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This dissertation, STUDENTS' AND TEACHERS' PERCEPTIONS OF THE ENGAGEMENT OF CREATIVITY IN SECONDARY CHORAL ENSEMBLE CLASSES, by DAVID WAYNE LANGLEY, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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STUDENTS' AND TEACHERS' PERCEPTIONS OF THE ENGAGEMENT OF

CREATIVITYIN SECONDARY CHORAL ENSEMBLE CLASSES

by

David Wayne Langley

Under Direction of Patrick K. Freer

ABSTRACT

The purposes of this study were (a) to explore the individualized meanings of creativity of

students within choral ensembles; and (b) to identify the effects that teachers' perceptions and

classroom environment have on helping students shape the meaning of creativity. The study took

the form of the Explanatory Sequential mixed methods design of Creswell and Plano Clark

(2011). The first phase of research was a survey administered to middle/high school chorus

students ($N = 314$) and middle/high school chorus teachers ($N = 11$). Participants were selected

from 6 middle schools and 5 high schools across 3 different school districts in the southern

United States. The Measures of Creativity Perceptions Assessment survey was researcher-

created and validated by an earlier pilot study. It consisted of Likert-scaled questions measuring

the importance of purposes of music education and frequency of certain musical topics address in

class. Participants also rated their perceptions of how they found certain activities to be creative,

as well as how much student input and musical decision making were present in chorus class.

Findings showed that most students found their chorus class to contain creative activities. They were unable to explain through which activity creativity occurred. Findings from the quantitative survey helped to form a qualitative second phase, including teacher interviews and student focus groups. 2 teachers were interviewed. 2 focus groups were conducted, comprised of 4 students from each of the interviewed teachers (total of 8 students across the 2 focus groups). Qualitative findings suggested that middle school students viewed creativity differently inside chorus than they did in general. This likely came from the influence of their teacher as well as a process-oriented view of creativity. High school students had traditional understandings yet noted that creative activities, like improvisation and composition, were absent from their chorus classes. Teacher participants stated that they felt unconfident in leading such lessons, and were most affected by their undergraduate professors. Implications include additional focus on creativity in undergraduate music teacher preparation programs. This would also address the recent revision of the music education national standards. Further research involving student perceptions of creativity is necessary.

STUDENTS' AND TEACHERS' PERCEPTIONS OF THE ENGAGEMENT OF

CREATIVITYIN SECONDARY CHORAL ENSEMBLE CLASSES

by

David Wayne Langley

A Dissertation

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

MCPA	Measures of Creativity Perceptions Assessment
NAfME	National Association for Music Education
OM	Odyssey of the Mind

1   INTRODUCTION

Creative intelligence is looked upon with distrust; the innovations that are the essence of

individuality are feared, and generous impulse is put under bonds not to disturb the peace. Were

art an acknowledged power in human association and not treated as the pleasuring of an idle

moment or as a means of ostentatious display, and were morals understood to be identical with

every aspect of value that is shared in experience, the "problem" of the relation of art and morals

would not exist.   (Dewey, 1934, p. 348).

Early music educators championed singing as a healthy activity for the mind, body, and

soul of their students. Initial justifications for including music as a subject of study were based

on the theory of Johann Heinrich Pestalozzi, whose personal motto of education was "learning

by head, hand and heart" (Pestalozzi, Holland, Cooke, Robinson, & Green, 1977).

Performing ensembles have been a central part of music education ideology since the

middle of the twentieth century. Trends such as the band movement and the a cappella choir

movement have caused educators to place an emphasis on precision and uniformity in student

musicians. Yet, through this focus on excellence in public performance, other attributes of an

education in music may have been neglected. Among these forgotten attributes of learning may

be thinking and acting creatively.

Creativity within music is commonly considered to take part in two activities of music-

making: composition and improvisation (Kennedy, 2000). While both activities include creating

new pieces of music or parts within a piece of music, a main difference between the two

concerns the timeframe in which the music is created. Composition is created prior to the

performance of the piece of music, while improvisation occurs during music making. While

these have been considered the primary forms of creative activities (Kennedy, 2000), creativity may be possible through many other musical activities, such as performing, conducting, or interpreting. As outlined in the review of literature later in this text, creativity may be possible whenever individuals are given an accepting social environment in which to create. That environment, as created by the choices of the music teacher, is frequently geared towards mastery performance by the large ensembles of band, chorus, and orchestra.

When the perfection of music for public performance becomes the goal of music teachers, the resulting instructional methods may become overwhelmingly teacher-centered. According to Huba and Freed (2000), teacher-centered learning is most characterized by knowledge transmitted passively from the teacher to the learner. Assessment and learning are considered separately in this type of environment, as the emphasis is on correct, or convergent, answers. Applying this style of instruction to a music class, decisions on the interpretation of music are made almost solely by the teacher. The interpretation of that musical literature becomes the creation of the teacher and, by inference, the composer--the role of the student-musician becomes to merely enacting the pre-determined interpretation of the teacher. Additionally, most of the time in class is spent on convergent activities, such as the type of music rehearsal described above. Allsup and Benedict (2008) use the term "Fordism" to describe such styles of teaching, referring to students as workers on a musical assembly line which produces the latest musical invention of the teacher. The strict definition of teacher-centered learning seems to contradict the essence of creativity, and this may provide significant information within the realm of this study.

While still respecting the fine ensemble music that is produced, and the professionals that work to produce it, the purpose of this study was to investigate the perceptions of students and

teachers regarding the engagement of creativity within music performing ensemble classes. At the heart of this purpose is the way that students understand the meaning of the term creativity, and what effects the environment of the classroom and teacher perspectives had on shaping that understanding. The study may uncover a confusion amongst students of what creative experiences look like in chorus classes, which will then be further researched to find common themes and reasoning for this misunderstanding.

Personal Motivations

The motivation for this study came as I began to reflect on creativity within my own early education. I was involved in numerous educational, religious, and community music ensembles throughout my childhood, beginning as early as 5 years of age. Reflecting back as an adult, it occurred to me that of all my experiences, I felt the most creative in an activity called Odyssey of the Mind (OM), which was not specifically directed towards music. As I reflected on this experience, I began to consider why I felt that this was such a creative endeavor. The atmosphere within OM was one of acceptance, empowerment, and equality. By the rules of the event, the preparation time was to be focused on student ideas with only minimal teacher oversight. This stipulation allowed for an environment that led to free thinking and collaboration. The teacher served purely as a facilitator who helped to maintain this environment yet did not control the activities and thought processes taking place.

This caused me to think: why were these experiences not present in my musical education? Clearly, my music teachers played an important role in my life, as they have guided me into the profession. The very reasons that made OM such a creative experience were, conversely, the reasons that I did not find my music education as creatively stimulating. Considering what I found in my reflections, I then began to think about the music classes I have

seen as an educator. The majority of music ensembles that I have witnessed are teacher-centered. In many classrooms, all of the musical decisions are dictated by the teacher, and the students are merely enactors of those decisions.

The goal of this study is to investigate students' perceptions of creativity and what may have led to the formation of those perceptions. Methods will be thoroughly discussed later, but perceptions of students, and their teachers, will be measured in a mixed methods study. This study will include a quantitative survey instrument and a qualitative phase of teacher interviews and student focus groups. A more complete understanding of student perceptions may then help teachers who wish to place more emphasis on creativity within music classes.

Historical Justifications

The history of choral music education in the United States includes rare but important instances of creativity. For the purposes of this study, creativity within music education will be defined as "the engagement of the mind in the active, structured process of thinking in sound for the purpose of producing some product that is new for the creator" (Webster, 2002A, p. 11). While this definition was chosen for use here, alternatives will be discussed within the review of literature. In music classes, engagement in creativity most often takes the form of composing new music, improvising, and arranging existing pieces of music. Early colonial tunebooks were composed in an improvisatory style until a movement towards European art music dominated new editions (Kennedy, 2000). Frances Elliott Clark, a prominent music teacher in the early 20th century and founding member of the Music Supervisors' National Conference, introduced composition as a creative outlet for her elementary school choruses (Stoddard, 1968). After the end of World War II, high school instrumental performing ensembles focused on precise

technical performances through the inspiration of war veterans who became music teachers (Mark & Gary, 2007).

The 1960s were a time of innovation for music education, and choral performing ensembles were included in this effort. A major innovation came in the form of the Comprehensive Musicianship movement. The ideas contained in Comprehensive Musicianship provided the impetus for the Young Composers Project (Mark & Gary, 2007). Through this initiative, composers under the age of 35 were placed in local school districts to write music specifically for the school ensembles. While the project was intended to foster creativity, the effect was only tangential, as the students only creative stimulation was through performing the composer-created music (Mark & Gary, 2007).

The Manhattanville Music Curriculum Project, from 1965-1970, was designed to infuse creative experiences specifically within performing ensembles through the spiral curriculum of Jerome Brunner (Thomas, 1970). However, the project was not well-received among ensemble directors. While the structure of the spiral curriculum was widely acknowledged, the creative portions of the curriculum were not valued. Mark and Gary (2007) stated that the "MMCP was used in some schools, but the most common usage was the adaptation of its concepts and strategies for use in traditional music programs," (p. 444). While many historical instances of creativity in music ensemble classes exist, the long term effects of such instances has been negligible (Kennedy, 2000).

Problem Statement

In addition to the historical perspectives discussed, creativity is currently viewed as an important topic within music education. The issue of including creativity has been addressed many times. Creativity is addressed by the National Standards for Music Education, originally

adopted in 1994, in the capacities of composing, arranging, and improvising (NAfME, 2012).A revised set of National Standards was released in 2014. The realignment created standards as they fit into four categories of artistic processes; creating, performing, responding, and connecting. For each artistic process, anchor standards were created which spanned across all arts curricula. Anchor standards, and the supporting performance standards, are based on student learning instead of teacher instructional methods (NAfME, 2013). Still, only marginal amounts of time are focused on these activities within general music classrooms (Orman, 2002, Williams, 2007). Most research has been focused on elementary school music classes (Hickey, 2001, Kiehn, 2003, Koutsoupidou, 2005, Beegle, 2010), while little is known about the issue within the middle and high school performing classes of band, chorus, and orchestra. While teachers overwhelmingly believed that creativity is important (Fairfield, 2010), they still devoted very little time to using these skills within music classes (Snell, 2012).

The current study explored this topic using a mixed methods research design. Chorus teachers and their students, at the middle school and high school levels, took part in a quantitative survey designed to understand the creative activities that happen in chorus classes. A qualitative phase, using teacher interviews and student focus groups, helped to clarify some participants' understanding of the term "creativity." This study was designed to produce data that helped to uncover the values of students in regards to creativity. It also related the student data to the values, intentions, and actions of those students' teachers. The findings uncovered interesting relationships between the values of teachers and the actions that their students perceive.

Theoretical Perspective

This study took the form of mixed-methods research, as will be discussed in detail in the chapter on methodology. Many researchers have struggled with conceptualizing a theoretical

perspective for mixed-methods studies, as it has been the common misconception that quantitative research must stem from a position on positivism/post-positivism (Crotty, 1998). However, it is the position of this researcher that mixed-methods research has strongly benefited from a grounding within one unified perspective for both phases of research.

This study was grounded in the participatory worldview, as outlined by Creswell and Plano Clark (2011). This perspective was built upon the idea that meaning is neither completely objective nor completely subjective, but instead a blending of the two. Through this theory, a sense of pluralism developed within the study, considering those ideas that come from the consciousness of the participants while also considering their meaning as interpreted by interaction with the world around them. Tarnas stated that, in this worldview, "meaning is *enacted* through the dialectical participation of the human mind with the larger meaning of the cosmos," (1993, p. xii).

Applying this perspective to the present study involved comparing student and teacher perceptions in congruence with their views of the meaning of creativity and the creative process (Fleith, 2000). This perspective has been especially appropriate as definitions of creativity are mitigated (Jordanus, 2010). It may be found that teachers had an understanding of what it means to be creative which differs from that of their students (Fairfield, 2010). This understanding by teachers may have been influenced by research in the area, and the differing positions found there (Odena & Welch, 2007). Additionally, theories of the creative process appeared to be misunderstood (Sawyer, 2000). Theories of the creative process have been defined as actions taken towards a product that is deemed creative. This misunderstanding by teachers may have been transferred to the students in music classes, who add their own perspective to the definition (Fairfield, 2010).

Conceptual Perspective

In 1956, Benjamin Bloom proposed a taxonomy of learning objectives based on cognition. This hierarchical taxonomy listed the processes of knowledge, comprehension, application, analysis, and evaluation to denote depth of understanding of a particular field.

This taxonomy was revised in 2002 by Krathwohl, one of Bloom's former students. The revised hierarchy replaced the previous categories with remembering, understanding, applying, analyzing, evaluating, and creating, as can be seen in Figure 1 below. The extension of Bloom's work by Krathwohl has been generally accepted, and has been frequently referenced in articles featured in leading creativity peer-reviewed journals (Persson, 2010, Kokotsaki, 2011). The revision firmly placed creativity at the apex of learning. Since creativity has been cited as the highest form of learning, it should have a place at the center of education.
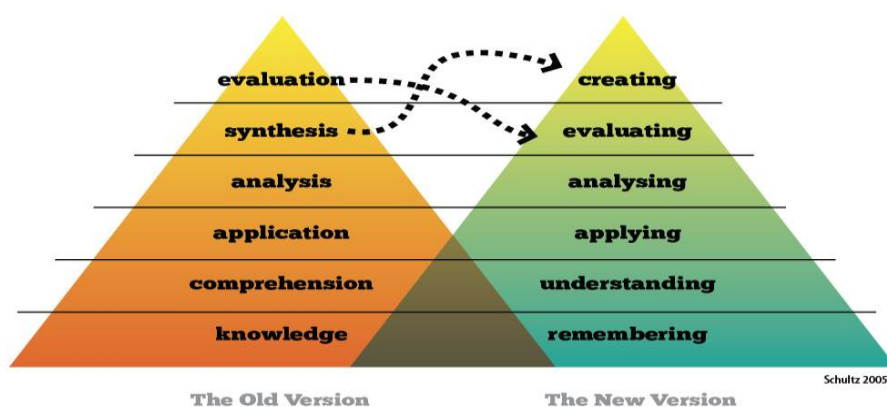
Figure 1. Comparison of original and revised Bloom/Krathwohl taxonomy.

Under this framework, creating of new musical experiences became the highest form of musicality that students can achieve. It may be that performing music, the focal point of most choral ensembles, most often ends at the level of applying, defined as "carrying out or using a procedure through executing or implementing"(Anderson & Krathwohl, 2001). If this is true,

then choral students have not received a complete understanding of music, according to Krathwohl's taxonomy of cognition. The possibility that choral students may not have consistent creative opportunities in the classroom, along with the lack of research in this area within choral classes, is justification for the present study.

Overview of the Methodology

The present research study took the form of a mixed methods design, using the Explanatory Sequential Design as defined by Creswell and Plano Clark (2011). The population included both middle- and high-school students who were enrolled in chorus, as well as the chorus teachers of these students. Data collection took place in two phases; phase one was a survey instrument resulting in quantitative analysis, and phase two consisted of a follow-up qualitative step including interviews of the teachers and focus groups of chorus students. The sample was drawn from eleven participating schools (six middle, five high) from three school districts.

Data collection began with a survey instrument to measure student and teacher perceptions of the use of creativity within the choral ensemble classroom. The instrument was researcher-created and was based upon the work of Phelps, Ferrara, and Goolsby (1993) as well as Patrick, Turner, Meyer, and Midgley (2003). While the Patrick et al. model was applied to mathematics students to measure perceptions of avoidance methods, the present survey was unique in its use of similar questions to measure perceptions of choral music students. The survey was administered to students ($n = 314$) as well as teachers ($n = 12$). Quantitative data gathered through the Likert scale questions of the survey helped to identify a sample of students and teachers who were chosen to take part in the qualitative phase. The quantitative phase was completed using the online survey website www.surveymethods.com. Sampling was based on

convenience, as it was necessary for the researcher to travel to several schools for the qualitative phase, which will be conducted in person. Students and teachers from two of the schools which participated in phase one were selected to continue participation in phase two. Students were interviewed in focus groups, while teachers were interviewed individually. The design of questions within both settings were based on the work of Krueger and Casey (2001) and Krueger (2002), which provided an outline for qualitative research within focus groups.

Each phase of the research was designed to supply a distinct understanding of the topic. The goal of the quantitative section was to identify perceptions of the teaching environment from both student and teacher perspectives through the survey instrument. This was achieved as participants rated their perceptions of the value and activity with creativity in their classroom, as well as other information about the classroom environment itself. Those viewpoints were compared and considered when creating questions for the qualitative portion. Questions were guided by the findings from the quantitative survey instrument. Kreuger (2002) recommended forming open-ended questions that elicit reflection. Kreuger (2002) also provided a guideline for opening, introductory, transitional, key, and ending questions, which were adopted in the current study. The qualitative section allowed the researcher to understand student ideas of what creativity is, how it has been fostered in their choral classrooms, and how they use it on their own. Teacher responses to the survey instrument were compared to the student responses. This study was necessary because of this possible environment and the effect that it may have on music students.

Significance of the Study

Considering the current bodies of research in creativity, and specifically with music education, as well as the Bloom/Krathwohl taxonomy, two justifictions became clear for this

study. The first is the current gap in research that concerned performing ensembles and creativity. As stated previously, the bulk of existing research measured the inclusion of creativity in elementary and/or general music classes. Students in performing ensembles have not been the focus of most research in this area, and so this study was formed to relieve this concern. Secondly, the existing research provided a reason for this issue to be considered as a legitimate issue within performing ensembles. As stated earlier, creativity is included as the highest form of cognition within a specific domain, here choral music. The consideration that this thinking might not take place exposed a particular pedagogical deficiency that should be further investigated.

Delimitations

This study is intentionally limited in its scope. The bulk of research in this topic has been conducted in elementary school or general music class settings. This existing research serves as a base for the current work. However, it is very likely that the findings of general music studies might also be found if parallel studies were conducted with older students. While three major types of ensembles exist (band, chorus, orchestra) in most middle/high schools, this study only focused on the issue within chorus settings. The study is limited to chorus because that is the area of expertise of this researcher. Additionally, since the traditions of ensembles have historically been diverse (Allsup & Benedict, 2008), the compounding variables of those traditions might have served to invalidate findings. Since the traditions of the choral ensemble are understood by the researcher, this was chosen as the focus ensemble for this study. Finally, middle school ensembles were included to incorporate a possible transition between elementary school music to the high school setting.

Research Questions

The purposes of this study were:

1) To explore the individualized meanings of creativity of students within choral ensembles, and

2) To identify the effects that teachers' perceptions and classroom environment have on helping students shape the meaning of creativity.

Organization of the Study

The remainder of this study is organized into five additional chapters, references, and appendices. Chapter 2 includes a detailed literature review of existing research in the area of creativity, focusing on discrepancies of meaning, creative process, assessment, and teacher perceptions that possibly contribute to the issue at hand. Chapter 3 provides an outline of the research methodology, including reasoning for selecting a mixed methods design. Included in this chapter will be the sample selection processes, the influences on development of the assessment instrument, results and recommendations from a pilot study, and procedures for analysis. Chapter 4 presents the quantitative analysis of results of the survey instrument. Chapter 5 presents findings of the qualitative phase of research, from two teacher interviews and two focus groups. Chapter 6 contains a conclusive discussion, implications for the field, suggestions for future research, and the researcher's personal reflections on this study. A bibliography of sources and various appendices will conclude the document.

Definition of terms

Creativity: In musical terms, "the engagement of the mind in the active, structured process of thinking in sound for the purpose of producing some product that is new for the creator,." Definition provided by Webster (2002A).

Teacher-Centered Instruction: Paradigm of learning where knowledge is transmitted from teacher to student, the teacher is primary information provider and evaluator, teaching and assessing are separate, and emphasis is on the acquisition of knowledge outside of the context in which it will be used (Huba & Freed, 2000).

MCPA: The Measures of Creativity Perceptions Assessment. The survey instrument created specifically for this research study. The MCPA measures value of creativity, frequency of commonly accepted creative activities, and perceptions of classroom environment.

OM: The Odyssey of the Mind program is a creative problem-solving competition for students in kindergarten through undergraduate programs. It is primarily a team competition, with a maximum of 8 team members.

2   REVIEW OF LITERATURE

Research in creativity has bloomed in the field of education, and specifically in music education. Through the beginnings of the field to the present day, varying points of view have been documented regarding the meaning of the term creativity, perspectives on the creative process, assessment instruments, and pedagogical qualities of creativity. Stein defined creativity in 1953 as "a novel work that is accepted as tenable or useful or satisfying by a group at some point in time," (p. 311). After this point in history, many studies and much philosophical thought have been devoted to the role of creativity in the education system, yet researchers are still unable to conclusively agree on what it means to be creative. Research methods and assessment

instruments are prolific, yet the fundamental question of "how do we accurately measure creativity?" is still unanswered. There is no consensus among educators on the importance of creative thinking or its place within the classroom as is evidenced in current debates. The Partnership for 21st Century Skills, an educational advocacy organization, placed value in creativity and critical thinking as essential skills, a central structure within the Student Outcomes and Support Systems (Partnership for 21st Century Skills, 2011). Conversely, as recently as August of 2012, The Republican Party of Texas stated opposition to "critical thinking skills" in the official party platform as such skills "have the purpose of challenging the students' fixed beliefs…" (Platform Committee, p. 12). The level of uncertainty that surrounds this topic only further supports the need for additional research, especially research where the outcomes of this ambiguity affect our students.

While exploring research on creativity, four major themes for exploration emerged. Each theme contains inconsistencies, and these are explored throughout the chapter. The themes are organized as follows; a) the meaning of creativity, b) perspectives of the creative process, c) assessment of musical creativity, and d) educators' perceptions of creativity. These themes will be examined through two main sections; Research in the cognition and psychology of creativity, and research in creativity concerning music education. Common limitations in research between all themes include empirical research beyond general/elementary music classes and the exclusion of student perceptions of creativity. Additionally, connections are made involving the balance of emphasis on process or product, and the inclusion of convergent and divergent thinking.

Because this is not a review of every piece of literature available on the topic, seminal and representative works will serve as examples for larger bodies of similar research.

Investigating these inconsistencies and commonalities in research will begin to reveal support for a research study into perceptions of teachers and students in secondary choral ensemble classes.

The purpose of this literature review is to critically view the body of work regarding creativity in education and music education. Current literature supports a view, due to inconsistencies between studies, that creative activities are underrepresented within music ensemble courses. This under-representation may affect students, which is cause for additional research on the matter.

<div align="center">**Research in the Cognition and Psychology and Cognition of Creativity**</div>

The Meaning of Creativity

Conflicting views of creativity research primarily begin with the meaning of creativity. Researchers have yet to come to a consensus on exactly what denotes creativity. Historically, research on the matter shows a revolving meaning, resulting in an even wider range of uses for the term creativity (Jordanous, 2010). Meanings of creativity diverge based on views of overarching issues within the field. Through a historical look at varying meanings, this section of the review serves as a framework to understand the balance of process and product emphasis, as well as the debate regarding convergent and divergent thinking.

Throughout the literature presented, the debate of emphasis on process or product is very evident. Both positive and negative aspects are found in definitions regardless of their emphasis. While process-oriented definitions give the researcher an insight into the cognitive steps needed for creative thought, product-oriented definitions of creativity are more easily measured. Conversely, process-orientation is difficult to observe, as product-orientation uses outcomes to measure the means by which it was reached. However, the distinctions between process and product orientation should not be considered a dichotomy, but instead a continuum. The

definitions presented here all fall along that continuum and are not necessarily rooted entirely within one emphasis.

Within discussions of thought process, researchers have also debated the roles of divergent and convergent thinking. As research will show, divergent thinking is at the center of the meaning of creativity (Robinson, 2009). However, some research will support the use of convergent thinking in a position of validating usefulness.

Representative definitions of creativity are presented here in chronological order. The reader may note that, simply because meanings are presented chronologically does not necessarily imply an evolution towards a higher ordered definition in the most recent facsimiles. Each definition will be critically examined through the framework of process/product emphasis, role of divergent/convergent thinking, and specific implications for music education.

Early definitions focused on linear stages of the creative process. Wallas (1926) created an early outline of creativity with a process-oriented emphasis. This outline breaks down the creative process into four stages; a) preparation, the act of acquiring and combining necessary skills, b) incubation, thought occurring subconsciously, c) illumination, the moment of breakthrough, and d) verification, testing the idea for usefulness. While clearly grounded in process-orientation, Wallas' final stage of verification provides an introspective view of the product. Most often, it is the creator him/herself who verifies that the product is both appropriate and useful. Therefore, the final stage does include an aspect of convergent thinking and product recognition. However, when considered in music education, Wallas' stages don't always apply. While the musical acts of composition and arranging fit well within this model, improvisation poses a problem. Since incubation, according to Wallas, occurs during passive thought about the product, such as while one is sleeping or doing unrelated tasks, there is no amount of time

available for this to occur during musical improvisation. Additionally, verification could only be used as feedback after the product is complete, as the product is performed at the time of construction. Although Wallas' stage theory is flawed when applied to the musical domain, this work was instrumental in inspiring the work of Guilford (1962).

