)

Situation

Describing himself as an *urbanist* (see Appendix A) Christian rap artist, Joe has been rapping since he was eight years old. He is an African American male general studies major at the community college and lives in West Lake. Describing his musical endeavors he said, "So, I make R-n-B beats to hip-hop beats and I sing over them, I rap over them, I do poetry" (Joe, individual interview one, May 22, 2015). Specifically, he raps and creates beats digitally using beat-making software. The subject matter of his music is based on his faith and uses hip-hop as a medium express his religious conviction through lyrics. He described the subject matter of his music as urban, which he defined as relatable, current, and dealing with "what's going on now…you know, not being on a pedestal" (Joe, individual interview one, May 22, 2015).

Joe listens to country music, hip-hop, and R-n-B music. However, his own compositions are exclusively hip-hop. He remembers listening to hip-hop music and becoming inspired. He stated, "I started *biting* (see Appendix A) off of them [hip-hop artists] and writing my own music…since the age of eight I've just been going at it" (Joe, individual interview one, May 22,

2015). Using other artists' music for beats and rhythmic structure in his vocals, Joe wrote his own lyrics on little pieces of paper, which he left all over the house. Reflecting on his early encounters writing raps, he stated the following:

> Just writing it down and I would leave it around the house and I'd just start building from those little pieces of paper and start making them long pieces of paper. Now, from those long pieces of paper we have full songs, so growing up, I had to start from little pieces of paper, yeah. (Joe, individual interview, May 22, 2015)

Eventually, he began recording grooves and original lyrics, which he created.

Influence

Joe identified his grandmother, schoolmates, and popular rap artists as his musical inspiration. In addition, he noted that his environment and community, which was filled with hardship, was a primary source of his lyrical and musical influence. Discussing his grandmother, he remembered that she was very supportive of his rapping. He would also ask his grandmother to critique his music and she would provide honest constructive criticism. When asked about the influence of his grandmother, Joe said:

> My grandma is more of a hip-hop grandma, so she will tell me that sucks, that's *wack* (ridiculous)...if grandma can't listen to it, it ain't even worth puttin' out" (Joe, individual interview one, May 22, 2015)

He also indicated that his grandmother would take the time to listen to his music, including his original music and covers.

Joe noted that his friends had a considerable musical influence on him. He recalled creating beats on lunch tables and rapping with his friends in secondary school. He and his friends would create a hip-hop beat on the table using their fists and pencils. Once a solid groove was established, Joe and his friends would take turns *freestylin'* or making up raps on the spot. His friends also provided critical and constructive feedback regarding his music. Thinking about the opinionated influence of his friends, Joe said, "They would tell me either that's good or that's

wack" (Joe, individual interview one, May 22, 2015). He added, that his friends made a significant impact because they provided comments that helped him compose his raps.

Growing up in an environment where his peers listened to hip-hop, Joe acknowledged the influence of popular hip-hop artists that he initially emulated and replicated. Beyond listening to contemporary rap artists, Joe referred to the musical impact of his environment. Specifically, he said that through his music his voice provides a way to speak out against the struggles and issues that he experienced and witnessed in his community. He provided examples of subjects he said shaped his music, such as mothers raising children in fatherless homes and amid violence. Joe expressed that so many people turn their heads on these matters, so in response he said, "I'm kinda their voice" (Joe, individual interview one, May 22, 2015).

Preference

Discussing his style, Joe said that his music "fits the culture, it stands out, it doesn't fit in but it fits the culture" (Joe, individual interview one, May 22, 2015). As previously mentioned, his lyrical content and message are derived from his own trials and the conflicts of others. As he plays his own music or modifies the music of other artists, Joe said that he interjects his own ideas and emotional content into the lyrics to make it his own. For example, Joe provided the following example of how he alters lyrics to match his message and musical style:

> They were basically saying if I ruled the world, you know, I'd free all my sons. But, I said if I knew the world, the whole world, I would tell them about Jesus. Or, I would tell them about who I believe in. Instead of ruling it, I would just tell them [laughs]. (Joe, individual interview one, May 22, 2015).

In short, he alters the lyrics to suit his purpose, which he finds valuable and impactful. Likewise, Joe said that the rhythmic elements of the instrumental tracks are the essence of his style, which he alters based on his mood.

In addition to hip-hop rhythms in his tracks, Joe said that his vocal lines are driven by rhythm. In fact, he stated that "its about rhythm...anything you do has rhythm" (Joe, individual interview one, May 22, 2015). Stylistically, Joe felt that when he raps his poetry must rhythmically align with the instrumental tracks. He also indicated that he uses instrumental samples and rhythms from other songs, but the vocals have to be original and rhythmically different.

Learning

Joe believed that active listening served as the impetus for how he learned music. Specifically, he said that he would begin learning a tune by listening; thus deciding and "knowing what to put into a song and knowing what to take out" (Joe, individual interview one, May 22, 2015). He did this with songs from his favorite artists, which he would eventuality manipulate. Reflecting on his approach, he said the following:

> I'm learning music, I try to think of ways that I can expand. Like just producing a song with different flavor and not having every song sound like the last (Joe, group interview, September 18, 2015).

So, when Joe listened to a song he was actively looking for what he wanted to keep and what he wanted to change. He believed that trying new concepts and being open to new ideas were essential to keeping his music innovative and fresh.

When learning a tune, Joe said he initially listened to the song as a whole. Then, he broke it down mentally and listened to the rhythmic elements, lyrical content, instrumental interaction, and overall production mix. In addition, he said that he gave special attention to the meaning, significance, and relevance of the lyrics. Last, he listened to the timbre of the electronic instruments used, such as the type of bass drum. During his observation in this study, he listened

intently prior to singing or tapping out grooves with his fist on the table. Once he listened to the whole song, he played back a version with the vocal track omitted, to which he then rapped.

As previously mentioned, Joe had a hip-hop grandma. In fact, he indicated that his grandmother gave him constructive advice, which he actively sought. His grandmother helped him write the chorus of a song, which he said was popular among his friends. Joe remembered asking his grandmother for advice:

> My grandma used to always tell me, like whatever I wrote, like whatever I was really feeling, I'd think they're gonna really like this, and she would be like Joe that is wack, that is awful. I mean you could talk about this or bring more delivery into it (Joe, individual interview two, August 14, 2015).

In addition to his grandmother, Joe sought feedback from his mother and close friends. He felt that these experiences brought more substance and meaning to his lyrics and musicianship.

As previously discussed, Joe mentioned the importance of getting feedback from his friends. When asked about the type of resources he used, Joe said that he used the same music learning tools as his friends, which he described as "hands-on training…just being thrown in there" (Joe, individual interview one, May 22, 2015). He discussed the value of collaborating with his friends when making beats and raps:

> Sharin*'* your brain or your way of thinking with somebody else's and coming together and merging and making something powerful. So when I'm thinking, or I'm brainstorming, over here and he can brainstorm something over there and we bring it together, it creates this beautiful project. So I look it as beautiful artwork, we bring together beautiful artwork (Joe, individual interview one, May 22, 2015).

As Joe collaborated with his friends or other artists, he would run topics or musical ideas by them and get useful feedback.

Joe also used web-based musical social networking communities to gain insight and improve his musical abilities. When he discussed his use of hip-hop social networking websites, he said, "Yeah, I submit lyrics and they submit lyrics; so, I ask another brother how they feel

about a topic" (Joe, individual interview two, August 14, 2015). This is not always a smooth process, at the time of the interview he indicated that he just submitted a video to a hip-hop website for peer input; however, he was unsure if they would post it. Joe felt that online communities helped him learn in a myriad of ways, such as allowing him to provide ideas to other novice hip-hop artists. Joe did not use one website exclusively; instead, he used a variety of web-based hip-hop social media.

When asked if he made music with other musicians, Joe said, "Yeah, I play with other musicians: drummers, piano-ists [sic], guys that play the organ, all that" (Joe, individual interview one, May 22, 2015). He remembered his origins playing with other musicians at jam sessions in his high school cafeteria. He recalled, drumming on the table with his friends—who were all basketball players—and freestyle rapping over improvised hip-hop grooves. When Joe reflected on this experience, he said the following:

> Sitting at the lunch table rappin' it look like a lot of *hypness* (exciting)…everybody just surrounding table, one person in the middle, which was the *beat maker*, with me right alongside the beat maker and he hits his fist on the table and we bobbin like this [moves his head and hands up and down] and we rockin' side to side and I'm like you gonna go, you gonna go, you gonna go? Until somebody just gets it and goes (Joe, individual interview two, August 14, 2015).

In his interviews and observation in this study, Joe still played grooves on the tables and freestyle rapped.

Joe discussed occasions when he played music and generated loops for songs with his friend, T-Nick. When asked how he collaborated with T-Nick, Joe said that his friend had beat-making software that could generate the grooves and timbres he wanted. So, he would just *beat-box* (see Appendix A) or play the groove he desired on a table; then, T-Nick would input it into the software. Before going to his friend, Joe preconceived the music and rehearsed so he was prepared to demonstrate. When together, they would collaborate to create the final piece.

Like his efforts to gather feedback digitally, Joe used online music communities to collaborate with his peers. When Joe composed or re-composed a song, he was continually thinking about different timbres and voices:

> Say I brainstorm a topic...but, I hear somebody else's voice on that track. I hit them up via email or *Facebook*, and tell him that man, I can hear your voice on this song. Lets do it, lets drop it! Then we get together and we just go about it. (Joe, individual interview two, August 14, 2015)

To achieve this in a digital environment, he sent a track via email with all the parts he created, which included his vocal lines, to the invited musician. Then, the recorded portion was sent back to Joe. In fact, in the middle of his observation in this this study, Joe received a new track from an online acquaintance (Joe, observation, September 18, 2015).

When he discussed how he learned music, Joe initially said, "I don't know, that's a tough question; I don't know I just do it man, I love music it's just embedded in me" (Joe, individual interview two, August 14, 2015). Specifically, he felt that a lot of his approach to creating and learning music was related to feeling and emotion. As a rapper he said, "[I] translate it by how you're feeling with the music" (Joe, group interview, September 18, 2015). He added that this approach was autonomous; that is, Joe indicated that when he learned or made musical decisions it had to be his own way. In some cases, he would receive feedback from a friend; however, he said that after he considered the advise of peers, he would make the music his way.

As a hip-hop artist, Joe equated technique with the quality of the overall musical production. When discussing technique, he stated, "Quality is everything, if you don't have quality people are not going to listen" (Joe, individual interview one, May 22, 2015). He also said that rap technique and lyrical definition are something that he spent a lot of time on. When he discussed the quality of rapping, he said the following:

> You can tell when somebody don't take they time with somes [sic], its just, they really be ramblin' a whole lot of stuff that really don't make sense (Joe, individual interview one, May 22, 2015)

Joe possessed a yellow notebook that was full of lyrics and musical cues, which included a number of edits.

Joe discussed the importance of technique when creating beats, rapping, and *mixing*. He said that time was required to get a clean sound in the vocals and overall production, including electronic instruments. This was especially true, according to Joe, when editing vocal tracks. He said that he just kept trying until the *mix* (blend and balance of multiple tracks simultaneously, see Appendix A) was exactly how he wanted it. Listening back to his own music was another method Joe used to work on technique:

> I would say, listening to my own music. I have sessions where I just listen to my own music and see how I can better the next song. So, I just listen to my music over-and-over. Then I modify. I have my own process, you know (Joe, individual interview one, May 22, 2015).

For Joe, analyzing his own rhythmic ideas, lyrics, and compositions allowed him to develop musically.

Resources

When asked about the resources he used to learn music, Joe mentioned that he used books, websites, online search engines, and Internet videos. As a learning tool, Joe predominantly used online resources to solicit reactions and seek sources that could improve his musical ability. Joe compared the research he did online to preparing for a major exam; he would study and write down what he found. Below, *Table 11* provides a description of the resources Joe used.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Inspirational books	Reads books to seek inspiration and get ideas	"Yeah, bigger picture items like inspiration, yeah. I never read the books that have the whole, what is it called, music note books and all that. I just read inspirational books" (Joe, individual interview one, May 22, 2015).
Internet	Internet search engines (such as *Google*, *Yahoo*, *Facebook*), websites (hip-hop and inspirational), videos, audio recordings	Searched online for ideas, used websites to gain insight, used websites to gain feedback from peers, listened to other artists using videos, audio recordings to listen to songs	" Yeah, I submit lyrics and they submit lyrics.; so I ask another brother how they feel about a topic. Then I study it, it may be right or maybe not right. I study it for myself. I retain it" (Joe, individual interview two, August 14, 2015).

Table 11. Self-learning Musical Resources: Joe. This table is constructed from interviews and observations in this study.

Process

To make music, Joe described a process that included listening, creating lyrics, and focusing on rhythm. To learn a rap, Joe said that first he thought about the subject, listened to the track, focused on the rhythm, attempted to rap with the track, and modified for improvement. He described his process as follows:

> I read my books before. Then I go into a musical mindset. Listen to the track. Listen to it a couple times. Pull out my notepad and just start brainstorming. So that's my structure, I read, I write, then I compose (Joe, individual interview one, May 22, 2015).

As a lyricist, Joe stated that researching the subject was important to his process. He also indicated that he preferred to take his time when making music and constantly edited to ensure the highest quality.

To write down his lyrics and musical cues, Joe used a note pad in which he wrote song lyrics, cues, and format. Similar to his early lyric writing on random pieces of paper, He used a yellow note pad to organize his music. The cues he wrote included the time during the track that he would need to enter. For example, he wrote 00.47 and 1:51 [sic] at different places to signify his entrance (Joe, observation, August 14, 2015). Joe described how he broke down bars in a song using his notes:

> It's not on this notebook [flips through a page of a yellow note pad on the table], but usually I'll write one, two, three, four, five…all the way to sixteen; so, I know how many *bars* [beats] there are (Joe, individual interview two, August 14, 2015).

While Joe used the term bars to describe beats of a tune, he used his own method that allowed him to know the songs rhythmic structure.

When he encountered musical problems, Joe said, "If I don't finish from where I messed up, I won't finish nothin' at all; so, I feel faith plays a big part in it" (Joe, individual interview one, May 22, 2015). When he encountered problems as he practiced a rap, Joe would listen to a track repeatedly to resolve the problem. If the rap did not align, he would stop the track and modify the lyrics on his note pad. Then, Joe would start the track over a few seconds back and try the modified content. In live performance, Joe recalled a time when he had difficulty with microphones. In response, he stopped playing and started over. Reflecting on this experience, he said, "You just keep it rollin', you have to stand on your faith" (Joe, individual interview one, May 22, 2015).

Playing the tracks over-and-over was how Joe learned music and resolved musical problems. To learn a song, he said, "[It is] just repetition…just keep practicing and keep repeating it and try to get better and better at it" (Joe, group interview, September 18, 2015). When learning a rap to record, Joe said, "I recite them, I go over them over-and-over and I just keep rapping them, if something is missing before I record it, I always recite it" (Joe, individual interview two, August 14, 2015). Joe played and replayed excerpts of the tracks, which he repeated five or six times to master sections that were problematic.

With a number of processes mentioned, Joe also discussed and demonstrated that he did not have a set routine when practicing. When Joe did not feel like making music or he did not feel inspired, he said that he would take a break, which he said usually lasted about twenty or thirty minutes. Or, he said he would read a book or do something non-musical until he felt like practicing. During his practice observation, he received a track via social media from a friend, stopped practicing what he was working on and began looking at the new material. He also stopped his practice session when a peer walked by and asked if he wanted to engage in a different activity, which he did.

Modifying music after he learned the basics of the song was how Joe believed he kept a tune original and fresh. Joe valued how he altered the lyrics and rhythm of a tune, which he felt made a song better. His rationale and preference for this approach is described below:

> To *remix* (see Appendix A) or somethin', I see with the artist was talking about, what that artist was missing, and then I kind of put that into place. I'll be like, they kind of missed this so now let me put it in there. I look for the missing pieces. (Joe, individual interview two, August 14, 2015).

Joe wanted to individualize each song and said the following about *biting*, which is a hip-hop term for refashioning a song to give it your own characteristics. He described his process of restyling a song as follows:

> I just started taking their music and putting my own twist to it but not sounding exactly like them. But, sounding like and making my own identity from my own music, but taking from what they were doing, biting. (Joe. individual interview one, May 22, 2015)

During his observation, he rapped over a track and read his own original lyrics. As he rapped, Joe would pause and record any modifications on his yellow notepad.

Joe created beats from scratch or as alterations to the work of other artists. In addition to writing down lyrics, Joe played original rhythms using his hands, his voice, and beat-making software. To him, creating a beat was a spontaneous action that could occur anywhere on anything. He described an experience making beats below:

> How I make a beat? I think of it, you know it could be in the shower, I think of the beat the crazy hook or a crazy beat, or rhythm that I start tappin' it (Joe, individual interview two, August 14, 2015)

When creating music, he would use his computer or mobile device to rap along to tracks or create grooves from any location.

Rachel: The Tambourine Girl who Rocks the Ukulele

I was the tambourine girl who couldn't play anything else and they had a ukulele sitting there; so, I picked it up and that's how I got started.
(Rachel, individual interview one, May 21, 2015)

Situation

Hanging out with her friends as they jammed in a garage band, Rachel was taunted by a derogatory comment made by the husband of her friend, who implied that she was incapable of musically contributing to the band and loitered at band practices. Frustrated with his criticism, Rachel picked up the ukulele and asked him to teach her a few chords, as illustrated in the above quote. Once she learned those chords she kept playing and has learned a number of tunes where she sings and plays ukulele. Of course, she eventually ended up jamming with the band where she first picked up her instrument.

