Creative Thinking Education: Exploring Opportunities In the Elementary General Music Classroom

A DISSERTATION

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DOCTORAL COMMITTEE

The members of the committee appointed to examine the dissertation of Sandra S. Reece find that this dissertation fulfills the requirements and meets the standards of the Hood College Doctoral Program in Organizational Leadership and recommend that it be approved.

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Dedication

I offer this research in memory of Mark and Betty Reece. You may not have been my biological parents, but I am so grateful that you chose me to be your daughter. You always loved me unconditionally and supported my interest in music as a young child. I learned many things from you, especially the importance of family. You encouraged me to act with integrity, be respectful, and demonstrate kindness. My work ethic is a direct reflection of the model you provided. And, although neither of you went to college, you recognized the value of a good education and ensured I had that opportunity. I am sorry you are not here to celebrate this achievement with me. However, I know you are smiling down from heaven.

I also dedicate this to my children Aaron, Jessica, Michal, and Jordan. I have carried my computer everywhere for the last three years, and you have watched me work for hours. I'm not sure that any of you understand why this was important to me, especially now that I have retired from public education. Nevertheless, I know you are proud of my accomplishment and join me in celebrating the end of this learning journey.

Lastly, I dedicate this to my grandchildren Joey, Daisy, Jasper, Beau, and Macaulay. You are each so amazing! Always remember that you are never too old to take on a new challenge, change direction, or reinvent yourself. These are the things that make life exciting and worth the adventure. Vow to be a different drummer and step to the music you hear.

Acknowledgments

I thank Dr. Nisha Manikoth, the Director of the Doctoral Program in Organizational Leadership at Hood College and my committee chair, for your unwavering support in all stages of this dissertation. I entered the doctoral program with no idea what my focus might be for this dissertation. After the first year, I still had no real direction. During the second year, I gravitated toward a topic I had strong opinions on but didn't find inspiring. Then, in a one-on-one meeting, you asked a straightforward question. "Why are you not doing something with music?" That question transformed my thinking, and this dissertation is the direct result. You gave me back my music, and I will be eternally grateful.

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Lastly, I would like to thank the other members of cohort 5 – The Fifth Dimension. Even though we spent our first two years online, we managed to become a group, ready to support each other. I learned so much from working and learning with all of you.

Creative Thinking Education: Exploring Opportunities
In the Elementary General Music Classroom

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ABSTRACT

Creative thinking is an essential skill for success in the 21st century. The elementary general music classroom provides a fertile environment for creative thinking instruction. Although the national music standards emphasize the importance of creative thinking activities, many music classrooms focus on basic music skills and performance techniques rather than activities that foster creativity. The purpose of this study was to explore factors that contribute to the inclusion of creative thinking activities in the elementary general music classroom by examining the perceptions, preparation, and practices of elementary general music teachers as well as contextual conditions that facilitate or hinder such instruction. From a population of elementary general music teachers in Maryland public schools, a sample of 64 music teachers completed an online survey, and 12 participated in interviews. Data from this mixed methods study indicated a positive creativity mindset was important for a teacher's confidence in incorporating creative thinking activities. Formative music experiences and professional development in creative musicianship positively impacted the development of a creativity mindset, leading teachers to include a range of creative activities in music instruction. Data revealed that formal education did not prepare teachers for creative thinking instruction. Teachers who successfully taught the creative process were personally engaged in creative endeavors. Their ongoing personal musicking showed a more significant positive impact on incorporating creative thinking in the classroom than any other. Contextual factors such as inadequate time, space, and resources

allotted for music instruction, lack of support for the professional development of music instructors, and feelings of being excluded and disrespected by administrators and colleagues were significant barriers to effective instruction. Findings from this study suggest that school systems and school principals can significantly impact creative thinking instruction in music classrooms by increasing creativity-specific professional development opportunities, limiting multi-school assignments, deploying resources using an allocation formula, and developing the music curriculum knowledge of administrators. This study also points to the need for higher education to revisit music teacher preparatory programs to ensure teacher candidates experience personal creative thinking in music while learning creative thinking methodology.

CHAPTER 1: INTRODUCTION

Creativity is recognized as "the most important human resource of all" (de Bono, 1992, p. 169) and is a vital economic resource responsible for raising productivity (Florida, 2006). Currently, half of the nation's total income can be attributed to the creativity of both service and professional workers (Florida, 2006, 2019; Hilton, 2008). The Partnership for 21st-Century Learning identifies creativity as an essential learning and innovation skill (Fadel, 2008; Fadel & Trilling, 2009; Frameworks & Resources, 2019). In the 21st century, creativity is demanded by every citizen in order to thrive (Friedman, 2006; Gardner, 2006; Geisinger, 2016; National Center on Education and the Economy, 2008; Pink, 2006; Sassen, 2001; Suarez-Orozco & Qin-Hilliard, 2004; Wagner & Dintersmith, 2015).

Experts disagree on a universal definition of creativity. Some view creativity as producing something original (James, 1955; Maslow, 1943). Others define creativity as a process that results in something original and valued (Csikszentmihalyi, 1999; Runco & Jaeger, 2012). Some theorists dispute the existence of a creative process and argue that extraordinary outcomes result from ordinary thinking (Weisberg, 2003). Although opinions differ when defining creativity, all agree that creativity cannot be achieved through rigid and closed thinking. Creative thinking is the thought process that enables creativity (Sternberg & Lubart, 1995; Williams & Yang, 1999).

Creative thinking facilitates novel or unorthodox solutions and extends past linear thinking (Framework for 21st Century Learning, 2019). Potential responses to situations are not dependent on past or current solutions. Imagination and reason function as a team (Paul & Elder, 2006), leading to insight (John-Steiner, 1997; Ohlsson, 2008). Creative thinking benefits all thinking (Binkley et al., 2012; National Center on Education and the Economy, 2008). Most

importantly, it can be taught (Amabile, 1983; Amabile & Tighe, 1993; Barron, 1969; Cropley, 1992; Finke et al., 1992; Guilford & Tenopyr, 1968; Perkins, 1985; Sternberg, 2003).