Following Wallas' criticisms, there was a reaction against staged models of creative processes. Guilford (1962, 1967) directly addresses the flaws of the Wallas stage theory in his model of creativity. Instead of presenting the cognitive process in a linear fashion, Guilford originally considered 24 divergent processes that in part may contribute to creativity. Eventually, research narrowed down those processes to four main characteristics of creativity; fluency, flexibility, novelty, and elaboration. These processes would go on to form the basis for many assessments of creativity, including Guilford's own "Tests of Divergent Thinking," (Guilford, 1967). From the title of this assessment, it is known that Guilford drew distinct separations between convergent and divergent thinking, claiming that the latter alone was responsible for creativity. While assessment will be discussed in length later, it should be known that Guilford's strict distinctions between convergence and divergence through factor analysis would cause his assessment, and his definition of creativity, to be discredited. However, the four characteristics that he presented remain viable, and thus they continue to serve as a foundation for future research. These characteristics were especially embraced by music educators (Gorder, 1980, Webster, 1979).

Additional researchers continued to draw criticism for such distinctions between convergent and divergent thinking. For instance, Crutchfield (1962) defines creativity as "the opposite of conformity," (p. 274). Such a stance shows the dominance of the separation of convergent and divergent processes. While divergent thinking, or the contribution of multiple

answers to a specific question, is vital to the creative process, it requires some sort of conformity to accepted rules of domain. Within the domain of music, some sort of convergence within the cultural expectations of music is necessary for the listener to define a work as creative (Conrad, 1990). Criticism of Crutchfield is offered by Torrance (1988), viewing "the creative person as being neither conforming or nonconforming, but as being free to conform or not conform, depending on what is good, pleasing, and true," (p.45).

The views of Guilford are highly influential in the work of Torrance. Torrance finds that creativity is in fact linked to 84 personal attributes. However, as a proponent of a divergent/convergent combination, this definition does not place these attributes within one type of thinking. While Torrance includes the traits of fluency, flexibility, novelty, and elaboration as identified by Guilford, he identifies such additional attributes as unusual visualization, colorfulness of imagery, and element of fantasy. Torrance encourages educators to support and foster students who display many of these attributes. In order to help identify such students, he developed the Torrance Tests of Creative Thinking, an assessment tool to be discussed later. While this measurement tool is still currently in use by researchers, it is often given in tandem with a domain-specific test of creativity.

The issue of domain-specificity is directly addressed in the work of Csikszentmihalyi (1996). Through his text, Creativity, Flow, and the Psychology of Discovery and Invention, the author defines criteria for creativity:

> First, it must be domain specific. Second, other members of the field must accept it as creative and valuable. Lastly, a person must have an act, idea or product that contributes something new and significant to the existing domain. When all three criteria are met, we have what he refers to as "Creativity with a Capital C," (p. 22).

Csikszentmihalyi's description here provides some insight, but also addresses critical issues. While the topic of domain-specificity was discussed by Torrance, the issue of social recognition is a new area for exploration. The idea of value placed by peers or by a group of experts in the field originally stems from the work of Amabile (1983) and Amabile, Collins, and Phillips (1996). However, Csikszentmihalyi intertwines this idea with domain specific criteria, providing an expansion of the definition. In the same text, Csikszentmihalyi advocates for a definition which includes a combination of convergent and divergent thinking. However, a critical argument within education is the claim here that one must become fluent in a specific domain in order to be creative in that domain. Therefore Csikszentmihalyi implies that children are unable to be creative in the truest sense because they have not yet achieved a level of fluency within the musical domain.

Various approaches are evident as to the exact meaning of creativity. Additional understanding may be sought by turning the attention now from the product of creativity to the actual process through which that product was created.

The Creative Process; A Phenomenological Foundation

Many individuals have sought to understand the creative process through phenomenology. Merleau-Ponty (1962) describes phenomenology by stating that "in order to see the world and grasp it as paradoxical, we must break with our familiar acceptance of it," (p. xiv). In this perspective, cultural meanings are considered barriers standing in the path of the unobstructed mind. Phenomenologists seek to view the world not through societal norms and means, but simply as the objects and experiences placed before the individual, those experiences that maintain intuition and a sense of intentionality. Crotty (1998) explains it this way:

Phenomenology suggests that, if we lay aside, as best we can, the prevailing understandings of those phenomena and revisit our immediate experience of them, possibilities for new meaning emerge for us or we witness at least an authentication and enhancement of the former meaning. (p. 78)

Considering this explanation, Merleau-Ponty firmly places the creative process within this perspective. The process of creativity is perceived as a revolving combination of self, others, and things (Canatella, 2004). The self assumes two roles, both that of incubator of original thought and physical creator of the product of that thought. Thus, the self's thought is formed into an object. By interacting with the newly created object, the others, or as we sometimes call them in the arts, patrons, transform the original meaning into a personalized experience. Canatella (2004) relates this to an artist creating a painting. The artist has a mindfulness of the finished work prior to any physical creation. The artist then connects the mind and body in the act of creating the painting. The finished work is then interpreted and transformed by the viewer, who contributes his/her own meaning to the work. This idea is similar to the thoughts of philosopher Maxine Greene (1988), who considers such phenomenological views of creativity as democratizing experiences.

Viewing creativity through the lens of phenomenology involves the consideration of an individual and his/her created meaning through experience with an object. While this perspective is valid, the point of view from the philosophical stance of pragmatism takes this perspective one step further.

John Dewey offers a view of creativity through his pragmatic philosophy, often referred to as instrumentalism. As opposed to the view of the meaning of experience addressed by Merleau-Ponty, Dewey addresses the purpose of and driving force behind such experience

(Sawyer, 2000). Beginning in a standpoint of naturalism, Dewey (1934) claims that experience begins with an impulsion, or the mind-body's developing reaction to a stimulus from the environment. Impulsion only enters the consciousness of the self after meeting with an obstacle, thus limiting the impulsion. The self must reflect on the obstacle, considering past experiences in order to find ways to overcome the obstacle. While using these past experiences, the solution to the obstacle becomes embedded with meaning, and thus the novel solution is considered, in Dewey's view, to be creative. It is through this development that the experience of creative process is initiated.

It is noted that, in the instrumental philosophy of Dewey, expression and creativity must have a necessary medium in order to carry meaning (Sawyer, 2000). In other words, a domain of thinking must contain the creation in order for expression to occur (Dewey, 1934). Considering this artistically, natural sounds or tones do not connote meaning. However, when those sounds are contained in the recognizable medium of music, then those same tones bring about a level of meaning for the listener. The Deweyan idea of expression maintains an extended transaction between the medium and the musical listener, a commonality previously discussed in the phenomenology of Merleau-Ponty.

While media are necessary for such expression to be perceived, Dewey (1934) cautions against the over-classification of art forms. The norms and rules associated with such classifications as cubist art, classical music, or poetic forms only limit the perception of the consumer and stifle creative thinking within the creator.

Dewey depicts the nature and roots of experience and its journey towards creative outcomes through the pragmatic philosophy. The creation in the truest sense is considered the

process and not the product in this perspective, which allows for understanding and clarity when considering the phenomenological views of Merleau-Ponty.

The foundations of experience and its relations to environment have been explained using phenomenology and instrumentalism. These structures have often been applied as other individuals have sought to assess the products of the creative process.

Creative Assessment

The literature discussed here suggests that creativity is made up of both divergent and convergent thought processes that result in the construction of novel and useful products. But the question that remains is this: to whom is it found to be novel? To whom is it found to be useful? To be deemed creative, does a product need to meet a universal standard of novelty and usefulness? According to Kaufman and Beghetto (2009), the answer is a resounding no. In fact, creativity can be divided into four levels, from "mini-c," or learning process creativity, to "Big-C," or world expert level creativity (Kaufman & Beghetto, p. 2). By structuring different levels of creativity, Kaufman and Beghetto avoid the issue of overarching standards to which all persons must strive to adhere. This distinction is both useful and yet confusing when considering the assessment of creativity. Although it may give a frame of reference, someone functioning on a "Big-C" creative level might not find the novelty in the work of someone who is only prepared for a "mini-c" product (Plucker et al., 2009). Further, what may be novel and useful to an adolescent student might not be met with the same level of interest by a veteran teacher. These issues drive both historical and current debates in creative assessment.

As definitions of creativity have evolved, so has the issue of measuring creativity. Assessments are largely speculative and often rely on the conceptions of the assessment creator, adjudicators, or the participant themselves. Additionally, separate assessments are used to

measure domain-specific creative products (Webster,1979) as well as an individual's general

aptitude for creativity (Torrance, 1974; Guilford, 1962; Amabile et al., 1996). Each measurement

has inherent flaws, such as Guilford's use of factor analysis to parse convergent and divergent

characteristics (Baron & Harington, 1981). This is especially true when considered in the

structure provided by Kaufman and Beghetto (2009). While measurements of creative products

can be detrimental to a student's motivation to continue creating, they must also provide much

needed support by offering loose structure and providing constructive feedback (Beghetto,

2005).

Assessments with music education will be scrutinized using these two requirements from

Beghetto (2005) as well as the four levels from Kaufman and Beghetto (2009) when the music

education section is presented. To complete the psychological topics within creativity, attention

will now turn to the topic of perceptions of creativity by teachers.

Teacher Perceptions of Creativity

Teacher perceptions of what creative activities look like in a classroom serve as another

point of tension in the field. This is not a new issue for education in general (Treffinger et al.,

1968). Themes from research appear to point towards a disconnect between teachers'

understanding of creativity and the application of creativity within the classroom. Thus, the

inability to accurately define and assess creativity has caused teacher perceptions of creativity to

become biased. However, Robinson (2009) reminds us that there are two types of creative

teaching; 1) the teaching of skills related to creativity and 2) the teaching of personal creativity

(p. 24).

Teachers in classrooms where creativity seemed to flourish found that certain

engagement techniques aided their students in producing more creative responses. Pelfrey (2011)

performed a qualitative study with three teachers who perceived themselves as encouraging creativity in their students. Through interviews with these teachers, Pelfrey (2011) found that using techniques such as encouraging collaboration, student choice, imagination, and creating a risk-free environment fostered creative activity amongst their students. While these techniques may be used as a framework, generalizability of the claims of just three teachers is not sound. However, it should be noted that the techniques identified were primarily student-centered, which may intimidate some teachers who prefer a traditional environment with the teacher as the center of learning. In fact, those teachers who are only comfortable with teacher-centered environments may perceive the identified creative characteristics as defiant and disobedient.

General education teachers were most likely to name creative students as their least favorites. Two studies from the 1990s began a line of inquiry studying teachers' perceptions of characteristics of students. Westby and Dawson (1990) reported that teachers found those students with creative characteristics such as novelty and uniqueness to be among their least favorite students. Conversely, those with noncreative characteristics were found to be among most teachers' favorite students. Although the same teachers were shown to value creativity in general, their perceptions towards students embodying that creativity were quite the opposite. It would appear from these results that something within the mindset of the teacher caused the outward and inward views of creativity to become disjunctive. A possible cause is found in what characteristics the teachers favored in students, which includes acts of conformity and obedience.

The value of creative thinking shifts at some point in the early career of an educator. Scott (1999) surveyed both college students and in-service teachers on characteristics that were similar to the Westby and Dawson (1995) study. Findings showed that college students valued creative characteristics at statistically higher levels than that of in-service teachers. It could be

concluded from these findings that opinions between pre-service and in-service teachers may change once their focus changes to maintaining a teacher-centered, orderly classroom. Further studies in this area might reveal the early-service teacher's focus on classroom management. Studies by Westby and Dawson (1995) and Scott (1999) were performed using elementary classroom teachers as participants, therefore to generalize these findings outside of that group would be unfounded. However, this line of inquiry shows merit and could be applied to secondary or subject-specific teachers. For instance, one may wonder if the results would be similar if replicated in a performing arts classroom.

Recent studies have shown an outgrowth of perceptions of creativity into other areas of education. In 2005, Beghetto surveyed middle and secondary teachers on the contributions of students in classroom discussions. While the teachers later stated that they valued creativity in their classrooms, Beghetto (2005) found that these same teachers discouraged novel and unique responses during discussions. Yet again, findings point towards a dichotomous relationship between what teachers think about creativity and what they allow in their classrooms.

The most supportive evidence for bias against creativity comes from Mueller et al. (2011), showing that this bias goes beyond just the classroom. While we have seen that a creative product needs both a sense of novelty and practicality, a survey by Mueller et al. (2011) showed that these characteristics were seen as diametrically opposed. These findings clearly show that individuals' outward expressions about creativity are very different than their feelings about the characteristics that make up creativity. Mueller et al. (2011) goes as far as comparing this phenomenon to similar views on race, gender, and age bias. Mueller et al. goes on to write:

"Because there is such a strong social norm to endorse creativity, and people

also feel authentic positive attitudes toward creativity, people may be reluctant

to admit that they do not want creativity; hence, the bias against creativity may be particularly slippery to diagnose." (p. 16)

The findings here, and throughout general education, influence research towards applying these structures towards music education, and in particular to the middle/secondary ensemble paradigm.

Research Concerning Creativity in Music Education

Meaning of Creativity in Music Education

With the introduction of domain-specificity as described in psychological topics in creativity, Webster (2002A) introduced a definition of musical creativity as "the engagement of the mind in the active, structured process of thinking in sound for the purpose of producing some product that is new for the creator"(p. 11). Webster implicitly connects the three main themes of this discussion to the domain of music education through this definition. Contained in the definition is the possibility for both convergent and divergent thinking providing that they are "active" and "structured." Webster mentions democratically both the process and product. There is also recognition and verification of the product and process by the creator him/herself. While this is the most complete definition thus far, it may be considered too broad and vague for some critics.

The development of a clear definition of creativity is clearly an ongoing inquiry. This review is limited in scope, as there are endless views on this subject. However, consider this development from the point of view of an educator. The educator might try to encourage creativity in his/her classroom, but how does one see these definitions provided in action? How does one choose which brand of creativity they believe is occurring, or can occur, within a grade school setting? The differences presented here are overwhelming and possibly confusing. The

inability to define creativity beyond characteristics, inclusion and exclusion statements, and qualifiers has eluded researchers to this point. In fact, Webster (1990) states that the term creativity has become so misused that we should abandon the use of the term, alternatively using the term "creative thinking." This disagreement in use of terms, and especially in the fact that there can be convergent thinking involved, has caused confusion within the field.

Researchers have continued the debate over the definition of creativity as attention is turned to how to measure creativity. However, discussions of the creative process have been addressed from angles outside of psychology. The phenomenological approaches, as previously discussed, will now be applied to music education.

Phenomenology of Creativity in Music Education

Researchers have used various approaches in parsing the elements of the creative process. While some have analyzed the experiences of thinking creatively and concluded general themes, others have investigated the process holistically and in conjunction with the harboring environment.

The measurements of creativity have long been explored. While domain-specific and domain-general assessments have been designed, many share a commonality of tools; fluency, flexibility, originality, and elaboration. These tools have been applied within music, notably by Webster (1991). In this measurement, fluency is defined as the volume of responses to a certain musical stimulus. Flexibility is measured as the volume of different responses. Originality is determined by the uniqueness of each response, and elaboration is defined as the detail or depth of a response. In Webster's definitions, it is difficult to separate the tools of flexibility and originality. However, it may be that Webster (1991) intends flexibility to simply mean a wide array of responses, many of which may be viewed as ordinary or expected. Therefore, originality

may be seen as an unexpected response. Considering this theory within Dewey's instrumentalism, one might consider flexibility as an alternate way to overcoming obstacles, while originality is perceived as different outcomes than those expected given the culture and experience of the creator.

While the tools as applied by Webster (1991) are useful in measuring the product of creative thinking, such thinking only takes place given certain parameters and qualifications. Amabile et al.(1996) states that these tools are actually general creativity skills. These skills alone could not produce creative products. It is also necessary for the creative individual to have domain-specific knowledge and skills, upon which new ideas may be formed. Additionally, Amabile et al. (1996) stresses the importance of outside influences, such as social environment and motivation, a characteristic of instrumentalism. Without all of these factors, creativity is unlikely to occur.

In applying the work of Webster and Amabile, practical implications for music education may begin to form. It is the role of the teacher to establish a learning environment that values and respects creative thinking, to provide instructional experiences that provide domain-specific skills, and to foster motivation for such creative thinking. Only after the role of the teacher is accomplished are students empowered and motivated to think creatively and apply the tools of fluency, flexibility, originality and elaboration to produce a creative product. This approach has been most successfully adapted and applied in the work of Hickey (2003) when considering composition in music classrooms.

Additional applications of the work of Amabile et al. (1996) and Hickey (2003) are evident in the work of Wiggins (2002). It is found in this research that social implications are extremely important in the communal shaping of musical meaning. In a series of experiments

involving group composition, Wiggins (2002) found that the creative process is highly influenced as individuals within the group contribute their own perspectives and musical experiences. The individualized meanings of each group member interact with the overall dynamic of the compositional product, thus creating a mixture of the musical identities of the group. In other works, this process is defined as "parallel composing," (Glover, 2000), and is a classic example of Merleau-Ponty's combination of self-object-others influences.

Similar evidence to parallel composing is found in the case study research of Barrett (1996). Young children were asked to use invented notation to show their musical play, and the children were asked to verbally explain their thought processes as they occurred. The findings showed that creative thinking was in fact not a linear process. Students moved through different phases of creativity in a nonlinear fashion, and often went back to earlier steps to refine or revise their previous ideas. The findings of Barrett (1996) are in opposition to the hierarchical, linear model as developed by Swanwick and Tillman (1986). The latter study showed that musical creativity in children and adolescents showed a direct relation to age, and appear to closely align with the developmental approach of Piaget's stage theory. Both Merleau-Ponty and Dewey seem to provide support for non-linear thinking in the creative process. Music educators teaching secondary ensemble classes may or may not be supportive of nonlinear creative processes. The historical traditions of the rigorous, convergent choir class working in unison do not support nonlinear thinking. Considering this, the discussion now turns towards the use of this process in music classrooms through improvisation and composition as prime outlets for musical creativity.

Outlets for Musical Creativity

Discussions of creativity within music generally seem to center around two primary activities; improvisation and composition. The actions of arranging and performing are rarely

discussed as creative activity. However, improvising and composing are commonly viewed as two separate and distinct activities, and both are distinguished from rehearsed performance. Research through the lenses of phenomenology and ethnomusicology provide differing opinions from this common conception.

Burnard (2000) interviewed several students regarding their musical backgrounds, asking them to identify moments of creativity. Findings indicated that teacher perceptions and pre-constructed ideas regarding composition and improvisation were highly influential of the creative environment. Interviews with students also revealed a deep connection between the experiences of improvising and composing within each student's mind. Burnard (2000) concluded that both were the end result of creative thinking through a continuous yet cyclical thought process. The difference in that thought process between the two activities was only apparent in the lack of "time away" in improvisation, as this is not possible in that performance practice since creation and performance occur instantaneously. The model presented by Burnard is distinct from the revised model of Webster (2002B), in that the time-dependent element is considered optional in the Burnard process, thus accommodating improvisatory activities.

Burnard (2000) presented the idea that improvisation, although an ends in itself, could be considered a step within composition. The author asserts, through this assumption, that these two activities are deeply connected through intention. Such a combining of domains is evidence of the influence from instrumentalism. Evidence from an ethnomusicological standpoint will be now addressed to support this assumption

Ethnomusicological Impact

Ethnomusicologists have often dealt with the connection between creative activities and musical performance. It has been concluded that the nature of culture is influential on the roles of

composing and improvising, and directly affects their roles within performance (Blacking, 1973). In many cultures, there are no specific words to define creative musical activities from performance activities. This is most evident in cultures where written notation and music-reading are not evident or pertinent to performance. While these roles differ by culture, Campbell (2002) states that one might look towards the musical play of children to locate a connection.

According to Campbell (2002), children of all cultures often take part in musical play. In this type of play, the actions of creating, revising, and performing are melded into one. Songs may appear in various forms, may be stored and repeated at different times, and may be altered to meet the experiences of the moment. It is through this musical play that children begin to develop creative thinking in music. However, applying this back to formal music education, this form of learning is often overlooked or omitted. Additionally, major distinctions between activities are created by teacher's perceptions of creativity, thus causing an uninviting environment. Improvisation, and thus composition, may be affected more by culture as the child grows older and deals with more sophisticated musical structures.

The studies previously discussed have shown that musical play in children is formed by the cultural environment, and forms "ritualized" or "improvisational" performances (Nettl, 1974). However, as children grow in age and musical maturity, they begin to interact with the traditional, mature music of their culture. This interaction affects the student musician's ability to improvise. Nettl (1974) describes some music meant for improvisation as more dense than others. For instance, the Western art music basis for improvisation, the figured bass of Baroque music, is highly dense and thus produces similar improvisatory outcomes. However, some music of the Arabic and Indian cultures is perceived as lacking in density. Therefore musicians of those

cultures are perceived to be more fluent improvisers because of the nature of their cultural

experiences.

To address such issues within the domain of formal music education is a difficult task.

One may turn to Hickey (2009) as a source of reference. Hickey (2009) writes that one cannot

immediately address such a problem as described by Nettl (1974) through the preconceptions of

the teacher. In fact, it may be that one cannot teach improvisation at all, but must instead simply

provide an outlet and supportive environment for such actions to occur. Hickey (2009) states that

the most effective, self-realizing fashion to accomplish this is through the use of free

improvisation. With this style, the student is given very little structure by the teacher, but instead

is given the motivation and support to discover music on his/her own. Through this, the student

will apply the melodic and rhythmic syntax of his/her own culture, thus building on the musical

culture of one's upbringing. Portions of this approach are found in Gordon's music learning

theory, the Orff-Schulwerk method, and the Jacques-Dalcroze approach.

While Hickey (2009) and Nettl (1974) might view free improvisation as embedded in a

cultural tradition, opposing voices might encourage other types of creativity as more pertinent.

Paynter (1992) states that, "composing is not an optional extra; in effect, it underpins the whole

curriculum, and it is the surest way for pupils to develop judgment and to come to understand the

notion of 'thinking in music,'" (p. 18). In this opinion, composition is the highest form of

musical understanding, and thus should be the centerpiece of a musical education. In terms of

phenomenology, this may overly emphasize the object itself while ignoring the experience of

interacting with it.

While the culturally embedded ideas of Paynter (1992) are supported by Elliott (1995),

the latter differs in the hierarchy of creative actions as expressed by the former. Consequentially,

Elliott espouses the equal representation of creative actions within composition, improvisation, performance, conducting, and critiquing. This position seems to address Paynter's overemphasis of composition as based on product instead of process. However, this view alone would create an inequitable view of creativity, with emphasis placed on production. In order to equitably address creativity, Elliott (1995) employs a view of the cognitive processes of creative thinking and their interaction with the environment (Csikszentmihalyi, 1999).

In the systems view of creativity (Csikszentmihalyi, 1999), the outcome of cognition is the interaction between the individual, the domain (in this case, music) and the field. While the field is intended to represent the socio-cultural influences on the process, Elliott (1995) argues that this takes on a new meaning in creative products in school settings. Instead of the field being built around the culture and norms of a student's peers, it is actually built on the views of the teacher, who is the ultimate judge of the student's achievement of "creativity." While this altering of the meaning of field is acknowledged by Elliott (1995), a solution might be found in a different kind of assessment. One may turn to the consensual assessment approach of Amabile to alter the field as described by Csikszentmihalyi . In consensual assessment, judging of one's creativity is achieved by the opinions of experts within the domain. This may or may not include the teacher, but the sole judgment does not lie with one individual but instead in the consensus of several experts.

Such differing analyses of phenomenology and instrumentalism ideas have caused the applications of such approaches to be difficult for the average choral music teacher. Therefore, as opposed to applying these ideas incorrectly, it may be that educators simply chose not to apply them at all. Thus, the diversity of ideas within the field of creativity in music education may ultimately prove to be a detriment instead of a benefit.

The phenomenological views of Merleau-Ponty and the philosophy of Dewey have been applied in many theories of creativity within music education. Even when using this structure there is disagreement within the field. The roles of environment and others are questioned by some theories while embraced by different ones. The influence of culture and prior experiences cannot be dismissed, but it is unknown to what extent these influences can be parsed from new creative thinking. Even definitions of what is considered creative are steeped in sociological and cultural implications, and quite possibly too centered on Western ideals.