Rachel considers the ukulele and vocals to be her primary, informally-learned, instruments. In addition to the ukulele, she played flute in school band since middle school; but stopped playing her flute after high school. She learned to play the flute formally in school and took up the ukulele after high school on her own. Rachel is a twenty-two-year-old Asian American that lives in a rural town in Lake County, which is about thirty minutes from the community college where this study took place. Her major is art and she indicated that her plan is to complete her associate's degree, then transfer to a four-year university.

When asked what type of music she listens to, sings, and plays on the ukulele, Rachel said, "I listen to a little bit of everything…as long as I like it" (Rachel, individual interview one, May 21, 2015). Her repertoire list includes pop songs, hip-hop, jazz, country, and classical. Though she later said that classical music is not part of ukulele repertoire; instead, it is something she played when she was in high school band. Regarding classical music, she said that she listened to "some classical, I like listening to flute stuff because that's what I played" (Rachel, individual interview one, May 21, 2015).

Influence

Thinking about her musical influences, Rachel identified her mother, the boyfriend of her mother, and her cousin, as having a lasting impact on her musically. Rachel remembered her mother played flute in front of her as a child. However, her mother was forced to stop playing because she lost some of her fingers in a factory accident. Like her mother, Rachel had a cousin that played the flute who provided further inspiration. Learning the flute formally, she also said that her middle school and high school band teachers were important in shaping her as a flutist because they encouraged her to play.

Regarding her influences as an informal musician, Rachel initially said that she could not think of anyone who influenced her as a vocalist. Yet, she later recalled her time as a child singing children songs and hymns in her church congregation, which she thoroughly enjoyed. As a youth she also attended karaoke sessions in area bars, where she sang and listened to others perform. Further, she mentioned the boyfriend of her mother, who died when she was a child, and influenced her posthumously because he left a number records that she listened to, which included big band era jazz and 1960s rock music.

On the ukulele, she said her initial inspiration was out of spite. As previously mentioned, she began playing ukulele by picking up the instrument because the boyfriend of her friend mocked her. Further, Rachel never sought out ukulele players to become inspired, which she said the following about:

> I haven't had anybody that I have looked up to at all and ukulele that was just kinda something I wanted to do for myself. I don't really have any ukulele players that I listen to. (Rachel, individual interview one, May 21, 2015)

Instead, pop and jazz artists, such as *Megan Trainor* and *Frank Sinatra*, influenced her musical taste and what she determined to learn on the ukulele.

Preference

When discussing her musical preferences, Rachel said that her inclination to make music in a particular style was based on the instrument she was playing. For flute, she preferred classical music because that was what she played in high school. Specifically, she would choose classical pieces based on the content of the method or repertoire books she used. When discussing what music she listened to, she said that classical music was only considered occasionally and the few pieces she did listen to commonly featured flute. Rachel did say that she had not played her flute since she left high school.

Rachel liked to play modern popular music on the ukulele, which included alternative rock, indie rock, pop tunes, show tunes, and oldies. She did not seek tunes that were suited to the ukulele; rather, she played an eclectic blend of songs based on her interests. For example, she enjoyed singing and playing songs by *Ella Fitzgerald* (jazz), *White Stripes* (indie rock), *Benny King* (Rock-n-Roll), *Luke Bryan* (country), and others on her instrument. Further, she especially enjoyed singing and playing World War II era Big Band tunes, such as the music of Frank Sinatra. While some music was not included in her repertoire because of complexity or vocal range, she spent her time learning songs that she enjoyed. Summing up her strategy of choosing what music to study, she said, "If I like it, I'll play it" (Rachel, individual interview one, May 21, 2015).

Learning

Reflecting on how she learned music on her own, Rachel said that she had to "really become a listener on ukulele" (Rachel, individual interview two, August 11, 2015). She discussed the importance of listening in the following statement:

> That's been something I had completely done on my own, for the most part. I didn't have any direction from anybody. So, it's a lot of listening. (Rachel, individual interview two, August 11, 2015)

When asked what she listened to when learning music, Rachel said her approach was holistic. That is, she listened to everything, which she identified as the key signature, strumming patterns, and similar items. While she searched for examples to listen to, Rachel found variations from the original key, which she identified as a challenge.

Rachel frequently collaborated with other musicians during impromptu *jams* (making music with others), karaoke sessions, and singing in a band. She identified these experiences with others as "just jammin' and messing around, you know nothing really serious" (Rachel,

individual interview two, August 11, 2015). She described jamming with friends in the following excerpt:

> Sitting around, then picking a song, were usually not on the same instrument. They played banjo, mandolin, bass, guitar. So I played with quite a few different instruments. One of us will start and the others just kind of fall in. I'm not very good at just picking out chords, so I usually have to ask what the chords are and I have to follow someone's lead. Yeah, we just kind of run with it. (Rachel, individual interview two, August 11, 2015)

While jamming, Rachel said that she started to play with the group only when she was comfortable. Specifically, she indicated that she liked to know the song before she started to sing or play ukulele. Once she was ready, she would contribute to the group by adding harmony or strumming chords using a basic familiar pattern, which she described as follows:

> Um, I did *Stand by Me* with some friends. The bass player just started playing the bass parts, then I came in on the ukulele with some chords, someone else came with egg shakers, then I just started singing. It all just came together as a song. It was pretty cool (Rachel, individual interview two, August 11, 2015)

An early collaborative musical experience described by Rachel was singing *karaoke* in bars. She said that this experience required little preparation except listening to songs and then singing them. Rachel said her experience singing Karaoke as "just getting up and doing karaoke and for the adults that were intoxicated" (Rachel, individual interview two, August 11, 2015). She did this a few times a week. Likewise, Rachel also frequented open mic sessions, which she said included similar songs. However, she stated that open mic sessions required more preparation because she would sing with other musicians.

When she sang in a band, Rachel said that the other musicians would select what she would sing, based on what they wanted to play. She noted the challenge of singing in a variety of styles and the issue of other musicians selecting a song in a key that she could not sing in. She recalled that her band chose a rock song that was too high for her; as a result, she told them she couldn't sing it. However, the band selected a new song, which she felt was better suited to her

vocal range and style. Rachel believed that playing with other musicians helped her explore different styles. For example, she liked to listen to country music; but she felt that country music was not stylistically suited for ukulele. As a result of playing with other musicians, Rachel was convinced she learned new styles, concepts, and that "it was cool to see the different things I could do" (Rachel, group interview, August 24, 2015).

Learning to play the ukulele on her own, Rachel said that she just had fun and learned only the chords and technical skill required to accompany her own singing. Rachel compared her approach of learning the flute and learning on her own, she stated the following:

> Uke is not an obligation because I'm the person I have to be good for. When I played the flute I had to rely on other people and I stopped enjoying it, but this is just for me, yeah. (Rachel, individual interview two, August 11, 2015)

On her own, she added that she had no requirements or preconceptions on how she has to learn or play her instrument. For example, she avoids using tabs and individual picking because they do not work for her, which she considered common approaches to ukulele. Instead, she used chords, which she preferred when learning a song.

When asked how she acquired technical proficiency on her instrument, Rachel said that she used online tutorials, listened, and made it up. While she indicated that she used strumming patterns almost exclusively, she recalled using a tutorial to learn the picking part to a pop song used in a movie for kids:

> I watched a *YouTube* video to figure that one out, I think. On *YouTube* I don't look up someone playing the song, I use tutorials that teach you how to play songs or parts of songs. It explains how you pluck this string and this is where this finger goes and this finger and this finger. But, I don't use it very much. (Rachel, individual interview, May 21, 2015)

Rachel identified listening and then figuring it out as her primary approach to learning the technical skill required to master a song. However, she also acknowledged that she did not use

proper technique because she used her thumb, which created a different overall timbre. Further, Rachel said that she tried to get as close as possible on a lot of technique because tuning on the ukulele is different than instruments on the recording and she was limited by her own technical ability.

Rachel discussed her approach to ukulele technique when she said, “I just make up my own strumming if I think it matches it and it sounds good; yeah, that’s what I do” (Rachel, individual interview one, May 21, 2015). She remembered learning a few chords from a friend and then figured out additional chords on her own. As she learned additional chords, she strummed with her thumb and acknowledged that she didn’t use proper technique. Regarding strumming technique she stated, “I don't really strum like you're supposed to with ukulele” (Rachel, individual interview two, August 11, 2015). While she strummed the chord to ensure that she was playing the correct note, she made up her own technique. This was beheld during the observation in this study, where she never looked at her right or strumming hand (Rachel, observation, August 8, 2015).

Resources

When she searched for resources to use, Rachel said she only used the free versions. She indicated that she did this because of convenience and limited finances. Rachel preferred to use books, web-based resources, and tablature. Further, Rachel stated that she avoided online tutorials because of how easy it was to learn ukulele chords. The following table provides a description of the resources used by Rachel and how she employed them.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Vocal, piano, or guitar books for popular music	Used books of popular music artists (guitar, piano, voice) to learn the chord changes on ukulele and lyrics to a song	"For ukulele…I tend to just go to our local music store and buy a vocal, piano, and guitar book for whatever music I'm wanting and then the guitar chords are written in there and I just play whatever chord is written" (Rachel, individual interview one, May 21, 2015).
Internet	Internet search engines, music artist videos	Search engines were used to look up lyrics and webpages with tablature,	"Um, really I use a, not really tutorial videos, but people just playing and I have a few people that I watch and really like. (Rachel, group interview two, August 25, 2015).
Tablature	Tablature phone applications, ukulele tablature websites, guitar tablature websites application	Phone application used to look up chords, guitar tablature websites were used when tablature was not available	"On my phone…when I'm looking it up you have the chords and what the changes are above where the words would be, but they're just not filled in" (Rachel, group interview, August 24, 2015).

Table 12. Self-learning Musical Resources: Rachel. This table is constructed from interviews and observations in this study.

Process

After finding a song she wanted to learn by hearing it on the radio or listening to it online, Rachel said she would look up the chords, fingerings, and lyrics, then try to play the

song. During her observation in this study, she used her phone to look up lyrics and chords. As she played through the songs, she would briefly pause and use her finger to scroll down the page. She said the following about her process using an application on her phone for Ukulele chords:

> Usually I'll learn most of the words by listening to it and then I'll jump on my app and learn it with the chords. I just play a few notes, then I check the chords, and that's pretty much it. (Rachel, individual interview two, August 11, 2015)

While she almost always learned music after listening to the recording, she did mention that she liked to play along with the recording if it was in the same key. She also added, that she would listen to a song repeatedly until she knew it well.

Before she used the ukulele chord application on her phone, Rachel would master the lyrics. She felt it was important to learn the lyrics first because it was the easiest approach when using the tools she had. She described her system of learning lyrics and using the application for chords below:

> I will learn the lyrics first. So that makes it easier when I look it up in my app because my app doesn't have all the lyrics for every song. So then they'll have to go back and forth. Like when the sun I did in my observation, I didn't have all the lyrics in one place. Usually I'll learn most of the words I'm listening to it and then I'll jump on my app and learn it with the chords. I just play a few notes, then I check the chords, and that's pretty much it (Rachel, individual interview two, August 11, 2015)

During her observation in this study, Rachel hummed the melody as she figured out the chords on the ukulele. She also tapped when singing melodies without her instrument.

If Rachel encountered a key signature that did not suite her vocal range or chord fingerings that were too difficult, she would change the key of the piece. She discussed her approach to finding alternative chords below:

> I look it up in a different key, which I do that a lot of times because some fingerings are just weirder than others…so, if I find it in one, and it doesn't work, I'll find a different arrangement. (Rachel, individual interview one, May 21, 2015)

When needed, she used alterations if she could not play the original chord. For example, Rachel said she avoided playing E major chords on the ukulele; instead, she played an E7 chord. She also said that the original key of a song was frequently too high. So, she had to modify the key of the music. In response, Rachel found chord changes in keys lower than the original to match her vocal range.

Rhythmically, Rachel would experiment to find a pattern that worked for the song. She preferred to play the authentic strumming pattern and rhythm of the tune. Of course, she felt that the ukulele tuning and her own ability required her to create alternatives. Typically, Rachel said that she used a similar pattern during each song that she was comfortable with. She believed that this pattern usually worked well. Rachel pointed out that her weakness was rhythm. When she had rhythmic or other musical problems, Rachel would seek advice from others. She added that if the person she asked could not help then she would ask if they knew anyone who could. When asked if she improvised or created her own music while experimenting, Rachel said she would make minor edits to the lyrics or chords if needed.

Rachel said that listening to a song over-and-over again and repeatedly playing a difficult excerpt worked best to solve musical problems. She described how repetition was used to learn a song and figure out rhythm in the following passage:

> Most of the songs I've heard on the radio, so I will listen to it a million times on repeat. I learn the words, figure out my rhythms and kind to listen to the stuff underneath and if there's different rhythms with different instruments and if I want to change up my strumming for that. (Rachel, individual interview two, August 11, 2015)

During her observation in this study, Rachel played some sections many times until she mastered the chords and strumming pattern. For example, she incorrectly played a transition between sections in a song, stopped, and played it four times before moving on.

When she sang and played the ukulele, Rachel indicated that there was no established routine:

> It's not like I sit down and say, okay now I'm going to do these three today. It's just kind of, hmm, which one do I want to do? I don't know, sometimes I won't even play through the whole song if I get bored with it. (Rachel, individual interview two, August 11, 2015)

She would scroll through the *playlist* (digital music catalog) of songs using her ukulele chord application and play whatever she wanted to. If she had a church performance coming up or gig with her band, she would practice a song that had to be prepared; but usually she played tunes that were of interest to her.

Lucas: Rockin' the Rhythm Guitar

When I'm practicing or learning, if I feel good when
I'm learning a riff, then I'll play the entire song…on my own.
(Lucas, individual interview, June 6, 2015).

Situation

As a child, Lucas remembered an old black guitar sitting in the corner that belonged to his father. At the age of fourteen, he recalled picking up a guitar that belonged to his dad, which had rusty old strings that cut into his hands, and tried to play it. That same day, he went to local music store and picked up a DVD about guitar, which he used to learn his first three chords. He also figured out the notes to the guitar riff from *Smoke on the Water* by *Deep Purple*. Lucas emphasized that all this was done on the same day.

Lucas is nineteen years old, Mexican American, and lives in West Lake. He considers himself a rhythm guitarist and likes to play grunge, country, pop, punk, Christian contemporary, and rock music. He is a psychology major at the community college in this study. When he was a child, Lucas said that he took a few lessons on violin; however, he soon quit his lessons and

decided to learn autonomously. Describing this experience he said, “I had lessons in like third-grade and after that I decide to do my own because I saw that it just wasn't a passion for me” (Lucas, individual interview one, June 6, 2015).

Influence

Thinking about his influences, Lucas identified is father, grandfather, friends, and professional musicians as having a meaningful impact on his musical life. He said that his grandfather and father both had musical abilities, which he observed throughout his childhood. His grandfather was a singer and harmonica player and wrote his own tunes. Lucas reminisced that his father was always performing music in church because he was a pastor. His dad also had an old guitar that was always sitting in the closet. Remembering the guitar as a kid, he said the following:

> It was in his black gig bag. I would open it up once in a while it was in this black shiny thing, you know, and the strings were really rusty, but, it was really appealing. I can remember it always being in the closet and then one time I finally grabbed it. (Lucas, individual interview one, June 6, 2015)

When Lucas was a child, he remembered his father practicing guitar and singing at night.

Also, Lucas identified his skater friends as influencing him musically. He played music with his friend who listened to the same type of music. They would skateboard and jam together after school to the music Lucas listens to, punk rock. He cited popular punk rock musicians as another influence. He recalled being influenced by the catchy music, dynamic performances, and prevalent guitars.

Preference

Preferring up-tempo pop punk music, Lucas mentioned that he liked to make original tunes. He described his music as being mellow in contrast to the music he enjoys listening to. He also discussed his preference for meaningful lyrics and considered himself to be a lyricist. In

fact, when making music with his friend, which Lucas does often, he said, “I'm the lyricist for the songs…he does a lot more of the musical aspect” (Lucas, individual interview one, June 6, 2015).

Lucas also prefers to listen to popular music that has deep and meaningful lyrics. When discussing the lyrics of one of his favorite pop punk bands, he said, “I really like the way that he (John Foreman the singer and guitarist from punk band *Switchfoot Engage*) writes, the things that he talks about they can apply it to my life” (Lucas, individual interview one, June 6, 2015). Additionally, Lucas mentioned that he was partial to lyrics that aligned with his religious beliefs. As a result, he avoided using profanity in his lyrics when writing songs.

Learning

Active listening played an important role in how Lucas learned music, which he felt allowed him to become familiar with a song and eventually figure out its various parts. However, Lucas said that he did not learn exclusively by listening and his ability to learn a song by ear took time:

> I know there's in A minor or B minor seven chord I'm starting to recognize it now and it took couple of years because before I would play the song but then I would have to go to *YouTube*. I didn't know where to go from there. But now I can listen and I’ll figure out the main chords, that way I'll try to sound it out myself. So, listening plays a bigger factor now than when I first started. (Lucas, individual interview one, June 6, 2015)

When asked what he listened for when learning a song, Lucas stated that he focused on the musical components that grabbed his attention, such as rhythm, tempo, and chord progressions. He added that listening to a song to learn it allows him to know the potential challenges he may encounter. Even as a self-identified rhythm guitarist, Lucas said, “I usually tend to get really into the lyrics before I get into the music” (Lucas, group interview, August 25, 2015).