The importance of creative thinking in education is driving the need for innovative instructional approaches that engage students in creative thinking. Guided by the emphasis on the importance of early learning advocated by respected psychologists, elementary schools are challenged to provide more comprehensive instructional practices in the classroom (Lindqvist, 2003; Vygotsky, 1978; Webb, 1980). Once dominated by expository lessons and task-based learning, curricula are adopting more creative thinking activities through learner-centered approaches and collaborative group work (Wagner & Dintersmith, 2015). Research suggests, however, that schools, especially those with high percentages of low-income or English language learner families, continue to focus on skills needed to perform well on federally mandated testing (Jones, 2007). In practice, rote memory and analytical skills monopolize instructional time.

Elementary general music curriculum based on the National Music Standards emphasizes creative thinking (Standards, n.d.; Thibeault, 2020). Elementary general music classrooms are typically equipped with rhythmic and melodic instruments, music for both singing and playing, and music for listening, all of which support creative thinking activities (Arlington ISD Standardizing Elementary Music Instruments and Equipment, 2022; Elementary School Educational Specifications Schematic Design, 2010). Some music classrooms are even equipped with technology that aids students in composing and recording their work (Murillo, 2017).

"Creativity is authentic thought. The way to teach creativity in music is to train the mind to think musically" (Strand & Larsen, 2011, p. 64). Creative thinking activities in the music classroom occur while students compose, arrange, improvise, choreograph music, invent unique notation, or create listening maps of musical compositions (Webster, 1990). During these

activities, both convergent (applying established rules and logical reasoning to find the correct answer) and divergent (inventing solutions when multiple answers may exist) thinking are combined (Guilford, 1950).

"Teaching with creativity as a goal changes the nature of instruction in music classes" (Csikszentmihalyi & Custodero, 2002, p. xv). The elementary general music curriculum, however, has traditionally emphasized music reading and performance skills that rely on memorization and technique (where creative thinking is not required) rather than emphasized instruction that encourages creative thinking (Swanwick, 1988). "We lay claim to creativity as one of the pillars of our musical educative endeavors. Yet music education, so strongly rooted in performance traditions, has resulted in the virtual absence of creative problem-solving processes in its teaching and learning practices" (Willingham, 2002, p. xvii). Basic music writing skills are typically taught in isolation and not in conjunction with composition (Hickey, 2012). The dominant tradition of music education continues to focus on re-creative musical skills, such as reading staff notation and developing technical performance skills (Kratus, 2007).

Research in educational psychology suggests that perceptions of elementary general music teachers on the value of creative thinking exert a powerful influence on the inclusion of creative thinking in their instruction (Fairfield, 2010; Sternberg, 1985). However, even when teachers recognize the value of creative thinking, creative thinking activities are often neglected (Orman, 2002; Strand, 2006; Whitcomb, 2005), and classroom instruction reflects a fixed mindset toward student abilities (Dweck, 2006). A teacher-centered approach dominates classroom instruction, and students have few opportunities to engage in creative thinking (Orman, 2002).

Teacher preparation has a significant role in a teacher's ability to deliver appropriate and high-quality instruction and influences teacher perceptions about virtually everything connected with their profession (Sternberg, 1985). In its early history, Western classical music was often improvised or arranged, and musicians had to be adept at creative thinking in music (R. Moore, 1992). Musicians were usually born into musical families and were engaging in making music from an early age (Alperson, 2016). The increased availability of printed music in the 18th and 19th centuries allowed musicians to realize and perform music as the composer intended (R. Moore, 1992). More musicians relied on musical instruction outside the family structure (Alperson, 2016). With the rise of virtuoso performers and the culture of presenting technically precise performances, conservatories focused on printed music representing the composer's intent. Improvisation that tapped into the performer's creativity lost value (Alperson, 2016). This shift resulted in an increased pedagogical focus on technique. Currently, most college and university classical music programs focus on performance skills rather than the creative aspects of music (Byo, 1999; Campbell, 2009; Della Pietra & Campbell, 1995; Mishra et al., 2011). The same applies to music education preparatory programs, which are often little more than traditional music programs that include a few teaching methods courses. Consequently, most music teachers rarely experience opportunities for exploring composition, creative performance, creative listening, or improvising during their music teacher training (Mishra et al., 2011).

Statement of Problem

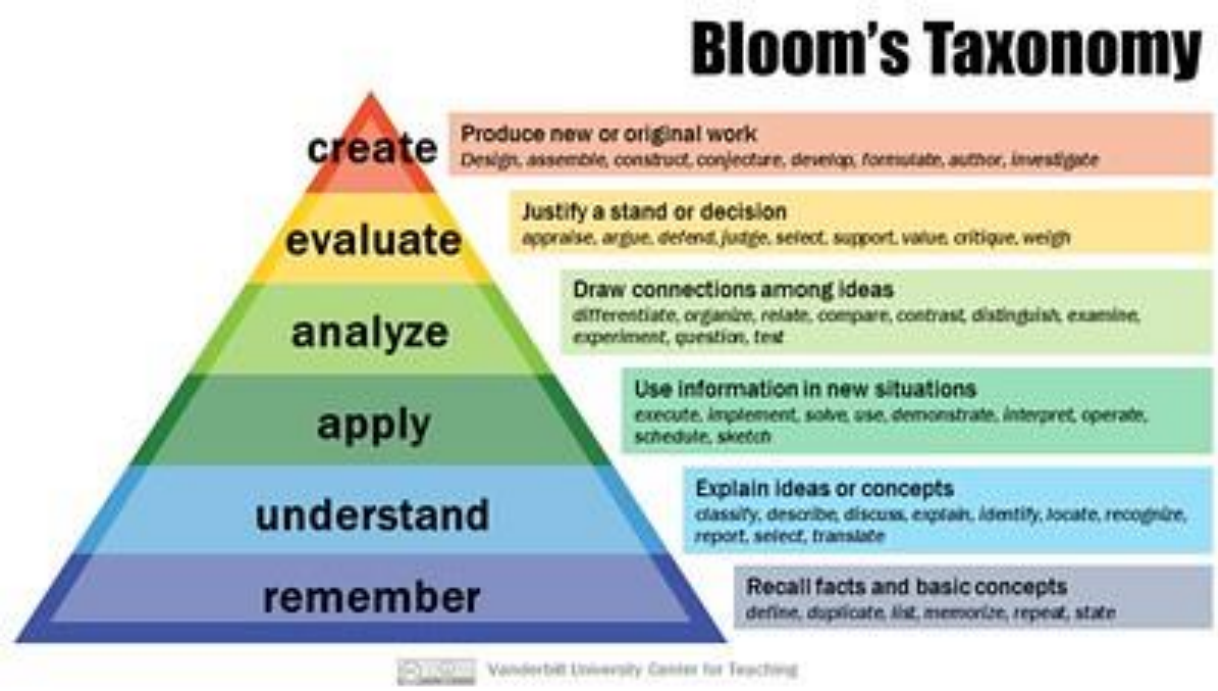
Creative thinking is an essential 21st-century skill that can be taught and should be incorporated into the elementary school curriculum. Psychologists advocate for instruction that encourages imagination and experimentation to cultivate creative thinking beginning in the early grades (Lindqvist, 2003; Vygotsky, 1978; Webb, 1980). The inclusion of creative thinking in