These issues within the field of creativity have affected the engagement of such processes within music education classrooms, and choral ensemble classes are no exception. Along with this confusion of the process come inconsistencies in the measuring of the outcomes of the creative process. To address this, the discussion now turns to issues of assessment as applied within music education.

Musical Creativity Assessment

In a critical analysis of measurements of musical creativity, Hickey (2001) compares two prominent assessment tools: Webster's Measurement of Creative Thinking in Music-II (MCTM-II) and Amabile's Consensual Assessment. Webster's MCTM-II was predominantly a test of divergent thinking, although it does include "the convergent factor of musical syntax," (Hickey, 2001, p. 235). The criticism for this assessment comes from its nature as a criterion-referenced test without strong criterion validity. Hickey proposes an alternative in the application of the Amabile Consensual Assessment to music education. In this model, individuals serve as adjudicators of what is creative. In Hickey's research, compositions were measured by groups of general/choral music teachers, professional composers, as well as second- and fifth-grade students. While predating the structure of Kaufman and Beghetto (2009), the structure of

multiple levels of creativity is still implied by Hickey (2001). The results showed that the general/choral teacher group awarded the highest average scores to the compositions, the fifth-grade students were the most consistent group. The lowest average score, as well as the lowest level of consistency was achieved by the professional composers.

The findings of the Hickey (2001) study offer insight in the larger picture of creative assessment. Consensual Assessment may be a more accurate representation of the nature of creativity itself. The level of subjectivity in this measurement fits nicely within the subjective tone of creativity, as well as adhering to the criteria from Beghetto (2005) as previously discussed. While loosely-based structure and constructive feedback are possible within Consensual Assessment, caution must be used if using peers as adjudicators. It has been shown that only those with individual creative experience in the domain can be highly effective assessors. Those students with only group compositional experience were found to be ineffective as assessors of individual compositions (Burnard et al., 2010). Likewise, elementary students who were proven to be highly skilled creative thinkers gave the most direct, temporal descriptions of compositions when asked to judge the work of their peers (Priest, 2001). Additional research opportunities including assessment are abundant. Research may center on the descriptions of creativity, including process and/or product, by those students who have shown to be creative according to these assessments. It may be that these students have insight that could benefit their peers, educators, and creativity research in general.

Formal and informal assessment of a creative product should consider that this product is a construction of an individual. Because of its creation by a person, the creative product is one of very personal meaning. As previously credited to Beghetto (2005), assessment should contain loose guidelines and offer constructive critique of this most personal product, first considering

the support and further creative acts of the individual behind the product. Loose structure goes against many of the traditional settings of performance ensembles (Allsup & Benedict, 2009). Therefore, this may cause many educators to simply forego assessment of, or inclusion of, creativity completely. However, it may be that students and teachers perceive assessment, and creativity itself, in a different light.

Music Teacher Perceptions of Creativity

According to the National Association for Music Education (NAfME), musical creativity should be an integral part of each student's music education. The National Standards for Music Education call for "improvising melodies, variations, and accompaniments," and "composing and arranging music within specific guidelines," (NAfME, 2012). Essentially, two of the nine standards deal specifically with creative activities. In several other standards, room for creative responses is provided although not necessarily the primary foci. These standards are not specific to one area of music study or to one age group. Therefore, all nine standards should be addressed in the elementary general music class, the middle school music technology class, and the high school orchestra class. By this measure, creative activities in each music classroom should abound. With such an emphasis on creativity, one would not expect to see the results from elementary classroom teachers repeated with music educators.

General music teachers at the elementary level have been the primary focus of creativity research within music education (Hickey, 2001; Kiehn, 2003; Koutsoupidou, 2005; Beegle, 2010). The general music classroom is one that lends itself towards creativity easily, given that the Orff (1963) and Jacques-Dalcroze (1923) methods include so many creative facets. This may be why researchers have chosen to focus on this particular area almost exclusively when considering the amount of time spent on the National Standards for Music Education that deal

directly with creativity. Studies analyzing the amount of time spent on each national standard have yielded similar results as have been found in studies from general education. Williams (2007) found that by far the majority of time spent in general music K-5 classes was devoted to singing, playing instruments, and reading notation. Although the author notes that these standards may include elements of creative thinking at times, the focus of the activity was definitely not considered so. Orman (2002) found that only token percentages of time were focused on improvising (3.09%), composing (1.09%), and evaluating music (.29%). Combined, this percentage of time is not even one-fourth that devoted to reading notation (21.55%). From the results of these studies combined, it appears as though the music teacher may have the same outcome as those involved in the general education studies. However, while the outcome may be the same, the cause of the outcome may vary from those opinions formed in general education educators.

It may be that music teachers understand the value of creative activities but do not perceive themselves as equipped to create lessons based on creative activities. In a survey of elementary general music educators, Fairfield (2010) found that an overwhelming majority (94.8%) saw creativity to be an important result of an education in music. However, of those same educators, a very startling percentage emerged. Only 72% of educators said that they were capable of teaching a lesson based on creativity, yet an almost identical percentage (71.7%) replied that they had difficulty preparing said activity.

Through these results, coupled with the findings of Orman (2002) and Williams (2007), an image of the average elementary general music educator's perceptions of creativity emerges. This educator is one that sees the value in creative activities but feels inadequate to, or is

otherwise unwilling to, facilitate such lessons regularly. This perceived feeling of inadequacy may result from the educator's prior experiences as a musician, student, and teacher.

Perceptions of creativity are also affected by the teacher's prior experiences. Odena and Welch (2007) performed a study regarding the connections between music teachers' musical, professional, and teacher-education experiences. These categories were compared to the teachers' perceptions of creative pupils, creative-fostering environment, creative process, and creative product. In each of these creative areas, the most influential teacher experience category was that of musical experiences. In three of the four areas, teacher-education experiences were least important on forming teacher perceptions. The findings of this study point towards a lack of creative experience within the teacher preparatory program for the participants of this study. However, this study was limited in the number of participants, and could be considered more generalizable with additional studies. The study shows a serious issue for supporting the lack of creative experiences in the music classroom.

It was the original intent of this writer to include a section devoted to student perceptions of creativity within the classroom at this point in the review. However, evidence of research in this area was severely lacking. The cause of such little research involving a student point of view may stem from the results of the studies that were located. Fleith (2000) studied elementary students in a general education classroom. While these students were found to value creativity, they cited little time devoted to creativity and lack of teacher support and enthusiasm for creativity as driving factors. In fact, Fleith (2000) provides a student response as to why they are not more creative at school. The student responds that "I am creative at home. Sometimes I don't want to get in trouble, so I don't use my creativity in the classroom," (p. 151). This quote is at the very heart of the reasoning behind this review and the need for additional research.

Additionally, Bjorner et al. (2012) asked undergraduates their perceptions of professor creativity. Students perceived that creativity was linked to group activities and collaboration. These same undergraduates claimed that professors were unwilling to diverge from set plans and timelines in order to pursue creative responses to class assignments, saying that professors "know the study plans, the academic levels, and what can be achieved within the time frame, and this will be a barrier to creativity," (p. 551).

The perceptions of both general and music educators have shown a cycle of the bias against creativity in the classroom. While completing their education and pre-service teachers, many individuals see the value in creative thinking. As shown in many of the studies discussed, valuing of the idea and applying the idea to one's teaching are not always aligned. Through a focus on classroom discipline, convergent musical activities, and lack of teachers' personal creative musical experience, the fostering of creativity has been pushed aside. Creative students have been ignored and silenced by their general education teachers. They have been given only limited experiences in their elementary music classes, and mostly by teachers who claim that they are ill-equipped to work with the creative standards that music educators claim to be so instrumental. By limiting these creative experiences in elementary school, the cycle for undervaluing creativity begins anew, as today's elementary school students become tomorrow's pre-service music educators, once again claiming to have had too few musically creative experiences to be prepared to teach it to others. The cycle continues.

Conclusions

Through the course of this review, contradictions within the meaning of creativity, creative process, creative product assessment, and teachers' perceptions of creativity have been critically examined. Yet, these topics leave many questions unresolved. Many definitions of

creativity have been presented. Some were found to be too broad. Others were not definitions at all, but merely lists of characteristics that accompany creativity. Additional resources showed that there was vast disagreement on the inclusion of convergent thinking, the balance between process and product, and the implications to music education. Assessments of creativity focused on the product of creativity and the social recognition thereof. Product-based measurements proved to have little validity beyond the scope of the designer's vision of creativity. Assessments relying on social recognition showed vast differences when utilizing different groups as reviewers. The root of the issue in assessment was examined through the structure of the Kaufman and Beghetto levels of creativity. While each assessment had some strength, overall the existing forms of measurement were found to be inadequate. The general lack of support and constructive feedback could potentially decrease both student and teacher motivations to include creativity in the music classroom.

Finally, teacher perceptions were critically examined. An evolution was found to occur between pre-service and in-service teachers' views of creativity's role in music education. Teachers were found to view characteristics of creativity, similar to those presented by Guilford and Torrance, as negative attributes of students. Surveys showed that an overwhelming majority of time in general music classrooms were focused on convergent, teacher-centered activities. While teachers stated that creativity was an important part of a complete music education, few found that they were equipped to adequately teach it.

The inconsistencies in one of these three areas might not be enough to diminish creative thinking in music classrooms. However, in combination, the factors presented here have created an environment that is unprepared and uninviting to creativity. Areas of concern exist within the present literature. Past studies on musical creativity have focused on general music teachers at

the elementary school level. While these studies yielded important results, extensions of this research in to middle and high school classrooms is particularly lacking. From this, we can hypothesize that many music educators consider creativity to belong solely to the elementary classroom.

While there is ample research considering teacher perceptions of creativity, data of student perceptions is extremely limited. It may be that the themes discussed here could have resounding effects on student belief of creativity and what role it currently plays in the traditional performing ensembles of band, chorus, and orchestra.

This literature has provided ample justification for additional research studies, which include middle schools and high school student perceptions of creativity. If, in fact, the inconsistencies in creativity research have caused teachers to form a bias from creativity, then a new branch of creativity research will emerge based on the power relationship between teacher and student.

3   METHODOLOGY

Creative activities are included in the National Standards for Music Education explicitly in Standard Three; improvising melodies, variations, and accompaniment, and in Standard Four; composing and arranging music within specific guidelines (NAfME, 2012). Such creative activities can also be implemented within the context of several other standards. Although a revised version of the National Standards was released in the spring of 2014, this study was conducted while the original version was still in place. Research has shown that creativity is not always given equal amounts of time or resources in elementary general music classrooms (Orman, 2002, Williams, 2007). Research involving creative activities in the secondary school ensemble classes of band, chorus, and orchestra is sparse. Additionally, very little research exists

that gauges the students' perceptions of creativity. Therefore, this study is designed to address this limitation in research regarding choral classes.

The purposes of this study are:

1) To explore the individualized meanings of creativity of students within choral

    ensembles, and

2)   To identify the effects that teachers' perceptions and classroom environment have on

    helping students shape the meaning of creativity.

The methodology chapter is designed to connect the perceived gaps in research, as evidenced in the purpose above. The five purposes of this chapter are 1) to provide a theoretical perspective and methodology for the study, 2) to explain the participant sample, 3) to present the construction of the survey instrument used to collect data, 4) to present revisions brought about by analysis of a pilot study, and 5) to outline the design and implementation of both phases of the full study.

Theoretical Perspective

Theoretical perspectives are defined by epistemology, and in turn define the methodological choices within research (Crotty, 1998). While quantitative or qualitative studies alone may fit neatly within one theoretical perspective, the very nature of a mixed methods design requires a series of worldviews according to the approach in use (Creswell & Plano Clark, 2011). Thus, the perspective of this study shifts between the quantitative and qualitative phases of research. The quantitative stage of this study was based in post-positivism, as this is the traditional approach for this area of research. Qualitative research for this study was rooted in a participatory worldview, as this study centered around "plans for the social world to be changed

for the better, so that individuals will feel less marginalized," (Creswell & Plano Clark, 2011, p. 41).

Research Methodology

The methodology used to complete this study was a mixed methods approach. Mixed methods designs have been recommended to provide both a breadth and depth of information within the same study. Mixed methods studies have shown to provide high levels of validity, as the quantitative and qualitative portions of the design serve to support the corresponding data in many cases (Creswell & Plano Clark, 2011).

Four primary designs of mixed methods research exist according to Creswell & Plano Clark (2011). The design most appropriate for the purposes of this study was the explanatory sequential design, as displayed in Figure 2. In this form, quantitative research has been the foremost and primary method of investigation. Quantitative data were collected and analyzed first. The findings of this step then informed the design of the qualitative step. The qualitative method was chiefly developed as a result of the quantitative step.

The strengths of the explanatory sequential design hinged on the need to explain quantitative results using a depth of knowledge through follow up qualitative research. Because one purpose of this study was to measure student and teacher perceptions of creativity, the researcher proposed that it was most useful to gather a larger data sample and then create a depth of understanding so that the results would yield a higher level of generalizability.
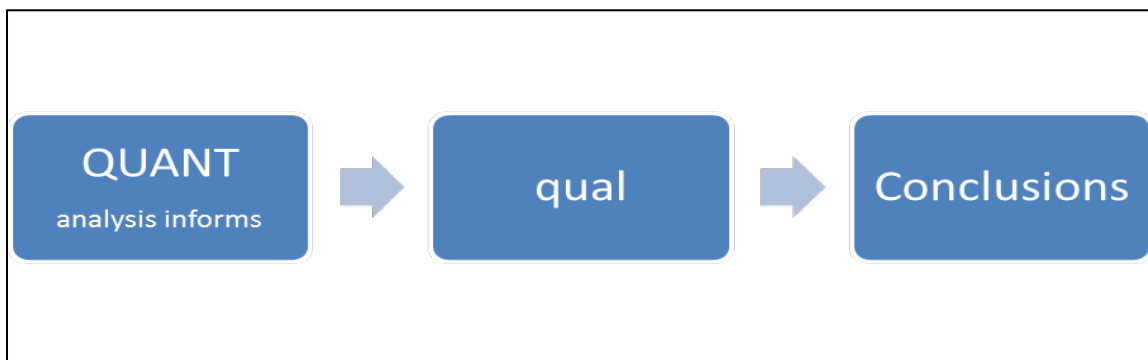
Figure 2. Display of the Explanatory Sequential Design.

Population and Sample

There was a large body of research found dealing with the perceptions of creativity within elementary school general music courses. However, there was a lack of research concerning creativity in middle, junior high, and high school music ensemble classes, including chorus classes. Each of these music ensembles came from a distinct history, and it would have been difficult to consider them simultaneously. This study focused on the chorus ensemble.

The explanatory sequential design required that the results of phase one be used to influence the design of phase two. The participants of the phase one survey influenced the design of the qualitative phase two. Sampling of convenience was selected since this two-phased design required an extended data collection timeframe. Eleven schools were chosen from three districts in a metropolitan area of the southeastern United States for the quantitative phase. The qualitative phase included two schools, each in a different school district, that were included in the quantitative phase.

One obstacle in this design was that quantitative data had to be obtained and analyzed before qualitative data could be gathered. Extended contact with participating teachers was maintained through the course of data collection since the qualitative design dictated that participants from this phase were participants in the quantitative phase.

MCPA Construction

The Measures of Creativity Perceptions Assessment (MCPA) was developed specifically for the quantitative portion this study. The MCPA was a survey designed to elicit participants' perceptions about creativity and the learning environment in chorus classes. Thus, the instrument took on the form of an opinionnaire, as outlined by Phelps, Ferrara, and Goolsby (1993). The instrument was designed with a version for both teacher participants and for student participants. Additional support for the formation of the MCPA came from the work of Patrick, Turner, Meyer, and Midgley (2003). The Patrick et al. survey was used to measure student perceptions of different mathematics classrooms and how that environment affected avoidance of mathematics strategies. Influential qualities of the Patrick et al. survey include a group of questions dealing with classroom environment, which were answered on a Likert scale from "strongly agree" to "strongly disagree." The format of the Patrick et al. study is frequently cited in the formation of similar surveys.

The survey included a variety of closed-ended questions. Question topics and format were influenced by both Fairfield (2010) and Snell (2012), recent studies in music education that measured student perceptions.

The opening question of the MCPA asked participants to rate several purposes of music education in general. This rating was on a six-point Likert scale, where one was the most important and six was the least important. Participants were then asked to provide an outline of time delegation between seven types of musical activities in a modified rating system (Creswell & Plano Clark, 2011). Participants then answered a series of questions regarding classroom environment (teacher- or student-focused), student input, educational outcome, creativity, and improvisation. This section was also based on a six-point Likert scale, with six being "I highly

disagree" and one representing "I highly agree." Likert scales were used as they have been found

to be reliable indicators of the intensity of perception and tend to produce relatively accurate

findings (Creswell, 2012). Finally, participants were asked to provide answers to several

demographic questions, including years of teaching, biological sex, school setting, and level and

type of education.

The description above outlined the survey that was to be given to teachers. A nearly

identical survey was also given to students within the same chorus programs. However, the

questions were reworded to represent the point of view of the student and his or her perceptions

of the chorus classroom environment. Demographic questions for students included grade in

school, biological sex, number of years enrolled in school chorus, and involvement in out-of-

school musical activities such as private instrument lessons or other music groups.

The order of questions was carefully analyzed to avoid order bias and halo effects (Phelps

et al., 1993). For this reason, the ratings questions were included at the beginning of the study,

followed by a series of questions exploring perceptions of narrowing into the idea of creativity.

Demographic questions were included at the end of the questionnaire instead of at the beginning,

as based on the suggestions by Creswell & Plano Clark (2011).

Pilot Study

A pilot study was conducted to gather important information on the construction of the

MCPA. The main purposes of the pilot study were:

1) to accurately measure the usefulness of the MCPA;

2) to gain insight into how the MCPA might be adjusted or revised;

3) to aid in the revision of implementation protocol;

4) to provide statistical information so that a power analysis for the full study may be completed.

Pilot Study Overview

The MCPA was distributed to choral teachers and choral students at two middle schools and two high schools within one school district in the southeastern United States, after receipt of all necessary levels of approval and consent/assent. The four pilot study schools were not included in the full study.

The pilot study results were used to conduct an a priori power analysis to determine the necessary sample size for the full study. This calculation was completed using the software application G*Power$^©$, version 3. A separate power analysis was completed for each of the statistical analyses in relation to each question on the MCPA. The repeated measures ANOVA for one of the student questions generated the largest calculated sample size, 312 participants. This sample size was adopted for the full study.

Pilot Study Conclusions and Adjustments

While this was only a pilot study, there were interesting trends obtained from the data. It appeared that the students involved in this study valued becoming creative thinkers, and they considered it an important part of music education. There was only limited use of composing and improvising in most classrooms. Student participants perceived creativity to be occurring in their classroom. However, they perceived that this creativity came from music that their teacher directed. Students provided somewhat neutral responses to questions regarding their teacher's willingness to allow student input in the classroom.

The results of this pilot study aided the researcher in making adjustments to the quantitative phase of the full study, as well as in forming a preliminary protocol for the qualitative phase. Adjustments made for the full study were:

- The 8-point Likert scale from the pilot study was adjusted to a 6-point scale;

- In Question 3, the order of the prompts was reordered so that it was dissimilar to the order of prompts in Question 2. This limited any order bias between these two questions;

- In Question 4, the pilot study prompt originally read "We do activities with composing and arranging frequently." The word "frequently" will be removed from this prompt;

- Also in Question 4, one middle school teacher shared that students did not understand the term "improvisation." The prompt was reworded to read "We do activities with improvising,";

- In Question 7, students were asked the number of years of experience they had in middle/high school chorus. Middle school participants were only given the choices of 1-4 years for the full study. High school students had the additional choices of 5-7 years;

- In Question 8 students were asked to indicate biological sex. It was suggested by the researcher that schools participating in the full study make every attempt to properly represent both males and females in the study.

Full Study Quantitative Design

The adjustments from the pilot study were applied to the MCPA. Adjustments were made on surveymethods.com prior to the beginning of the full study quantitative phase. The researcher chose to limit the sample to one state within the southeastern United States, and to only three

school districts within that state. This choice was made for ease of data collection and to control for the variable of multiple state laws and policy. The study was also limited to three school districts. The participating school districts were selected because they were in close proximity to the researcher and to each other, allowing the researcher to travel to the participating schools several times during the study.

The population for phase one of this study consisted of middle and high school teachers and students. The sample size was determined by the power analysis from the pilot study. The analysis calculated that a total of 312 student participants provided the necessary power and effect size.

Several factors informed the choice of teacher participants. Teacher participation was limited to members of the National Association for Music Education, and thus the state affiliate. A list was created of teachers who worked within the three selected school districts. These teachers were contacted via email with an informal invitation to participate. Teachers who confirmed willingness to participate were asked to recommend potential chorus classes for participation. Each teacher was asked to identify one class that met several criteria: 1) the selected classes needed to have an enrollment of at least 29 students, so as to meet the estimated population per school for statistical power; 2) a class population needed to include both males and females; and 3) classes needed to meet at convenient times for both the participating teacher and the researcher. A total of 13 teachers responded, and 11 were tentatively selected to participate The researcher began the approval processes with the research representatives in each of the three school districts, as well as the researcher's housing university Institutional Review Board. Approval letters from those school districts were obtained and submitted to the university Institutional Review Board.

Participating students were required to have been enrolled in chorus for one year at the current school and must have been enrolled at the time of the study. Students were required to have been between twelve and eighteen years of age during the study. These procedures resulted in a study that involved three districts, five high schools, six middle schools, 11 teachers, and 314 students.

Full Study Quantitative Implementation

The quantitative phase of research was implemented from January through April, 2014. The researcher personally visited each school on at least two occasions. The preliminary visit was to introduce the study, thank the teacher for agreeing to participate, and to distribute the appropriate forms. Students were given a recruitment letter, student assent form, and parent consent form in a packet together on the researcher's first visit. All forms are available in Appendices A, B, and C. Teachers were also asked to complete consent forms for their personal involvement in the study (Appendix D). The researcher collected all consent and assent forms on the second visit to each school. These second visits occurred approximately one week after the initial visit and included the researcher-guided collection of student survey data.

At the time of data collection, the researcher handed each student a small piece of cardstock printed with the survey website's URL address and the student's individual survey code. The survey code was a researcher-generated, four-digit code that helped to keep track of the student's school and the number of student participants at that school. Students took the survey in school computer labs that had been reserved for the data collection process. Students returned the survey code cards to the researcher upon completion of the survey.

Inclement weather disrupted the normal school schedule during the first and second visits of the researcher. Participating schools were closed for as many as seven days. This loss of

instruction time impeded the response to the survey. Many students forgot to return their consent/assent forms through the course of this time. Some schools were unable to supply the requested 29 students because of this delay. In response, the researcher asked some teachers to invite additional student participants since it was imperative to meet the sample size of 312 total students. These additional participants were selected with the same population characteristics described above. The researcher returned to the schools to distribute consent/assent forms and administer the survey. The final total of completed surveys was 314, just above the required total of 312. There were, additionally, five incomplete surveys that were not used in data analysis.

Full Study Qualitative Design

Findings from phase one (the quantitative portion) were used to inform phase two of the study (the qualitative portion). Content and specific topics of this phase were determined from the results of the quantitative phase. These specifically included:

- Student results in phase one showed a generally unclear understanding of creativity in the chorus classroom;

- Students claimed to engage in creativity, yet they were unable to give exact ways that this was accomplished;

- The options for creativity presented in the MCPA did not provide an answer for how students engaged in creativity;

- Students and teachers gave conflicting responses to questions regarding composing and improvising, leading the researcher to believe that these terms were misconstrued by students;

- Specific questions in the qualitative phase were constructed to address these flaws in the design of the MCPA.

Data in phase two was gathered through individual interviews (teachers), and focus group interviews (students). All of the qualitative portions were implemented in a semi-structured design. The design was based on the work of Laker, Laker, and Lea (2003) This format was chosen due to the similarities between the current study and the Laker et al. (2003) sample, which included perceptions of physical education students.

The teachers selected for the qualitative phase were chosen because of their differences in years of experience, grade levels taught, and previous musical experiences. Such sampling, referred to as maximal variation sampling, is used to provide divergent worldviews through a small selection of participants (Creswell, 2012). Through this sampling, two of the 11 participating teachers were chosen to participate in interviews. One teacher was a male middle school teacher in the early years of his career. His experience in high school was mostly as a student in jazz band, marching band, and concert band. His first experiences in choral music occurred during his undergraduate education. The second teacher was a female high school teacher who had the most years of experience of any participant teaching that level. Her musical experiences were almost all choral, from her time as a middle school student to the present. These teachers came from different school districts and attended different undergraduate programs in different states.