Making music with friends, jamming, and learning from other musicians were considered important to Lucas when learning his instrument. In fact, he felt that collaboration was important to his musical beginnings and linked to his choice to play the guitar. Reflecting on his musical origins, Lucas remembered moving with his family and becoming friends with a group of *skaters* (see Appendix A) that formed a garage band afterschool:

> I found out they were all playing instruments. So, a couple of them played guitar, one of them played bass, there was a kid in the jazz band that played drums too. They would jam out together and so I was like, I got to pick something to jam out whenever I want to with some friends. (Lucas, individual interview one, June 6, 2015)

Lucas recalled the excitement of learning while collaborating with his peers. At one of his first jam sessions, Lucas said he played a few chords from a punk song he practiced on the electric guitar and the other musicians joined in, which he felt was exhilarating and "so awesome" (Lucas, individual interview two, August 12, 2015). During the jamming process, he wanted to learn how to play the riffs and licks that his friends were making. As a result, Lucas would go home and practice the music he learned from his friends.

Lucas mentioned that he frequently played and collaborated with another guitarist, which he said changed how he played guitar, created music, and learned. Reflecting on his time collaborating with his guitar-playing peer, Lucas said the following:

> Um, it's really taught me to appreciate the people I play with because they know more than I do. From there I write a song and maybe sing it, but musically they're up there and that's where I want to be one day. So playing with them helps me a lot; um, it helps me appreciate the people I'm playing with (Lucas, individual interview two, August 12, 2015)

When jamming on guitar with his friend, Lucas tried to emulate the complexity and intensity that was produced by his musical companion. He also sought advice from his friend to learn how to play certain rhythms and licks.

Lucas sought advice from others when he played in different groups. He recalled casually working on a song and his friend advising him to modify his strumming pattern, which he did because he felt that this change improved the sound. To learn the lick, he said his friend played the riff repeatedly until he was able to mimic it and eventually they played it together. In another example, Lucas was jamming with a pianist who played some minor chords he did not know. As Lucas struggled to play the minor chords, the pianist slowed down and showed him the harmonies, so he could figure them out on his guitar. Lucas believed that his time collaborating with other musicians made a substantial impact on how he learned music:

> I was used to just doing my own thing, but I started playing with other people at church, like the praise team, I realized I should probably start practicing with somebody or playing with a metronome because all these people are going to a certain beat and I can't just play wildly, I can just do whatever I want. So it really taught me how to play with other musicians (Lucas, individual interview two, August 12, 2015)

He continued, that playing with other musicians presented opportunities to learn new concepts and improve.

In the third grade, Lucas took a few private lessons and eventually stopped. Reflecting on this experience he said, “Yeah, growing up I had lessons like in third-grade and after that I decide to do my own thing because I saw that it just wasn't a passion for me” (Lucas, individual interview two, August 12, 2015). As he practiced and created music on his own, he would just play and “didn’t try to force anything” (Lucas, individual interview two, August 12, 2015). While he considered that his approach to learning was not for everyone, he said the following about learning autonomously:

> My method of learning made me really impatient with the few lessons I had because he [Teacher] would try to hand feed me everything with a spoon. So the Internet is like right there and I can go on it whenever I want to learn at my own pace. It's easy to access and my method of learning, it just fits. (Lucas, group interview, August 25, 2015)

He concluded that waiting for the teacher to provide the information was frustrating and he just wanted to move on. Lucas said that once he stopped taking lessons and felt like making music, he would sometimes "practice for hours-and-hours without even thinking about it" (Lucas, group interview, August 25, 2015).

When he first started learning to play the guitar, Lucas specified that he thought about technique. As he played more, he found that his approach to learning technique varied between acoustic and electric guitar. On the acoustic guitar, Lucas expressed that he played mostly chords and he did not think about technique or theoretical components of music. He would simply learn the chords that went with the song. On the electric guitar, he changed his approach because electronics required a different approach and his musical objectives changed. When discussing his technique on the electric guitar, he said, "I'm being more intentional about how I'm learning the electric guitar, just because I want to make crazy sounds" (Lucas, individual interview two, August 12, 2015).

As a rhythm guitarist, Lucas was constantly thinking about his strumming technique. During his observation in this study, he continually looked down at his right and left hands. He also closely watched his hands as he slowly practiced difficult passages (Lucas, observation, July 30, 2015). When asked about his *ghost strumming* technique, he provided the description below:

> Ghost strum…is if this rhythm calls for strumming and it has an up down, up down, down pattern. Well on that last down you have to go back up, but you're not actually strumming, so you don't play, but your hand is still in motion. So a ghost strum is like I'm doing a pattern that's like up down, up down, down then on that last up I'm not strumming, I'm just going back down. (Lucas, individual interview two, August 12, 2015)

Online videos and watching others play, were identified by Lucas as two primary methods of developing guitar technique. He appreciated the systematic and concise approach utilized in a number of internet video resources:

> *YouTube*…they just get to the point right away. So like in a five-minute video they'll explain a scale that will teach you how to play scale. Then I can just take it into my own hands until I get it. (Lucas, individual interview two, August 12, 2015)

In addition, Lucas watched videos to learn tricks and licks for soloing. Likewise, he revealed that he would watch other musicians to develop technical proficiency.

Resources

The resources Lucas used included music books, guitar websites, videos, and guitar chord posters. To him, accessibility was an important part of selecting a resource. He believed that a good resource should be available from any location. Lucas preferred brief videos when using online resources. Also, Lucas mentioned that he did not use guitar tablature; instead, he used chord charts and lead sheets to learn tunes. Below, *Table 13* provides a description of the resources used by Lucas.

Resource Code	Affiliated Resource	Implementation	Quotation
Books	Guitar technique books, guitar theory books	Used books to learn chord progressions, music theory, and technique acquisition	"I like to read books on progressions, to transpose when you're playing songs, and things like that. So my curiosity was sparked really fast when I pick something up and it says you can learn this" (Lucas, individual interview one, June 6, 2015).
Internet	Guitar chord and lyric websites, video, online search engines	Print chords and lyrics from online resource to learn, watched tutorials on how to play songs, viewed tutorials to learn technique	"Uh, *YouTube* is like the biggest one because it's so easy I can do it on my phone, I can do it at home on my laptop, or wherever I am. If there's somewhere I can access the Internet" (Lucas, individual interview one, June 6, 2015).
Other	Posters	Learned guitar chords by occasionally studying the poster	"There was this poster with the guitar chords on it, even though I only not as play like 15 of them when I first started" (Lucas, individual interview one, June 6, 2015).

Table 13. Self-learning Musical Resources: Lucas. This table is constructed from interviews and observations in this study.

Process

To learn a new song, Lucas described his six-step process as follows. First, he would pick up his guitar and tune. Second, he would search the internet for tutorial videos. However, if he

could figure out the song by ear, which he preferred, Lucas would take the time to learn the progressions. Third, he would learn changes for the verse and chorus; but, he spent extra time on the chorus because "that's something you want everybody to sing with you, you want them to be able to remember that chorus" (Lucas, individual interview one, June 6, 2015). Fourth, once he was familiar with verse and chorus he would learn the bridge. Fifth, he would hum the melody while playing the chords. Last, he would learn the lyrics and sing them while playing the chords. He described the following approach to master chord progressions:

> So, I'll just learn the chord progression first. Sometimes I'll play the progression and so I'm just switching up the progression so I'm faster with switching chords. So, if it's G, C, D, I'll play D, G, C, or C, G, D. Then once I learn the chords, I put it with the lyrics and I move on to other things. (Lucas, individual interview one, June 6, 2015).

Lucas noted that transitioning between chords could be very difficult and take time to gain proficiency.

Once Lucas was asked to learn a rock song for a wedding of a friend. To learn this song he used multiple online videos, which all served a different purpose. He described this experience in the excerpt below:

> I listened to *Coldplay*, I just never heard that song…I found it on *YouTube* and listened to the actual soundtrack of it. Then I listened to his live performance on it. Then I listened to a stripped down version of it, with just an acoustic guitar. Then I listen to various covers of it too. So at that point I was trying to make up my mind how I can make up my own version to it. *YouTube* helps so I can see different varieties…I can choose how I want to do it. (Lucas, individual interview two, August 12, 2015)

After searching through a number of videos, he selected the version that worked best for him and spent the time to learn the tune. Likewise, he played along with online videos when collaborating with his friend. He described this experience as a jam session with him, his friend, and the video, where they tried to play the correct notes and guitar *fills* (see Appendix A) while singing and strumming along.

Lucas discussed the importance of effort to solve problems. Specifically, he recalled breaking his right hand, which he believed made his right hand weaker than his left hand. As result, he had to spend additional time (when compared to his left hand) working on technique or figuring out complex musical passages. When Lucas could not figure out a musical excerpt or did not have the time to do so, he would make modifications:

> Yeah, sometimes I'll be playing something, like a strumming pattern, and I just physically can't get it. So I'll modify it. If they're doing like a full rhythm I'll do something alternative, like all down strokes. I'll do different chords to make it sound different; I'll change the pattern and fit in (Lucas, individual interview two, August 12, 2015).

In addition to a complete change, as mentioned above, Lucas also made other adjustments, such as fingerings, to make the music playable.

Prior to breaking a song down into parts, Lucas said that he would listen to a tune repeatedly. This was evident during the observation in this study, where he played arpeggios, practiced chord progressions, and solved musical problems by playing excerpts many times. Lucas said, "I have to overthink it and do it over-and-over-and-over again" (Lucas, individual interview two, August 12, 2015).

While Lucas said he predominantly focused on rhythm guitar, he recalled creating beats and adding lyrics informally when he was a sophomore in high school. Using pencils on the desk in biology class, he would freestyle rap over a groove made with his friends. Eventually, he purchased a book that included lists of words that rhymed and he used this book to assist in composing lyrics. Lucas also created songs with words and chord progressions, which he said the following about:

> Um, now I'm just driving and doing random things then a melody will come into my head, usually I'll go off on that but it's kind of hard because I figure out what key that's in or what chord will fit, like what's the main chord I hear. But for the most part I'm playing then I find the chord progression. (Lucas, individual interview two, August 12, 2015)

When a musical problem arose, Lucas preferred to get advice from his friend because if he did not, he said "If I just do it on my own a lot of it will start to sound the same" (Lucas, individual interview two, August 12, 2015).

Conclusion

In this chapter, documentation related to lives of eight informal music learners at a community college was described. This included a report of the situation, background, musical preference, musical influence, musical learning, resources, and processes of each participant. Aligning with the research questions, each participant described their music learning experience and how they pursued musical studies. Each case provided insight concerning their personal musical beliefs and influences, which informed how individuals understand music and self-directed music study.

While participants shared similar and dissimilar experiences related to music learning, each member had a particularly remarkable perspective to share. Emily created her own musical arrangements of popular tunes for piano and voice. To learn songs she emulated other musicians by watching and studying online tutorials, which broke down music she wanted to play. Charlie found it challenging to find time to play his bass guitar because he is a father and college student. Determined to learn songs that he heard on the radio, at work, or in the car, he learned music almost completely by ear, which required an experimental approach to music learning.

Growing up in East Africa, Diaz first encountered music in his community, church, and home. He, too, had to figure out music and taught himself to read musical notation and to understand jazz harmonies. Diaz used method books, observed experienced musicians, and intently listened to recordings of his favorite artists. Jake grew up in a musical home where his parents and siblings played the guitar. On his own, he learned the drums by watching and

listening to others play. Once he listened to a tune, he would go downstairs and attempt to play the grooves on his drum set. Anya described her experiences learning guitar on her own and playing punk rock music, which was the only type of music she liked to play. To learn music, her approach was somewhat haphazard, driven by her own interests, and determined by her mood. Anya learned music by listening, watching web-based videos, and using written resources, such as tablature and method books.

Joe started his musical endeavors by rapping and improvising rhythms with his friends. To learn a song, he listened intently and sought guidance using online resources, such as social media websites. Like other members in this study, Joe mastered raps and beats through repetition; that is, he would listen and try to play musical excerpts repeatedly. Rachel enjoyed singing and playing popular songs from a variety of genres on her ukulele. She spent little time on developing ukulele technique and found chords using applications on her phone, which accompanied her listening process. Lucas played guitar, listened to punk rock, and liked to sing music that was mellow. He worked on mastering songs by actively listening, seeking advice (web-based or from a friend), and studying books on guitar theory.

The individuals provided compelling details about their view and lifeworld as informal music learners, which will serve as the underpinning for cross-case analysis. By looking at the similarities and differences between findings, the significance of participant beliefs and understanding can emerge. In the next chapter, an inference of interview and observation data will be investigated across cases. The final chapter will provide an overview of the study, exploration of informal learning (in the context of this inquiry), response to the research questions, relationship to music education, recommendations for future research, and concluding thoughts.

CHAPTER V

CONSIDERING INFORMAL MUSIC LEARNING ACROSS CASES

Whatever it is, it's doing everything you can possibly do to make yourself better
(Diaz, individual interview one, June 10, 2015)

Introduction

This study examined the musical lives of eight community college students as they learned music informally. Members shared many beliefs, experiences, and approaches to learning music on their own. Even with commonalities related to how participants engaged in music learning, variation emerged among participants. Now that participants and their stories have been introduced in Chapter IV, this chapter outlines the themes that emerged from both the individual responses and the group as a whole to look at the deeper meaning.

In this chapter, situational interpretations of interview data derived from individual interview transcriptions, group interview records, and observation field notes will be presented and analyzed to generate assertions about participant beliefs across cases. Written discussions and visual representations will provide a summary of research findings to illuminate participant perspectives. A description of the cross-case analysis used in this inquiry will be conveyed to make plain the approach used to infer claims. Participant beliefs and experiences will be explored to reveal the similarities and differences across cases. To comprehend how individuals understand musical influence, preference, learning, resources, and processes, assertions will be made that reveal member views and practical knowledge.

Making Connections

In this multiple case study, the experiences and beliefs of informal music learners at a community college were explored to bring to light the common relationships and differences between cases. According to Stake (2006) the purpose of cross-case analysis is to "convey the

most important findings from each [case] somehow as assertions" (p. 41) and "reading case reports and applying their findings of situated experience to the research questions of the quintain" (p. 47). Khan & VanWynsberghe (2008) described the quintain as a mega-event, or common thread, that links the studies together, which have commonalities and disparity. In this study, the quintain is informal music learning as it occurred in a select group of community college students. Stake (2006) stated that the quintain has life and this multiple case study is the act of observing this life, or mega-event, in a variety of situations. Cross-case analysis was conducted in this study to understand participant ideas and "to keep the most experiential knowledge" (p. 44).

Derived from case analysis of participant responses from individual interviews, observations, and group interviews, the following themes and codes were determined.

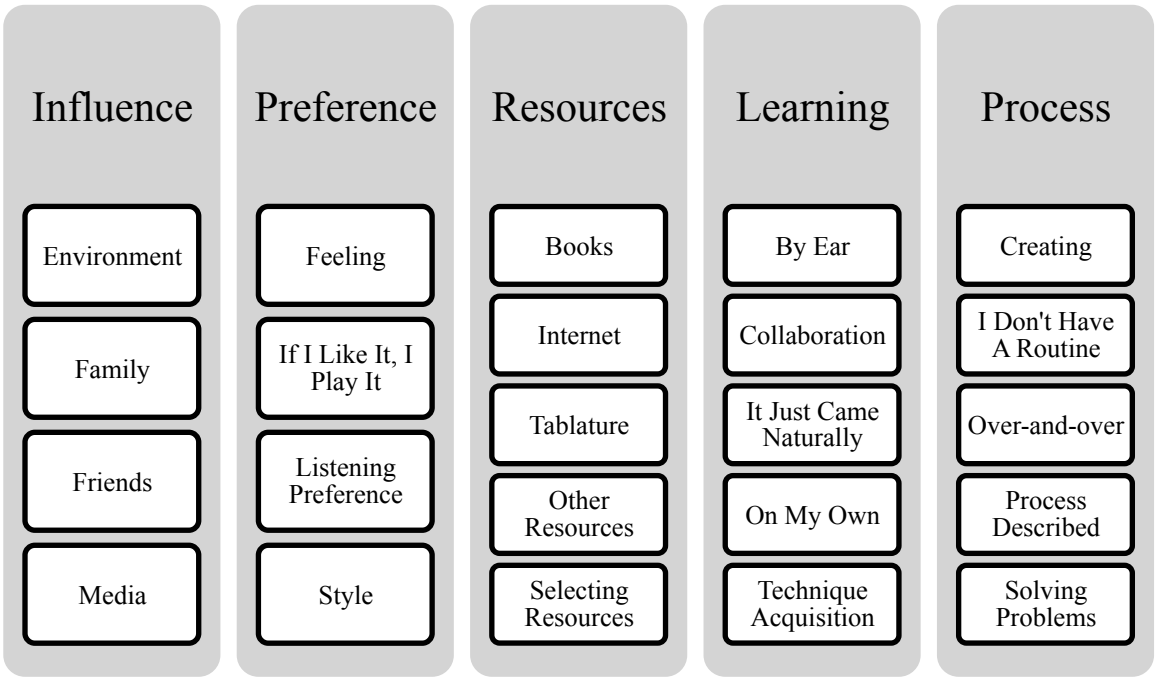

Figure 5. Categories and Codes of Informal Music Learners

In the previous chapter, beliefs and experiences were methodically discussed as they pertained to each participant, separately. In this chapter, the connection and disparity between cases is analyzed to look at beliefs across cases. By drawing from the most compelling findings of each case, assertions were made as they related to the research questions. Individual views varied and contributed to understanding the experiences and beliefs of how participants pursued musical studies. *Figure 6* below, illustrates the interconnectivity between themes and codes in this multiple case study. Specifically, the large boxes represent the major themes that emerged from participant responses, the ovals constitute the codes that came out of individual replies, and the freestanding phrases describe how codes and themes connect.