music instruction has been advocated for over fifty years (Choate, 1968; Mark, 2020; National Association for Music Education, n.d.). Research, however, suggests that creative thinking activities are not frequently part of elementary general music instruction (Orman, 2002; Phelps, 2008).

The overemphasis on reading, math, and science proficiency driven by mandatory high-stakes testing compromises opportunities for creative thinking during instruction (Basse, 2018; J. Moore, 1997). Student learning expectations tend to be limited to memorization and explanation, with few opportunities for creative thinking (Erickson, 2007). Bloom's Taxonomy (Bloom et al., 1956) has guided generations of K-12 teachers in developing rigorous thinking instruction.

Figure 1

Bloom's Taxonomy



Note. From *Bloom's Taxonomy*, Vanderbilt University Center for Teaching, 2010, Flickr (https://www.flickr.com/photos/vandycft/29428436431). CC BY 2.0.

When schools focus their instructional programs on memorization and explanation, students have limited opportunities to engage in the higher levels of thinking illustrated in Bloom's Taxonomy (see Figure 1). Elementary general music instruction provides opportunities for students to apply music skills to solve musical problems, analyze music through listening and examination, and evaluate their creative products and those of others. Students experience the most rigorous thinking skills when composing original improvisations or musical pieces. Improvising and composing engage students in the cognitive processes of remembering, understanding, exploration, and experimentation as they apply their musical knowledge to analyze, evaluate, synthesize, and create (Marzano & Kendall, 2006).

Funding education is always a potential issue since public schools operate with revenue-based money. When school system budgets are tight, arts programs typically suffer (Dunstan, 2016; Tamer, 2009). The focus on reading, math, and science places them in a priority position (*New Report Makes the Case for Arts Education*, 2021; Strauss, 2014). General music classrooms can be expensive to outfit. Classroom instruments, textbooks, and special equipment are high-dollar items (Arlington ISD Standardizing Elementary Music Instruments and Equipment, 2022; Elementary School Educational Specifications Feasibility Study/Schematic Design, 2015). Funding problems also impact the construction of new facilities, and when schools become overcrowded, the music room may be converted into a regular classroom (Dittenber, 2022). When this happens, the music teacher may be expected to teach using a cart to transport materials from classroom to classroom or given a non-classroom space for instruction (Einhorn, 2017; Seo, 1994). These added challenges make planning and delivering lessons with creative thinking activities difficult.

The focus on reading, math, and science may impact the music program in other ways. School administrators may reduce the instructional time for music, limiting teacher access to students. In addition, the scheduling of music classes is often driven by the need for planning time that is contractually guaranteed to classroom teachers, with little consideration given to the music teacher or program. These factors may undermine music education's importance and contribute to a lack of support (Abril & Bannerman, 2015; Gerrity, 2009). School leaders must weigh the value of music education. Their perceptions influence decisions directly impacting the music program available for students (Leithwood et al., 2004). Research continues to emphasize the importance of effective school leadership in determining student success (Grissom et al., 2021).

The importance of teacher perceptions cannot be understated. Elementary music teachers' mindsets about creativity and student ability drive instructional planning and delivery (Dweck, 2006). A teacher with a fixed mindset about musical ability believes that musical skills are inborn traits (Runco, 2007). If students are talented, they can improve their skills, but without natural talent, they cannot improve. Opportunities to engage in musical creative thinking may be reserved for a select few or viewed as less critical than instruction focused on building basic music skills (Kaufman & Beghetto, 2010). A teacher with a growth mindset believes that musical skills are malleable and that musical ability can improve. Instruction prioritizes musical creative thinking and uses creative thinking activities to learn basic music skills (Adams, 2021).

Multiple researchers have argued that teacher quality is a powerful predictor of student performance. Rice (2003) and Sanders and Rivers (1996) contend that the most important factor affecting student achievement is teachers, and the effects of teachers on student achievement are both additive and cumulative. The research of Hanushek and Rivkin (2006) shows that while

school quality positively influences student achievement, the most important predictor is teacher quality. Darling-Hammond (2000) contends that measures of teacher quality are more strongly related to student achievement than other educational investments, such as reduced class size, overall spending on education, and teacher salaries.

Preparation is a vital component of teacher quality. The instruction teachers experience before, during, and after college directly influences how teachers plan and teach (Rice, 2003). The degree of exposure to musical creative thinking may be significant. Fasko (2001) suggests that the ability of teachers to foster creative thinking depends on their individual implicit beliefs and training. Although teachers experience music pedagogy as part of their preparatory training, they rarely receive explicit training in creative education (Ahmadi et al., 2019; Borodina et al., 2019; Gube & Lajoie, 2020).

Creative thinking activities should be a significant part of the elementary general music classroom experience. Teachers are responsible for developing and delivering appropriate instruction for their students. Therefore, it is vital to discover the factors contributing to including creative thinking activities from the elementary general music teachers' perspective.

Theoretical Framework

Modern understanding of creativity theory emerged through Helmholtz's autobiographical sketch (1908) and Poincaré's (1985) work. Both elevated the importance of the unconscious mind's work during time away from a creative problem, resulting in a sudden inspiration or aha moment. Wallas (1926) framed creativity as a four-step process: preparation, incubation, illumination, and verification.