Students from the two selected teachers' schools were invited to participate in the focus groups. Focus group participants were comprised of phase one participants who indicated a willingness to take part in phase two. The researcher decided to limit the number of students in each focus group to 3-4 so that all participants would have ample time to speak.

Full Study Qualitative Implementation

The qualitative phase of this study took place between April 3 and April 11, 2014. Participants were notified at least one week ahead of time and were reminded that they could withdraw from this portion of the study at any time. The researcher reminded all participants at the beginning of each interview/focus group that they would be completely anonymous within the study. Students were reminded that their comments would not be shared with their teacher. All participants were given the option of choosing a different name or having the researcher select the pseudonym to protect anonymity. The researcher also notified the participants that they would be recorded, but that the recording would only be heard by the researcher for transcription purposes.

Student Focus Groups

Student participants engaged in focus group interviews. Previous research suggests that gathering data through focus groups is a viable method for gathering rich data because of the requisite group interaction (Vaughn, Schumm, & Sinagub, 1996). The present study design used the guidelines for focus groups outlined by Krueger (2001, 2002). This publication offers explicit instructions presented in a concise format. The Kreuger model was chosen due to its focus on questions that were of similar topic to the current study. Krueger's (2001, 2002) work in focus groups is frequently used as a method by researchers in many different fields. The guiding questions for the focus group interviews are found in Appendix G. Questions were designed to elicit each participant's understanding of the meaning of creativity, the role it plays in their chorus class, their extracurricular musical/creative activities, and influential persons in their music lives.

The time span of each focus group ranged from 41 minutes to 46 minutes. Student focus groups took place during school hours, within the students' usual chorus class time. Focus groups were completed in rooms adjacent to the choral room. In both focus groups, students and the researcher sat in chairs around a table. Focus groups and interviews were recorded using the Dictate + Connect (Version 11.1.1$^{©}$) software. The application and recordings were run from a MacBook Air laptop computer. The computer was the personal property of the researcher. The computer and files were password protected, and only the researcher had access to that password.

Teacher Interviews

Selected teachers participated in individual interviews. The design of the interview was semi-structured (Laker et al., 2003). Similar questions were used for both student and teacher interviews, although the semi-structured design allowed for the immediate addition of questions generated from participant responses.

Teacher interviews both occurred on the same day as the student focus groups from each teacher's school. One teacher interview occurred just before school began for the day. The other interview occurred during the teacher's planning period. Teacher interviews ranged from 29 to 35 minutes.

Qualitative data was analyzed using the coding process as outlined by Tesch (1990) and Creswell (2007). These models were chosen for their wide-use and detailed explanations. Initially, all audio recordings were transcribed. Those transcriptions were then analyzed using coding. Both Tesch and Creswell recommend a deductive process of coding, which leads into more specific codes. Codes from each interview or focus group were then compared and reduced in the case of redundancy. Eventually, themes between focus groups and interviews were

identified. The Tesch and Creswell models were used for both the teacher interviews and student focus groups to maintain continuity.

Limitations

There are two major factors that limit this study. The first is geographical, as all participants were selected from the same state. The second limitation is the situational bias of the researcher. The researcher is a member of the teacher population from which this sample was drawn, and is a product of the secondary and university system within the state of study implementation.

4   QUANTITATIVE RESULTS

All participants completed the Measures of Creativity Perceptions Assessment (MCPA) through the website www.surveymethods.com. Data were transferred by the researcher into SPSS$^©$ Statistics Version 21. All statistical analysis was completed with this software. Student participants and teacher participants took similar versions of the MCPA. The results from the student surveys will be addressed first, followed by the results from the teacher surveys. The conclusion of this chapter will be a comparison of the results from both students and teachers.

Student MCPA Results

Several demographic questions were posed in the MCPA to gain an understanding of participants' biological sex, age, and experience inside and outside of the chorus classroom. A total of 314 student participants completed the survey, and five additional participants submitted partially completed surveys. The incomplete surveys were not used in analysis.

The mean age of student participants was 14.1 years. Although this mean appears to be low given the overall range of 12 to 18 years of age, the mean represents the traditional age of

students when they leave middle school and begin high school in the selected state. A further explanation of the age of participants is available in Figure 3.

      The participating teachers at each school met the study requirement that student participants include both males and females. Schools were also strongly encouraged to provide balanced populations of male and female participants. This did not occur, as the population was strongly skewed towards females ($N = 262$) over males ($N = 52$). Each teacher reported that their school's population of choral students was also similarly skewed toward females.
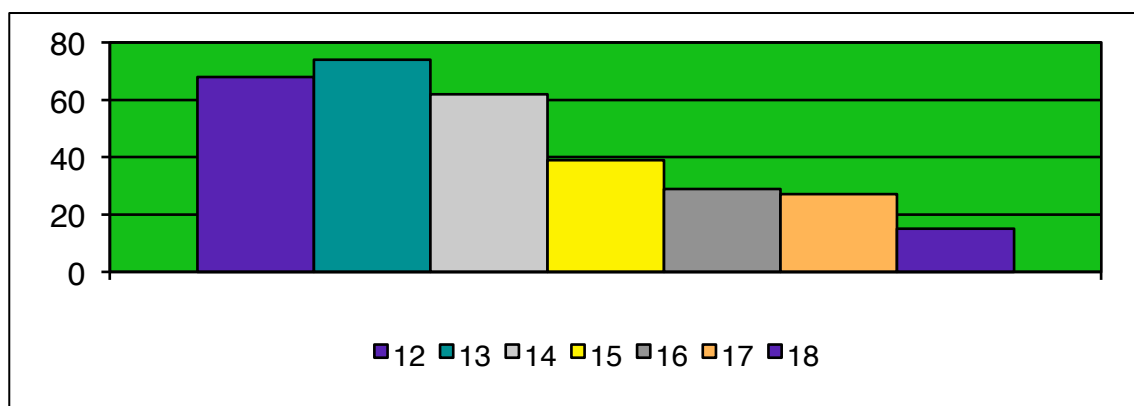
Figure 3. Student participants by years of age.

      Participants were asked to report their years of experience in chorus classes during middle and high school. The mean years of experience ($M = 2.86$) is fitting of the average age of students ($M = 14.13$) in the study. By comparing this mean to the mean age, it appears that the average student participant enrolled in middle school chorus in the sixth grade, when they were approximately 12 years of age, and has remained enrolled through their present grade. This finding was important because it established the total study population as one that has maintained an interest in chorus class enough to continue involvement, and brought a level of experience that began with the traditional start of large ensemble classes.

Extracurricular musical experiences were also reported. Students were questioned whether they took lessons on an instrument or voice, wrote songs on their own, were self-taught on an instrument, played in a band on their own, or simply wrote new words to existing songs independently. Of the students included in the survey, 42% stated that they took lessons on an instrument, while 39% stated that they had taught themselves to play an instrument. When asked about informal composing/arranging activities, 62% of students claimed to make up new words, while 39% responded that they wrote songs on their own. Only 11% of students responded that they made music in the form of a band. The frequency of student responses to these questions can be found in Figure 4.
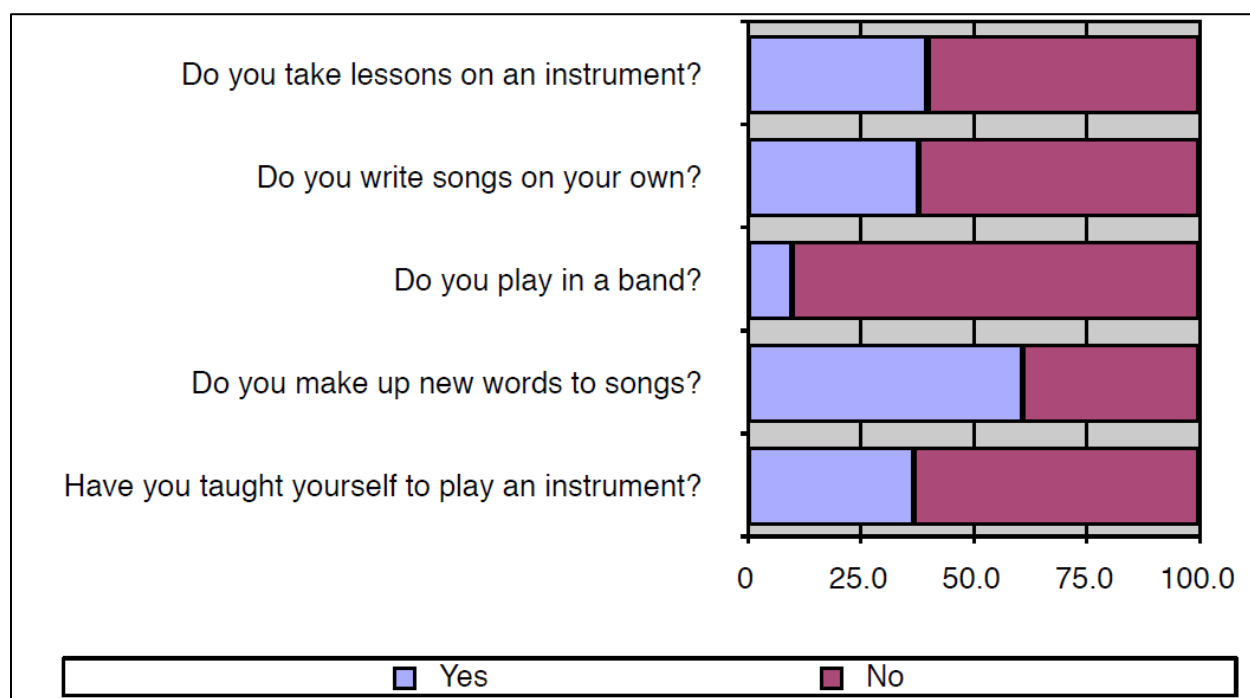
Figure 4. Student extracurricular musical activities.

The purpose of including these factors was to later compare participants' extracurricular musical activities to their understanding and valuing of creative musical activities in their chorus classrooms. These descriptive statistics were used in the full analysis of the data gathered.

Purpose of Question 1

Question 1 of the survey asked participants to input their anonymous survey code. Each code was a four-digit number designating middle/high school, specific school, and student participant number.

Participants were selected from six middle schools and five high schools. The sample included 186 middle school students and 128 high school students. The distribution of population by school can be viewed in Figure 5 below.
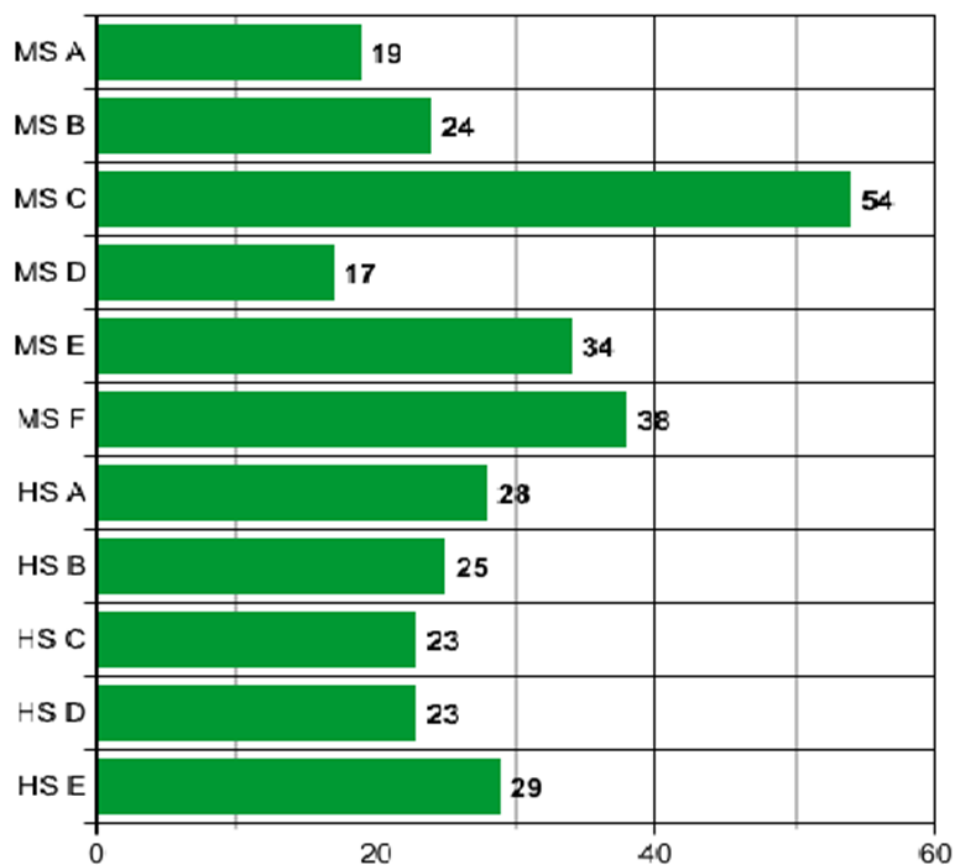
Figure 5. Number of participants by schools.

The number of participants were not evenly divided between schools. Some schools were not able to supply enough participants to meet the sample size as determined by the preliminary power analysis, so other schools were asked to supply additional students. This request was made so that the total sample of the study would reach the minimum number of 312 students, as prescribed by the preliminary power analysis. Reaching this sample size gave the study the necessary level of statistical power, as calculated from the results of the previously completed pilot study as detailed in Chapter 3.

Analysis of Question 2

In Question 2 of the MCPA, students were asked to rate the perceived importance of several potential purposes of music education. Students rated:

a) learning vocal technique,

b) performing expertly in concerts,

c) reading musical notation,

d) becoming a creative thinker,

e) understanding how music relates to history and culture,

f) finding a place where you feel you belong,

g) feeling confident, and

h) becoming a better listener of music.

Students rated these elements from 1 (least important) to 6 (most important). The mean scores and standard deviations are provided in Table 1 below.

Question 2 analysis of variance. A repeated measures analysis of variance was conducted on the data from question 2 of the MCPA. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated, $\chi^2 (27) = 196$, $p < .001$, therefore degrees of

freedom were corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = .855$). The adjusted

results showed that there was a main effect between the elements provided, $F (5.98, 1835) = 107$,

$p < .001$.

Since there was a within-subjects main effect, a pairwise comparison was analyzed to

determine between which elements the significant difference occurred using a Bonferroni post

hoc test. In this analysis, four prompts were shown to have much higher importance. The

prompts included were "learning vocal technique," "performing expertly in concerts," "reading

musical notation," and "feeling confident." These four prompts showed significantly higher

scores than "becoming a creative thinker," "understanding how music relates to history and

culture," "finding a place where you feel you belong," and "becoming a better listener of music."

The prompt dealing with history and culture was viewed as the least important, and showed

significant differences from all other prompts.

The ANOVA was repeated using two different between-subjects factors. First, a factor

was added to compare all middle school participants to all high school participants. No statistical

significance was reported. Secondly, the factor of individual schools was included as a between-

subjects factor. This also yielded no significance.

The findings of the analysis of variance of question 2 showed that the student participants

thought that standard activities such as performing well in concerts, learning to read music, and

learning vocal techniques, as well as gaining confidence, were more important than thinking

creatively, relating music to history, developing listening skills, and feeling a sense of belonging.

The findings were not limited to one level of education (high school or middle school) and were

similar across all 11 participating schools.

Table 1. Question 2 Descriptive Statistics.

Prompt	Mean	Standard Deviation
Feeling confident	5.14	1.18
Performing expertly in concerts	5.08	1.05
Learning vocal technique	5.05	1.06
Reading musical notation	5.04	1.05
Finding a place where you feel you belong	4.74	1.38
Becoming a better listener of music	4.69	1.30
Becoming a creative thinker	4.22	1.30
Understanding how music relates to history and culture	3.44	1.41

Question 2 multiple regression. The results of the ANOVA of question 2 warranted further investigation, particularly into how students chose their rating of "becoming a creative thinker." A multiple regression analysis was conducted to test if the value of "becoming a creative thinker" could be predicted given participants' rating of other prompts within question 2. The results of the regression indicated that three predictors explained 38% of the variance ($R^2=$ .380, $F(3,310) = 63.3$, $p < .001$). It was found that a participants' perception of importance of "becoming a creative thinker" was influenced by his/her value of "music's role in history and culture" ($\beta = .510$, p < .001), "finding a place where you feel you belong" ($\beta = .360$, $p < .001$), and "feeling confident" ($\beta = .134$, $p = .021$). It was of interest that the role of "history and culture" alone could be used to predict 25% of a participant's value of creativity.

Question 2 multiple regression with extracurriculars. An additional multiple regression analysis was conducted to measure whether the demographic and extracurricular information gathered from participants could be an indicator of the importance rating of creativity, as measured in question 2. Neither years of experience nor extracurricular activities yielded statistical significance.

Overall, the results from Question 2 yielded some findings that were similar to those of the pilot study. The top tier of valuable activities in chorus class included "feeling confident," "performing expertly in concerts," "learning vocal technique," and "reading musical notation." These findings are identical to those of the pilot study. The prompt of "becoming a creative thinker" was rated to be of significantly less importance than the top 4 prompts, as displayed in Table 1.

Analysis of Question 3

Question 3 of the MCPA dealt with the perceived frequency with which certain topics were explored in choral classes, including:

a) reading notation,

b) music history,

c) composing/arranging,

d) listening to music,

e) improvising, and

f) vocal technique.

Descriptive statistics for question 3, including mean and standard deviations, are available in Table 2. Prompts are ordered from the most frequent (1) to least frequent (6).

Table 2. Question 3 Descriptive Statistics.

Prompt	Mean	Standard Deviation
Vocal Technique	1.36	0.76
Reading Notation	1.61	0.75
Listening to Music	2.20	1.15
Composing/Arranging	3.37	1.67
Improvising	3.67	1.74
History/Culture	3.71	1.27

Question 3 analysis of variance. A repeated measures ANOVA was performed on the data from question 3. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated ($\chi^2 (14) = 258, p < .001$), therefore degrees of freedom were corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = .779$). The adjusted results showed that there was a main effect between the prompts ($F (3.89, 1769) = 264, p < .001$).

A pairwise comparison using the Bonferroni post hoc yielded significant differences between nearly all activities mentioned in question 3. Statistical significance was found between all but one pair of prompts. The exception was the relationship between "improvising" and "history/culture." These results suggest several possibilities. First, the large standard deviations of both "composing/arranging" and "improvising," indicated that participants' responses varied greatly with these prompts. This may have stemmed from different views regarding these activities from school to school. It could have also indicated a lack of understanding of these terms, which caused some students to incorrectly identify other activities as "composing/arranging" or "improvising." To find additional information on this hypothesis, further statistical analyses were performed on both "composing/arranging" and "improvising."

An analysis of variance was therefore conducted to measure the effect that a participant's school may have had on the frequency of "composing/arranging." No statistical significance occurred in this analysis.

Additionally, an analysis of variance was conducted to measure the effect of school level on "improvising." There was no significant difference between middle and high schools and the perceived frequency of "improvising." This step was undertaken because teacher participants in the pilot study had reported that middle school students may have been confused by the term "improvisation." In the full study, this term was changed to "improvising," for the purpose of increasing understanding for middle school participants. Middle and high school participants rated this activity as occurring with similar frequency, suggesting that "improvising" was understood, or misunderstood, equally by the student participants.

Analysis of Question 4

Question 2 of the MCPA dealt with student perceptions of the importance of certain topics in music education. Question 4 of the MCPA dealt asked students about classroom environment, and additionally about whether they found certain activities in chorus class to be creative. Students were asked to rate each statement on a scale of 1 to 6, from "strongly disagree" to "strongly agree." Statements in this question were:

a) The activities in my class are centered on my teacher,

b) I have input into the activities that we do in chorus class,

c) The most important part of chorus class is high quality performances of choral music,

d) Creative activities take place in my class,

e) Singing chorus songs from printed music is creative,

f) Performing music directed by my teacher is creative,

g) We do activities with composing and arranging,

h) My teacher uses lessons in improvising, and

i) My teacher lets students make musical decisions about chorus songs that we are

singing.

Question 4 analysis of variance. A repeated measures ANOVA was performed on the

data from question 4. Mauchly's test of sphericity again showed a violation of assumption, χ^2

$(35) = 263, p < .001$, so Huynh-Feldt adjustments were applied ($\varepsilon = .846$). The adjusted values

showed a significant main effect ($F (6.77, 503) = 35.4, p < .001$). Descriptive statistics for

question 4 are shown in Table 3, and are ordered from "strongly agree" (6) to "strongly disagree"

(1).

A Bonferroni post hoc test was conducted on the analysis of variance for question 4.

Significant difference in rating was found between many of the statements. Each statement was

discussed individually in the following paragraphs, in descending order as they appeared in

Table 3.

The statement that yielded the highest mean rating was "the most important part of

chorus class is high quality performances." While a similar prompt was posed in question 2, this

question was asked in question 4 so that it could be directly compared with the statements here.

This statement was rated significantly higher than all other statements, including "creative

activities take place in my class" ($p = .021$), and "performing music directed by my teacher is

creative" ($p = .003$). All additional statements resulted in even stronger significance ($p < .001$).

The statement with the next highest rating was "creative activities take place in my

class." This statement showed no significant difference in rating to "performing music directed

by my teacher is creative," or "I have input into activities that we do in chorus class." The

"creative activities" statement yielded significant differences ($p < .001$) to all lower-rated statements, including those dealing with "printed music," "teacher-centered activities," "musical decisions," "composing/arranging," and "improvising." These results were very informative, since students rated nearly all of the ways that creativity might be evident significantly lower than their perception that creativity was indeed occurring. The exception to this was the statement regarding "performing music directed by my teacher." Overall, this showed that either students were perceiving creativity as occurring in a way that was not included in question 4, or that they were confused about the meaning of creativity where it pertains to chorus.

Table 3. Question 4 Descriptive Statistics.

Prompt	Mean	Standard Deviation
The most important part of chorus class is high quality performances of choral music	4.72	1.23
Creative activities take place in my class	4.39	1.44
Performing music directed by my teacher is creative	4.37	1.39
I have input into the activities that we do in chorus class	4.21	1.54
Singing chorus songs from printed music is creative	3.90	1.55
The activities in my class are centered on my teacher	3.83	1.58
My teacher lets students make musical decisions about chorus songs that we are singing	3.72	1.72
We do activities with composing and arranging	3.47	1.63
My teacher uses lessons in improvising	3.39	1.65

Students rated "performing music directed by my teacher is creative" as the third highest rated statement. This statement was rated significantly higher ($p < .001$) than the "printed music," "teacher-centered activities," "musical decisions," "composing/arranging," and "improvising" statements. In summary, student participants rated singing printed music to be much less creative than music directed by the teacher. Since these activities have been frequently performed at the same time, deciphering how students view these statements differently is worthy of further investigation.

The overall rating of the statement "I have input into the activities that we do in chorus class" was not statistically different from the "printed music is creative," ($p = .106$) or "teacher-centered classroom," ($p = .080$) statements. However, it was rated significantly higher than "musical decisions," "composing/arranging," and "improvising," ($p < .001$). These results showed that students perceive to have input into activities in chorus, but those activities were mostly viewed as teacher centered.

The statement that "singing chorus songs from printed music is creative" showed statistically different ratings from "composing/arranging" ($p = .003$), and all other prompts ($p < .001$). Again, students perceived "printed music" to be less creative than "teacher-directed music." This possible discrepancy should be addressed in further research.

The "teacher-centered" statement showed results with significant rating differences when compared to "high quality performances," "creative activities," and "teacher-directed music," (all at $p < .001$). The pairwise comparison yielded significant results with "improvising," ($p = .007$), but not when compared to "composing/arranging," ($p = .096$). Student participants showed mixed results with the environment of their classroom, as the average of ratings showed uncertainty in whether their classes were teacher-centered environments. Additional information

was necessary to fully understand the levels of student-centered and teacher-centered instruction in these chorus classes.

The statement regarding "musical decisions" was rated significantly lower than all of the statements above it in Table 3, as previously discussed in the results above. There was no significant difference in the ratings between this statement and "composing/arranging" and "improvising." As discussed above, "musical decisions" was rated much lower than the similar "student input" statement. In other words, students perceived to have input into what activities took place, but thought that they had less decision making responsibilities with the specific music studied.

The final two statements, "composing/arranging" and "improvising," received the lowest overall ratings. This resulted in overall scores that were significantly lower ($p < .001$) than all other statements, excluding the previously mentioned "musical decisions." The results of this final group showed that the traditional creative activities of composing and improvising are not common activities in the chorus classroom. However, student participants agreed at much higher levels that creativity took place in their classrooms.