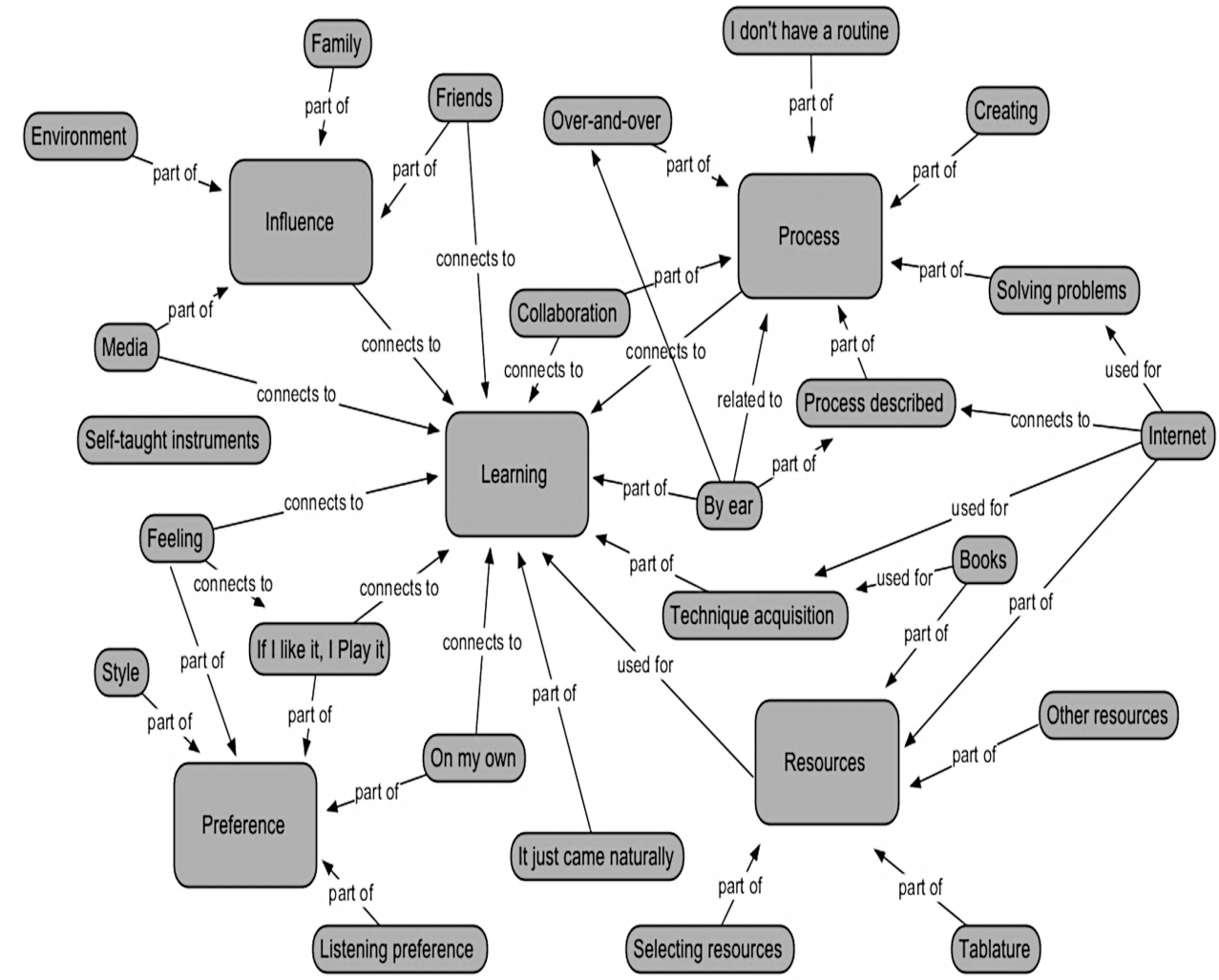

Figure 6. Sematic network diagram of code and theme interconnectivity. Themes and codes are derived from cross-case analysis in this study.

Exploring Beliefs

The eight participants in this study had commonalities and differences regarding their musical background and how they engaged in the music learning process. Learning music informally and being enrolled at the community college were the joining attributes among this cohort of self-taught musicians. When pursuing their musical studies, participants were resourceful and driven by personal initiatives. Members were inventive as they employed

technological devices and gained assistance from others to learn music. Their personal pursuits propelled them toward the music they chose to learn, compelled them to spend time practicing, and empowered them to pursue musical studies.

As a pianist, Emily had her own distinct style of refashioning her favorite songs to suite her stylistic preference. As she undertook musical studies, Emily watched and listened to friends and individuals via web-based resources to learn tunes. Her practice sessions and the music she played varied based on her inclination and passion.

Charlie had a family, worked fulltime, and went to college. So, finding time to make music was a challenge. When he had a chance to play bass or ukulele, he would learn music almost exclusively by ear and experimented to figure out songs and compose melodies. To master a song, Charlie played musical excerpts repeatedly until mastery was achieved, which initially took him a great deal of time. As he gained more experience, the process of learning a song on his instrument took less time.

Like Charlie, Diaz was almost ten years older than the other participants; thus, he had experiences with different types of technology. Further, Diaz grew up in East Africa so his early music learning experiences were unique; yet, his own musical interests also drove him, interests such as playing and listening to gospel music, popular music, and jazz. Diaz also learned predominantly by ear and was determined to pursue musical excellence when he worked on a piece. Using a method book, Diaz learned to read music on his own, which he said took a very long time.

Anya was homeschooled prior to college and exposed to music at an early age by listening to her mother and brother. Like her brother, she played guitar and occasionally sang. To

pursue her musical studies, the repertoire she played was based on her own musical preferences and she practiced when compelled to do so.

To pursue his musical studies, Jake spent a substantial amount of time listening to music prior to playing grooves on the drums. He too, was driven by his excitement and desire to play rock music. Coming from a family of musicians, Jake spent a lot of time making music with others, which he believed influenced his musical preference, understanding, and pursuits.

Instead of rock music, Joe played hip-hop and rapped. As a rapper, Joe pursued his musical inquiry by reworking raps to fit his musical style, which included changing beats and lyrics. To gain musical insight, Joe would experiment on his own, look online, and ask his hip-hop peers for advice.

Spending little time on the technical aspects on her instrument, Rachel learned ukulele and sang because she loved it. She would learn songs by listening, looking up chords, and memorizing the lyrics. She developed her own ukulele technique that she felt worked with her singing and when a musical problem arose, such as a chord she could not play, she would seek an alternative that worked for her. While she typically learned and played music alone, she also jammed and learned from other musicians.

With a grandfather and father who played guitar, Lucas was exposed to music and the guitar at an early age. To pursue his musical passions, Lucas experimented alone and with a friend on his guitar. He played music that was captivating to him and lyrically aligned with his personal beliefs.

For participants, musical understanding was linked to the music they wanted to investigate and learn to play. Emily and Rachel said they did not think about technical aspects of music until it was needed to play a song they were interested in; instead, they simply learned

what was necessary to play the piece. Diaz learned to read sheet music as a result of wanting to play a Wes Montgomery jazz chart, which his friend gave him in the form of sheet music. Joe would meet up with friends to make beats and learn how to enter it into beat making software once he had a project in mind. Lucas and Jake both said they did not really think about technique until they really needed to. Participants also used their own vernacular to communicate musical ideas and did not usually think about theoretical and technical aspects of music. Diaz simply stated, "You don't really think about those things…you don't think about technique" (Diaz, individual interview one, June 10, 2015).

Influences

All eight participants spoke about individuals and life events that had profound influence on their musical interest and learning. In particular, participants were musically compelled by environmental factors to engage in musical endeavors. From individual and group interview data, *Table 14* below provides a general overview of participant beliefs related to musical influence.

Participant	Family	Friend	Media	Environment
Emily	No influence	Friends at school	Animated film music and popular music on the radio	Via media, music in home
Charlie	Step-father	Leo (friend)	Progressive rock bands and musical virtuosos	Constantly listened to music
Diaz	No influence	Sisters musical friends and friend with music book from United States	Gospel music, popular music, jazz, and radio tunes	Traditional East African musicians and church bands
Jake	Father, mother, brother	Drummer friend of father	Videos and audio recordings of classic rock and country musicians	Constant musical exposure in home
Anya	Mother and brother	No influence	Pop punk bands and animated movies	Music in home
Joe	Grandmother	T-nick (made beats) and freestylin' friends	Hip-hop and rap artists	Grew up in an urban and hip-hop culture
Rachel	Mother	Friend's boyfriend	Karaoke and record collection inherited by mothers boyfriend	Church music as a small child
Lucas	Father and grandfather	Skater friends	Professional pop punk bands	Music in his home

Table 14. Participant influences. Derived from interview data related to influence in this study.

Family members had a meaningful impact influencing the musical lives of the musicians in this study. From an early age, some participants observed and heard family members make music regularly. Anya recalled listening and watching her mother play songs on the piano and before she went to bed each night, her brother would play his guitar. When asked what influenced her musically, she said "my environment, the house I grew up in" (Anya, individual interview one, May 20, 2015). Likewise, Lucas watched and listened to his grandfather play

guitar and harmonica; then, he later remembered his father singing and playing guitar. Jake too, had a musical family where everyone played guitar and he believed it was expected that he would make music in some way. Rachel mentioned that her mother and cousin played flute, which influenced her decision to start playing music.

Charlie, Diaz, Emily, and Joe, also grew up in musical homes, but they were not influenced directly by musicians in their immediate family like Anya, Lucas, Jake, and Rachel. Charlie said that his stepfather was influential; however, he never heard him play in his home. Instead, he saw old video recordings of his stepfather playing. Diaz did not have musicians in his family; but his family would host traveling musicians that he would interact with. In addition, his sister brought Diaz to watch and hear other musicians play at long jam sessions where he sat beside them as they played for hours. In her home, Emily watched animated movies and was captivated by the music, which she would sing along to and listen to repeatedly. When discussing his musical influence, Joe said, "hip-hop is all I knew, like growing up all I knew was hip-hop…I feel like in some ways it raised me" (Joe, individual interview one, May 22, 2015).

Beyond the musical influence of their immediate family, popular musicians influenced participants in various ways. Specifically, most participants identified a few key artists and listed multiple influences, who they knew. When asked who influenced him, Charlie began listing popular rock musicians that he said inspired him by "what the sounds are, what the words are, I mean, it keeps me coming back" (Charlie, individual interview one, June 12, 2015). Further, he admired the virtuosic abilities of the popular musicians he listened to, such as bass player Les Claypool from the rock band *Primus*.

Diaz was captivated and influenced by gospel, pop, and jazz musicians, which he heard on the radio, and eventually tried to emulate musically. He also provided a list of popular

musicians in various genres that influenced him. Similarly, Emily listened to the radio and said she would "basically listen to everything other than country music" (Emily, individual interview one, June 8, 2015). Jake initially identified rock drummer John Bonham, from the classic rock band *Led Zeppelin* as his main influence, but continued to list classic rock, hard rock, and country musicians that he found compelling. While Charlie, Diaz, Emily, and Jake listed numerous influences, Anya pinpointed one influential group, the pop-punk rock band *Green Day*, which she said was her biggest influence and the reason she played music. Unlike other participants, popular musicians that played ukulele did not influence Rachel; instead, she played only popular music she liked, which were not originally played on the ukulele.

As they grew up, participants had access to audio and video recordings of music, which they spent a lot of time listening to. Of course, the type of music and method of listening differed greatly. Charlie, Diaz, and Rachel had access to large musical collections in the form of Compact Discs (CDs) or long playing records. Charlie mentioned a giant CD collection that his stepfather had, which he listened to a lot. From a friend, Diaz inherited a large collection of gospel CDs, which he listened to incessantly. Rachel inherited a sizable jazz and popular music record collection that she listened to constantly. In a different fashion, Jake had access to music that he listened to with his family, which he eventually figured out and played. He also spent a lot of time watching VHS recordings of classic rock concerts, which were readily available from his family collection. Audio and video recordings of popular musicians were not the only media that exposed participants to music. For example, Emily had regular access to animated feature films that were full of music, which she frequently watched and listened to.

In some way, each individual in this study had access to musical instruments, which allowed them to experiment, try, and eventually learn how to make music. Due to her brother

and mother, Anya had a guitar and piano in her home. Charlie felt that he had always been around instruments. Diaz saw and sampled drums, guitar, bass, piano, and traditional East African instruments in his community, home, and church. In particular, Diaz recalled playing accordion and drums at the house of his pastor, which he said, "they would let me, the accordions right there in their home, so they would let me play with them" (Diaz, individual interview two, August 12, 2015).

Even though he was a drummer, Jake listened to and experimented with guitars and bass in his home, which he had at his disposal. Rachel had access to a flute at home that she knew her mother used to play. Like Jake, Lucas had a guitar that was always in his house. However, the guitar was not regularly played; instead, it was an old black rusty stringed guitar that he pulled out of the closet and experimented on. Conversely, Emily and Joe did not have regular access to musical instruments. Emily was limited to infrequently tinkering on the piano at school until her parents purchased and inexpensive keyboard for her. Joe had no musical instruments at his disposal; however, he would make beats on whatever was available, such as a table or desk, and he would rap.

For some, musically influential people outside of the home, such as friends and church musicians, also had an impact on participant musical lives. Once his stepfather found out Charlie had an interest in bass, he was introduced to a family friend that showed him the basics. Diaz recalled the profound impact that his drumming pastor and the musical friends of his sister had on him. He sat and listened to these musicians play and eventually he was allowed to tinker on their instruments. Diaz also recalled being influenced by older church musicians, though he also found some of their advice frustrating and discouraging. At school, Emily would see her friends play different tunes on the choir room piano, which inspired her to learn what they played.

Reflecting on the experience, she said, “I saw people playing and I wanted to be able to do that, that was about it” (Emily, individual interview two, August 8, 2015). Joe and Lucas played grooves during lunch at school, where they would freestyle rap and create beats with friends. Joe mentioned that he would watch and listen to his friends for inspiration and to get new ideas. Lucas also listened to his skater friends make music, which inspired him to learn guitar and eventually play with them.

Half of the participants (Emily, Joe, Rachel, and Lucas) mentioned the impact of singing or rapping at an early age, which influenced their musical endeavors as vocalists. Emily sang along to her favorite children movie songs. Joe emulated hip-hop artists, freestyle rapped, and wrote his own hip-hop tunes at an early age. For as long as she could remember, Rachel sang children’s songs and hymns at church. Likewise, Lucas sang along to the songs his father played on guitar.

Preferences

Among all participants, the musical style they played was the form of music they enjoyed. Of course, this had some variation between participants. Charlie liked to listen to and play music from a variety of genres, such as rock, disco, polka, heavy metal, or classical music. To him, as long as he considered it good music, he would play it. Jake also listened to the same music he played; his preference was for classic rock, modern rock, and country music. He preferred rock music because it was direct and to the point. Like Charlie and Jake, Emily liked to listen to and play rock music; additionally like Charlie, she played and listened to a variety of styles to include classical music. Unlike Charlie, additional styles she listened to were animated film music, gothic rock, and punk rock. Emily, Charlie, and Jake also shared a dislike for rap.

Rachel also listened to and played rock music; further, she enjoyed indie music, oldies, and show tunes.

Anya, Joe, and Lucas preferred to play music in one particular style and Diaz described a musical hierarchy based on his musical preference. While Anya said she listened to punk rock, classic rock, electronic music, and video game music; the music she played was exclusively punk rock. In short, with the exception of punk rock, her listening preference varied from what Anya played. Joe listened to hip-hop, rap, R-n-B, and some country music; however, he played and composed rap tunes exclusively. Likewise, Lucas listened to fast pace pop punk; but he preferred to play and compose pop punk tunes that were lighter and mellow. Diaz liked to listen to popular music, gospel music, and jazz. Initially, Diaz preferred to play gospel music because of its western harmonies and African style drum grooves. As he began listening to jazz, he found the complexity and freedom fulfilling and at the time of this study, considered himself a jazz musician. The *Table 15* below shows the differences and similarities between music listening and learning preferences among participants.