Following the work of Wallas, Guilford (1988) hypothesized another of the first models of creativity in his study of intellect. Guilford constructed a Structure of Intellect Model (SOI)

organized along three dimensions: operations, content, and products (see Appendix A). Guilford (1973) viewed creativity as a process resulting from divergent thinking, "inquiring, searching around, often leading to unconventional and unexpected answers" (p. 1), and its opposite, convergent thinking, "aimed toward a single correct answer" (p. 1). His research identified five characteristics of creativity:

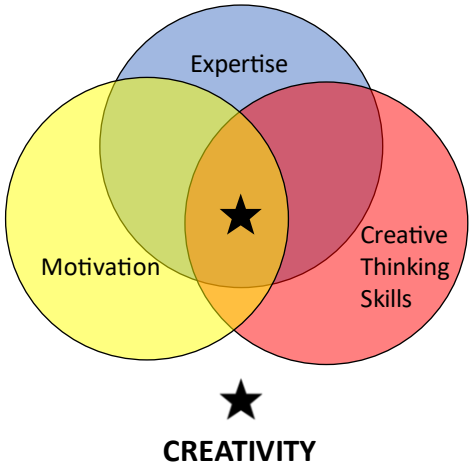
1. Fluency: generating a lot of ideas
2. Flexibility: implementing multiple approaches to address a specific problem
3. Originality: combining ideas to create something new
4. Awareness: focusing on the moment to gain clarity and insight
5. Elaboration: organizing the details of an idea using frameworks or perimeters to reach an innovative solution (1988)

Amabile's Creativity Intersection

Amabile (1988) extended the work of Guilford (1988) by visualizing creativity as the intersection of expertise, creative thinking skills, and motivation (see Figure 2).

Figure 2

The Creativity Intersection



Note. From "A Model of Creativity and Innovation in Organizations," by T. M. Amabile, 1988, p. 157. Reprinted with permission.

Expertise includes the domain knowledge and skills resulting from formal and informal education. Innate cognitive abilities, motor skills, and unique talents combine with the domain knowledge and serve as an individual's raw materials (Amabile, 1988). *Creative Thinking Skills* enable the ability to look at a situation from multiple perspectives, exercise flexibility, and demonstrate perseverance. Creative thinking skills encourage a cognitive style that keeps response options open as long as possible, suspends judgment, groups information in non-traditional ways, uses shortcuts to identify potential solutions, and looks beyond the rules (Amabile, 1996). According to W. Gordon (1961), this is the ability to "make the familiar strange" (p. 28). "Task motivation makes the difference between what the individual *can* do and what one *will* do." (Amabile, 1988, p. 133). *Motivation* may be described in two ways: internally driven (intrinsic) or externally driven (extrinsic). Although both types can be valuable in various scenarios, the research suggests that extrinsic motivation results in the least creative work (Amabile, 1985; Amabile et al., 1986). Strong motivation can somewhat overcome a lack of content expertise or creative thinking ability. No amount of content expertise or creative thinking ability, however, can compensate for a lack of motivation (Amabile, 1998).

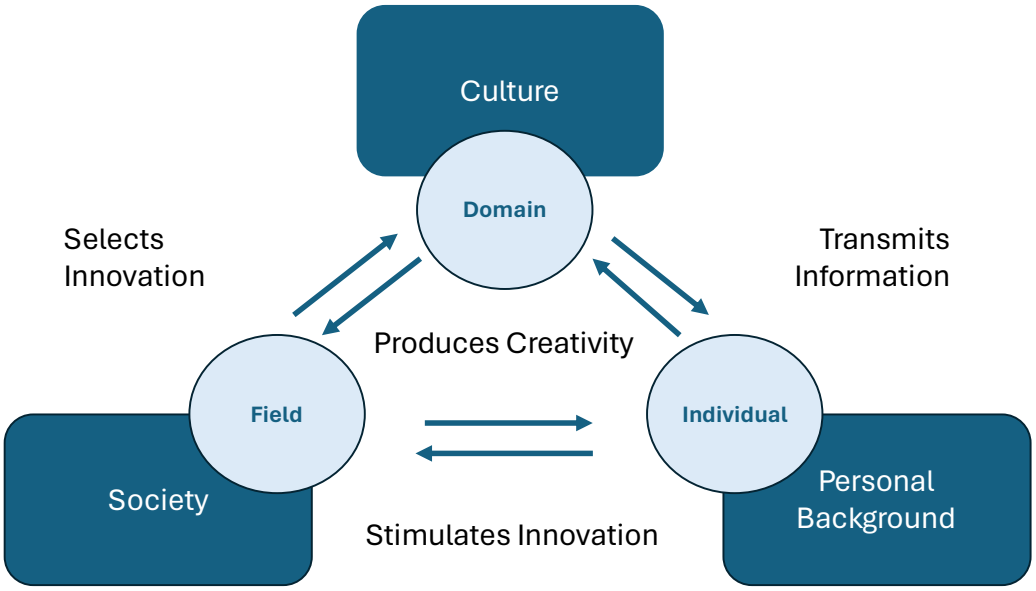
Csikszentmihalyi's Systems View of Creativity

Csikszentmihalyi also extended the work of Wallas and Guilford. He described the creative process using five stages: preparation, incubation, insight, evaluation, and elaboration (1996). He also argued that creativity is non-linear and the product of producer and audience interaction. "Creativity is a process that can be observed only at the intersection where individuals, domains, and fields interact" (1999, p. 315). As shown in Figure 3, his Systems

View of Creativity Model illustrates the external influencers that play a role in the creative process.

Figure 3

Csikszentmihalyi's Systems View of Creativity



Note. From "The Systems Model of Creativity: The Collected Works of Mihaly Csikszentmihalyi," by M. Csikszentmihalyi, 2015, p. 52. Reprinted with permission.