The overall results of the analysis of variance for question 4 were quite complicated. However, some incongruities were made very clear by the student responses. While students highly agreed that creative activities were occurring in their choral classrooms, the source of the creativity was harder to explain. While the results showed that students had some input into the kinds of activities that took place, the students as a whole concurrently reported that they did not feel that they were allowed to make musical decisions. While singing music directed by their teacher was agreed to be somewhat creative, there was less agreement on the creativity of singing printed music. Students gave a mixed response on questions regarding teacher-centered

learning. While a student-centered environment has been shown to be more conducive to creativity, students rated creativity very highly as occurring in their classrooms yet did not agree upon the environment that might have fostered that creativity.

Univariate analyses of variance were performed on each statement from question 4 to measure for differences between the middle school and high school levels. Only the statement regarding "musical decisions" was significant (F (1, 313) = 17.1, $p < .001$). This showed that high school students perceived more shared musical decision making with their teachers, while middle school students reported fewer opportunities to make musical decisions. The same analyses were repeated with regard to individual schools data. The only statistically significant findings again stemmed from the prompt regarding "musical decisions," with several participating middle schools showing lower levels of decision making than their high school counterparts.

Question 4 multiple regression by extracurriculars. An additional multiple regression test was conducted to measure the effect of the extracurricular musical activities and specific school on the students' perception of creative activities in chorus. Two predictors were identified through the regression ($R^2 = .044$, $F(2,310) = 7.16$, $p = .001$) as supplying significant impact on students' "creative activities" ratings: the students' level of experience ($\beta = .179$, $p = .001$), and whether the student was self-taught on an instrument ($\beta = -.111$, $p = .049$). These results indicated that students with more years of experience in chorus class were more likely to perceive chorus as being creative. Consequently, students who did not learn to play an instrument were more likely to view chorus as being creative.

Cross-Question Analyses

Additional analyses were performed for prompts across the questions of the MCPA in order to gain a fuller understanding of how students perceive creativity. Through comparisons of students' value of creativity, ideas of what is creative, and frequency of these activities, these analyses helped to connect the previous findings of this study.

Value of creativity. A multiple regression analysis was performed to measure whether answers from questions 3 and 4 could predict students' importance ratings of creativity from question 2.   The analysis revealed one predictor (R^2 = .032, $F(1,311)$ = 10.4, p = .001), which was the inclusion of improvising lessons, as addressed in question 4 (β = .178 p = .001). These findings suggest that the perceived presence of creativity in chorus, as posed in question 4, had no effect on the importance of creativity. Even those activities which students deemed more creative, including "printed music" and "teacher-directed music" (both from question 4), were not indicative of students' importance of creativity ratings.

These findings brought to light serious implications. Student responses showed that composing and improvising were not common topics for lessons, and that singing printed music directed by teachers was considered the most likely outlet for creativity. However, none of these prompts affected students' rating of creativity's importance.

A similar multiple regression analysis was performed to identify predictors of "creative activities occur in my classroom," as posed in question 4. The analysis gave similar results (R^2 = .029, $F(1,311)$ = 9.15, p = .003), with only frequency of improvising (β = -.169 p = .003), from question 3, being predicted at significant levels.

In conclusion, the results of the student version of the MCPA showed confusion surrounding the meaning of creativity by the participants. While the results have helped to

establish what students do not consider creative, it did not distinctly uncover what it is that students do find creative in chorus class. This was a limitation of the closed-ended survey design of the MCPA. However, the results here have helped to form questions that were asked within the qualitative focus group phase of the research.

Teacher MCPA Results

Teacher participants were given a similar version of the MCPA. Differences between the teacher and student versions were minimal, with some wording altered to specifically address teachers. Changes to the demographic prompts were made accordingly. Finally, some prompts were replaced in question 4, and those will be introduced in the corresponding results section that follows later in this chapter.

Eleven teachers took part in the study, including nine females and two males. The researcher attempted to obtain a more equitable distribution of biological sex by recruiting additional teachers, but the final population of teacher participants represented the uneven ratio represented here.

The years of experience among teacher participants was wide in range, including two early career teachers (zero to five years of experience), four teachers with six to ten years of experience, four teachers with eleven to twenty years of experience, and one teacher with over twenty years of experience.

Levels of education and types of degrees were also varied. One participant's highest degree earned was a bachelors degree in music education. Seven participants held masters degrees, including degrees in music education and choral conducting. Two participants held specialist degrees, one in music education and the other in instructional technology. One participant held a doctoral degree in music education.

From the eleven teachers represented, six were middle school teachers serving students in grades six through eight. There were five participating high school teachers serving students in grades nine through twelve. Teachers overwhelmingly labeled their schools as suburban settings ($N = 10$), with one school labeled as rural.

Analysis of Question 2

Teachers were asked to rate several potential purposes of music education, ranging from 6, or most important, to 1, least important. Teachers rated the following purposes:

a) teaching vocal technique to my students

b) producing expertly crafted performances

c) teaching students to read musical notation

d) helping students to become creative thinkers

e) helping students to understand music's role in history and culture

f) providing students with a sense of belonging

g) helping students to feel confident and empowered, and

h) helping students to become educated listeners of music

Overall, the teacher participants produced a mean score for all prompts ($M = 4.74$) that was slightly higher than that of the student participants (4.68). The descriptive statistics for each prompt can be found in Table 4 below.

The most valued purpose of music education for teachers was shown to be "providing students with a sense of belonging." As in the student results, music's relationship to "history and culture" was rated as the least important of the eight prompts provided.

Table 4. Teacher MCPA Question 2 Descriptive Statistics.

Question	Mean	Standard Deviation
Sense of Belonging	5.27	1.01
Reading Notation	5.18	0.87
Vocal Technique	5.09	0.83
Expert Performances	5.09	0.83
Feeling Confident	5.09	1.04
Creative Thinker	4.64	1.36
Becoming a Better Listener	3.82	1.99
History/Culture	3.73	1.56

Question 2 analysis of variance. A repeated measures analysis of variance was performed on the teacher responses for question 2 to gauge any statistically significant differences within participant ratings of the purposes. Mauchly's test of sphericity was violated (χ^2 (27) = 51.9, p = .005), so adjustments were made using the Greenhouse-Geisser measurements. The adjusted results showed an overall within-subjects effect (F (3.35, 33.5) = 4.05, p = .012). A Bonferroni pairwise comparison did not result in any significant differences. Although the ANOVA showed a significant difference in rating, the post hoc test did not indicate significant findings. This was a problem that has been occasionally encountered because of the conservative nature of post hoc test parameters. These mixed results necessitated additional analysis of question 2.

The teacher sample size was very small. Analysis of variance was chosen instead of multiple regression analysis so as to provide robust results.

Analysis of Question 3

While question 2 measured the value of purposes of music education, question 3 measured the perceived frequency of activities in the chorus classroom. The descriptive statistics are found below in Table 5.

Teacher participants rated "reading notation" and "connections to history/culture" as the most frequently occurring activities. The results from "history/culture" were especially surprising, considering that the rating student participants gave the activity was much lower (*M = 3.71*). Further comparisons between teacher results and student results will be discussed at length at the end of this chapter.

Table 5. Teacher MCPA Question 3 Descriptive Statistics.

Prompt	Mean	Standard Deviation
Reading Notation	1.27	0.47
History/Culture	1.36	0.67
Listening	2.73	0.65
Vocal Technique	2.82	0.60
Composing/Arranging	4.18	0.87
Improvising	5.00	0.60

Question 3 analysis of variance. A repeated measures analysis of variance was used to measure differences between the teacher participant responses to question 3. Mauchly's test of sphericity showed a significance (χ^2 (14) = 38.9, p = .001), so Greenhouse-Geisser adjustments were applied. Considering the adjustments, a significant main effect was found (F (2.06, 20.6) =

47.4*, p* < .001). A Bonferroni post hoc test was instituted to establish where the difference occurred significantly.

The most frequently occurring activities were "reading notation" and "connection to history/culture." These two prompts were significantly higher than all other prompts (*p* < .001), yet did not show any significant difference in their scores when compared to each other.

The results for "listening" and "vocal technique" showed similar frequency of activity. However, both of these prompts were significantly different than "reading notation," "history/culture," "composing/arranging," and "improvising," (*p* < .001). The responses of teachers for "vocal technique" showed a much lower rate of frequency than was reported by students. This showed incongruity between perceptions of students and teachers regarding how often vocal techniques were taught in chorus class.

The least frequently occurring activities were "composing/arranging" and "improvising." Significant differences were also found between both of these activities and all other prompts (*p* < .001). When comparing the scores given by teachers to those provided by their students, teachers clearly stated that these activities occur less frequently. Since students rated these as occurring much more often than teachers, it may have been that students were confused about what was involved in these activities. This topic will be further discussed in the presentation of this study's qualitative findings.

Analysis of Question 4

The teacher version of the MCPA contained some differences within question 4's responses when compared to those of the student version. While prompts were reworded to meet the perspective of the teacher, additional prompts were included asking the teacher's comfort with teaching creative lessons. Statements in question 4 of the teacher MCPA were:

a) My class is primarily teacher-centered,

b) My students have input into the activities that take place in my classroom,

c) The most important outcome is high quality performance of choral music,

d) I consider students performing choral music in printed form as creative,

e) I consider students performing music directed by me as creative,

f) I include activities such as composition and arranging,

g) I include activities in improvising in my classroom,

h) I feel comfortable leading lessons in composition and arranging,

i) Creative activities have a place in my curriculum, and

j) I allow students to make musical decisions about pieces that we are rehearsing.

Results of question 4 may be viewed in Table 6. Prompts are listed in descending order from "I strongly agree" (6) to "I strongly disagree" (1).

The statements involving "composition/arranging" and "improvisation" were once again rated lowest in this question. Both statements resulted in scores that suggested teachers do not include these activities. It was of note that teachers answered very differently to "I am comfortable leading lessons in composition and arranging." This showed that the teachers are comfortable with such activities, yet teachers still do not include it often in their classrooms. Similar questions involving composition and improvisation were further explored in the qualitative interviews.

Question 4 analysis of variance. Question 4 dealt with classroom environment and several value statements regarding activities that teachers might consider to be creative. A repeated measures analysis was conducted. Sphericity adjustments (χ^2 (44) = 79.060, p = .003) were made using Greenhouse-Geisser corrections. Significant main effects were detected (*F*

(4.45, 44.5) = 15.6, p = .001). Bonferroni post hoc tests concluded two pertinent main effects.

Significant differences were found in the ratings of "student input" and both

"composing/arranging" (*p* < .001) and "improvising" (*p* = .003). Additionally, significant

differences in ratings were found between "performance" and "composing/arranging" (*p* = .003)

and "improvising" (*p* = .032).

Table 6. Teacher MCPA Question 4 Descriptive Statistics.

Prompt	Mean	Standard Deviation
Performance	4.36	1.21
Teacher-cntered environment	4.00	1.89
Creative activities take place in my classroom	3.55	1.64
Decisions	3.27	0.910
Comfortable leading composition lessons	3.18	1.33
Student input	3.09	0.701
Printed music is creative	2.64	0.809
Teacher directed music is creative	2.64	1.03
Improvisation	1.82	0.982
Composition/Arranging	1.82	0.603

The results of this analysis showed that there were strong relationships between allowing

student input into activities and including composing and improvising lessons. Additionally, the

differences in rating of "performance" and both "composing/arranging" and "improvising"

further explained that the more a teacher was focused on performance preparation, the less they included such creative activities as composing or improvising.

Teacher MCPA Conclusions

One can glean information regarding the choral teacher participants and their relation to creativity through the results of the Teacher MCPA. Most teachers rated "becoming a creative thinker" as an important purpose of music education for their students. In fact, the mean rating placed creative thinking as a much more valuable purpose than music's relation to "history and culture." However, the latter activities were occurring much more frequently in classrooms, as suggested by the responses to question 2. Composing and improvising, two activities commonly linked with creativity, were reported as the least frequent classroom activities of all options given in question 3. However, the results of question 4 only added to a confusing picture of the meaning of creativity with these participants. Although teachers agreed somewhat that creative activities were taking part in their classrooms, they were unable to identify how it was occurring, or to what extent. Teachers tended to disagree when asked if singing music printed in a choral score or music directed by the teacher was creative. The findings here indicated confusion about these teachers' definition of creativity. This incongruity may have also led to confusion amongst their students.

<center>**Student and Teacher Results Comparison**</center>

The student and teacher versions of the MCPA were designed to pose similar questions from the different perspectives of these two groups. The student and teacher comparison calculations were completed using a confidence level of 99% ($p = .01$). This decision was made to correct for the imbalance of student participants to teacher participants.The following section

offered a comparison of the results as well as several analyses of the data generated by the two groups.

Question 2 comparison. The importance of both participant groups were compared. As stated previously, teachers gave overall higher scores to the prompts in question 2. Visual representation of the comparison of means were displayed in Table 7 below.

Table 7. Descriptive statistics for Question 2; student and teacher comparison.

Student Ratings of Purposes	Purpose	Teacher Ratings of Purposes
5.14	Feeling confident	5.09
5.08	Expert performances	5.09
5.05	Vocal technique	5.09
5.04	Reading notation	5.18
4.74	Sense of belonging	5.27
4.69	Becoming a better listener	3.82
4.22	Becoming a creative thinker	4.64
3.44	History/Culture	3.73

Univariate analyses of variance were performed for each of the prompts from question 2, comparing teacher responses to student responses. Only ANOVA testing of the ratings of "becoming a better listener" yielded significant results ($F (1, 323) = 7.93$, $p = .005$). With the exception of this one prompt, student responses mirrored teacher responses. Specific schools were not a predictor of ratings in Question 2 of the Student MCPA. Therefore, the conclusion can be made that student perceptions do not appear to have been directly affected by their teachers.

Question 3 comparison. Students and teachers rated the frequency of several classroom activities differently, as measured in question 3. The comparison descriptive statistics are displayed in Table 8.

Table 8. Descriptive Statistics for Question 3; Student and Teacher Comparison.

Student	Prompt	Teacher
3.71	History/Culture	1.36
3.67	Improvising	5.00
3.37	Composing/Arranging	4.18
2.20	Listening to Music	2.73
1.61	Reading Notation	1.27
1.36	Vocal Technique	2.82

As seen in Table 8, the perceived frequency of music relating to history and culture is significantly different between teachers and students (F (1,323) = 37.1, p < .001). Teachers believed that this was occurring much more frequently than as perceived by students. Additionally, significant differences were found for "vocal technique" (F (1,323) = 44.9, p < .001).

Question 4 comparison. The common prompts from question 4 were compared between teachers and students. Comparative descriptive statistics are displayed in Table 9.

Univariate analyses of variance were performed for each common prompt. Through these analyses, some significant findings were produced in several of the prompts related to creativity. A comparison of student and teacher ratings of "Students have input into the activities" (F (1, 323) = 6.68, p = .010) showed that students agreed with the statement much more than did teachers. The same was true for "singing songs from printed music is creative" (F (1, 323) =

7.22, $p = .008$) and "performing music directed by the teacher is creative" (F (1, 323) = 16.6, $p <$ *.001).* Lessons in "composing" (F (1, 323) = 11.4, $p = .001$) and "improvising" (F (1, 323) = 20.4, $p = .006$) also yielded higher ratings from students than from their teachers. The results from this section showed that although students and teachers both claimed that creativity took place with similar levels, teachers agreed far less when asked specifically about what those creative activities were. Students agreed that traditional choral class rehearsals of printed music directed by a teacher were creative. Teachers did not agree with the students about the level of creativity experienced in their choral rehearsals.

Table 9. Descriptive statistics for Question 4; Student and Teacher Comparison.

Student Ratings	Prompt	Teacher Ratings
4.72	The most important part of chorus class is high quality performances of choral music	4.36
4.39	Creative activities take place in my class	3.55
4.37	Performing music directed by my teacher is creative	2.64
4.21	Students have input into the activities that take place	3.09
3.83	Teacher-centered environment	4.00
3.89	Singing songs from printed music is creative	2.64
3.72	Students make musical decisions	3.27
3.47	Activities in composing and arranging	1.82
3.39	Using lessons on improvisation	1.82
--	I feel comfortable leading composition lessons	3.18

Conclusions

The overall results of the quantitative phase brought little clarity to the issue of creativity in choral classes. Students seemed to believe that creativity occurred in their class, but they were unable to specify where it occurred, at least as measured by the MCPA survey. Some students appeared to be confused about exactly what constitutes composition and improvisation in terms of chorus, as their responses were very different from teacher responses to these questions. Students were undecided about the creative elements of singing printed music and music directed by their teacher. Also, the impact of student input and musical decision-making was unclear, with suggestion that students perceive creativity where there might not be any traditionally indicated elements of creativity at play (i.e. when singing printed or teacher-directed music). The specific design of the MCPA limited how participants could communicate their understanding of creativity. In the qualitative phase of this study, selected participants were asked to expand on their personal understandings of creativity and how it is evidenced their chorus classrooms.

5   QUALITATIVE RESULTS

The qualitative results of the MCPA survey instrument provided much insight about what students did not find to be creative in their chorus classrooms. The survey alone, however, was unable to specifically address the individual students' understanding of the word creativity, and how that understanding was expressed in chorus. The survey was also limited in this same respect with regard to teachers' understanding of creativity. A second phase of research, featuring qualitative methods, was necessary to gather specific points of view from some participants who took part in the survey. The aims of the qualitative phase were to glean a deeper comprehension into how participants view creativity, how they defined it both inside and outside

of chorus, and what other experiences might have had an effect on that understanding. The aims of this phase were to advance the overall purposes of the full study:

1) To explore the individualized meanings of creativity of students within choral ensembles, and

2) To identify the effects that teachers' perceptions and classroom environment have on helping students shape the meaning of creativity.

Two teacher interviews and two student focus groups were conducted. A semi-structured design was used in gathering all qualitative data. This meant that the researcher was able to create a set of guiding questions, as found in Appendix G. The semi-structured form also helped to entrust the participants with some control over the emphasis and topics within the timeframe, much as a creative conductor might give the orchestra some level of input into the performance of a symphony.

As the topic of this research was creativity within chorus classes, this chapter was organized in the outline of a musical form, called Sonata-allegro. The Sonata-allegro form was established by early composers of symphonies in the 18th century, and was marked by an Introduction and an Exposition, followed by a Development section, and closing with a Recapitulation section. In this chapter, the Introduction section will provide some background on our musicians—the participants in the study. In the Exposition section, the major themes of the composition will be introduced through the sounds (words) of our "musicians." The Development section will use these themes to further (analyze) understanding of each participant's view of creativity. The Recapitulation section will summarize the presented themes and findings as a conclusion.

Introduction

"A preparatory movement. . . to introduce a larger composition. Often, the introduction

will prepare the listener for the tonality of the larger composition. . ."

(dictionary.onmusic.org)

The qualitative phase included 10 total participants, including two teachers, four middle

school students, and four high school students. The middle school chorus teacher and middle

school students will be introduced first, followed by the high school teacher and students. Alex

was an early career teacher, in only his second year as a middle school (grades 6-8) chorus

teacher. He completed a bachelor's degree in music education from a large public university.

Alex's high school music experiences were mostly in band, and he switched to chorus during his

undergraduate degree. He identified as feeling creative when writing reviews of video games for

several websites. Four of Alex's middle school chorus students took part in the focus group. All

students were in the 7th grade:

- Chantal was 13 years old at the time of the focus group. She stated that she joined

  chorus after her mother heard her sing and said "you just need a little practice."

  Chantal has arranged a pop song for a group of her friends to sing in the school

  talent show;

- Trent, 13, has been in chorus since the 5th grade. Outside of chorus class, Trent

  has enjoyed teaching himself guitar and taking part in school drama productions;

- Makayla, 13, stated that when she joined chorus "I didn't really think I was good

  at singing, I just tried it." Makayla was selected as a member of the All-State

  Chorus in her first year of eligibility;

- Sara, 12, has also been in chorus since the 5th grade. She stated that she feels most creative when working on the school yearbook staff.

The middle school students in the focus group have all been involved in the chorus program at their school since its inception in the 2012-2013 school year. Alex has been the only chorus teacher, beyond elementary school, that any of these students have ever had.

Nicole identified herself as a high school chorus teacher who has been teaching for 15 years. She has also taught a course in music theory at her school. She earned bachelors and master's degrees from a large state university with a well-respected music education program. In her free time, Nicole has enjoyed performing with a renowned amateur chorus and has also performed in many blues clubs as lead singer in a blues combo. Four of Nicole's students also took part in the focus group:

- Brody, 17, was in the 11th grade at the time of the focus group. He stated that he felt creative when taking part in wrestling and jiu jitsu, but that he enjoyed being in the chorus equally as much as those athletics;

- Marlena, 15, was in the 9th grade. She began music through a religious institution, and she has made up harmonies to popular music with her friends;

- Hannah, 15, was also in the 9th grade. She is heavily influenced by her mother's musical achievements, and has often shared her own music compositions with her cousin;

- Chloe, 16, was in the 10th grade. She was involved in her chorus in Belgium from 2008-2011, when she moved to the United States, where she lived prior to 2008. She has loved performing musical theater songs, and admitted to making up songs while at home alone.

The high school students taking part in the focus group have all been in chorus with Nicole for at least one year. Brody began high school chorus at a different school. Marlena, Hannah, and Chloe all began high school chorus with Nicole as their teacher. All of the high school students were in an intermediate level chorus, a class of around 40 students, ranging from the 9th grade to the 12th grade.

Exposition

"The introduction of main themes. The emphasis on contrast, even conflict, is the element that distinguishes the exposition of a Sonata-allegro form movement. . ." (enjoythemusic.com).

The students and teachers who participated in the qualitative phase each brought their own set of life experiences and musical experiences to the study. An examination of the transcripts of this phase helped to identify major themes that impacted each participant's individual understanding of creativity. Those major themes have been included below in the Exposition section.

A musical exposition has commonly been used to establish themes present throughout the movement of music. In this study, main themes were identified in the qualitative data. Several trends, referred to as motifs, were sorted by similarity and resulted in the themes presented here. The researcher found two main themes that had helped to shape students' and teachers' understanding of creativity. Those two themes were identified as personal relationships and previous musical experiences.

Theme 1: Personal Relationships

Every participant, both student and teacher alike, referenced a personal relationship as being a strong motivator for their involvement in music, enrollment in chorus class, or willingness to become a chorus teacher. These interactions with others were found to be key

influences in forming each person's meaning of creativity. The theme of personal relationships has been divided into motifs of friends/family influences, k-12 school teachers, and undergraduate professors.

Friends/family influences. The contributions of friends and family were extremely important to both encouraging students to get involved in music, as well as helping them to an understanding of creativity. Students were all asked what caused them to enroll in school chorus, and many referenced familial encouragement:

- "My mother for most of her life was a singer. So I was like, oh that's cool, my mom is a singer, and I want to be just like her," (Hannah, 15, female);

- "My sister also did it [chorus] and I saw she really enjoyed it, so I was really interested in it," (Chloe, 16, female);

- "My dad, he plays a lot of piano, sings a lot. . . my dad never really learned how to really play music, but he can just play the piano by ear, which is what got me into piano. . ." (Chloe, 16, female);

- "My mom and everyone else who's heard me sing is like 'you just need a little practice,' and everything. . . so I thought chorus might be something cool to do, and get the experience of being. . . working with people," (Chantal, 13, female).

Many participants spoke about positive experiences, with one exception. Brody, age 17, stated, "Both of my parents are tone-deaf. . . I wouldn't say there's anyone musical in my family. . . my parents. . . when a song comes on the radio they'll sing along to it, badly I might add." Although Brody shared that he does not perceive his parents to be talented musicians, this

influence is not completely negative. Brody's parents may not have made quality music while singing in the car, but they were encouraging singing through their actions.

One teacher shared familial influences that showed mixed feelings on becoming a chorus teacher. Alex, the middle school teacher, shared that most of his family were dentists, and that his family expected him to follow in that tradition. But the more prominent influence on Alex came from his father, who was also his high school band teacher. Alex was so moved by his father's dedication for music that he chose to become a music teacher himself.

Nicole, the high school chorus teacher, was influenced creatively by a friend outside of education. After moving to a new city, Nicole sought out performing opportunities. After participating in several open mic events in blues clubs, she was approached by a lead guitar player, asking her to join his blues combo. The experience opened Nicole's eyes to improvisation:

> He was a really good guitarist, but he didn't sing, and he needed someone who sang, and he wanted someone who played guitar, too. And so I played rhythm [guitar] and he played lead and he was a great improviser. I mean, we never rehearsed once for anything. He was just like 'you tell me what you want to play.' and he would.

> (Nicole, 38, female)

Familial and friendly relationships were important influences in getting the participants involved in music, and in some cases, exposed to creativity. Nicole was directly influenced by individuals being musically creative outside of school music classes. Other participants were encouraged by the musical abilities (both positive and negative) that they observed, which may or may not have been perceived as creative.