Participant	Preferred Musical Listening	Music Learned
Emily	Animated film music Rock music Gothic rock Punk rock Indie rock	Jazzy arrangements of pop tunes
Charlie	Rock music Disco Polka Heavy metal Classical music	Rock music
Diaz	Gospel music Afro-pop Afro-folk Jazz	Jazz Gospel music
Jake	Classic rock Modern rock Country	Classic rock Modern rock Country
Anya	Classic rock Punk rock Electronic music Video game music	Punk rock
Joe	Hip-hop Rap Country	Rap
Rachel	Oldies Show tunes Indie rock Rock Oldies Classical Jazz Country	Oldies Rock Indie rock Country
Lucas	Punk rock (fast)	Punk rock (medium tempo)

Table 15. Music listening and learning preferences. Derived from interview data related to influence in this study.

The type of music that participants played and learned was usually based on their mood. In fact, Anya, Charlie, Emily, and Lucas indicated that they sat down to their instrument and played only when they felt like it. Illustrating this point, Lucas said, “I have to be in the mood to play and then I’ll just pick up my guitar” (Lucas, individual interview one, June 6. 2015).

Further, the type of music that Charlie, Joe, and Emily would write was also dictated by their feelings. Charlie would sit with his ukulele or bass and create tunes based on how he felt. For him, the instrument he selected was related to his emotional state. That is, he played ukulele when he was melancholy and bass when he wanted to play something more aggressive.

Based on how he felt, Joe would make music that was *hype* (fast and exciting) or slower. Emily too was driven by her emotions when compelled to sit down and learn a tune, she said "its just a matter of how I'm feeling and whether or not, if I feel like singing, I feel like playing, or both, its just the mood" (Emily, individual interview one, June 8, 2015). Diaz noted that he too was guided by how he felt when practicing music, at times he would hear a song, become inspired to sit down, and start learning the song when he heard it or something in a similar style. Likewise, Jake would make music when he wanted to learn a song or felt like playing. In addition, he would also play drums when he was frustrated and wanted to relieve stress.

In most situations, the reason participants played and learned music was satisfaction and enjoyment. Anya said that music made her happy and she only learned music that she liked. Charlie played music because it made him feel good. Jake felt that drumming was something that he was good at and it provided him with a sense of accomplishment. When discussing why he played the drums, Jake said "I never got into sports, I was never into that… I just do it [drum] because it makes me feel good to play"(Jake, group interview, August 24, 2015). Emily indicated that playing piano and singing was something she did well and gave her joy. Beyond enjoying music, Lucas felt that music gave him "a sense of fulfillment" (Lucas, group interview, August 24, 2015). Joe described music as his passion that is influenced by everything that surrounds him in everyday life. Diaz simply stated that he likes to make music because it feels good and he likes it. Rachel simply stated that she liked it. During the group interview, Jake summed up by

saying “I don't think anything else needs to be said about that, its just fun” ”(Jake, group interview, August 24, 2015).

Learning

In this inquiry, all eight participants studied music that they preferred and wanted to learn. One of the primary modes of learning a tune or groove was by intently listening to audio recordings or watching videos in various formats. To grasp a song, Charlie, Diaz, Jake, and Rachel reported that they listened to music frequently, which included listening in isolation, in the car, at work, or when doing everyday tasks. Before mastering a song, Anya said that she first listened to a song as a whole, and then broke it down to learn patterns, cues, and musical concepts. As they intently listened to a song, Charlie, Diaz, Jake, Joe, and Rachel said they separated the parts in their mind to understand how different instruments fit, where key changes occurred, and the overall rhythmic patterns. Similarly, Emily specified that she strategically listened to make sense of the musical elements, such as melodies and chords.

Initially, participants listened to a song as whole to understand it and eventually broke it down to learn it. Typically, this was done before looking at chord charts, tablature (guitar symbols indicating string and finger), or sheet music. Diaz and Jake said that they learned everything by ear. Jake added that he wouldn’t know how to play a song if he did not hear it first. For Lucas, this process changed over time. When he first started playing guitar, he would look up instructional videos online; however, he eventually found that it was more efficient for him to learn a song by ear. Anya and Emily preferred to learn songs aurally before utilizing tablature, chord charts, or online tutorials.

To check their work and anticipate potential problem spots in a tune, participants would use their ear. After learning a song by ear, Anya would listen to the recording over-and-over,

checking what she was playing to ensure musical accuracy and locate errors. Using his ear, Charlie would hear incorrect notes, check them and correct them. Emily also listened to a song again-and-again, making sure she correctly interpreted each note and voicing. When listening to a song to learn the parts, Lucas would cognitively map it out and identify potential problem spots, which required additional work.

After or while listening to a song, participants began trying to imitate the chords, riffs, or melodies on their instrument. Anya, Charlie, Jake, Emily, and Lucas would listen to the song, in short excerpts, and attempt to play it on their instrument, which was done by trial-and-error. Diaz, Joe, and Rachel would do both; that is, they would listen first or play along with recordings. During his observation in this study, Diaz listened to a brief excerpt and few moments later played along with the recording, which was a seamless transition. Joe would listen intently and simultaneously begin playing grooves on the table with his fists. Below, *Figure 7* displays the general sequence of how learning was linked to listening by participants in this study.

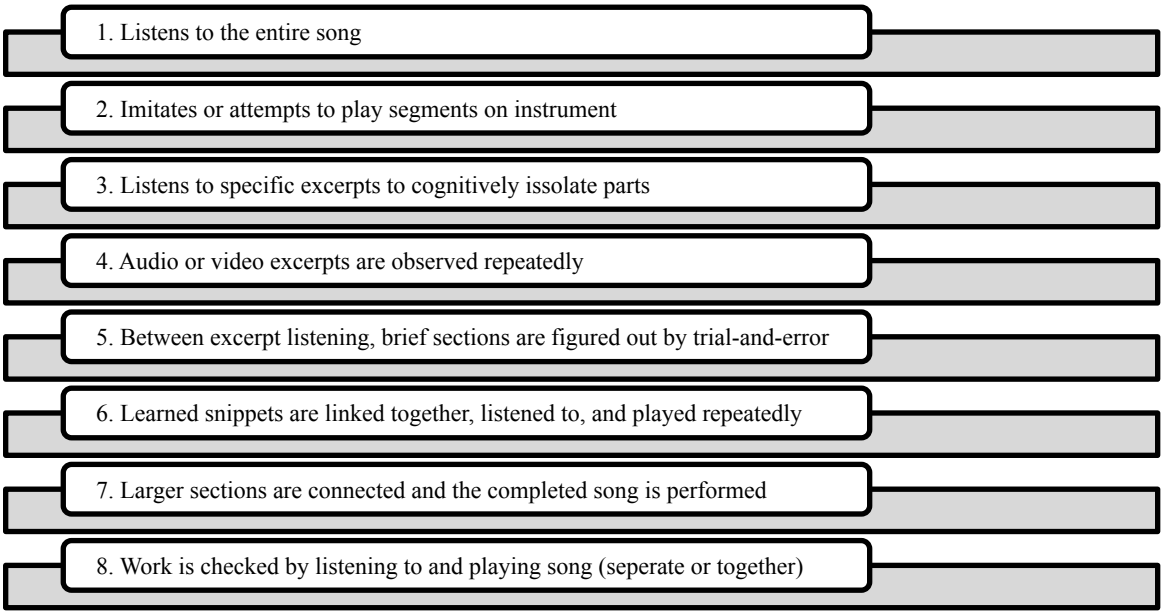

Figure 7. Listening and learning progression. Sequence derived from cross-case analysis of participant responses in this study.

Collaboration was a valued experience that allowed individuals to seek advice, solve problems, learn with others, and improve musicianship. Participants sought advice from others when they had difficulty or wanted to get constructive feedback. Anya, Emily, and Joe all used social networking websites to upload videos or their work to solicit reactions from others, which they could then apply to music they were learning, if they chose. Charlie, Emily, Joe, Rachel, and Lucas asked friends when they ran into a musical section that they could not play. Typically, the other musician would play with them or they would intently watch them play the excerpt. Once they saw how to play it they would try it with their friend or practice it alone.

When playing with other musicians in a variety of settings, participants learned along side their musical peers. Diaz, Jake, and Lucas learned songs informally as a group, such as playing in a duet or in a band. Charlie noted that during this process they would try the song, play it slow, break it down, and eventually play it all the way through. Diaz said that while

playing with friends they could hear errors he made, which he would immediately correct. When learning with other musicians, Lucas, Jake, and Joe said they would repeatedly play excerpts that they were trying to learn. Lucas said that playing with others changed how he approached his instrument and made music. For example, when playing alone Lucas did not think much about keeping a steady beat; but when playing with others he had to keep in time. The experiences of members, illustrated how learning with other musicians can be an interactive experience to improve musicianship.

Participants chose what to learn, when to learn it, and how to learn it on their own. If a piece of music were interesting, then participants would spend whatever time was needed to learn a song. Diaz, Rachel, and Lucas said when they wanted to learn something they would work on it for hours-and-hours. To learn a tune, Anya, Charlie, Diaz, and Emily said that they would experiment with the lick or notes until they mastered them. Using trial-and-error, they would tinker until it was correct. Of course, this process could take a long time. For example, Diaz recalled learning a jazz tune on his own, which took him about a month to complete. Emily and Charlie would hear a song and when they had a chance, sit down with their instrument and try to figure it out. Lucas said that he learned a tune only when the urge struck him and never forced it. Likewise, Joe said that he approached learning a tune in his own way.

To learn technique, participants practiced their music at a slower tempo, deconstructed musical excerpts, used trial-and-error, and consulted various resources. All participants said they would play something slow when trying to master technique, which allowed them to check accuracy. Anya, Charlie, Diaz, Emily, Jake, and Lucas said that they would methodically break down the excerpt, chord, or melody to proficiently play the part. On ukulele, Rachel used her own technique and did not breakdown the strumming pattern; however, she did take time to

figure out the rhythms using trial-and-error. In fact, all participants used trial-and-error when working on technique to see what worked. For example, Diaz recalled working on a complex jazz scale and realized that he could not play it because his fingers were wrong; so, he used trial-and-error to figure out a fingering that worked. Books, tutorial videos, and consulting other musicians were the resources utilized to learn technical skills.

Individuals in this study achieved musical success by playing an excerpt over-and-over. When learning music, participants also listened to passages repeatedly, which was integrated with attempting to play it on their instrument. Emily recalled watching a video multiple times, then sitting down at the piano and trying to replicate it again-and-again. Of course, this required a lot of time. Further, participants reported that they practiced sections of music until they had it, which could take minutes, hours, or days.

Usually, participants did not think about technique when mastering a song. Instead, they focused on learning the song and spent time on technique when it was needed. Emily indicated that technique was not something she thought about; rather, she just did whatever worked for her. Diaz would only work on technique when he encountered a problem that required specific skills. Rachel only learned the strumming patterns and chords needed for the song and was not concerned with technique. Conversely, Lucas spent a lot of time developing his technique using videos and method books. However, when he first started playing technique was not a concern, he just wanted to learn songs that interested him.

Resources

Each of the participants used a variety of implements and approaches to learn how to play a song to gain a better understanding of technique, or become inspired. While many participants used a blend of resources, there was a tendency to favor learning tools that fit individual needs.

None of the participants used a single reference or device to learn how to play their instrument. All of the participants relied on audio recordings to learn rhythms, chords, or melodies. *Figure 8* below illustrates shared and dissimilar musical resource use between participants.

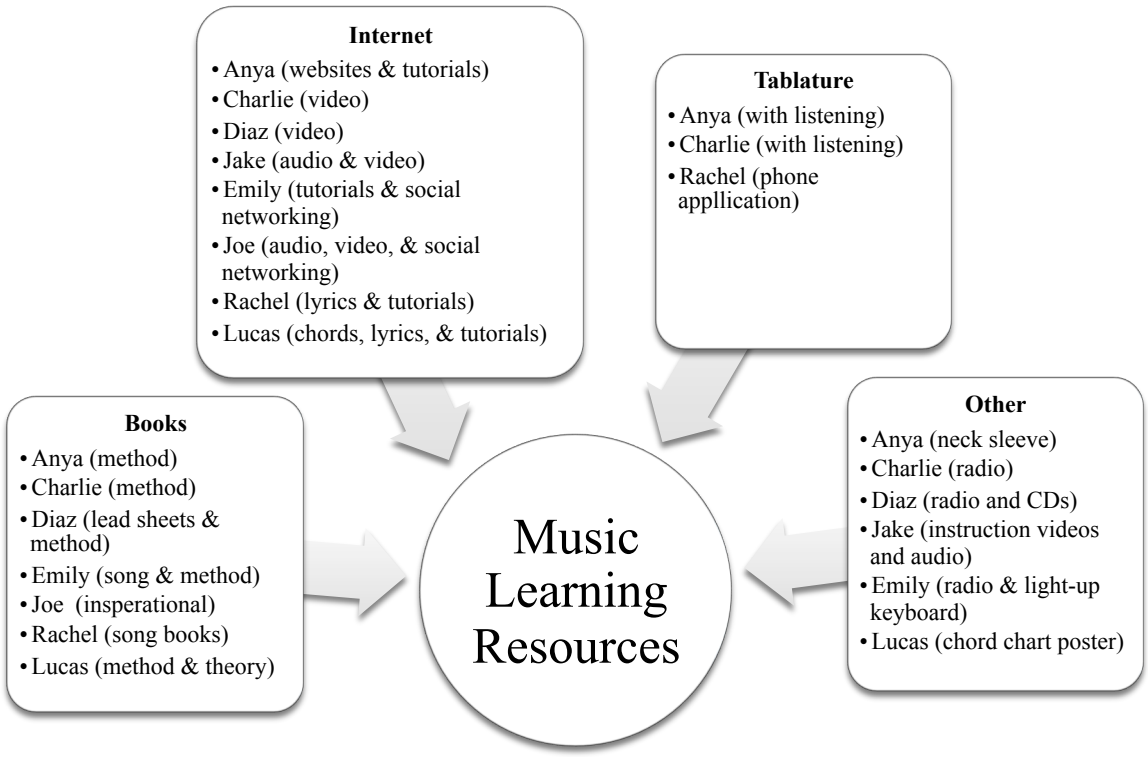

Figure 8. Similar and dissimilar music learning resources utilized by informal music learners.

Individuals used a blend of resources that were determined by preference, accessibility, and availability. Anya primarily used tablature and audio recordings; but she also used method books. Charlie, Diaz, and Jake relied heavily on audio recordings to learn a piece. In addition, Charlie and Diaz utilized method books and web-based learning tools, such as tablature and videos. Jake did not use any method books. Likewise, Joe preferred audio recordings and Internet resources. He did use books; however, they were not music books, rather they were inspirational literature. Emily and Rachel typically used lyrics and written out chord changes derived from websites or applications. Emily and Rachel both used books that included popular

songs; but only Emily used method books. Rachel learned by watching online videos of people playing songs and avoided tutorials. Conversely, Emily used tutorials that broke down how to play a tune regularly.

When selecting resources there were a few factors that emerged across cases, such as cost and quality; however, how and why learning implements were chosen varied. Jake, Rachel, and Joe emphasized that they selected free applications and websites. For example, Rachel would use trial versions of lyric and chord progression applications on her phone. Jake sought out free resources because he said he simply had no money. Joe looked for free websites. In fact, all participants utilized free websites to learn music, such as *YouTube* videos.

Once participants accessed online resources they had to decide which video, tutorial, or tablature transcription was best. To determine the quality of a learning tool, Anya, Charlie, and Lucas said that they made a selection based on the rating given by others. Lucas went beyond this and used the comments to make his initial choice. Discussing his selection process he said, "Sometimes you just read the comments and find out pretty quickly if it's a good source" (Lucas, group interview, August 25, 2015). Charlie also used the rating system to choose videos; however, he still did so with precaution because he had observed inconsistencies with a number of online resources.

Convenience, comfort, and availability were also important to participants when choosing resources. Anya and Rachel indicated that convenience was essential when deciding if a website, phone application, or book would be used. Anya stressed that if the website is available and it can be found again with ease she will use it. For example, Anya used a neck sleeve that showed her where to put her fingers when she first started playing because it came with the guitar. Rachel elected to use music learning materials that could be found on her phone and included

chords and lyrics. Emily was comfortable using online tutorials; so, she selected online videos that systematically showed how to play a song on piano.

Jake was uncomfortable with musical notation; in response, he avoided any resources that used or looked like it may use music notation. Instead, he used audio recordings to figure out drum set grooves and closely watched video recordings to understand what the drummer was doing. To Lucas, videos had to be brief and accessible anywhere he was able to access the Internet. A blend of audio and visual recordings worked well because it allowed participants to watch and listen to musical excerpts as they learned. Diaz and Charlie used audio recordings to learn a tune one note at a time.

Every participant in this study utilized online resources to figure out songs and learn technique. To learn music, online videos, such as *YouTube*, were used regularly to watch and listen to music. Diaz specified that he would watch videos closely to understand what another musician was doing; so he could eventually play it. When a song or musical excerpt could not be mastered, Diaz, Jake, and Emily would look it up online and watch a tutorial to see it played step-by-step. Anya, Emily, and Joe used social networking webpages to get feedback from peers to improve their musical abilities. Using the Internet, chord charts, lyrics, sheet music, audio recordings, and how-to discussions were all used regularly by participants because the resources were easy to find and convenient.