In Csikszentmihalyi's model, an *Individual* (creator) operates in an environment consisting of a *Field* and a *Domain*. The *Domain* is a symbolic cultural system of current thinking, practices, and traditions. The *Field* is "a complex network of experts, with varying expertise, status, and power" (Sawyer, 2012, p. 216). It represents a part of society that can recognize and validate the worth and appropriateness of an innovation to a *Domain*. The *Field* possesses *Domain* knowledge and influences its contents, serving as the gatekeeper. Each subsystem performs a specific function; the *Domain* transmits information to the *Individual*, the

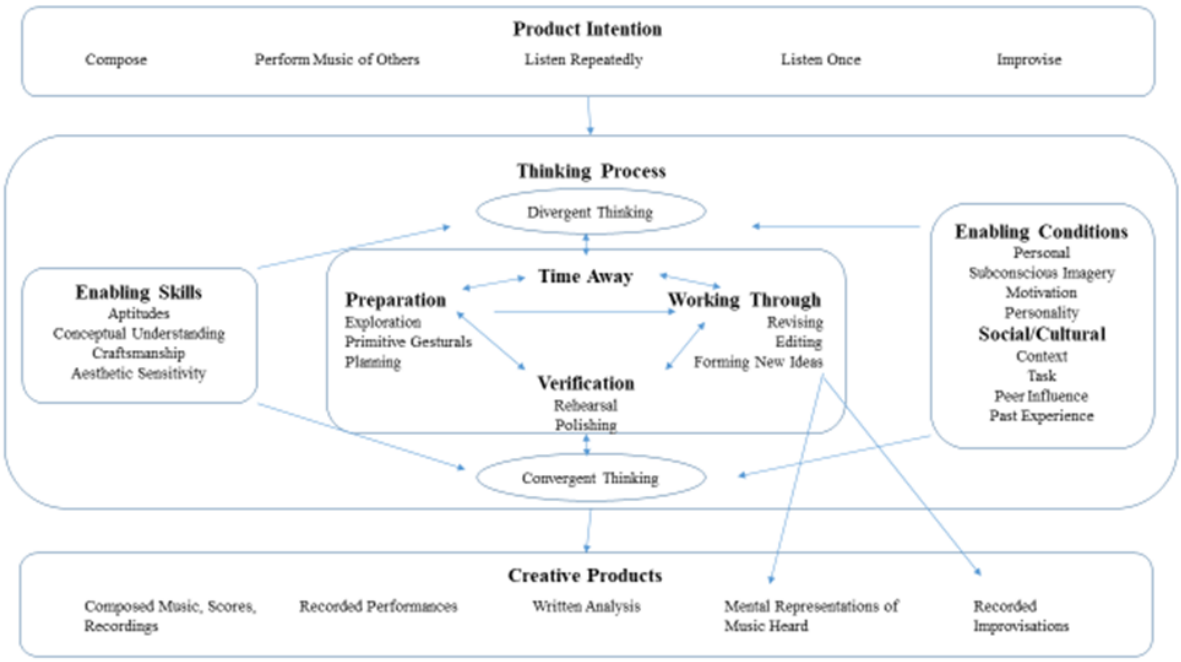
Individual produces an innovation, and the *Field* selects innovations to pass on to the *Domain*. Csikszentmihalyi (2015) argued that a person's background, personality, and motivations connect with their ability to internalize domain knowledge and the expectations of the field. Combining these factors allows an individual to be successfully creative within the system. This view of an individual emphasizes their need to learn and adapt. It also highlights the importance of successful communication for a creative individual. Csikszentmihalyi's model illustrates the emergent nature of creativity and the "dynamic links of circular causality" (Wells, 1988, p. 329).

Webster's Model of Creative Thinking in Music

Webster (1990) defines creativity in music 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. 25). His model of the creative thinking process in music reflects the work of Amabile and Csikszentmihalyi and illustrates the thought processes necessary for musical creativity. Webster believes that creative thinking in music "is a dynamic process of alternation between convergent and divergent thinking, moving in stages over time, enabled by certain skills (both innate and learned), and by certain conditions, all resulting in a final product." (p. 25). According to Webster, the ultimate goal of learning music is to know music. He believes that engaging in composing, improvising, and creative listening provides the creative thinking pathway to that goal (Webster, 1989). Webster maintains that his model captures the creative thinking processes of young children and accomplished musical artists and should drive creative thinking instruction in music education.

Figure 4

Webster's Model of Creative Thinking in Music



Note. From "Creative Thinking in Music: Advancing a Model," P. R. Webster, 2002, *Creativity and Music Education*, p. 12. Copyright 2002 by the Canadian Music Educators Association. Reprinted with permission from the author.

As shown in Figure 4, Webster's (2002) model illustrates a process for problem-solving using creative thinking. It delineates factors influencing the thinking process that contribute to a product. Since a problem needing a solution drives creative thinking, *Product Intention* represents the problem or the deliverable of an assignment in music instruction. These products can be composition, performance, listening, or improvisation-based (Webster, 1987). As the model implies, the bulk of activity is the thinking process.

Reminiscent of Wallas, Webster (2002) views creative thinking as a four-step process. As his model indicates, however, he sees those steps as non-linear and dynamic. The *Preparation* stage includes exploration, planning, and primal gesturals. Primal gesturals, or "kernels of

thought," may describe a melodic or rhythmic motif, harmony, pattern, or tonal quality (p. 26). *Incubation*, renamed *Working Through*, encompasses the ideation, revising, and editing processes. In the place of *Illumination*, Webster uses *Time Away* to describe the jelling or aha stage. The *Verification* stage includes rehearsal and polishing. The arrows in his model depict a back-and-forth operation of action.

In keeping with Guilford's thinking, Webster identifies two distinct types of thinking. Divergent thinking involves imaginative thought as an individual explores the possibilities. Convergent thinking is more discriminatory. Thoughts are manipulated and fine-tuned, shaped by aesthetic decisions. "The mind must sift through the mass of possibilities to 'create' a final solution." (Webster, 1987, p. 165).

Enabling Skills and *Conditions* influence convergent and divergent thinking and align with Amabile's work. *Enabling Skills* include aptitude (talent or innate potential), as well as conceptual understanding, craftsmanship (musicianship), and aesthetic sensitivity (sense of musical merit). *Enabling Conditions* are personal and social/cultural components. Subconscious imagery (personal memories and experiences), motivation, and personality are personal components. Context (environment, constraints), task (perception), peer influence (group or alone, friends or foes), and past experiences are part of the social/cultural components (Webster, 2002). These conditions can significantly impact the creative thinking process and, as a result, the final product.

Since the topic of this study was creative thinking in music instruction, it was appropriate to use Webster's Model of Creative Thinking in Music as the theoretical framework. Creative thinking is a multi-step, fluid process with many influencing factors. Understanding the factors impacting creative thinking instruction is equally complex.