K-12 music educators. Participants all shared that they were influenced by music educators at some point during their primary or secondary education. The teacher participants reflected upon how their educators helped to create an atmosphere of acceptance and sense of belonging. For high school participants, the role of their middle school teacher was influential in the students choosing to remain in chorus, and on their expectations of what activities should occur in chorus class. Middle school participants shared positive feelings about their current chorus teacher. These students specifically mentioned the environment of encouragement and acceptance that Alex, their chorus teacher, has helped to create.

Research has shown that creating a supportive environment is key to fostering creativity (Pelfrey, 2011). Nicole's experiences while a middle school student displayed evidence of just such an environment:

> Up until I guess 7th grade I wanted to be a veterinarian, and I had a chorus teacherwho changed my life. I think middle school is a rough time for people, and I was pretty miserable, like I think a lot of middle school kids were. . .and he showed me that I had something beautiful inside, ya know, like with music, and so I thought I'd like to help other people find that beauty in themselves, too. (Nicole, 38, female)

This middle school teacher created an environment that Nicole perceived as extremely supportive, as she retold her respect for him very passionately.

Alex shared similar stories of how nurturing his director was. Since Alex's director was also his father, Alex was asked to share about how his father related to other. He spoke passionately about his father's encouraging style of directing jazz band. When asked what it was that jazz band so special, he said "it was the way he [the teacher] had us think about the music, and the way we rehearsed, it was just really different from the normal classroom setting."

Similar stories were shared by both the high school and middle school participants. Chloe and Marlena both spoke of their middle school educators as trusted role models. Their stories differed in description of these educators' instructional styles. While Marlena stated that "she [her chorus teacher] was more of a friend than a teacher," Chloe shared that her teacher was unique in "just how he motivated us, like 'it'll sound better like this. . .this sounds bad, you need to fix this. . .you should do this,'. . .he was straightforward with us." Chloe also spoke of this style of teaching, crediting her teacher with inspiring continued involvement in chorus.

Chantal, a middle school participant, shared her influence from her current teacher, Alex. She spoke about a time that she learned some music on her own and was allowed to perform it for the class. She praised the fact that she has been allowed to share her opinions in chorus class.

The secondary educators discussed all had an impact on the participants. In most cases, those educators were able to create a supportive environment where the participants felt comfortable sharing opinions and being themselves. Those environments appear to have been prime environments for creativity. However, as was shown later, only tangential instances of creativity were recalled from the experiences.

Undergraduate professors. The literature reviewed for this project indicates that relationships with undergraduate professors are very influential for future music educators (Isbell, 2008). Pre-service teachers who were encouraged by their professors to incorporate creative activities in their fieldwork experiences, then it is likely that they would continue to do so when employed (Brinkman, 2010).

Insight into the relationships of the participating teachers and their undergraduate professors has provided quality insight into how the teachers understood creativity. High school teacher Nicole had great admiration for her primary music education professor, Dr. Winston.

Nicole not only had the chance to learn from Dr. Winston in methods courses, but also had the

opportunity to sing in the choir under Dr. Winston's direction. It was this experience that Nicole

used as a model for her own pedagogical technique:

> She was really big into giving the other sections something to do when you're
>
> working with the second sopranos. . . even if it is counting out the rhythm or, if we
>
> come in after an eighth rest, they need to stomp it. That way the tenors come in right,
>
> just things like that in order to keep classroom management. . .(Nicole, 38, female)

Nicole continued to share how much she admired the way that Dr. Winston used diversified

instruction to engage her chorus, which included students from many majors with varied levels

of musical experience. Considering the experience shared by Nicole, Dr. Winston seems to have

had a teacher-centered pedagogical style. Nicole was asked specifically about times that she felt

creative in Dr. Winston's chorus:

> In women's glee, we did some things where she'd give us ostinatos and things. . .
>
> cause it wasn't just a performing ensemble. . .it was a teaching ensemble. So she'd
>
> have, you know, a section do a kind of ostinato and then she would layer some
>
> solfege on and people could kind of improvise a little bit maybe. . . (Nicole, 38, female)

Dr. Winston led the chorus in singing an ostinato, in this case a very brief, repeated bass

line. This ostinato was meant to initiate improvisation, a form of creativity. Nicole provided

some contextual clues as to the frequency that creativity was engaged. The fact that she said this

happened because "it was a teaching ensemble," led the researcher to think that Nicole does not

believe this activity should be used in all kinds of choirs. The qualifiers included seemed to

minimize the frequency that Nicole observed this activity. Words such as "some," "kind of," and

"a little bit maybe," imply that Dr. Winston did not employ these types of activities on a regular

basis. Nicole did have some creative experiences in Dr. Winston's chorus, but those experiences did not become activities that Nicole employed in her own classroom.

Alex was especially influenced by two different professors during his undergraduate matriculation. His first true choir experience occurred with Dr. Holbrook as the conductor. This experience shaped Alex's rehearsal pacing, and he stated that "my warm-ups are completely stolen from him, my rehearsal strategy and how we move from one thing to the next is the same as what he does. He was all about efficiency." Alex continued to share the level of decision making and control that this professor exhibited. When prompted to share elements of creativity from Dr. Holbrook's ensemble, Alex could not remember any.

Creativity was at the center of Alex's influence from his elementary music methods course. He remembers this professor as being "very interactive," and included some improvisation opportunities. However, the opportunities for creativity were only while playing instruments that are commonly found in elementary general music classes only. This creativity did not seem to make any connections to Alex's teaching of middle school chorus, as he stated that he does not use this in his chorus classes.

The study participants' opinions have all been shaped by relationships with others, including family members, chorus teachers, and university professors. Some personal influences aided in helping teachers to shape their classroom environments. Other influences provided an atmosphere based only in convergent activity as dictated by the teacher. All of these individuals have shaped our participants as musicians and teachers. But, the role that they played as musical mentors and role models are only one influence. Additional motifs were found within the participants' previous musical experiences. Those experiences could take place inside or outside the chorus room.

Theme 2: Previous Musical Experiences

Participants were asked to describe moments in their lives when they have felt creative. It was not specified whether these should be a musical event or not, and so participants remarked about both musical and non-musical creative moments. These moments have been grouped into three motifs; experiences of individual creativity, experiences of group creativity, and peer assessment.

Experiences of individual creativity. Brody has been involved in wrestling and jiu jitsu for four years. It was during wrestling practice where he noted that he feels most creative:

> When I learn something new. . . and I try to think of ways to tie it together with a
>
> different move. . . that when it [creativity] normally happens. So you just kind of test
>
> things out and see if it works, it is kind of like trial and error. (Brody, 17, male)

Brody has used different ideas to find a new solution for overcoming an obstacle, much as in Dewey's (1934) instrumentalism. Brody stated that he frequently had trouble applying these creative combinations in matches, but has really enjoyed the creative aspect of his athletics.

When asked when he felt most creative, Trent gave a very different response. He referred to himself as "creatively challenged," and said "I can't even draw a straight line without messing up." This statement by Trent sparked a group discussion. Part of that discussion was an exchange between the researcher and Makayla:

> Makayla: Okay, you can make a lot of things with a straight line. You can make
>
> designs, graphical designs. And really, if you make very small, tiny little
>
> straight line segments, then you can make a curved line. Like, if you blow
>
> it up on something.
>
> Researcher: So, is that straight line all by itself creative?

Makayla: Someone had to make it up!

Trent's statement and Makayla's reaction gave great insight into both of their views on creativity. Trent clearly believed that not being able to accurately complete a simple task defined his creativity. His words implied that completing a straight line alone would be creative. Makayla reacted with a statement that referred to the perspective of the viewer about the creativity of a product. A line, whether straight or imperfect, could have been deemed creative by the observer, and not necessarily by the creator.

Group creativity. Makayla and Sara shared that they felt most creative in group settings. Both of these students, in the middle school focus group, referenced the creativity they felt while working on the school yearbook. Makayla spoke about how the team of students frequently worked in groups of four to five. Each group was given a different page to work on. Sara shared that she found this to be creative because she liked to build on the ideas of others. Sara stated that she felt very creative this way.

The researcher asked students if they had taken part in similar group-oriented creative activities in chorus. The students, mainly Trent, then related an experience of working in groups of around 15 students. Trent spoke about this group work, and mentioned that it was rehearsal of a piece of music introduced by the teacher. After being asked if he found this to be creative, he responded "somewhat, cause you have to listen to each other and you have to look in the music and see what we're messing up."

Trent's response did have similarities to those of Makayla and Sara. Both sets of experiences related to group activities, and both involved overcoming obstacles. However, Trent's activity only had the purpose of a convergent result, whereas Makayla and Sara's activity may have involved creative, and most likely divergent, results. The comments shared by Trent

were very important, because this was the first time that creativity in chorus was mentioned in this focus group. Trent's application of the word "creative" to group activity seems to represent a different understanding of the term, and one that will be further explored.

Peer assessment. Amabile's (1983) consensual assessment has been discussed as an acceptable measurement of creativity. Several participants, both students and teachers, spoke about this type of peer assessment.

On several occasions, Hannah shared comments about being creative through composing songs and creating visual works of art. The researcher asked her to give further detail, and she stated that she enjoyed presenting her creations to her cousin. Hannah said that this is a person in whom she has trust, and that she felt comfortable with her cousin because they spent so much time together. Hannah also said that she respects the opinions of her cousin, and that sometimes the cousin would share artworks with her as well. Hannah has created an interpersonal place where she feels comfortable to share her ideas and creativity. This relationship seemed to be based on mutual respect and trust, as both individuals were willing to share their artworks.

Both teacher participants shared stories of peer assessment. Nicole shared about recently completing a course for certification to teach gifted courses. Nicole was able to define her ideas as creative in spite of the negative peer assessment she gained from the group of educators attending the class with her. She realized that she was thinking differently when she received disapproving replies from her group:

> And I was like "let's do a skit," and they said "no, let's do a PowerPoint". . . and it
> becomes clear again that I'm thinking differently than other people. So I think, you
> know, I don't realize it until I see other people's responses. (Nicole, 38, female)

Middle school teacher Alex has been a writer and reviewer for several websites devoted to video games. His response to peer assessment was sometimes opposed to the reaction of Nicole. When asked how it felt to be creative in his writing, Alex stated:

It feels really good, but the feedback I get from other people in the industry is what speaks to me more, though. Not, like, if I look at it and I'm like 'okay, this is a good piece," I mean, I wrote it. But getting to hear feedback from other people on what I wrote is what is reaffirming or reassuring or what shows me maybe that wasn't as creative as I thought. . .(Alex, 25, male)

Alex appeared to doubt his creativity when receiving negative feedback from his peers, while Nicole tended to embrace her ideas even more with similar feedback. This showed a comfort level with creativity from Nicole. Such a comfort level was not present in Alex.

Each student participant was asked to describe instances of when they felt most creative. No participant immediately named a choral experience. With prompting, some students later related instances of when they felt creative in chorus. Many of these choral-creative experiences did not agree with students' previous explanations of creativity. This will be discussed further.

Prior experiences and personal relationships have shaped many of the ideas in each participant's consciousness, and creativity is no exception. Personalized meanings for each participant have been attached to words, such as creativity, through the lens of prior knowledge. That prior knowledge has been presented here in the two main themes of personal relationships and previous musical experiences. The following section will utilize these themes to uncover the participants' understandings of creativity.

Development

"The development of a Sonata-allegro form is based upon the themes in the exposition and

elaborates upon them by making new combinations of the figures and phrases,"

(dictionary.onmusic.org)

The development section of Sonata-allegro form has often been created by taking the

themes already introduced and using them to further explore the musical ideas. In that

compositional form, the development is where the themes and motifs interplay to advance the

meaning of the piece. Similar ideas were applied to the development section of this chapter. The

themes presented in the Exposition represent the major influences on each participant's

understanding of the meaning of creativity. The various meanings of creativity are explored

below, with application to participants' experiences in chorus class.

Diverse Meanings of Creativity

All participants were presented with the question "what does it mean to be creative?" It

was through this question that participants expressed the core meaning of creativity. Two motifs

developed in these definitions of creativity; originality and process/product orientation.

Originality. Many participants shared that creativity was about thinking or acting

differently than others. Aspects of novelty took precedence over usefulness in many instances:

- "expressing yourself. . . uniquely or differently from others. . ." (Chloe);

- "originality. . . it doesn't make sense, but as we go on it starts to make sense. . .
  you yourself define what is creative. . ." (Brody);

- "maybe taking a different spin on things, having a slightly different take on
  what's going on. Maybe an opinion you take on your own instead of 'well, this is
  what society thinks'," (Nicole);

- "if you've never done it, then it could be like your own personal creativity, and like there could be different types of creativity. . ." (Sara).

The quotations above indicate that student and teacher participants equated creativity with originality. The idea of usefulness was not the focus of any comments, but it was indirectly addressed by some participants. Brody described instances of doubting a friend's ideas until he saw the ideas in action. Chantal spoke about not knowing something was creative until she reflected about the experience.

The most boisterous dialogue between participants came after Sara's comments regarding personal creativity. Following the meaning of personal creativity given by Sara, Makayla responded, and the following conversation occurred:

Makayla: Okay, so, philosophically, no one is creative at all.

Researcher: Okay, why is that?

Makayla: Because you're always basing it off of somebody else's before you. Or let's say this object on a wall. Say you want to make a poster like this, someone made that.

Researcher: Ah, so you think that no one is creative anymore?

Makayla: No!

Trent: They're creative off each other!

Chantal: Artistic technique!

Trent: They're building interdependently!

After this discussion, Sara responded to the disagreement over types of creativity. She stated that "if you had never seen that poster it could still be your own personal creativity because, um, because you had thought of the idea but you didn't know that someone else had already done it."

This debate between four middle school students was at the heart of the capital "C" and little "c"

topic in creativity research, presented earlier in the work of Csikszentmihalyi (1996) as well as

Kaufman and Beghetto (2009). Both Sara and Makayla showed signs of having deeply formed

understandings of creativity.

        Process/Product orientation. A section of the review of literature chapter was devoted

to the balance of orientation placed on creative process versus creative product. This balance was

evident in the descriptions of several participants in the study. Participants were truly split on this

topic. Some participants provided answers geared towards the process when speaking of

creativity in general:

- "I mean, we all have new ideas, and see things differently. . ." (Chloe);

- "It's a point of view, really. . . because you personally see how something is
  creative to you or not. . ." (Brody);

- "Just having a different take on it, and it doesn't have to be wildly outlandish, but
  just seeing things differently maybe. . ." (Nicole);

- "When I see them [students] take ownership. . . they're choosing to do that. . . and
  I think that's a way of exercising creativity, when they take ownership of what
  they are doing. . ." (Alex).

It was of note that both teacher participants seemed to favor process orientation over product

orientation. This position has played an important role in how they view creativity in their

classrooms. Another pertinent finding of these statements was that the oldest two students both

seemed to emphasis process over product. The views of these students may be a sign of a

maturation of understanding creativity through adolescence to young adulthood.   Product

orientation was a more common conception in the younger students of the study. Both Trent and

Chantal shared instances of writing music and believing that it was creative at the time. However, after hearing other pieces of music with similar sounds, each of these students rejected their earlier products, labeling them as lacking in creativity. Trent and Chantal showed signs of recognizing the creativity in this music only when the product was considered creative. They appeared to place very little value on the processes that made the product.

Participants' personal understandings of creativity were explained through the motifs of originality and the balance of process/product orientation. Middle school participants were more focused on elements of originality, such as capital "C" creativity and little "c" creativity(a paradigm-shifting Creativity versus a personal form of creativity). High school participants were divided over an emphasis on process or product.

Applying Meanings of Creativity to Chorus

Each participant expressed his/her view of creativity in general. When asked how each participant felt creative in chorus class, the answers became extremely varied. Some answers seemed to be in direct discord with the participants' general sense of creativity. Each participant will be addressed individually, and themes between the participants will be then discussed.

Nicole and her high school students. Nicole, the high school teacher participant, was inspired by educators in her experiences as a student in middle school and as an undergraduate in a university degree program. Her middle school chorus teacher was extremely creative with classroom instruction, but Nicole was unable to recall specific times when *she* felt creative in this chorus class. Nicole's undergraduate choir conductor stressed the importance of time management in the rehearsal setting. There were instances of creativity through improvisation in this rehearsal, but something has kept Nicole from including similar lessons in improvisation within her own classroom. The music that Nicole made outside of school has also been full of

creative instances. The lead guitar player in her blues combo was an excellent improviser, but Nicole expressed feeling uncomfortable when asked to improvise while singing. Nicole showed signs of a disjunct meaning of creativity when applying it to a chorus setting:

> I have trouble with the word creativity, because we are creative when we create music, but then I don't always know what people mean by that. . . so again, if you think about it in chorus, yeah we're creating something, but it's written on a page, it's the dynamic marking and expressive markings and it's what the conductor tells you to do. We all do the same thing together. . . that's where the word gets really confusing for me, because I don't know how creative my kids are in a performance. . . (Nicole, 38, female)

This statement is indicative of Nicole's confusion when applying her ideas of creativity to chorus. . It also showed confusion by what other people mean when using the word "creativity." Nicole may have been confused because different people use the term "creativity" in various ways.

Brody, one of Nicole's students, showed a general understanding of creativity as personal and process oriented. He demonstrated an engagement in the creative process through his experiences in athletics, and said that he felt most creative in those endeavors. Brody viewed being creative as a very personal experience. He noted that the only individual needed to label something creative was the creator him/herself. He even paraphrased a well-known folk saying regarding the misjudging of creative people, saying "every genius was originally a mad man until they proved something right." However, when asked about how he used creativity in chorus, Brody's first response was "hmm. . . in chorus?" Brody was asked if he would improvise if given the opportunity. His reply was positive, although he stated that he wouldn't be very good at it. Brody's feelings regarding improvisation seemed to be aligned with the findings of

Hirschorn (2011), who found that self-efficacy for improvisation only developed through sustained practice in the activity. He then equated the skill of improvisation as only being possible by the most talented of musicians.

Marlena confessed that she was sometimes allowed to change portions of the printed music in chorus class, but only during rehearsals. During performances, the changes that Marlena made were omitted in favor of the notation written in the musical score. When asked about improvisation, Marlena seemed to equate that term with sight reading:

> When we sightread pieces, like when we practice sight reading, sometimes she'll have us just sight sing, just one of the examples, so we won't have any practice with it. . .we're not really improvising, cause we're still reading it off of the paper. (Marlena, 15, female)

The equation of sight reading with improvisation probably stemmed from the immediacy of the music making. Sight reading and improvising each have been shown to be mentally developed while being performed. Even with this similarity, the fact that Marlena compared these two very different activities showed that she considered these to be similar activities.

Hannah has enjoyed sharing her creative artwork and compositions with her cousin. The relationship that Hannah has formed with her cousin is one based on mutual support. This has fostered an environment where Hannah feels comfortable sharing her ideas without fear. . When asked when she feels most creative, she replied "when I'm doing something that maybe, that I would be afraid to show somebody else." Hannah has thus far only entrusted her cousin in that experience. In regards to creativity within the chorus classroom, Hannah shared this:

> I don't quite know if it is necessarily called creativity, but when we all sing together it sounds so cool, it's like, wow. . .because of the way we blend together, it's like we're one, but we're not at the same time. (Hannah, 15, female)

Hannah has touched upon a topic that was very common with the middle school participants. Several middle school students equated creativity with the thought processes of solving individual issues within a chorus song being performed, such as vowel formation or pitch accuracy. Hannah has identified the problem solving process, which results in the convergent product of a chorus sing, as a creative experience.

Chloe spent her middle school years living in Belgium. Her school chorus there traveled throughout Europe and the Middle East for honor choruses and other musical events, so her opinions were from a point of view that was not strictly based on experiences in the southern United States. She was heavily influenced by her middle school teacher and by her musically creative father. In fact, she was inspired by her father to take piano lessons. She has enjoyed making music with her friends outside of school, where they would frequently improvise or compose. Chloe mentioned that she enjoyed the small composition lessons included in her chorus, and wished that she could have done more. She specifically mentioned that she felt comfortable working in a group in that activity. Chloe showed a sense of aggravation because the in-class composition was only used for "making more practice for the people who hadn't learned it [the rhythm used] yet." This reaction may have shown that Chloe was dissatisfied with the level of validation that her composition received. Chloe's understanding of creativity within the chorus class was summarized in this statement:

> I feel like personally I'm creative with singing more outside of class, cause we're very like. . .by the song. We don't always go exactly how by what the song says, but we're pretty reliant. We don't ever say "oh, let's change this whole thing and make up this whole thing." (Chloe, 16, female)

The high school participants in this study generally reflected views of creativity that came from their teacher. No student specifically stated that influence, but shared views of insecurity of improvising, process oriented meanings of creativity, and lack of creativity within chorus performances were all key factors. Chloe's previously shared quote was extremely similar to that of Nicole's at the beginning of this section. Brad shared a process-oriented view of creativity in general, but was unsure how that translated to chorus class. Both of these examples showed that teachers may not be explicitly sharing their understanding of creativity, but teachers' opinions may have been passed along implicitly.

Alex and his middle school students. Alex shared his previous experiences in jazz bands and university choir. He stated that he enjoyed jazz band for the relaxed atmosphere. Alex also inferred that such an ensemble, and the creativity that often accompanied it, was best left to gifted musicians. Although he improvised on his trumpet in high school, he has been reluctant to attempt to improvise vocally with his choir. Alex identified with the quick pace of teaching that he found in his university's chorus during his undergraduate degree, and has taken on that style of teaching in his middle school chorus. Alex found himself to be creative in his writing for various web sites, and he seemed to identify heavily with peer assessment of that creativity. When identifying creativity in his classroom, Alex seemed to look towards initiative and problem solving experiences. While both of these characteristics were contributors to accepted meanings of creativity, they do not solely identify the presence of creativity. Alex's views of creativity, as expressed in his interview, closely mirrored the larger body of research done in the field. His view of the role of creativity in music education seemed to be geared towards creativity in elementary general music classes and with the extremely gifted. Alex also heavily identified creativity with jazz music. Alex's definition of creativity in general, and his emphasis

on process orientation, did not carry over into his understanding of creativity within the context of his chorus class.

Trent shared experiences, which he considered creative, that were mostly convergent in nature. When prompted to speak of creativity in general he claimed that he was not creative because he could not recreate a straight line. When Trent was asked if he felt creative in chorus class, he said "kind of. Because we're finding our own kind of way to use the vowels so that it sounds correct. . . and like I said, to arrange the notes to make them more comfortable." Trent mentioned that he felt creative in chorus when he solved problems in sectional rehearsals. It appeared from these instances that Trent's understanding of creativity hinged upon the internal process of thinking creatively, and not necessarily forming a creative product.

Makayla shared a broad statement regarding general creativity when she stated that no one was creative anymore, and that all ideas were simply building off of other people's creative solutions. She supported this position when speaking about her experiences with group creativity in her yearbook class. She accepted the ideas discussed in yearbook class as a different kind of creativity, and in fact she supported the position of Sara with regard to personal creativity. Makayla also created harmonies in her mind during choral rehearsals, but did not share them or sing them aloud. She recalled an instance of creative composition in chorus class in which she wrote a warm up exercise. She clearly worked to establish both novelty and usefulness in her warm up, as she applied the purposes of other warm ups to her original work. It was clear from Makayla's portion of the focus group that she had an understanding of creativity and was eager to share it. Even so, Makayla did not immediately bring up creative components of chorus class, and only discussed them when prompted to do so.

Sara stated that she believed creativity was personal. She took the position that different types of creativity existed, and that one could deem something creative merely by personally acknowledging its novelty. Sara made this clear in her part of the poster conversation. According to Sara, a person does not have to share something for it to be creative. This was a clear indication Sara viewed creativity as being almost entirely process oriented. Sara was directly asked about improvising in chorus class. She answered that they improvised "all the time," to which she shared this instance:

> Well, he'll [Alex] do this thing, like where we sing the scale on numbers, and he puts it up on the board so it's like 1,2,3,4,5,6,7,1. . .and he'll point with his marker to the number and we'll sing it. Then he'll go down, and then he'll go up, and you have to sing what he's point to. (Sara, 12, female)

Sara was referencing a vocal exercise where students sang the note corresponding to the numbers written on the board, as they were directed to by the teacher, Alex. Sara has made a very similar mistake to that of Marlena, from the high school group. Both have mistaken forms of sight reading with the activity of improvisation. While both skills contained an element of immediacy, sight reading is the singing of prescribed notes, while improvisation is the creation of a pattern of notes by the performer. The fact that these topics were repeatedly confused by students only solidified the fact that improvisation was not occurring with any regularity in these classrooms. Finally, when asked to think of a specific time when she felt creative in chorus, Sara replied "Well, I can't think of a time when I've been creative, but [Alex, the middle school teacher] is very, very creative when he comes up with our warm ups."