The guitarists, bassists, and ukulele players in this study were all familiar with tablature; but made use of it in different ways, or not at all. Anya and Charlie specified that rhythms were not included; so, they had to listen to know how a song went. As a ukulele player, Rachel used guitar tablature because it included the chord progressions. While she did not use guitar tablature for ukulele fingerings, she did use the chord progressions that were included at the top of each

figure. Even though he played guitar and was familiar with tablature, Lucas preferred not to use it at all; instead, he used lead sheets that included chord progression and lyrics, which was similar to the approach used by Rachel.

Books were an important resource for some of the individuals in this study. Specifically, books were used for technique acquisition, learning to read notation, understanding music theory, and gaining inspiration. Anya, Charlie, Emily and Lucas all used printed texts to learn technique on their instrument. To learn how to read music notation, Anya, Charlie, Diaz, and Emily all utilized method books. For Anya and Charlie, written materials showed them how to read sheet music and tablature. Charlie noted that he still used his method book as a reference. When his friend brought him a piano text from the United States, Diaz tediously went through the pages and learned standard musical notation. He also used books to learn jazz chord voicing and technique.

In addition to method books for reading sheet music, Emily used vocal/piano songbooks with music from her favorite bands and arrangements of classical repertoire. Lucas used guitar technique and theory books to learn progressions; however, he stressed that he never used them to learn songs. While he did not use printed material with notated music in them, Joe used books to get ideas and inspiration.

Processes

The processes used by participants emerged as a theme in this study, which demonstrated the step-by-step, and sometimes disorganized, approach used to learn music. The approach described and observed by members in this inquiry, were central to understanding how individuals structured their practice time and musical studies. While variation between cases

existed, the flow chart in *Figure 9* below illustrates findings related to participant music learning procedure.

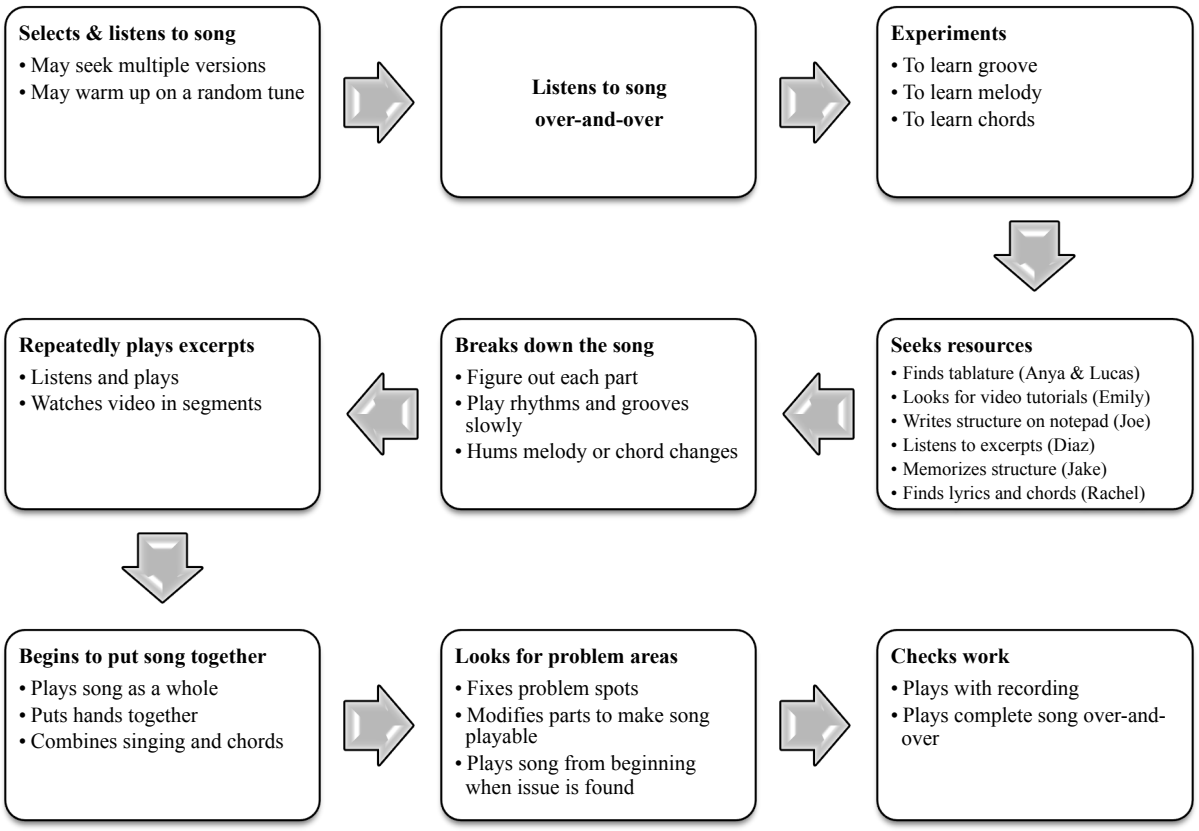

Figure 9. Music learning processes flowchart. Derived from a cross-case analysis of participant responses related to music learning process. Also, some sections intentionally left blank.

The process for some participants was cyclical; specifically, they would listen, figure it out, play over-and-over until mastery was achieved, and repeat the process again. The approach used was individualistic and based on preference. For example, Charlie occasionally played along with audio recordings, but he preferred to learn excerpts from memory. Diaz and Emily listened to short audio sections on their computer then took the time to learn each musical idea, which was done repeatedly until they could play it smoothly. Jake also played music without the

recording or a reference, except what was in his head. Of course, acoustics could have been a factor, since it would be difficult to hear a recording when playing the drums.

When studying a piece, most participants did not stick to a systematic regiment; instead, sessions varied and were commonly based on mood. Anya and Rachel mentioned that they would only make music when they felt like it and what they set out to accomplish was derived from self-interest. With kids and a busy family life, Charlie would only study music when he had the time and his focus would change abruptly based on his liking. Similarly, Emily would practice various tunes based on her interest at a given moment. For example, if she was learning a song and a part of the melody made her think of another tune, she might start working on the new song until she felt like returning to the previous piece, or end up playing something else entirely. When he began making music, Jake stated that he spent time on whatever came out and Joe would practice whatever compelled him until he was no longer engrossed. Diaz did have a routine to his approach, knowing what he planned to accomplish. However, he said that it was not rigid and if he became bored he would stop playing or change his musical focus.

Time was another consideration discussed by individuals related to their practice protocols. None of the participants had a specific time that they would sit down and study music. Instead, they would work on a tune until they were tired, bored, or had something else they needed to do. This did not mean that all practice sessions were short; rather, participants would sometimes work for hours when they were motivated to learn something of interest. Also, music study times varied based on a number of factors related to their work, class, and family schedules. Charlie and Diaz said that some songs would take a few minutes and others could take hours or days. Emily also said that the process of learning a tune could take a long time; so she would sometimes be stuck at the piano for several hours.

Participants used repetition as a regular component of their music learning process, which allowed them to methodically work through passages and ensure accuracy. Listening and playing a musical excerpt over-and-over until it was mastered, was how Anya and Charlie said they learned a tune. During his observation, Diaz listened to a segment repeatedly then played it again-and-again, eventually learning to play the complete song. Like others, Jake would slow down grooves, play the rhythms multiple times, then eventually increase the tempo until he could play the figure up to speed. When she had difficulty with part of a song, Emily said she would keep trying by playing the lick many times. Rachel and Lucas said they would figure out the tune by playing segments repeatedly until the song was mastered.

Improvisation was integrated into participant music learning processes; however, it was manifest differently between players. As a jazz musician, Diaz improvised by changing melodies and altering chords as he learned a tune. Charlie composed original melodies and riffs on bass and ukulele. Emily learned songs in different keys by making a game out of it and modifying the original tune to fit her jazzy piano and vocal style. Similarly, Joe altered lyrics and rhythms of popular raps to align with his own message or remix the rhythms. Lucas created lyrics, melodies, and poetry focusing predominantly on composing his own musical works.

The processes implemented by participants to solve musical problems included separating parts, seeking help, and experimentation. For Anya, breaking a musical excerpt down to learn it included attentively listening to rhythms and chords, playing the section multiple times slowly, and eventually playing it back up to speed. Diaz also played problematic musical segments at slower tempi to figure them out and check to make sure he was playing correctly. When he encountered musical problems, Joe would listen to a brief excerpt, try it, and then repeat this process until he resolved the issue. As observed during her observation, Rachel solved

musically difficult situations by stopping, playing the excerpt a few times, and moving on to the next challenge.

Looking up web-based tutorials, asking other musicians, and consulting music books, were ways that participants sought guidance to resolve musical problems. Anya, Charlie, Emily, and Lucas said they looked up online tutorials of songs they were trying to play and followed the step-by-step procedure provided. Anya used tablature and Internet videos simultaneously, by listening to the audio, watching the video demonstration, and referencing the tablature, to remedy difficult musical sections. Lucas played along with online videos and tried to make corrections in time. Diaz would ask peer and professional musicians for advice on how to gain insight on mastering a section of a tune and piano technique. Also, Diaz checked his lead sheets when a chord or melody seemed incorrect.

Experimentation was another component that was implemented to solve musical problems by participants. Initially, Diaz learned to play songs by listening to the tune a few times then experimenting to learn a melody or chord note-by-note. Charlie also found the starting pitch to a song and played around until he figured out the music. If they could not figure out how to play a musical excerpt Jake, Emily, Rachel, Joe, and Lucas made modifications to chords, rhythms, or other musical items, which required experimentation until a suitable alternative was discovered.

Summary

The informal music learners in this study acquired knowledge by repeatedly listening to music and imitating other musicians, after watching them in person or via online. In pursuit of their musical studies, participant's cognitively deconstructed musical excerpts to learn parts, slowly practiced segments of a tune, and used trial-and-error to learn how to play. Though

musicians in this study did not think about technique regularly, they were persistent in pursuing musical achievement. As informal music learners, many musical undertakings were autonomous; yet, participants also sought advice from others to solve musical problems.

Green (2002) found that self-taught musicians chose to learn music that they favored from enculturation. Likewise, this study found that participants worked on music they preferred and listened to regularly. Also, members of this investigation experienced a musical environment, which began with musical exposure during childhood. Regular access to recordings of popular musicians, listening to family musicians in the home, and watching musicians outside the home influenced individual musical lives.

While the type of music individuals preferred determined what they would study, isolated musical practice and collaborative musical experiences were guided by feeling and mood in a given moment. A sense of fulfillment and enjoyment was a primary reason participants chose to learn music and play particular songs. When musical interest was lost or attention redirected based on another musical pursuit, members worked on whatever they found musically compelling at the time.

Based on convenience, comfort, and availability, participants used various resources to pursue musical studies; however, learning music by ear was paramount. Similarly, in their studies about learning in popular musicians, Green (2002) and Jaffurs (2006) found that informal music learners used listening to understand and replicate music. When selecting learning tools, individuals in this inquiry chose music learning materials that suited their needs. Most, utilized a blend of resources; though, how the materials were implemented varied between cases. Music notation was put to use only by a few participants; instead, tablature or chord charts served as

written information to learn songs, which was accompanied by listening. Further, audio and visual materials were commonly employed and used to mimic or break down a song.

To practice, the process was described as a step-by-step undertaking; but it was commonly ad hoc and disorganized. Yet, when participants were compelled by a musical endeavor they would focus on mastering a work until they accomplished their musical goal, which could take several hours. Further, there was no set period of time for practicing music; instead, it was whatever worked for the individual. To solve problems members frequently asked others for solutions or they would search websites. Creating and improvising were also imbedded as part of some learning processes.

The material presented in this section provided further insight into how informal music learners engage in musical studies. The way individuals gravitated toward resources that were conformable and easy to access could provide guidance for music teachers when selecting learning tools. The differing approaches to using printed publications or web-based music learning materials is important to consider, as students have different learning styles. Participant reliance on aural skills to learn music, illustrated the value of listening to develop musical skills and the ability to self-detect musical errors, which music teachers could further explore. What worked and what did not work varied among participants. The importance of aural skills and personal interest was evident in all cases; but the approaches used and devices employed differed among members of this study.

In this chapter, cross-case analysis results were conveyed to provide clarity and illustrate the interconnectivity across cases. An analysis between cases was presented to provide assertions derived from meaningful findings of participant beliefs and experiences, which were extracted from interview and observation data. The final chapter concludes with an overview of the study,

discourse on informal music learning, response to the research questions based on findings, limitations and potential future research, and a conclusion.

CHAPTER VI

IMPLICATIONS OF INFORMAL MUSIC LEARNING

Uke is not an obligation because I'm the person I have to be good for.
(Rachel, individual interview two, August 11, 2015)

Introduction

To correctly position this study, research related to informal music learning was presented and described in previous chapters, which included an account of the methodology and constructivist framework. Using interview and observation data, the experiences and beliefs of the eight informal music learners at a community college was recounted. In chapter five, cross-case analyses revealed shared and dissimilar beliefs between participants. To conclude, this chapter provides a discussion of the implications derived from data and analysis, which includes the following sections: Study Overview; Understanding Informal Music Learning; Answering the Research Questions; Informal Learning and Music Education; Recommendations for Further Research; Conclusion. During the course of this final section, the previously shared participant experiences provide a point of departure for making sense of informal music learning and its meaning in music education.

Study Overview

To understand informal music learning, eight individuals shared their beliefs about how they studied and learned music on their own. Participants described their way of thinking about music learning in individual and group interviews, which produced a rich description of musical and personal experiences. The aim of this inquiry was to gain insight into the musical lifeworld of this group of informal music learners at a community college, to better understand how they discover and understand music.

The data collection process occurred at the beginning of the summer (Mid-May 2015) and concluded at the start of the adjoining fall semester (Mid-September 2015). Once participants were identified and recruited, individual interviews were conducted, which included open-ended interview questions designed to investigate beliefs about informal music learning. After the initial interviews, personal musical practice was observed and transcribed. Derived from preliminary individual interviews and observation field notes, follow-up questions were developed to further probe member beliefs about music learning. Group interviews were conducted and transcribed as a final query into member understanding. With the assistance of qualitative research software, the aforementioned data were analyzed and the following five themes emerged: influence, preference, learning, resources, and process. These themes were a central component of answering the research questions discussed later in this chapter.

Once individual cases were explored, member checks were conducted to ensure that participant views were accurately represented. After individual cases had been investigated, a cross-case analysis was coordinated to reveal similarities and differences between cases. To preserve the integrity of individual views during cross-case analysis, and throughout the course of this study, a constructivist lens was maintained to authentically represent participant realities. That is, the distinct views of each member were valued and confirmed (via member-checks) to ensure that their separate and personal understanding was accurately depicted. Further, a peer debriefer reviewed data and asked questions to provide an impartial perspective, consider interpretations, and challenge assumptions. Once the strongest findings were established, assertions were carefully considered and presented in this document.

The participants in this study divulged similarities and differences concerning their views and experiences as informal music learners. Many of their beliefs aligned with the general

findings found in previous research related informal music learning (Augustyniak, 2014; Folkestad, 2006; Green, 2002; Jaffurs, 2006; Söderman & Folkestad, 2004). Though, the in-depth personal accounts of how participants in this study pursued musical studies, selected and implemented various resources, recounted their music learning processes, and described the influence of their musical environment provides fresh insight into music learning. The variation among participant beliefs illustrates an assortment of approaches implemented by informal music learners, even when using similar resources and approaches.

Understanding Informal Music Learning

Personal Interest

Propelled by self-interest and desire to learn their instruments, participants in this study approached music learning in a variety of ways. In many instances, members had shared beliefs and stylistic preferences that were similar. Emerging from the themes found in this study, the material presented in this section elucidates the findings derived from interview transactions, observation field notes, and cross-case analysis.

For individuals in this study, personal preference and self-interest determined what music they would learn, when music would be played, where music would be practiced, and how music was studied. When motivated, members would work on a piece of music until they achieved their personal goals, which included sustained focus (sometimes for hours) when driven by a self-determined task. That is, participants seemed to be motivated to complete musical tasks, regardless of how long they would take. While practice sessions could be brief or long, they were directed by how much time was available, self-determination, and personal interest. Likewise, the duration spent on certain tunes or specific musical skills was determined by individual preference. These findings were consistent with the scholarly work of Green (2002), Jaffurs

(2006), Marsick and Watkins (2001), Thibeault and Evoy (2011), and Schippers and Bartleet (2013), which found that informal music learners were motivated intrinsically by self-interest and driven by an intended result.

As observed and reported in this study, focus on a musical task may change at any moment based on personal interest. That is, if a participant was playing a song and heard a motif that was reminiscent of another tune, he or she may begin to experiment with the new musical idea, then possibly return or pursue another course. Similarly, the type of music played or practiced by participants was selected based on their impression at the moment. Specifically, their mood determined if they would play music that was fast, slow, happy, sad, or in a particular style. This finding adds to the work of Mills (2007), which found that musicians would figure out songs that interested them. Further, results of this inquiry found that participants would maintain focus when determined to master a work; but they may tinker with other tunes if interested.

Listening and Watching

To learn a song, musicians attentively listened to the music and aurally discerned to ensure accuracy. Overall, participants would listen to the song as a whole and eventually learn intricate sections by listening intensively to musical excerpts. Additional resources, such as tablature or chord charts, were accompanied by listening to learn rhythms and certify accuracy. When resources were not utilized, members would figure out musical excerpts by ear, which required repeated listening and experimenting to find pitches one note at a time. These findings support other studies that illustrate the importance of aural musicianship and replication used by informal music learners (Augustyniak, 2014; Cooke, 1978; Green, 2002, 2008; Woody & Lehmann, 2010).