Research Purpose

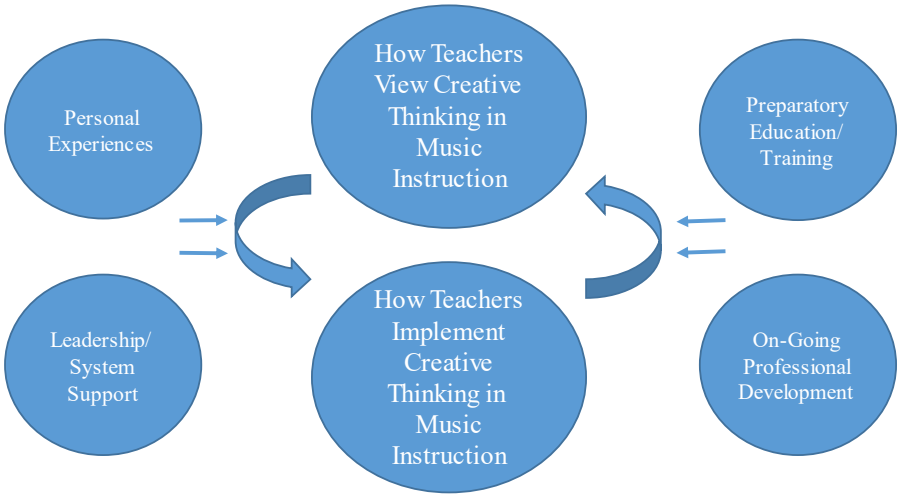
The purpose of this study was to explore factors that contribute to the inclusion of creative thinking instruction in the elementary general music classroom. I examined the perceptions, preparation, and practices of elementary general music teachers as well as contextual conditions that may facilitate or hinder creative thinking in general music instruction.

Conceptual Framework

This study examined creative thinking instruction in elementary general music from the perspective of elementary general music teachers. Their voices told the story. The theories of Amabile, Csikszentmihalyi, and Webster influenced the visualization of the framework of my research.

Figure 5

Conceptual Framework for This Study



Conceptual frameworks illustrate the purpose of the study and include key factors and presumed relationships (Miles et al., 2020; Ravitch & Riggan, 2016). As shown in Figure 5, my conceptual model visualized a non-linear process with multiple influencers on teacher perceptions of creative thinking and their resulting practices. Sharing many of the same concepts illustrated in Webster's model, this framework reflected an ongoing dynamic process. Webster's *Product Intention* connects directly to the objectives of creative thinking activities included in instruction. The center of Webster's model depicts the *Enabling Skills* and *Enabling Conditions* that impact creative thinking. The *Enabling Skills* in my conceptual framework include the teacher's music content knowledge and pedagogy. Amabile describes this as *Expertise*. The *Enabling Conditions* in Webster's model reflect my conceptual framework's teacher perceptions, experiences, and contextual factors. These factors influence the *Motivation* in Amabile's model. Both enabling factors are important considerations during instructional planning. These factors affect the nature and degree of creative thinking activities teachers implement during instruction and are inherent in my conceptual framework. The dynamic nature of the enabling factors is mirrored in the interplay between the *Individual*, *Domain*, and *Field* of Csikszentmihalyi's model and the interaction of influences driven by the divergent and convergent thinking illustrated in Webster's model. Each of the three theoretical models visualizes a pathway to creativity. My conceptual framework envisioned a path to explore teacher perceptions of and approaches to creative thinking in music instruction.

Research Questions

1. How do elementary general music teachers integrate creative thinking activities into their music instruction?

2. What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?
    2.1. How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?
    2.2. How do teachers' experiences and preparations in music education influence their practice of including creative thinking activities in general music instruction?
    2.3. How do contextual conditions influence the inclusion of creative thinking activities in elementary general music instruction?

Research Design

This study used a mixed methods design in a pragmatic paradigm. Pragmatism "sidesteps the contentious issues of truth and reality" (Feilzer, 2010, p. 8) and "focuses instead on 'what works' as the truth regarding the research questions under investigation" (Pragmatism, 2003, p. 713). Collecting both quantitative and qualitative data offers more significant insights into the research that the methods individually cannot offer and results in more compelling and informed findings (Johnson, 2007; Johnson & Onwuegbuzie, 2004; Creswell & Creswell, 2018; Ivankova & Wingo, 2018; Miles et al., 2020).

More than 122,500 elementary general music teachers work in public schools in the United States (Sokanu, 2020). This research was limited to approximately 922 Maryland public elementary general music teachers (personal conversation, MSDE, 2024). I collected data from elementary general music teachers using an online survey and personal interviews. I circulated the online survey through professional and social media websites. Participation in the survey was both voluntary and anonymous. The survey included both closed and open-ended questions. Personal interviews gathered richer data using pre-determined questions. Most of the interview

participants worked in two large Maryland school systems. Several teachers from a mid-sized Maryland school system also participated in the interviews. Participation was voluntary, but I ensured that participants represented the diversity of schools within Maryland (e.g., gender, race, school profile).

Before any analysis, I separated the data collected by each tool into quantitative and qualitative groups. I analyzed each data group separately and then combined the data for final consideration. The results reflected potential relationships between teacher perceptions, preparation, and practices. Additionally, the results reflected potential connections between contextual factors and teacher practices.

Researcher Positionality/Subjectivity

Having spent fifteen years as an elementary general music teacher, I deeply understand the factors contributing to the quality, quantity, and diversity of creative thinking activities I provided through my classroom instruction. Unchecked, I might have brought conscious biases and assumptions into my research. Additionally, I observed general music instruction frequently as a school principal. These experiences also might have influenced my impartiality during this research. Beyond what I openly acknowledged as potential biases, “we are often unaware of our own values and frameworks of understanding until we face them in light of those of our informants” (Bresler & Matsunobu, 2014, p. 23). As a result, I committed to rigorous self-examination during this study to reflect and hold myself accountable.

Significance of Study

Although creative thinking is considered a 21st-century skill, current research indicates that creative thinking activities are not frequently available to students during music instruction. This research sought to identify factors that contribute to the inclusion of creative thinking

activities, focusing on teacher preparation, perceptions, and practice, as well as other contextual factors that influence music instruction. Little, if any, existing research explored creative thinking instruction from this broad perspective. The information gained through this research contributes to a greater understanding of elementary general music teachers' creativity mindsets, patterns of success, common challenges, and overall preparation when planning and delivering creative thinking instruction. Results may trigger deeper conversations about teacher preparation reform. Current, relevant data may provide insights into ways to support increased access to creative thinking activities for all elementary students.