Chantal's descriptions of creativity all pointed back to reflection. She has occasionally created music on her own, and she felt the need to return to it later to determine whether it was

creative or not. Chantal's story was similar to that of a fellow middle school student, Trent, in that Chantal also found creativity to arise from a small group sectional rehearsal. Again, the outcomes of this rehearsal were convergent, with all students learning to sound similar while singing one portion of a written piece of music. It seems that several students equated the problem solving elements of that rehearsal with the creative process. While the results were extremely convergent, just the simple thought process behind reaching that goal was enough for these students to consider it creative.

The middle school students in the focus group had varied understandings of creativity. Many participants identified creative elements in the thought processes behind such convergent activities as rehearsing music from a printed score. These students in general pointed to creativity as a very personal matter, one that did not always need to be shared. Even Makayla, who seemed to have a clear sense of what she found to be creative, was hesitant to share her compositions of harmony with her teacher or peers. Students' general ideas of creativity appeared to be incompatible with the evidence of creativity that they described in their chorus classroom. The misunderstanding of the term improvisation was supportive of that finding.

Students and teachers alike presented diverse understandings of creativity and how it is engaged in chorus classes. Students and teachers alike struggled to connect understandings of creativity outside of chorus class with the elements within class that they considered to be creative. The findings of this section of the chapter point towards more than one use of the word "creativity;" a meaning in general and a separate meaning for use within chorus class.

Recapitulation

"The point at which development passes into the recapitulation is one of the most important psychological moments in the entire Sonata-allegro form structure. It marks the end of the main

argument and the beginning of the final synthesis for which that argument has prepared the

listener's mind. . ." (brittanica.com)

Two major themes were identified as playing strong roles in the participants'

understandings of creativity. The themes of personal influences were further explored in motifs

of friends/family influences, K-12 music educator influences, and undergraduate professor

influences. Family most often proved to be a motivating factor for becoming involved in school

choruses programs. Friends were most likely to influence students to remain in chorus, as well as

the students' music making opportunities outside of class. K-12 music educators were influential

in their roles of creating a comfortable classroom environment, acting as role models, and

helping students to see their musical potential. Undergraduate professors shaped the classroom

management and teaching style of our two teacher participants. Undergraduate professors were

also widely responsible for modeling what creative experiences should look like in the music

classroom. In both cases here, the undergraduate professors did not supply the participating

teachers with ample creative experiences. This influence was a strong force in the role that

creativity played in these teachers' classrooms.

The themes of previous musical experiences included the motifs of experiences in

individual creativity, experiences in group creativity, and peer assessment. Student participants

gave prime examples of how they applied the creative process to activities outside of chorus

class. Specifically, students addressed issues of novelty, usefulness, reflection, and elaboration.

Research has shown that all of these issues are major attributes of creativity. Several students felt

most creative in group settings in other subject areas outside of chorus. While some of these

group activities clearly showed evidence of creativity, some students may have confused

creativity with problem solving skills. This confusion would become prevalent in further

discussion. Peer assessment of creativity was a common motif in both student and teacher participants. It applied to both musical and nonmusical forms of creativity, and seemed to be an important part of the participants' understanding. These experiences, coupled with the personal influences previously discussed, were then compared to how participants explained creativity in general and specifically within chorus.

The development section involved themes of general and specific meanings of creativity amongst participants. Diverse meanings of creativity were presented in the motifs of originality and process/product orientation. A debate between two students over types of creativity (capital "C" versus little "c") framed a much larger debate about the personal aspect of creativity. Students and teachers alike were unsure if originality that was acknowledged by peers was key, or whether a personal sense of originality would suffice when deeming something as being creative. This discussion was very similar to the various positions on the importance of the process or the product. The general meanings of creativity presented by participants showed that the older students, and both teacher participants, were more inclined to value the process. However, these opinions became unclear when applying this to specific activities in chorus class. The middle school students especially tended to deem mere thought processes as creative, irrespective of their entirely convergent outcomes. This helped to identify a major discrepancy in students' stated meanings of creativity and the actions in chorus class that they determined to be creative. These discrepancies were discussed, along with other themes including the difficulty in defining improvisation and genuine lack of traditional creative activities.

The qualitative phase of this study brought to light many issues that the quantitative phase was unable to adequately represent. Conclusions and implications are presented in the following final chapter.

6 CONCLUSIONS AND IMPLICATIONS

This study was completed just as the National Association for Music Education was implementing a revised edition of the national standards for music education. The revision included an overarching theme of creativity prevalent in the standards and implications for each music course, grade level, instrumentation, and demonstration of student ability. The effect of the new standards has not yet been measured, but it appears to address some of the issues found in the current study. Again, the purposes of this study were:

a. To explore the individualized meanings of creativity of students within choral ensembles, and

b. To identify the effects that teachers' perceptions and classroom environment have on helping students shape the meaning of creativity.

Summary of the Methods

A mixed methods design was selected to explore students' and teachers' perceptions of the engagement of creativity in the choral ensemble classes of middle and high schools. The design took the specific form of the Explanatory Sequential Design of Creswell and Plano Clark (2011). This design was chosen for a breadth of data in the preliminary quantitative phase that led to a depth of data in the secondary qualitative phase.

The quantitative phase was implemented through a survey created specifically for this study, called the Measures of Creativity Perceptions Assessment (MCPA). This closed-ended survey asked students and teachers about the importance of many activities in chorus class, the frequency that several topics were addressed, and some opinion-based questions regarding teaching environment. A total of 314 students and 11 teachers participated in the survey.

The MCPA survey helped to establish what students did not perceive as creative, but was not able to identify exactly where they perceived creativity to be occurring in their chorus classes. The qualitative phase was designed to address that issue. This phase took the form of student focus groups at a middle school and a high school involved in the first phase of research. The participating teachers from both of those schools were interviewed.

Conclusions

This study was based in the Participatory Worldview developed by Creswell and Plano Clark (2011), as was introduced in chapter 1. The foundation of the Participatory Worldview was that meaning consists of a mixture of objective and subjective viewpoints. In the present study, subjectivity dominated many participants' understandings of creativity. Subjectivity was paramount in some participants' formations of dual meanings for creativity; one meaning strictly for chorus class, and another meaning for creativity in general.

The consideration of results from both the quantitative and qualitative phases of research produced a more accurate picture of how students and their teachers viewed creativity. A comparison of results between the phases has presented a disconnect between students' understanding of creativity and the activities from chorus class that students labeled as creative.

Quantitative Findings Discussion

The quantitative data brought several key issues to light, including (a) student definitions of creativity in rehearsal; (b) student input into musical decisions; and (c) differences in teacher and student results.

Student definitions of creativity in chorus class. Students perceived that creative activities were present in their chorus classes. And yet, students often could not identify exactly what those creative activities were. For instance, students reported that singing printed music

was less creative than music directed by their teacher. It may have been that students were referencing the creativity of their teachers rather than their own creativity. When asked about specific creative activities, students gave a wide range of responses when rating composing and improvising. This wide range may have been an indicator that some students did not understand these terms. A misunderstanding of the terms was a clear sign that students did not engage in these activities during chorus class, or were unable to recognize these activities

Another explanation of why students could not identify the source of their classes' creativity may come by looking at the studies by Nettl (1974) and Campbell (2002) as introduced in chapter 2. These studies indicated that children tend to develop more mature meanings of improvisation through their adolescence and young adult years. It may be that a comparatively immature understanding of improvisation was the cause of the results regarding improvisation in the current study.

Student input into musical decisions. Middle school students reported having much less input into musical decisions than their high school counterparts reported. It has been found that middle school students work better when given the opportunity to make decisions and have student input (Freer, 2008). This is especially important during the middle school years, as students can begin to work independently when supported by pedagogical techniques like scaffolding.

Students similarly reported low levels of student-centered learning. This type of learning environment has been closely linked to fostering creativity (Pelfrey, 2011). Students gave responses that showed they believed creativity was occurring in their classrooms, yet it appeared to occur during teacher-centered instruction. This showed a major discrepancy between the students' perceptions of creativity and most research in the field, which states that creativity is

fostered during student-centered instruction (Wiggins, 2002, Pelfrey, 2011). It remains a

possibility that students in this study perceived creativity in a different way than research has

defined it. It may also have been that students were attributing elements of creativity to activities

in class that might not be deemed creative by outside observers.

Results from the teacher MCPA contained additional supporting material for the student-

centered learning environment as an indicator of student engagement in creativity. Teachers that

were more likely to include composition and improvisation lessons also included more student

input and musical decision-making, two clear signs of a student-centered classroom

environment. These findings are aligned with the research of Pelfrey (2011), who found that

teachers who encouraged student choice, collaboration, and creating a risk-free environment

were more likely to foster creative activities in their students.

Differences in teacher and student results. Teachers gave some responses that were

very different than their students. Teachers rated the frequency of improvisation and composition

much lower than did their students, meaning that they included these activities far less frequently

than students perceived them to occur. The frequency with which teachers reported the inclusion

of improvisation and composition was very similar to the findings by Orman (2002) and

Williams (2007). Teachers also perceived singing printed music and teacher-directed music to be

much less creative than the students perceived them to be. It appeared that students considered

the internalized problem solving process that goes along with singing printed music to be a form

of creativity.

These findings collectively indicate that teachers and students understand creativity

differently. Students seemed to find creativity as process oriented, personal, and not necessarily

linked to a novel product. Teachers provided little evidence of creative activity in their classrooms, including very limited use of improvisation and composition.

The quantitative phase presented an incomplete image of how students and teachers understand creativity in chorus classes. Students seemed to be confused about the term improvisation, attributing it to other activities. The lack of student input, especially regarding middle school participants, was surprising, given the amount of research about learner-centered teaching environments (Wiggins, 2002, Pelfrey, 2011). Teachers claimed that fostering creativity was an important part of music education, but they did not create environments to support creative thought. These findings are similar to previous research studies in general education (Orman, 2002, Williams, 2007). Findings from the qualitative phase helped to clarify the image that emerged from the quantitative data.

Qualitative Findings Discussion

Analysis of the qualitative phase helped to identify two main themes – personal relationships and prior musical experiences. . The theme of personal relationships was thus divided into motifs, including relationships with teachers, family/friends, and university professors. Additionally, the theme of prior musical experiences was examined through motifs of experiences in school and experiences outside of school.

Teacher findings. Both teachers who took part in the qualitative interviews were asked to explain what being creative meant to them. Nicole questioned the difference in "creating" something and acting "creatively." She seemed to come to an accepted definition of creativity in a general sense, but she was confused by exactly how that applies to a chorus setting. Nicole seemed to have different understandings for creativity: a general understanding and a chorus-specific understanding. Her chorus-specific understanding of creativity centered on group music

making experiences that had personal, individual effects on the student musicians. Alex, the middle school teacher, had a similarly segmented view in which he equated creativity with initiative and problem solving. . Both of these characteristics have been considered attributes of creativity, yet their presence does not automatically denote creativity (Guilford, 1962, 1967), (Torrance, 1988).

This study found different influences on teacher uses of creativity than were found in previous research on the topic. Odena and Welch (2007) found that teachers were most impacted by their personal musical activities, and not by their teacher preparation programs. Yet in this study, undergraduate professors were highly influential of Alex and Nicole in terms of their engagement of creativity in chorus classes. In the current study, both teachers reported having creative musical outlets. Neither teacher claimed that these activities affected their teaching in any way. The differences between these findings and those of Odena and Welch (2007) warrant additional research on how to modify teachers' pedagogical engagements of creativity.

Teacher participants also shared what was impactful about their undergraduate professors. Questions regarding the participants' undergraduate professors were meant to address simply the types of creativity integrated into the degree programs. The findings resulted in a pattern of teaching styles adopted by the participants. Both participants spoke of their professors' classroom management strategies during rehearsals. This showed strong resemblance to the Scott (1999) study, which documented a shift in college students towards classroom management after they became in-service teachers. The shift in the Scott (1999) study was distinctly towards convergent, orderly, teacher-centered teaching environments and away from divergent, student-centered learning that has been found to be conducive to creativity (Wiggins, 2002). Alex mentioned that he admired the fast-paced rehearsal of his collegiate choir and that he has worked

to emulate that in his middle school chorus classes. Nicole shared that her professor was very interested in giving everyone something active to do at all times. So, Nicole gives written work to students who are waiting for her to rehearse with their voice section. Both of these influences show a strong proclivity towards classroom management

The emphasis on classroom management by Alex and Nicole may be a contributing factor to a lack of creative activities. Attitudes expressed by this study's teacher participants were similar to those reported by teachers in previous studies by Beghetto (2005) and Mueller et al. (2011). These two previous studies found that teachers claimed to support and value creativity, yet those same teachers discouraged novel and unique responses in their classrooms. Both Nicole and Alex listed the pressure of rehearsing for performance as a reason for their inclusion of limited use of creative activities. Both mentioned a lack of confidence in leading improvisation lessons. This lack of confidence may stem from each teacher's fear of improvising outside of the classroom, and thus they felt inhibited when considering activities other than those grounded in written music. This inhibition may have led to an avoidance of improvisation. Both Alex and Nicole maintain authoritarian, teacher-centered classrooms. Freer (2010) stated that teachers using this style of classroom management may be less inclined to engage in improvisation in chorus.

The combination of limited preparation for engaging students in improvisation, and a turn towards a teacher-centered pedagogical approach has caused a lack of creativity through improvisation in the two classrooms in this part of the study. As suggested by Freer (2010), teachers may be better equipped to introduce improvisation to their students through an authoritative manner, eliminating the hierarchical relationship between teacher and student.

Overall, teachers in this study formed understandings of creativity through personal relationships and prior musical experiences. The participating teachers recognized creative attributes in their everyday lives outside of the classroom. But when considering creativity within their chorus classrooms, both teachers seemed to only rely on the experiences gained through their choral experiences, which appeared to have provided limited creative experiences. They found it to be important for their students to act creatively. However, both teachers were hesitant to engage students in activities that may be creative, perhaps because of the teachers' own lack of comfort with such activities as improvising. Both teachers also viewed creativity as occurring in activities beyond the traditional approaches of composition and improvisation. The perceptions of creativity from these teachers seem to have affected the perceptions of their students.

Student findings. Students developed perceptions of creativity based on their teachers' opinions of creativity, as well as their own prior musical experiences. These influences contributed to students' dual meanings of creativity. Students formed one meaning for creativity in general, and a separate meaning for creativity within chorus class.

Students defined creativity outside of chorus class very similarly to examples from the literature review. One student, Brody, stated that he was creative in in athletics, and he explained a linear process that was very similar to Wallas's (1926) linear stage process of preparation, incubation, illumination, and verification. Brody encountered issues during sparring in Jiu Jitsu training. He then thought of new ways to combine moves, and later tried to execute them in practice.Other students shared examples consistent with Dewey's (1934) view of overcoming obstacles in examples of creativity through group projects in a yearbook class and composing

music on their own. The unifying factor in all of these examples was that a product was deemed creative by either the creator or a group of trusted peers.

Students also contributed a diverse set of ideas about creativity in their choral music settings. Several of the high school students identified that they were not very creative in chorus class. Others reported that creativity was limited only to tangential moments in rehearsal, but never occurred in performance. The middle school students answered in a different way. Most of the middle school students reported perceiving creativity in activities that appeared to be very convergent, such as achieving pitch accuracy or perfecting a unified vowel formation within the chorus. Students mentioned creativity in vocal warm up exercises, in sight-reading, and in group rehearsals of printed music. The student-provided examples from chorus class were very different from the general definitions of creativity that students previously mentioned. For instance, Webster (2002A) states that musical creativity is ""the engagement of the mind in the active, structured process of thinking in sound for the purpose of producing some product that is new for the creator"(p. 11). Torrance (1988) affirms that creativity contains elements of fluency, flexibility, novelty, and elaboration. The middle school students' strictly convergent applications of the term creativity simply do not adhere to the established definitions of the term.

Middle school students' perceptions. The middle school students' perceptions of creativity may be rooted in two issues; (a) confusion between creativity and problem-solving, and (b) the influence of their teacher's perception. Most middle school students viewed creativity as being synonymous with problem solving. While this view was similar to Dewey's (1934) view of creativity, the middle school students overlooked the key component of novelty. Dewey's (1934) view of creativity as overcoming of obstacles can be viewed as problem solving, thus achieving a sense of usefulness that is necessary for an idea to be deemed creative

(Guilford, 1967). However, Dewey's (1934) position assumed that the outcome of the creative process was indeed novel and useful. The issue with the students' understanding came from the requirement of novelty. The outcomes of warm-ups, sight-reading, and group rehearsals did not appear to be novel. In fact, the products appeared to be extremely convergent, helping each student to achieve the same pitch, tone, or musical phrasing. Many definitions of creativity exist, yet most of those definitions agree that creative products should be both useful and novel. Students frequently confused solving a problem with a useful product with acting creatively to produce something that is both useful and novel.

Additionally, Alex's position regarding creativity in his classroom was very similar to that of his middle school students. Alex related evidence of creativity in his chorus to attributes of a strong work ethic, dedication, and initiative. The middle school students consequently applied this idea to any experience that they had in chorus. Even the most convergent tasks, such as rehearsals of music conducted by the teacher, possessed these elements, so each task was perceived to be creative. Thus, the middle school students perceived almost everything that took place in chorus as being creative.

It is very clear from these findings that the middle schools participants were very impressionable. The influence of the middle school teacher played a critical role in shaping the perceptions of his students. A cause of this highly malleable thinking on the part of middle school students may stem from their social, emotional, and cognitive development. A very similar situation occurred between the teachers, Alex and Nicole, and their undergraduate professors.

The middle school participants viewed creativity outside of the chorus classroom much differently. Participants alluded to theories of creativity in their general discussion of the matter.

Students reflected elements of Canatella's (2004) view of creativity as an interaction between self, others, and things when they shared stories of making up songs at home. One student compared types of creativity similarly to Kaufman and Beghetto (2009), including a lively discussion of capitol "C" versus little "c" creativity (paradigm-shifting Creativity versus a more personal form of creativity). It seemed as though these nuances were cast aside when the discussion was specifically about creativity in chorus. Had students been asked to identify the product of their examples of creativity, they may have had a difficult time since the outcome is most likely not creative. The middle school students' understandings of creativity were simply not reflected in the activities they engaged with in chorus class.

High school students' perceptions. The high school students who took part in the focus groups had a different view of creativity than did the middle school students. As a whole, the high school participants related perceptions of creativity that were more unified, as opposed to the dual meanings held by the middle school students. High school students had clear understandings of creativity in general, and those understandings were reinforced by their experiences in chorus. Several high school students communicated instances of the creative process, including incubation and the moment of illumination, as outlined by Wallas (1926). Incubation was expressed in Chantal's statements on revisiting her writing before determining if it was creative. Illumination was present in Brody's moments of epiphany when using new moves in jiu jitsu. Peer assessment (Amabile, 1983) was prevalent in many of their experiences, as when Hannah shared her compositions with her cousin. Students deemed these creative actions to be both novel and useful. However, the students perceived these attributes in their creative endeavors outside of the chorus classroom. Creativity was simply sought in other venues, whether with trusted friends, family members, or independently.

The idea of improvisation within chorus was familiar to most of the high school students. One student, Marlena, did confuse improvisation with sight-reading, an activity where music is given to the choir and is performed without rehearsal time. This confusion on Marlena's part was similar to the perceptions of the middle school participants. Overall, the high school students expressed an understanding of improvisation, but they communicated reluctance to take part in such an activity.

Nicole, the high school teacher, had a similar reaction regarding improvisation. The uneasiness and reluctance to improvise was clearly reflected from Nicole onto her students. Even those students who professed to improvising with popular music outside of class were unwilling to do so in chorus class. These results were in line with a previous study (Hirschorn, 2011) in which students felt uneasy improvising in front of peers. It appeared through these findings that a classroom environment supporting creativity, as suggested by Nettl (1974) and Hickey (2009) was not frequently present in Nicole's classroom.

Classroom environment played another key role in the high school participants' perceptions. The teacher, Nicole, had previously shared that she was influenced by her undergraduate choir conductor's management of rehearsal time. That style of classroom management has affected the role creativity plays in her chorus. Creative activities, such as composing, were occasionally present in Nicole's classroom. However, these activities were only given to those students who had finished their assignments and needed a task to complete while Nicole was rehearsing with other students. In other words, composing was a means to the end of classroom management. This choice also made composing only for those students who need extension, making it appear that creativity is only for the most talented and gifted students. In this assignment, Nicole has unintentionally influenced her students to think of creativity in this

way. The findings here supported the Beghetto (2005) and Mueller et al. (2011) studies, who both suggested that teachers believed that creativity is important, yet discouraged actual creative activities in their classrooms.

Summary of Observations

Both phases of this study showed that students were confused about what exactly it means to be creative in a chorus setting. Middle school students showed a discrepancy between how they defined creativity in their daily lives and how they defined it in chorus class. While these students seem to have formed meanings of creativity outside of chorus class that are similar to that of the review of literature presented in chapter two, the meanings formed within chorus class are far different. Meanings within the choral setting seemed to be centered on elements of group work, convergent rehearsal activities, and general problem solving. Some of these elements are often associated with creativity, but none of them completely represent creativity. High school students seemed to have formed more unified meanings of creativity, but they admitted to having limited creative opportunities in their chorus classrooms.

The teachers in this study seemed to have passed on their personal ideas of creativity to their students. These included the connections between creativity and problem solving along with a general uneasiness regarding composition and improvisation. These teachers were most influenced by their own undergraduate professors, as both professors stressed the importance of rehearsal pacing and classroom management.

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Implications

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It is possible that the views of the students and teachers participating in this study are representative of many people within choral music education. The issues discovered in this study may have been passed down through many generations of choral educators. The participating

teachers in this study were fine educators. They were representative in sharing what they have been taught regarding creativity.

The cycle of under-engagement of creativity has been difficult to break (Kennedy, 2000). Traditions, habits, and ways of teaching are obstacles that many veteran teachers are skeptical of challenging. In order for music teachers to adequately embrace this change, and to work to fully educate students in choral music, change may need to come from four main implications; changes to teacher preparation programs, applicable teacher resources for teaching improvisation/composition, professional development in embedding creativity in printed music, and helping teachers to understand that creativity is not simply inherent within music.

Changes to Teacher Preparation Programs

It appears that teachers in this study believed that they were fostering creativity in chorus classes. The skewed definitions of creativity found in the teacher participants were very influential over the student participants. Students adopted the beliefs of their teachers, and these students perceived themselves as being creative in chorus class. This was especially true of the middle school participants in the focus groups. The mind of the average middle school student has been proven to be extremely impressionable, and those impressions become difficult to alleviate as these students enter young adulthood. The fact that middle school students in this study were so misled when it comes to creativity, and were offered so few musical decision making opportunities in class, brings in to focus the prevalent issues of middle school education. In order the help these students, their teachers must be better equipped to teach all facets of music.

The most effective way to address teachers' skewed definitions is to implement more opportunities for creativity in teacher preparation programs. Teacher participants claimed that

their undergraduate professors were very influential over these definitions. A concerted effort on the part of university professors to help pre-service teachers fully understand creativity would provide an opportunity for change. Teacher education professors might take the lead in providing effective, applicable approaches to engaging in creative activity for pre-service teachers. This may be best modeled by collegiate choral ensemble conductors, who were major influences on both of the teachers in this study, and choral methods instructors, where pre-service teachers are responsible for teaching demonstrations. It is the role of the music education professor to acquaint students with the National Core Music Standards. Per-service teachers are responsible for recognizing these standards, applying them in teaching demonstrations, and critiquing the effectiveness of those lessons to adequately address each standard.

Because creating is such an important function of the revised standards, then music education professors must work to ensure that pre-service teachers routinely include creativity in teaching demonstration lessons. By including creative activities in both the college choral ensemble and methods courses, pre-service teachers will have many experiences to incorporate into their classrooms when they become employed.

Resources for Composing/Improvising

The results of the study led to conclusions that composing and improvising were included in lessons infrequently. Some student participants were not even able to define these activities, instead mistakenly labeling convergent lessons such as rehearsals for pitch accuracy as improvisation. Teachers claimed to be unsure about how to teach lessons on improvising or composing, and this caused them to exclude the activities completely.

If the participating teachers felt this way, then many more educators might share that opinion. The best way to impact these inservice teachers is to offer applicable resources in

widely available professional journals. These resources should have a balance of theory and practice so that the educator understands why creativity is important and how it can be used in the chorus classroom.