Combined with listening, participants watched other musicians in live settings or via web-based videos to learn music. To understand what they heard and saw, individuals would imitate other musicians by copying them, repeatedly watch and listen to online videos, observe and mimic a friend, or figure out what they saw another musician do by trial-and-error. In all cases, watching other musicians make music allowed participants to echo what they aurally and visually observed. This discovery added to the works of Augustyniak (2014) Green (2002, 2008), and Walderon (2009, 2011) which showed that purposive listening, observation, and mimicking, in digital or live environments, was favored by informal music learners. In this study, the initial musical discoveries of participants were from watching and listening to parents, friends, and other musicians, which provided musical influence and modeling.

Repetition

As part of their learning process, all individuals used repetition to understand a piece of music and solve musical problems. Practicing and playing music repeatedly was common in all musical activities, such as learning excerpts, mastering an entire song, or learning a tune with others. Of course, the process of learning music by playing it over-and-over again was methodical and time consuming. As previously mentioned, participants rehearsed recapitulated musical selections only when they were compelled and determined to do so. These findings support previous research that showed the use of repetition by informal learners to study music (Augustyniak, 2014; Green, 2002).

While playing music repeatedly to achieve a musical skill was common among participants, practice routines were not always regimented or predictable. Instead, personal music rehearsals were usually unplanned and irregular. Some participant music learning processes were cyclical; that is, they would listen, figure out musical passages, play excerpts many times, and

repeat this process through out the song. Participants did identify a step-by-step procedure; however, this could change based on predilection or musical need. Also, participant practice sessions all included the following attributes, which were outlined in *Figure 6* (p. 188) in chapter five: listening, experimentation, employing resources, problem identification, and self-evaluation. Aligning with previous research, the processes used by informal learners are not sequential and are guided by contextual factors, individual preference, and intended results (Marsick and Watkins, 2001); though, consistency was occasionally observed in this inquiry.

Trial-and-Error

Musicians in this study would experiment to learn musical passages and resolve musical problems. Initially, participants would use trial-and-error to find a solution to musical issues. Eventually, individuals sought assistance by using resources, such as books, web-based tutorials, or friends, to self-check and make use of the aforementioned learning tools. Further, modification and improvisation were used when participants favored an alternative approach to playing a song because it could not be mastered, they wanted to alter the song based on preference, or they felt like playing impromptu. In general, this was realized in a myriad of ways among participants.

Learning a song or groove was the main priority for participants; as a result, technique (skill set required to play a specific musical task) was not used until it was regarded as essential. In some cases, technique was not considered at all, or a self-made approach was developed that suited individual needs. When a particular competency was requisite, members would use resources, play excerpts slowly, consult others, or deconstruct passages to acquire the proficiency needed by trial-and-error; thereby, allowing members to achieve musical objectives.

Guidance and Resources

Making music with friends, playing with family members, jamming in bands, or using collaborative digital environments to get helpful feedback was all valued as part of the learning process. In many instances, individuals learned alongside collaborators and sought advice with the intention to improve musical abilities. To improve musicianship, members observed, listened, and learned alongside their musical peers or more experienced musicians. Further, they would contribute to the learning process by providing feedback and asking questions as they acquired new knowledge. These findings compliment Allsup (2004) and Jaffurs (2006) studies that found flexibility, social interaction, and mutual trust were an important part of the informal collaborative experience.

Resources that allowed participants to hear music, watch others, see music represented visually, and suited individual partiality were put to use. No single resource was used exclusively; instead, a blend of music learning materials, which were comfortable and familiar to participants, was utilized. Further, aural skills served as the core of music learning endeavors, as listening accompanied all music learning resources and activities. A variety of factors were considered when selecting resources, such as quality, cost, convenience, and ease. These findings add to the research of Green (2002, 2008), which found that informal learners used a multiplicity of resources to learn.

Answering the Research Questions

To gain an impression of the how informal music learners experience their lifeworld, three research questions guided this inquiry. Based on the examination of data in this study, this section focuses on answering the following research questions.

1. How do informal music learners at a community college pursue musical studies and describe their experiences?

2. Based on participant experiences, how do these beliefs and ideas influence their musical understanding?

3. What aspects of how music is learned do participants perceive as being beneficial to other musicians?

When pursuing musical studies, participants learned tunes that appealed to them and their interests, which motivated members to practice. While practice time and approach varied between cases, musical investigation was not a simple undertaking; instead, perseverance and time was required to achieve musical success. During practice sessions, individuals typically focused on the task at hand; however, other musical or non-musical interests sometimes distracted them, which led to learning different chord progressions, grooves, or tunes not requisite for the song being mastered. While practicing, the objective was to learn a particular piece of music; so technique was rarely considered unless, or until, it was necessary.

For individuals in this study, listening was a key component of the beginning, middle, and end of the learning process. That is, music was initially selected by hearing the tune, concentrated listening was used to learn the piece, and aural comprehension ensured accuracy. When listening to learn, the act was purposive and focused on efficiently learning musical intricacies, which were attempted and eventually grasped by trial-and-error. When needed, aural musicianship was accompanied by music learning tools or other musicians. Method books, theory books, web-based tutorials, online music videos, tablature, chord charts, lead sheets, and sheet music, were some of the resources used by participants as they listened to and learned music. In addition to watching videos, members gained musical insight by watching and listening to other musicians (online or face-to-face), which allowed them to solve problems or

learn alongside others. When working with another musician or web-based video of another musician, individuals would use imitation to replicate and proficiently play the excerpt or song.

Playing music they preferred, learning music by ear, spending time on competency, and making musical decisions were meaningful for participant understanding. By self-selecting songs based on interest or musical taste, individuals felt fulfilled and were driven to learn music that they valued. For them, making and learning music was something they took pleasure in and did by choice. In many cases, members comprehended that learning music was not easy and was actually arduous at times. However, tenacity was exhibited when learning songs, even when distracted by other musical interests or infrequent practice time.

Listening was attached to every musical activity pursued by participants, which had a profound impact on their musical comprehension. In many cases, members would try to learn a song exclusively by ear. If successful, they would continue using aural comprehension. Another point is that listening was commonly combined with visual resources, such as tablature or chord charts, to learn a tune. Of course, listening was still essential to comprehend rhythm, chord progressions, melodies, and make sure a tune was interpreted correctly. Likewise, learning from and with other musicians necessitated acute listening of audio recordings or other musicians.

Musical competency was assumed to take a lot of time and members were inspired to invest whatever duration was required to proficiently play a song. Also, individuals were not usually concerned with technique unless it was imperative to master the work. Among some cases, if they did not have the prior knowledge or the time to accurately learn an excerpt, some musicians in this study decided to modify the music because their intention was to play the song as a whole. Participants understood the limitations in their musical skills; so, they would seek

additional resources to obtain knew knowledge and create an alternative approach based on their current understanding.

Participants believed that listening, diligence, and asking questions were essential for musical success. When asked how their approach to learning music could benefit other musicians, all participants noted the importance of listening. For members in this study, aural skills were vital in understanding musical concepts and acquiring technical skills, which were considered essential for accurately interpreting a tune. Expressive musical components were also learned by ear, such as dynamics, phrasing, and the overall feel of a song or groove. When playing with or learning from other musicians, listening was a core element of communicating musically and understanding new concepts. Books, videos, and other resources were commonly accompanied by audio recordings, which required musicians to use and develop a keen sense of hearing.

During interviews, participants repeatedly iterated the importance of persistence to learn a song, which was also viewed during observations. Likewise, many believed that diligence and hard work were essential for other musicians to consider for musical success. In many cases, participants discussed times when musical success was difficult. However, musicians in this study rarely gave up or ceased learning a tune; instead, they repeatedly illustrated tenacity via repetition and hard work until mastery of challenging musical excerpts was achieved. To resolve complex musical issues, individuals would use resources or consult other musicians (using web based social media or face-to-face interactions) to solve problems. Of course, once they found out how to play something demanding, they would have to spend time, hours or days, practicing before they reached their goal. While participants approached music learning in varied ways,

they all viewed a concentrated effort toward musical objectives as important to musical achievement.

Informal Learning and Music Education Policy

Participants in this inquiry were motivated to study music on their own and make musical decisions on their own terms. Their incentive and drive to make and engage in musical activities autonomously was fueled by self-interest, which required sustained attention to accomplish musical aspirations. In this sense, members of this study demonstrated continued musical attention and a lifelong passion for making music. Looking at the attributes of informal music learners, and considering why they make music into adulthood, could provide insight that may assist music teachers in fostering prolonged music learning in their own students.

Embracing approaches used by informal learners, music educators could guide students to make music alone and in student led groups. Encouraging music students to learn music on their own, would equip them to solve musical problems and make musical decisions with minimal assistance, which could foster a long lasting interest in music studies. So, why might music students need to know how to work alone? Once they leave the music classroom, students would need to act as self-determining agents and learn to design, obtain, and implement a plan for musical improvement.

To provide the competency of discovery learning, an approach similar to the participants in this study, which sought advise from musical peers or more experienced musicians, would need to be employed. In this design, the teacher could serve as a mentor to model musical complexities, learn alongside students, or point them to needed resources. Of course, acquired skills cannot be predicted because students will have different approaches and preferences; instead, playing by ear, using online videos, working with peers, utilizing tablature, reading sheet

music, or other possibilities could be put into practice based on student partiality. By fostering independent music making, music educators might be able to inspire students to learn music for life.

When playing music with other musicians, individuals in this study felt useful making musical decisions and believed that playing with peers was advantageous. Likewise, student led ensembles could provide ownership and allow students to learn from fellow musicians, whether it is selecting music or fixing an excerpt that does not sound right. When collaborating with other musicians, students may have the potential to contribute based on their expertise, gain knowledge from all members, collectively resolve issues, and provide creative input. Playing with others could also require diversity in how musicians approach their instrument, as some groups may play by ear and others utilize sheet music. As well, students may need to adapt or learn from musical associates, which could eventually allow them to adjust to new conditions and experiment to sort-out collective problems. Aligning with this suggestion, Allsup (2004) recommended a democratic music classroom, where students equitably make musical decisions with the teacher, which was based on collaborative models used by informal learners. In the design presented in this paragraph, the teacher could guide student musicians to operate equally among peers.

Based on the practices of informal music learners, music educators could take advantage of motivating students by developing curricula derived from student interests. In this study, participants played music they were passionate about and compelled to learn. This point can be meaningful because learning a piece of music requires a considerable investment of personal time and maintained focus, which takes intrinsic motivation and individual determination. By choosing the music to be learned, which they control as the performer and arranger, students

could take ownership because they personally identify with the music and the mode of presentation. Considering the findings of this study, informal music learners are motivated by enjoyment, self-interest, and worthwhile musical activities, which were linked to how participants learn. That is, individuals understand and figure out music in a multitude of ways that fit their own predilection. Music educators could potentially promote student driven musical endeavors that are propelled by personal inclination, which may stimulate and excite musical engagement.

Music teachers could take advantage of some of the techniques and approaches implemented by informal music learners, such as purposive listening, mimicking, repetition, and technological use. Listening was the primary mode of comprehending and figuring out music for all participants in this study. In addition, every musical resource, such as tablature or chord charts, was accompanied by an aural component. Specifically, informal music learners listened purposefully to choose music, deconstruct a song, understand individual parts, and grasp form. Students might make better sense of music if they learn to listen intently and transfer what they hear onto their instrument or voice, which could potentially improve their overall aural comprehension.

To learn, musicians in this study watched, copied, and repeated what they saw other musicians do. This was done by working alongside other musicians and viewing music videos. Likewise, music students could benefit, at all levels, by observing and copying other musicians, such as a teacher, fellow student, or seeing a web-based video. As they watch others and are given sufficient time to emulate observed musical behaviors, students can copy and learn important musical concepts, such as technique. Further, music educators could embrace technological resources that show students how to play an excerpt or song from any location.

Also, teachers could exhibit how to discriminate between resources; so they learn music properly and do not waste time with poorly contrived tools. Individuals in this study used resources that were comfortable and worked best for them; likewise, music educators could assist students in locating resources that suite their learning style, interests, and needs.

Musicians in this study predominantly played instruments used in popular music, focused on music they liked, and learned in ways that suited personal taste. For music educators, this could allow them to attract a whole new group of music students. Of course, the methods and approaches used by informal music learners may differ from traditional music students; but this cohort of potential music students could provide music instruction for an even larger group of individuals. When recruiting self-taught musicians, music educators could embrace and implement the methods used by informal learners to build a curriculum that suits their needs.

To apply the ideas presented in this chapter, future music educators could be given opportunities to experience and apply informalities into the classroom. To do this, college students in music education classes that learned music formally could practice making music informally. For example, a project or course that allows pre-service music teachers to learn a new instrument by ear, without the assistance of music notation—though any other resource could be used—may provide valuable insight to understand the approaches used by informal learners. Of course, a future music educator that has a background in informal learning may embrace what they already experienced and allow formal and informal traditions to coexist.

Building a curriculum based on student interests presents some challenges related to music teacher education. Specifically, there is no definitive skill set that would enable teachers to effectively teach a music class where every student pursues their personal music interests. Instead, there are multiple possibilities that a music educator would need to be prepared for

because it is unfeasible to know everything. So, preparing music educators to guide students based on their interests and knowing how to work alongside student musicians in a constructivist nature could yield success. Future music educators could understand that they may not be experts in this context, though they will be at times; rather, they are co-learners that have advanced musical knowledge, which could assist young musicians in their interest and pursuits. Further, music education students can learn about, and how to apply, constructivist approaches to the music classroom. For example, they could be instructed to promote purposive music listening in their future classrooms; thus, allowing their students to make corrections and decisions that may improve performance and value student input.

Recommendations for Further Research

This study investigated informal music learning in the lives of community college students from a completely qualitative method of inquiry. While this adds to the breadth of research in informal music learning, the results in this study are not broadly generalizable. So, further investigation using quantitative and mixed-methods research could potentially provide additional insight by studying a larger sample of participants. Also, this research focused on musicians at a community college; so, this study could be extended further to target different age groups at varying institutions, such as universities, public K-12 schools, or private music studios. Further, self-taught musicians not affiliated with academic institutions, such as adults in garage bands or community ensemble musicians, could be investigated.

Duplication of the methods used in this dissertation to investigate informal music learning at different geographic locations, both nationally and internationally, could provide supplementary information about the subject. Also, looking at informal learning in different demographic areas that are homogenous or heterogeneous could provide insight into informal

learning in the lives of differing populations. While this study investigated a diverse population of informal learners, research that assesses musicians in different musical cultures or from varying musical backgrounds, such as self-taught street drummers in Chicago or garage band musicians in Mexico, could provide further awareness in this line of inquiry. Like this research, many studies focus on informal music learning in collaborative environments (Augustyniak, 2014; Green, 2002, 2008; Jaffurs, 2006); however, more research is needed that considers autonomous music learning in this context.

Research that investigates how formally trained music students or professionals use informal music learning in their everyday lives could provide valuable insight for music education. This could be done at different levels and in varying areas, such as looking at how informalities are practiced by band, orchestra, choir, and jazz students in personal practice or ensemble situations. Additionally, scholars could look at informal music learning as it naturally occurs in formally trained musicians at the professional, collegiate, secondary, intermediate, and elementary levels. Last, informal music learning in non-academic environments could be considered, to include churches, daycare centers, and community ensembles.

Perhaps, a reason that further research about informal music learning should be conducted is to investigate the connections between formal and informal learning. Specifically, to gather further insight so music educators have the opportunity to make informed decisions regarding the strengths and weaknesses of multiple approaches to music study, which could allow music educators to determine elements of informal learning that should or should not be replicated. Moreover, continued examination of informal learning in music education may reveal additional areas of musical inquiry that are overlooked, but could provide valuable insight to guide and improve music education practice.

Conclusion

When this inquiry began, I was certain that the study was about music teaching and learning. Overtime, the experiences shared by individuals repositioned this assumption and to me, the purpose of this endeavor was really about how participants learned and experienced music on their own, which emerged from shared and differing beliefs between cases. In short, this research is about learning music. Immersing myself in data related to the musical lives of these self-taught musicians, I gained an understanding of the multiple ways people learn and engage in musical activities, which provided me with valuable insight to become a better music educator.

To me, inclusivity is an important aim of music education. As such, music teachers can embrace a multitude of learning styles and approaches that could encourage more students to participate in music making. The participants in this study loved to make music and personally identified with the music they made. They were compelled to practice because it was something they could actualize and delighted in. In my personal experience, I have encountered too many former music students, from my music program and the programs of my colleagues, who do not continue playing music beyond high school. Similarly, studies have found that music students are infrequently continuing to make or learn music beyond their secondary school years (Bowles, Dobbs, & Jensen, 2014; Scully, 2014). Driven by an enthusiasm for the music they prefer, individuals in this study continue to make music as adults. As suggested previously, perhaps music educators need to look at the type of music that interests students and how to teach them to make music beyond the classroom.

Over the course of this study, I was fortunate to interview, observe, and immerse myself in the lives of these eight informal music learners. Their experiences provided a deep intuitive

understanding of how music learning occurs in their daily happenings. Their perspectives as self-taught musicians showed me that they learn both autonomously and collaboratively. Specifically, there was aspiration to learn music on their own; yet, participants still sought assistance from a variety of resources or advice from other musicians when needed. In fact, all of them had musical interactions with others that influenced their style and how they engaged in music studies.