Limitations

The population of my study was teachers who work in Maryland public schools. The study was non-representative and based on a non-probability, cross-sectional sample. The findings from this study cannot be generalized to the larger population. Participation in the online survey and personal interviews was voluntary. All data reflected teachers' perceptions and did not include the voices of school leaders or students.

Definitions of Key Terms

- Creativity: The ability to produce or develop original work (APA Dictionary of Psychology, n.d.)
- Creative thinking: The process of using both convergent and divergent cognitive skills to evaluate an existing or create a new idea or product (Guilford, 1950)
- Creative thinking in music: The process of using both divergent and convergent cognitive skills to evaluate an existing or create a new musical product (Webster, 1990)

- Divergent thinking: Thinking in which an individual solves a problem or reaches a decision using strategies that deviate from commonly used or previously taught methods (APA Dictionary of Psychology, n.d.)
- Convergent thinking: Thinking in which an individual uses linear, logical steps to analyze existing solutions to a problem and determine the correct one or the one most likely to be successful (APA Dictionary of Psychology, n.d.)
- Composition: A pre-planned musical performance of original ideas (Wiggins, 2007)
- Improvisation: A spontaneous performance of original musical ideas, occurring within a given context in real-time (Wiggins, 2007)
- Invented notation: A graphic representation of musical sound, which is nonstandard and unique to its creator (Upitis, 1990)
- Arranging: Adapting an existing composition for presentation in an original way (Corozine, 2002)
- Creative movement or dance: Expressive body movement in response to music (McPherson & Parncutt, 2011)
- Listening map: A graphic representation of a musical work intended to illustrate one or more musical elements (Blair, 2006)
- Mindset: Self-perception or "self-theory" that people hold about themselves (Dweck, 2006)

Summary

Globalization in our society necessitates the teaching of 21st-century skills. These skills are essential for all students, as they are critical to success in every occupation. The elementary general music class is appropriate for creative thinking activities, yet current research indicates

that basic music skills instruction dominates the general music classroom. Although elementary general music teachers seem to believe creative thinking belongs in their classrooms, creative opportunities are often rare. It is crucial to discover the underlying causes of this disconnect.

The purpose of this study was to explore factors that contribute to the inclusion of creative thinking activities in the elementary general music classroom. I examined the perceptions, preparation, and practices of elementary general music teachers as well as contextual conditions that might facilitate or hinder creative thinking in general music instruction. Although data collection was limited, the findings contribute to understanding the influence of teacher perceptions, teacher preparation, and contextual factors on creative thinking in the music classroom. A mixed methods design provided more context and insight into potential barriers and positive supports that impact creative thinking instruction.

Organization of the Study

Chapter 1 has presented the introduction, statement of the problem, conceptual framework, theoretical framework, and purpose of the study. Research questions have been shared. The methodology identified will drive the quantitative and qualitative data analysis. The significance of the study has been offered, as well as the limitations of the study. Key terms have been defined. The chapter concludes with this summary.

Chapter 2 reviews the literature, including a deep dive into creativity itself, as well as creativity and creative thinking in music. A historical perspective will provide the context for a discussion of music pedagogy and the emergence of creativity as an integral part of that pedagogy. Types of creative thinking activities in music will be described. Models and methods supporting creative thinking activities during instruction will be outlined. In addition, chapter 2

will explore teacher mindset and music teacher preparation programs. Research uncovering workplace challenges and supports will complete the chapter.

Chapter 3 will discuss the methodology and procedures for designing the online survey and personal interview questions. Information will include details about the pilot, the approval process, how the survey was disseminated, and how interview participants were selected. Chapter 3 also discusses the methods, tests, and tools used to analyze quantitative and qualitative data. The findings from the data analysis are presented in Chapter 4. Chapter 5 synthesizes the findings with research and theory, discusses implications, and recommends areas for further study.

Table 1

Summary Table

Section	Summary
Background	Creative thinking is an essential 21st-century skill for all people. As a result, schools must provide creative thinking instruction.
Problem	The elementary general music classroom provides an appropriate instructional space for developing creative thinking skills. Previous research suggests that creative thinking activities are not frequently part of elementary general music instruction. It is crucial to better understand the factors contributing to the inclusion of creative thinking activities in general music instruction.
Study purpose	The purpose of this study was to explore factors that contribute to the inclusion of creative thinking activities in the elementary general music classroom by examining the perceptions, preparation, and

practices of elementary general music teachers as well as contextual conditions that facilitate or hinder such instruction.

Research questions

1. How do elementary general music teachers integrate creative thinking activities into their music instruction?
2. What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?
    - 2.1. How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?
    - 2.2. How do teachers' experiences and preparations in music education influence their practice of including creative thinking activities in general music instruction?
    - 2.3. How do contextual conditions influence the inclusion of creative thinking activities in elementary general music instruction?

Literature review concepts

Creativity

Creative thinking

Creative thinking in music

Historical perspective

Music pedagogy methods and models

Creative thinking activities, grouping of students, and assessment

Teacher mindset about creativity

College and university music teacher preparation programs

	Contextual factors in the workplace
Significance	Findings may provide strategies for encouraging more frequent creative thinking activities during instruction. The information will also be helpful as colleges and universities continually seek to improve their teacher education programs.
Theoretical framework	Model of Creative Thinking in Music
Methodology	Mixed methods using both quantitative and qualitative analysis of data collected through an online survey and personal interviews
Limitations	Small sample Based on a non-probability, cross-sectional sample Findings cannot be generalized to a larger population

CHAPTER 2: REVIEW OF LITERATURE

This chapter is organized into three major sections. The first section begins with a review of historical literature on creativity, focusing on theories expounded within the last century. From this knowledge base, I clarify the construct of creativity that guided my research. Following this discussion, I review the literature on creativity as it applies to music education and how creativity is reflected in the National Standards for Music Education.