A wonderful example of this can be found in the March 2013 publication of the *Music Educators Journal*, the most widely distributed peer-reviewed journal in music education in the world. The March 2013 edition of the journal featured a focus on composition (Randles & Sullivan, 2013, Hoffman & Carter, 2013) and improvisation (Monk, 2013, Beckstead, 2013). Since the *Music Educators Journal* is a research-to-practice publication, it is more accessible and applicable to a majority of teachers. More publications like this focused edition are needed to address this issue.

Professional Development

Students in the study seemed to view printed music and teacher-directed music as creative. The teachers in the study did not agree, but they may be at the heart of the issue that is leading students to believe that way. Students assumed that creativity was a part of the most frequently occurring activity in chorus classes, the rehearsal of printed music for performance. Teachers used the excuse of preparing this music for performances as a reason that they did not provide more time for creativity.

The solution to this issue may be to educate teachers in ways of embedding opportunities for creativity within the standard choral repertoire (Hirschorn, 2011). This not only infuses the daily activities of most choruses with creativity, it also minimizes one of the major obstacles that the teachers in this study mentioned- the elimination of creative activities during concert preparation. However, it is important that educators understand that all music studied in a chorus

class does not necessarily have to be intended for public performance. Creativity may simply be included for sheer educational value, and not strictly for the consumption of an audience.

Creativity is not Inherent

The largest issue uncovered by this study may be the disjunct beliefs of the teacher participants. Teachers appeared to open to creativity in their undergraduate degree programs, but they were given so little education on how to implement it in their classrooms that they simply didn't address creativity at all. Instead, they continued the cycle of a focus on classroom and rehearsal management, as passed down from their undergraduate professors. When these teachers entered the workforce, they still valued creativity but did not incorporate it in their teaching. This caused the teachers to instead devise a new meaning of creativity, which caused it to be inherent in music making. Some teachers considered elements of problem solving skills and initiative as synonymous to creativity. They passed along these disjunct understandings of creativity to their students.

Abundant change is necessary to end this cycle. The change should begin with teacher preparation programs. The first action that must be taken is to provide opportunities for pre-service teachers in understanding creativity and education on how to implement it. Additional work through professional development and scholarly research must support the outcomes of these adjustments to teacher preparation programs. Supporting all of this change will be the revised national standards.

The revised national standards for music education, released in June 2014, may provide a catalyst for correcting the lack of student creative engagement in choral classes. Teachers who have similar backgrounds and views as the participating teachers here may have a difficult time helping their students to meet the goals set forth in the revised standards. Elements of creativity

represent the pinnacle of each new objective in the new standards. Those elements require teachers to facilitate learning environments that help to engage students in creativity. If being creative is not clearly understood, it will be difficult to work toward the objectives of the revised standards.

Ways of applying the revised standards are already being addressed. The standards will be accompanied by a website where teachers will be encouraged to post videos of their students engaging in creative work. This will give other teachers a venue to view exactly what being creative in chorus classes can look like, and it will hopefully inspire them to replicate these lessons or build their own in a similar fashion.

The implementation of the creativity aspects of the revised standards may take time. Through improved teacher preparation, ample professional development, and applicable journal publications, music educators may work to improve the frequency with which they engage students in musical creativity. To support this implementation, additional research on the topic is necessary.

Future Research Recommendations

Research in measuring student perceptions regarding creativity within chorus classes has been very limited. Additional studies are necessary to fully understand how this affects chorus students, and how teachers can play a part. Recommendations provided here are addressed as improvements to the current study and extensions in new research.

Improvements to the Current Study

The MCPA survey proved to be flawed in that it only gave prompts for activities that the researcher, and supporting literature, recognized as potentially being creative. The survey did not allow for students to include their perception of additional activities. The data collected from the

MCPA survey was used in support of additional research, in this case through the qualitative phase. If the MCPA were to be used in future research endeavors, some adjustments would be necessary. Open-ended questions may be added to each grouping of prompts, specifically questions 2, 3, and 4. This would allow students an opportunity to express perceptions of creativity in types of activities which were not supplied in the survey. Additionally, questions may be added to identify whether students perceive creativity in these activities to be present in themselves as individuals, their class as a group, or solely in their teacher. Further questions might be formed to gauge the balance of process or product orientation.

Additional qualitative research may be necessary to support the findings of the current study's interviews and focus groups. The next logical step would be to interview additional teachers and students in other geographical areas. Participants should be within the same state as the first study so as to limit the factors that come with different state educational systems and guidelines. Further studies may extend regionally and nationally. A comparison between interviews from different states or regions of the United States may present an interesting research direction in the future. Teacher participants may also be compared based on their undergraduate colleges and universities, since those professors proved to be an important influence in the teachers participating in the current study.

Extensions in New Research

The core issue in this study was that some students had views of creativity, particularly within chorus class, that did not align with traditional definitions of the topic. Future studies may identify individual students, or groups of students within the chorus programs who seem to hold perceptions of creativity which align well with existing definitions. If this occurs, then observations of that classroom may yield useful findings of the teacher's influence over his/her

students. Those observations should include elements of teacher pedagogical approaches, philosophical basis of teaching style, and overall classroom environment. Follow up interviews with those teachers deemed to be highly successful in engaging students in creativity could help to form instructional models. Such models for engaging in creativity could be synthesized into information which could then be included in professional development, articles published in music education journals, or chapters in textbooks for undergraduate music educators.

The current study identified a difference in the perceptions of creativity in middle school students and in high school students. This finding may be limited to the specific schools chosen for the qualitative phase, or it may be prevalent in many schools. Further study in this area is necessary to identify if there is a shift in understanding of creativity in the time period from sixth grade through twelfth grade. If such findings are replicated in other schools, then a longitudinal study may be best to document the shift between middle and high school students.

The largest influence found in the teacher interviews of this study was from undergraduate professors. Action research could be performed within methods classes of an undergraduate music education program. The instructor of the methods course could embed elements of creativity in each model lesson, and require the pre-service teachers taking the course to do the same. The study may include periodic interviews with pre-service teachers in the methods class to measure their perceptions of creativity and their level of comfort in teaching such topics as improvisation and composition. While previous studies in this area have shown that the importance of creativity changes as pre-service teachers graduate from the university and enter the workforce, interviews could be included beyond the completion of coursework. This would help to measure the lasting effects of the lessons on undergraduates.

Research regarding students' perceptions of creativity within music courses is extremely limited. There are bountiful opportunities for additional study in this area, and much additional research is needed. Music teachers and students in this study have shown a need for strategies and approaches that will help them to fully embrace creativity in its truest sense within the chorus paradigm.

Personal Reflections

I was inspired to research creativity by my own experiences and relationships, much like those that influenced the participants in this study. As I began to explore the existing research in creativity, I reflected upon my own music education. My teachers in chorus, band, piano, and musical theater groups had a profound influence on me. They helped me to find a place where I felt comfortable being myself. They provided a safe place to make lifelong friends and to develop self-confidence. My music teachers gave me performance opportunities and musical experiences that remain fresh in my memory today.

I always considered myself to be a creative person. I found myself to excel in creative opportunities provided through the gifted education program in my elementary and middle school education. I thought of music, and chorus in particular, as an outlet for my creativity. However, as I considered the research presented here, I found that there was still so much more room for creativity within the chorus curriculum.

As a teacher, I relate to the perceptions of Nicole and Alex. My classroom looked very similar to theirs when I first became interested in this topic. The journey that I have taken over the past several years has enlightened my teaching and inspired me to feature creativity more prominently in my future endeavors. If researching this topic can have such a profound influence

on my personal teaching philosophy, then it could surely affect my fellow teachers in a similar way.

The discussion between an emphasis on product or process is one that I have debated internally throughout this study. I entered this research considering the process of creative thinking to be much more important than the product. I took this position because I thought it was the only way to support creativity for all students, not just the talented and gifted. Through the implementation of this study, I have realized that an overemphasis on process leads to confusion over exactly what it means to be creative. To fully understand creativity, I must have a product to reflect upon, to share with peers, and to critically revise. I leave this study with a newfound understanding that a true balance between process and product is paramount.

Performance may always be the main focus of many choral programs in middle and high schools. As stated in the opening chapter, this is simply a part of the paradigm of choral music education. This does not mean, however, that creativity cannot also be a prominent part of choral music. Creativity can occur in performance through improvisation. It can occur in class through composition. It can occur in numerous other ways within choral classrooms. Creativity *can* occur in so many activities in chorus classes, but it is up to educators in the field of music education to create a supportive environment so that it *does* occur.

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Appendix A

Recruitment Letter

Research Participation Opportunity
Student Recruitment Letter

Dear Chorus Parents,

Hello and welcome back to school! My name is David W. Langley, and I am a Doctoral Student in Music Education at Georgia State University. I am currently conducting research towards my dissertation. I would like to extend an invitation for your chorus student to participate in this research.

I am interested in studying students' thoughts and ideas about creativity in their chorus classes. The study will consist of a short survey that would be taken online. The survey could be completed in 5-6 minutes of your student's normal chorus class time.

I am conducting this study at several schools. After the survey, some schools will be asked to participate in another section of the study. Those students will be asked to be in a focus group interview. Each interview will have 5-7 students in it. This will also be about creativity and your student's experience with it in chorus class.

To qualify for this study, students should currently be in a chorus class. Also, students are required to have been in a chorus class for the entire 2013-2014 school year.

Your student's anonymity will be protected through the study. No personal information will be connected with your student's answers. Your teacher won't have access to any individual information from the survey. Also, participation is voluntary- it will not affect your student's grade or other opportunities in chorus class. The answers that your student gives will only be available to myself and my professor, Dr. Patrick K. Freer.

If you are interested in participating, please sign the Parent Consent Form attached. Your student should fill out the Student Consent Form. The parent or the student can withdraw from the study at any time.

If you have any questions, please feel free to email me at dlangley1@student.gsu.edu, or you may email my advisor, Dr. Patrick K. Freer, at pfreer@gsu.edu.

Sincerely,
David W. Langley
Doctoral Candidate
Georgia State University

Appendix B

Student Assent Form

Georgia State University
School of Music
Informed Assent
Title: Students' and teachers' perceptions of the engagement of creativity in secondary choral
ensembles

Principal Investigators: David W. Langley, Student Principal Investigator

dlangley1@student.gsu.edu

I. Purpose:
You are invited to take part in a research study. The purpose of the study is to investigate your
views on creativity in choral ensemble classes. You are invited to take part because you are in a
chorus class at your middle/high school this school year.

II. Procedures:
If you decide to take part, you will be asked to complete an online survey. The questions will ask
about your experiences in chorus class. It will also ask some information about you. Individual
results will not be shared with your teacher. The survey can be completed online at any time,
including during the school day. The survey will take around 6 minutes to complete. Some
students will take part in an interview with other students. The interview will ask you about your
answers on the survey. The interview will take 1 hour to complete. It will be after school.

III. Risks:
In this study, you will not have any more risks than you would in a normal day of life.

IV. Benefits:
Taking part in this study may not benefit you personally. Overall, we hope to gain information
about how creativity is used in chorus classes. We also want to learn how it might be engaged in
the future.

V. Voluntary Participation and Withdrawal:
Taking part in this research is voluntary. You do not have to be in this study. You can refuse to
be in this study. Your parent/guardian cannot force you to take part. If you decide to be in the
study and change your mind, you have the right to drop out at any time. You may email Mr.
Langley any time with any questions: dlangley1@student.gsu.edu.

3)   Copy of Assent Form to Subject:
        We will give you a copy of this assent form to keep.
        If you are willing to volunteer for this research, please sign below.

_____   _____

Participant   Date

_____   _____

Student Principal Investigator or Researcher Obtaining Consent   Date

Appendix C

Parent Consent Form

Georgia State University School of Music Informed Consent

Title: Students' and teachers' perceptions of the engagement of creativity in secondary choral ensembles

Principal Investigator: David W. Langley, Student Principal Investigator
dlangley1@student.gsu.edu

I. Purpose:
Your child is invited to participate in a research study. The purpose of the study is to investigate thoughts and ideas about creativity in chorus classes. Your child is invited to participate because he/she is a chorus student who has been enrolled in a chorus class in middle/high school for the entire 2013-2014 school year. A total of 324 students and 12 teachers will be recruited for this study. Participation in the quantitative survey portion will require around 6 minutes of your child's time on 1 day. Some students will be selected for a focus group interview of 5-7 students. Participation in the focus group will require 1 hour of your child's time on 1 day.

II. Procedures:

If your child decides to participate, he/she will be asked to complete an online questionnaire. The questions will ask about your child's experiences in chorus class. Your child will be asked for some basic demographic information. Individual results will not be shared with the student's teacher. The questionnaire can be completed online at any time. The questionnaire will approximately 6 minutes to complete. The questionnaire will be completed by January 31, 2014. The questionnaire should only be completed once. After the questionnaire, some students at selected schools will be asked to participate in a focus group interview. The interview is designed to gain deeper information about the answers from the survey. Focus group interviews will be completed by March 13, 2014. There is no compensation for involvement. Participation is strictly voluntary.

III. Risks:

In this study, your child will not have any more risks than the participant would in a normal day of life.

IV. Benefits:

Participation in this study may not benefit your child personally. Overall, we hope to gain information about creativity in chorus classes and how it might be developed in the future.

V. Voluntary Participation and Withdrawal:

Participation in research is voluntary. Your child does not have to be in this study. If your child decides to be in the study and changes his/her mind, he/she has the right to drop out at any time.

Your child may skip questions or stop participating at any time. Whatever your child decides, he/she will not lose any benefits to which he/she is otherwise entitled.

VI. Confidentiality:

We will keep your child's records private to the extent allowed by law. David W. Langley will have access to the information recorded. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board, the Office for Human Research Protection (OHRP). We will use a coded number rather than the participant's name on study records. The information your child provides will be stored on a firewall- and password-protected computer drive. Your child's name and other facts that might point to him/her will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. Your child will not be identified personally. As this questionnaire is completed online, there is a limit of confidentiality. The investigator will use a website which offers some levels of protection and privacy.

VII. Contact Persons:

Contact **David W. Langley at (404) 545-3858, dlangley1@student.gsu.edu** if your child has questions, concerns, or complaints about this study. Your child can also call if he/she thinks that they have been harmed by the study. Call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu you or your child wants to talk to someone who is not part of the study team. You or your child can talk about questions, concerns, offer input, obtain information, or suggestions about the study. You or your child can also call Susan Vogtner if the participant has questions or concerns about the participant's rights in this study.

VIII. Copy of Consent Form to Subject:
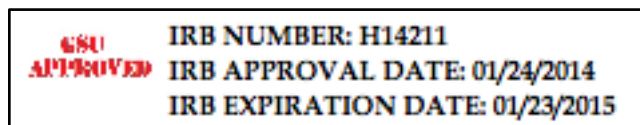We will give your child a copy of this consent form to keep.
If the parent/legal guardian is willing to allow the participant to volunteer for this research, please sign below.

_____   _____
Parent/Legal Guardian   Date

_____   _____
Principal Investigator or Researcher Obtaining Consent   Date

GSU
APPROVED   IRB NUMBER: H14211
IRB APPROVAL DATE: 01/24/2014
IRB EXPIRATION DATE: 01/23/2015

Appendix D

Teacher Consent Form

Georgia State University School of Music Informed Consent

Title: Students' and teachers' perceptions of the engagement of creativity in secondary choral ensembles

Principal Investigator: David W. Langley, Principal Investigator dlangley1@student.gsu.edu

I. Purpose:
You are invited to participate in a research study. The purpose of the study is to investigate perceptions of the engagement of creativity in choral ensemble classes. You are invited to participate because you are a choral student who has been enrolled in a chorus class at your middle/high school for the entire 2013-2014 school year. A total of 324 student participants and 12 teacher participants will be recruited for this study. Participation in the survey will require around 5 minutes of your time on 1 day. Some teachers will be chosen for individual interviews. The interview will require 1 hour of your time on 1 day.

II. Procedures:

If you decide to participate, you will be asked to complete an online questionnaire. The questions will ask the student about their experiences in chorus class as well as some basic demographic information. Individual results will not be shared with the student's teacher. The questionnaire can be completed online at any time, including during the school day. The questionnaire will take approximately 5 minutes to complete. The questionnaire should be completed by January 31, 2014. The questionnaire should only be completed once. Based on your answers from the survey, some teachers will be asked to participate in individual interviews. The interviews will be scheduled at your convenience, and will be completed by March 14, 2013. The interview will be used to gain further insight into your answers regarding creativity from the survey. There is no compensation for your involvement. Participation is strictly voluntary.

III. Risks:

In this study, you will not have any more risks than you would in a normal day of life.

IV. Benefits:

Participation in this study may not benefit you personally. Overall, we hope to gain information about how creativity is used in chorus classes and how it might be engaged in the future.

V. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

VI. Confidentiality:

We will keep your records private to the extent allowed by law. Patrick K. Freer (Primary Investigator) and David W. Langley (Student Primary Investigator) will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board, the Office for Human Research Protection (OHRP) We will use a random coded number rather than your name on study records. The information you provide will be stored on a firewall- and password- protected computer drive. Your name and other facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. You will not be identified personally. As this questionnaire is administered online, there is a limit of confidentiality. The investigator will use a proven survey creating website which offers some levels of protection and privacy.

VII. Contact Persons:

Contact David W. Langley at (404) 545-3858, dlangley1@student.gsu.edu if you have questions, concerns, or complaintsaboutthisstudy.You can also call if you think you have been harmed by the study. CallSusanVogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, offer input, obtain information, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

VIII. Copy of Consent Form to Subject:
We will give you a copy of this consent form to keep.
If you are willing to volunteer for this research, please sign below.

_____   _____
Participant   Date
_____   _____
Principal Investigator or Researcher Obtaining Consent   Date

GSU
APPROVED   IRB NUMBER: H14211
IRB APPROVAL DATE: 01/24/2014
IRB EXPIRATION DATE: 01/23/2015

Appendix E

Student MCPA

* 1.   **Enter the individualized code assigned to you:**

_____

2. **Below are some areas you might focus on in Chorus class. Rate them by how important _you_ think they are. The number 1 is the least important and 6 is the most important.**

	1- Least important	2	3	4	5	6- Most important
Learning vocal techniques	O	O	O	O	O	O
Performing expertly in concerts	O	O	O	O	O	O
Reading musical notation (rhythms, notes on the staff)	O	O	O	O	O	O
Becoming a creative thinker	O	O	O	O	O	O
Understanding how music relates to history and culture	O	O	O	O	O	O
Finding a place where you feel you belong	O	O	O	O	O	O
Feeling confident	O	O	O	O	O	O
Becoming a better listener of music	O	O	O	O	O	O

3. **Think about the time your teacher spends *teaching* in class. Rate each activity from "every day," to "never."**

	Every day	2-4 times per week	Once or twice a month	Once or twice each semester	Once per school year	Never
Reading notation (rhythms, notes on the staff)	O	O	O	O	O	O
Music history	O	O	O	O	O	O
Composing/Arranging	O	O	O	O	O	O
Listening to music	O	O	O	O	O	O
Improvising	O	O	O	O	O	O
Vocal technique	O	O	O	O	O	O

* 4.   **Below are some statements about your chorus class. Rate each one, with 1 meaning "I strongly disagree," to 6 meaning "I strongly agree."**

	1- Strongly disagree	2	3	4	5	6- Strongly agree
The activities in my class are centered on my teacher.	O	O	O	O	O	O
I have input into the activities that we do in chorus class.	O	O	O	O	O	O
The most important part of Chorus classes is high quality performances of choral music.	O	O	O	O	O	O
Creative activities take place in my class.	O	O	O	O	O	O
Singing chorus songs from printed music is creative.	O	O	O	O	O	O
Performing music directed by my teacher is creative.	O	O	O	O	O	O
We do activities with composing and arranging.	O	O	O	O	O	O
My teacher uses lessons in improvising.	O	O	O	O	O	O
My teacher lets students make musical decisions about chorus songs that we are singing.	O	O	O	O	O	O

* 5.   **What is your age?**

O 12 years old

O 13 years old

O 14 years old

O 15 years old

O 16 years old

O 17 years old

O 18 years old

---

* 6.   **What is your gender?**

O Female

O Male

---

* 7.   **How many years have you been in chorus in middle and high school?**
O 1 year
O 2 years
O 3 years
O 4 years
O 5 years
O 6 years
O 7 years

---

8.   **Do you do any of these activities outside of school? Choose all that apply.**

☐ I take lessons in voice or another instrument.

☐ I write songs on my own.

☐ I have taught myself to play an instrument.

☐ I play in a band.

☐ I sometimes make up new words to songs I hear.

Appendix F

Teacher MCPA

* 1. **Enter the individualized code assigned to you:**

_____

*

Below are several purposes for music education. Please rate each one, with 6 being the most

2 **important _to you_ and 1 being the least important _to you._**

.

	1- Least important	2	3	4	5	6- Most important
Teaching vocal technique to my students	O	O	O	O	O	O
Producing expertly crafted performances	O	O	O	O	O	O
Teaching students to read musical notation	O	O	O	O	O	O
Helping students to become creative thinkers	O	O	O	O	O	O
Helping students to understand music's role in history and culture	O	O	O	O	O	O
Providing students with a sense of belonging	O	O	O	O	O	O
Helping students to feel confident and empowered	O	O	O	O	O	O
Helping students to become educated listeners of music	O	O	O	O	O	O

*

In the next question, please describe how often these activities take place in your classroom:

3.

	Every day	2-3 times per week	Once or twice per month	Once or twice per semester	Once per school year	Never
Teaching of vocal technique	O	O	O	O	O	O
Reading notation	O	O	O	O	O	O
Composing/Arranging	O	O	O	O	O	O
Listening to music	O	O	O	O	O	O
Improvising	O	O	O	O	O	O
Music history/cultural connections	O	O	O	O	O	O

* 4. **Below are several statements about your classroom environment. Rate each one, with 6 being "I strongly agree" to 1 being "I strongly disagree."**

	1- Strongly disagree	2	3	4	5	6- Strongly agree
My class is primarily teacher-centered	O	O	O	O	O	O
My students have input into the activities that take place in my classroom	O	O	O	O	O	O
The most important outcome is high quality performance of choral music	O	O	O	O	O	O
I consider students performing choral music written in octavo form as creative	O	O	O	O	O	O
I consider students performing music directed by me as creative	O	O	O	O	O	O
I include activities such as composition and arranging frequently	O	O	O	O	O	O
I include activities in improvisation in my classroom	O	O	O	O	O	O
I feel comfortable leading lessons in composition and arranging	O	O	O	O	O	O
Creative activities have a place in my curriculum frequently	O	O	O	O	O	O
I allow students to make musical decisions about pieces that we are rehearsing	O	O	O	O	O	O

* 5.   **How many years of teaching chorus have you *completed?***

O 0-5 years
O 6-10 years
O 11-20 years
O 20+ years

* 6.   **What is your gender?**

O Female

O Male

* 7.   **Which of the following options best describes the setting of your school?**

O Rural
O Urban
O Suburban

* 8.   **Choose the option below that describes your highest level of education**

OBachelors degree
OMasters degree
OSpecialist degree
ODoctoral degree

* 9.   **In what area was your highest degree earned?**

OMusic Education

OEducational Leadership

OCurriculum and Instruction

OOther areas of education (technology, educational psychology, counseling, etc.)

OOther areas of music (performance, conducting, composition, etc.)

Appendix G

Interview/Focus Group Protocol

Guiding Questions for Interviews/Focus Groups

Introduction

　　　Good afternoon and welcome to our discussion. Thank you very much for joining me today to talk about chorus classes and creativity. My name is David Langley and I'm from Georgia State University. I am exploring creativity, especially how you use it in your class and how you might want to use it in the future.

　　　You were invited today because you are a Chorus teacher/chorus student and I am interested in hearing your beliefs and opinions. In our discussion, there are no right or wrong answers. Be aware that I am interested in both positive and negative points of view. When you share today, please understand that your comments will be completely confidential. I won't share your name with anyone. After our conversation, please don't share the details about this interview with others taking part in the study.

　　　Our conversation is recorded today because I don't want to miss any of the comments that you share. Please be aware that the recordings will only be heard by me, and that you will be completely anonymous. I won't use your name in my study, and no one will know what comments belong to you.

Opening Question

1. As we begin, tell me a little bit about yourself. Tell me the "first name" you'll be using and tell me about what brought you in to teaching chorus.

Introductory Question

2. Tell me about your experiences in your undergraduate degree program.

3. Think back over your time teaching chorus. Describe what a typical class is like.

Transition Question

4.   How much of that time do you think your students were being creative? How so?

Key Questions

5. When are times that you feel most creative (inside or outside of school)? What are doing when you feel this creativity?

6. Tell me about your musical activities outside of school. Do you feel creative in those activities, and how so?

7. How does that creativity take place inside your chorus class?

8. How do you use skills like improvisation and composition?

9. How do you know when you are being creative? How do you recognize it in someone else?