Having been enlightened and privileged to share this experience with the eight musicians that contributed their views and knowledge to this inquiry, I am grateful that they were willing to give their time, especially during the summer months, and openly share personal experiences about their lifeworlds. Individually interviewing each member, I was impressed by the enthusiasm they gave that enhanced the data in this study. During observations, participants seemed comfortable being watched and casually made music as if I was not present. Perhaps my favorite moments were the group interviews, where members who did not know each another expressed a bond, which appeared to be triggered by a shared excitement for music learning.

Although I had musical origins as a self-taught musician, continuous effort was made during the course of this inquiry to withhold my preconceptions and report the findings objectively. During the interview transcriptions, I recorded participant beliefs verbatim and while the interview required additional questions to probe responses, supplementary questions were on point and open ended. When taking field notes, reports were limited to what was seen or heard without assumptions. As a result of these protocols, I believe this study accurately represents the experiences and beliefs of participants.

By looking at the methods used by informal music learners and understanding the assorted ways musical skills can be acquired, music educators can potentially invite and reach a greater number of musicians. In this inquiry, participants learned music informally by discovering musical knowledge and achieving musical success on their own terms. Accepting and applying informal methods of learning in music education has the potential to move music education in a new direction. Music teachers could guide students to work together, embrace web-based musical resources, further develop aural skills, and encourage young musicians to listen, study, and play music that compels them.

In this study, each participant perceived and appreciated music as an ordinary component of their everyday lived experience. As such, music learning happened as a genuine occurrence that was valued and considered worthwhile in daily life. Individuals in this inquiry engaged in musical study because they considered it to be an essential part of who they are and what they do. By adopting the approaches used by self-taught musicians and conveying the worth of music learning as a way of being, music educators can leave a lasting impression that is inclusive, educates the whole musician, and inspires students to make music for life.

APPENDICES

APPENDIX A

DEFINITIONS OF VERNACULAR TERMS

The following list includes definitions of vernacular used by participants during the course of this study, which are idiomatic or individualistic. Many of the definitions presented are derived from language used by participants, where some terms can be traced; other expressions are in the vernacular and common speech, which is adaptable and fluid. Some words and phrases are derived from the scholarly work of Barrett (2012), Davis (2005), DeNora (2000), Green (2002), Ibrahim (1999), Jaffers (2006), Söderman and Folkestad (2004), Slobin (2000), and Walser (2014). In addition, the terms presented below were taken from verbatim transcriptions of participant responses.

Afro-pop: Genre of African popular music, which has a multiplicity of sub-genres.

Afro-folk: Musical genre of traditional African music that is primarily performed on long-established African instruments.

Alternative: Rock music style that was popular in the 1990s and 2000s, such as the band *Coldplay*.

Angsty teen: Individual in their teenage years that feels misunderstood by other members of society, which may lead to anxiety.

Baaba Maal: Afro-pop artist from Senegal that was popular in the 1990s.

Biting: Copying musical ideas or lyrics of another musician.

Circa Survive: Rock band form the United States that was become popular in the mid-2000s.

Chord shape: The contour of the fingers required for executing and sounding a chord on guitar, bass, ukulele, or other string instruments.

Classic rock: Genre of rock music that was popular in the 1970s and 1980s, such as the band *Led Zeppelin*.

Coldplay: Alternative rock band from the late 1990s.

Crunchy: Music that uses distortion; typically on electric guitar.

Electronic: Style of music that uses digital instruments to create musical sounds.

Freestylin': A synonym for improvisation, which includes making up musical or lyrical content instantaneously.

Ghost stum: Guitar playing technique that requires the player to avoid contact with the strings in one direction; thus creating no sound while movement occurs.

Giant Steps: Lively jazz tune made famous by tenor saxophonist John Coltrane.

Gothic rock: In the context of this study, gothic rock refers to the resurgence of gothic rock inspired music in the early 2000s, such as the band Evanescence.

Green Day: Punk rock trio that was formed and popular during the 1990s.

Groove: Repetitive or insistent rhythm, or group of rhythms, that creates that drives a song that is usually played on the drums.

Grungy: Musical approaches and sounds that include distortion, loose rhythmic accuracy, and drop tuning (lowering E string on guitar to D or E), which are similar to the techniques and timbres used in 1990s Grunge music.

Hypness: Hip hop term used to describe excitement or up tempo musical selections.

Iron Maiden: British heavy metal band popular in the 1980s and 1990s.

Jams: Music or making music with other musicians, typically with little direction.

Jazzy: Stylistically interpreting music so it fits the jazz idiom. For example, playing a *Metallica* (Popular Heavy Metal Band) tune as a jazz piece.

Karaoke: Musical activity where people sing to recorded music, which is typically done at a bar.

Lick: Brief musical excerpt on played on a single instrument, such as guitar, bass, or piano.

Metalcore: Fast paced musical genres that is a blend of punk rock and heavy metal.

Metrolyics: Social media website that allows users to share and update lyrics of popular recorded music.

Mix: Using electronic software to blend and balance voices in an audio recording.

Modern rock: Rock music recorded after 1990.

New country: Country music after 1990, which includes artists such as Trace Atkins, and Carrie Underwood.

Old country: Country music before 1990, which includes artists such as Hank Williams.

Palm mute: Dampening guitar strings with the palm to generate a muffled timbre.

Playlist: Holdings of digital audio recordings in an electronic devise, such as a mobile phone or computer.

Punk rock: Sub-genre of rock music that is commonly fast paced, aggressive, and uses distorted guitars. Typically, the overall message of this musical style is anti-establishment.

Primus: Popular rock band from the 1990s that featured the virtuoso bassist Les Claypool.

Ramblin': Creating musical ideas that seem incoherent, irrelevant, or make no sense (Joe, individual interview one, May 22, 2015).

Riff: A rhythmic and harmonic pattern that is repeated, which is usually played on guitar or bass.

Slap-and-pop: Bass guitar technique that requires the player to hit the strings with the thumb and pull on the strings with the fingers.

Skaters: Individuals who skateboard and dress in attire that aligns with the skateboard culture. Typically, these individuals identify as skaters.

Strumming: Playing multiple stings by sweeping the pick or fingers over the stings in one motion, thus creating a chord.

Tabs: Symbolic representation of pitches for guitar, bass, ukulele, or other string instruments. Typically, tabs do not include rhythmic information.

Tight: Playing music together with exceptional accuracy.

Tones: Term used Anya and Charlie to describe pitch.

Track: A completed song with multiple instrumental parts. Or, an isolated recording of an instrumental or vocal track that is part of the song as a whole, but it can be edited and listened from any part in the audio.

Twangy: Guitar textures that have a bluegrass or country timbre; thus making the guitar have characteristics similar to a banjo.

Wikihow: Information sharing website that provides insight on a myriad of subjects, to include music instruction.

APPENDIX B

ANTICIPATORY INTERVIEW QUESTIONS

Interview and group questions are adapted from the following three sources and recommendations from three expert reviewers. The expert reviewers are established scholars, professors at major institutions of higher education, and have written seminal research in the field of music education.

Green, L. (2002). *How popular musicians learn: A way ahead for music education.* Burlington, VT: Ashgate Publishing Co.

Jaffurs, S. E. (2006). *Lessons from a garage band: Informal venues for music making.* (Doctoral Dissertation). ProQuest Information and Learning Company. (UMI number 3248556).

Jones, S. K. (2005). *An exploration of band students experiences with informal learning.* (Doctoral Dissertation). ProQuest Information and Learning Company. (UMI Number: 3638204).

Leading Research Question:

How do informal music learners at a community college pursue musical studies and describe their experiences?

Interview Questions:

- How did you begin playing your instrument? Can you describe your first encounter?
- What resources do you use to learn music? How do you use them?
- Tell me about the process you use to learn a tune?
- Does listening play a role in your approach to learning tunes? If so, how does it play a role?
- Musically, what problems do you encounter when learning a piece? How do you solve these problems?
- What creative activities do you musically engage in (writing songs, improvising, etc.)?
- How do you acquire technical proficiency on your instrument?

Leading Research Question:

Based on participant experiences, how do these beliefs and ideas influence their musical understanding?

Interview Questions:

- What types of music do you listen to? Why?
- What type of music do you play? Why?

- How do you choose the music you will play?
- What instrument do you play? Or, what is your vocal style or range? Why did you choose this instrument or style?
- How long have you played your instrument?
- Are there individuals who influenced or inspired you to play? If so, who, how, and why?
- What role do others play in your musical development?
- What do you believe influences the music you listen to and what you play?
- How can you tell good music from bad music?

Leading Research Question:

With a better knowledge of beliefs and ideas of informal learners, what insights can be gained to inform music education practice?

Interview Questions:

- Is there a structure to your musical encounters (practicing, jamming, etc.)? If so, can you describe it? If not, what do you do?
- What aspects of how you learn music do you believe can be beneficial to other musicians?
- What is your view of school music, private lessons, or other types of formal instruction?
- Do you play with other musicians? If so, describe your experiences collaborating with others?

APPENDIX C

ACTUAL INTERVIEW QUESTIONS

Interview Questions (Participant Beliefs and Ideas):

- What types of music do you listen to? Why?
- What type of music do you play? Why?
- How do you choose the music you will play?
- What instrument do you play? Or, what is your vocal style or range? Why did you choose this instrument or style?
- How long have you played your instrument?
- Are there individuals who influenced or inspired you to play? If so, who, how, and why?
- What role do others play in your musical development?
- What do you believe influences the music you listen to and what you play?
- How can you tell good music from bad music?

Interview Questions (Music Learning Experiences):

- How did you begin playing your instrument? Can you describe your first encounter?
- What resources do you use to learn music? How do you use them?
- Tell me about the process you use to learn a tune?
- Does listening play a role in your approach to learning tunes? If so, how does it play a role?
    - Can you describe how you listen to music when learning a tune?
    - Are there other resources you use during your listening process for learning purposes?
- Musically, what problems do you encounter when learning a piece? How do you solve these problems?
- What creative activities do you musically engage in (writing songs, improvising, etc.)?
- How do you acquire technical proficiency on your instrument?

Interview Questions (Collaboration and Perception of Approach):

- Is there a structure to your musical encounters (practicing, jamming, etc.)? If so, can you describe it? If not, what do you do?
- What aspects of how you learn music do you believe can be beneficial to other musicians?
- Do you play with other musicians? If so, describe your experiences collaborating with others?
    - How does collaboration influence your musical decisions?
    - What are the advantages and disadvantages of collaboration?
    - Do you believe collaboration makes you a better musician? If so, why? If not, why?

APPENDIX D

KENT STATE UNIVERSITY IRB APPROVAL

RE: Protocol #15-220 - entitled "Power Chords, Blast Beats, and Accordions: Understanding Informal Music Learning in the Lives of Community College Students"

We have assigned your application the following IRB number: **15-220**. Please reference this number when corresponding with our office regarding your application.

The Kent State University Institutional Review Board has reviewed and approved your Application for Approval to Use Human Research Participants as Level I/Exempt from Annual review research. Your research project involves minimal risk to human subjects and meets the criteria for the following category of exemption under federal regulations:

1. Exemption 2: Educational Tests, Surveys, Interviews, Public Behavior Observation

This application was approved on March 26, 2015.
***Submission of annual review reports is not required for Level 1/Exempt projects. We do NOT stamp Level I protocol consent documents.*

If any modifications are made in research design, methodology, or procedures that increase the risks to subjects or includes activities that do not fall within the approved exemption category, those modifications must be submitted to and approved by the IRB before implementation.

Please contact an IRB discipline specific reviewer or the Office of Research Compliance to discuss the changes and whether a new application must be submitted.
http://www.kent.edu/research/researchsafetyandcompliance/irb/index.cfm

Kent State University has a Federal Wide Assurance on file with the Office for Human Research Protections (OHRP); FWA Number 00001853.

If you have any questions or concerns, please contact us at Researchcomplaince@kent.edu or by phone at 330-672-2704 or 330.672.8058.

Kent State University Office of Research Compliance
224 Cartwright Hall | fax 330.672.2658

APPENDIX E

RECRUITMENT SCRIPT

Good afternoon, my name is John Owens and I am working on my doctoral dissertation at Kent State University and I am a music faculty member at this institution. In my study, I am investigating how informal, or untrained, musicians learn to play their instrument or sing. The name of my study is *Power chords, blast beats, and accordions: Understanding informal music learning in the lives of community college students*.

My interest is in amateur musicians here at the community college and how they experience and learn music. Participation in this study is completely voluntary and includes group interviews, individual interviews and observations. In addition, your name and information will be kept completely confidential. In fact, you will have the opportunity to choose a fictitious name.

If you are interested in participating in this study please let me know. I have provided a consent form with my information and will be available at the end of your class. You can contact me by phone at (269) 927-6588 or by email at jowens27@kent.edu. If we have a moment, does anyone have any further questions about the study?

I would like to thank your instructor for his/her time and your time and again, please let me know if you are interested.

APPENDIX F

LETTER TO EXPERT REVIEWERS

Dear Dr. _____,

Each introduction was individually composed based on my relationship with the expert reviewer.

Currently, I am writing my dissertation under the direction of my adviser, Dr. Craig Resta, at Kent State University. The working title of my dissertation is *Power Chords, Blast Beats, and Accordions: Understanding Informal Music Learning in the Lives of Community College Students*. The purpose of my research is to explore the experiences of informally trained community college musicians from diverse backgrounds.

In order to check the validity of my interview questions, I am seeking expert reviewers. I believe it will take less than 30 minutes to review the questions and I hope to receive responses within two weeks. Would you be willing to review my interview questions? Again, thank you for taking the time to review my questions. If you can conduct your review within the next two weeks it would be most appreciated.

Based on your expertise as a music education scholar and researcher, can you answer the following questions during your appraisal?

- Are the questions easy to understand?
- Are the questions focused on the topic of informal music learning?
- Do the questions avoid leading the participant in a certain direction?
- Are the questions open ended?
- Do the questions invite a potential dialogue that can lead to further discussion?
- Could there be a potential breach of confidentiality?
- Is the language used neutral and not biased?
- Do the questions respect informant opinions?
- What other questions need to be included?

Thank you for your consideration and all the best.

John T. Owens, Ph.D. Candidate, Kent State University

APPENDIX G

INFORMED CONSENT TO PARTICIPATE IN RESEARCH

JOHN T. OWENS, PRINCIPAL INVESTIGATOR

Study Title:

POWER CHORDS, BLAST BEATS, AND ACCORDIONS: UNDERSTANDING INFORMAL MUSIC LEARNING IN THE LIVES OF COMMUNITY COLLEGE STUDENTS

Principal Investigator
John T. Owens, PhD Candidate, Kent State University

Purpose
The purpose of my research is to explore the experiences of informally trained community college musicians from diverse backgrounds.

Procedures
Data collection will take place at the community college research site and various other locations frequented by the participants, such as the beach, coffee shop, and garage. Individual interviews, group interviews, and observations will serve as the method of data collection. Field notes will be taken during observations. Individual and group interviews will be recorded and transcribed.

Audio Recording
Individual and group interview sessions will be recorded using *GarageBand* on my laptop computer. Interviews will be transcribed verbatim and safely secured. After the interview has been transcribed you will receive a copy before it is put in final report. You are welcome to hear your interview upon request.

Benefits
By participating in this study you will inform music education practices by allowing me to examine your experiences as an informal music learner. In addition, you will have time to self-reflect on your own practices, beliefs, and understandings as a musician.

Risks and Discomforts
This study focuses on informal music learning as it is experienced in everyday life. So, there are no unusual risks in this study beyond what you would experience in your everyday life. However, there is an unlikely chance that you may encounter questions that could make you feel uncomfortable.

Privacy and Confidentiality
All interview and observation data will be kept confidential within the limits of the law and stored in a secure location. I will be the only person with access to the data. You will choose your own pseudonym (fictitious name), which will be used in the final report, publications, and

presentations. Your academic institution and any affiliations will not be apparent to the outside reader. Affiliations could include your town, band name, and the like.

Voluntary Participation
Participation in this study is completely voluntary. You may drop out of the study at anytime without providing a reason.

Contact Information
If you have any questions or concerns about this research, you may contact John T. Owens (PhD candidate) at 928.660.0780, or Dr. Craig Resta (dissertation advisor) at 330.672.4803. The Kent State University Institutional Review Board and your academic institutions Internal Review Board have approved this project. If you have any questions about your rights as a research participant or complaints about the research, you may call the IRB at 330.672.2704.

Consent Statement and Signature
I have read this form and voluntarily agree to participate in this study. I have been given the opportunity to have my questions answered and understand that I will receive a copy of this form.

_____ _____
Participant Signature **Date**

_____
Participant Printed Name

APPENDIX H

AUDIO RECORDING CONSENT FORM

JOHN T. OWENS, PRINCIPAL INVESTIGATOR

I give consent to have my voice recorded in an audio-recorded interview about informal music learning. I understand that this recording is an essential component of this project and part of the data analysis process. John T. Owens may record me in individual and group interviews. The dates, times, and places will be mutually determined at later date. Moreover, I understand that data derived from the recordings will be used for this research project, publications, and presentations.

I was informed that I have the right to listen to recordings and see transcriptions upon request. At this time I do/do not (circle one) want to listen to the recordings.

_____ _____

Signature Date

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