The second section of this chapter reviews the literature on creative thinking in music instruction, specifically in the elementary general music classroom. In addition, this section reviews the literature for models and methods of music instruction, including Dalcroze, Kodaly, Music Learning Theory, Orff Schulwerk, and World Drumming. A discussion of types of creative thinking activities found in the general music classroom follows. Literature speaking to the classroom environment for learning includes research on best practices for collaboration and grouping of students. Research on assessment practices concludes this section.

The third section of this chapter reviews the literature on teacher mindset about musical creativity. It explores the content and experiences included in current college and university music teacher preparation programs. Research on contextual conditions in the workplace completes the literature review.

Creativity as a Concept

The concept of creativity evolved slowly. Early Hindus (1500-900 B.C.E.) focused on being liberated from the cycle of birth and rebirth to achieve unity or *Oneness* (Boorstin, 1992; Chadha, 2022). Confucianists, Taoists, and Buddhists (551-479 B.C.E.) emphasized balance and harmony, with the negative and dark yin complementing the positive and bright yang (Albert & Runco, 1999; Balbo & Ahn, 2019; Liu, 2019). Early Greek philosophers did not dwell on

creativity. Plato believed that nothing new could be created, and anything that might resemble creativity was driven by demons or madness (Albert & Runco, 1999; Pappas, 2020). Aristotle described the mind as having two parts. The practical mind has a basic understanding of things, and the theoretical mind uses basic understanding to deliberate, strategize, and plan courses of action (Shields, 2020). Artists were skilled at a craft rather than being considered creative.

Early Western thinking about creativity was driven by the creation story from Genesis and other early biblical texts (Boorstin, 1992). To create something from nothing was the work of the Divine. "What has been is what will be, and what has been done is what will be done; there is nothing new under the sun. Is there a thing of which it is said, 'See, this is new?' It has already been, in the ages before us." (New Revised Standard Version Bible, 1990, Eccles. 1:9-10). Saint Augustine (354-430) broadened the Christian perspective on creativity. He believed that God had enabled man with the capacity to achieve intellectual insight by engaging in personal intellectual activity. He rejected the notion of predestination and suggested that God had endowed man with the ability to create (Boorstin, 1993; Mellone, 1934; Tornau, 2020). Augustine's influence on the Western Christian tradition remained virtually uncontested until the nineteenth century (Tornau, 2020).

History of Creativity Theories

During the Renaissance, a significant change took place. Artists and artisans began to be personally recognized for their creativity. Although creativity was no longer universally recognized as originating from the Divine, the subject remained primarily ignored by significant philosophers (e.g., Bruni, Galileo, Copernicus). The Enlightenment (e.g., Bacon, Locke, Kant, Rousseau) brought more focus on research, the scientific method, and empirical data (Rohlf, 2020). By the early 1800s, theories of creativity began to emerge, although terminology was

inconsistent. Creativity, imagination, invention, and genius were used interchangeably (Becker, 1995).

Bethune (1837) spoke about creative genius, describing it as "originating new combinations of thought and of presenting them with great clearness and force" (pp. 4-5). Jevons (1877) believed that genius "consists in divergence from the ordinary grooves of thought and action" (p. 576) and was essentially creative. James (2020) suggested that creativity was akin to "a seething cauldron of ideas, where everything is fizzling and bobbing about in a state of bewildering activity" (p. 952). And Royce (1898) believed invention resulted from encouraging individuality.

Within a few years, however, theorists were beginning to describe creativity as a process. In his autobiographical sketch, Helmholtz (1908) identified three stages in forming new thought: Preparation, defined as exploring the topic from all angles; Incubation, defined as unconsciously connecting information; and Illumination, defined as the moment a new thought emerges. Ribot (1906) considered creativity to be a combination of the intellectual, emotional, and unconscious. This thinking was taken a step further in the writing of Poincaré (1908), who advanced the idea of "trial and error" thinking, resulting in new insights or solutions. By 1926, Wallas (1926) published *The Art of Thought*, describing a four-step creative process: Preparation, Incubation, Illumination, and Verification (evaluating and testing the idea).

Creativity Research

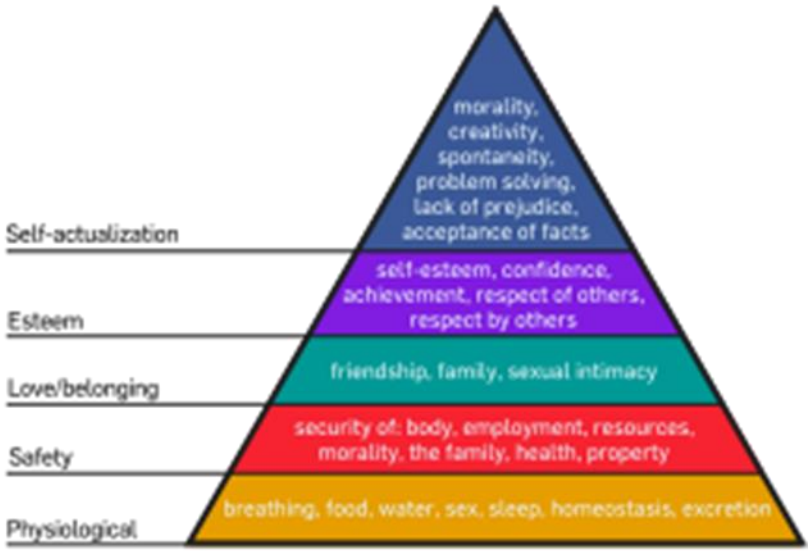
A 1950 address by incoming American Psychological Association president Guilford sparked interest in creativity research. During his speech, Guildford (1950) articulated the need for a more formal investigation into the field of creativity for the benefit of society. His study of intelligence led him to develop the Structure of Intellect Model (SOI), emphasizing the

importance of divergent and convergent thinking (see Appendix A). Guilford described creative thinking as the operation of 24 divergent production abilities—a small section of the 120 primary abilities hypothesized in his model (Guilford, 1967).

Creativity research began to focus on motivation. Rogers (1954) believed that creativity was driven by people's self-actualization tendencies that spanned their lifetimes. He emphasized the importance of environments that promote psychological safety and freedom where external evaluation is absent. Maslow (1943) shared similar beliefs, maintaining that creativity was only possible when someone's basic needs had been met. As shown in Figure 6, Maslow's Hierarchy of Needs places creativity within self-actualization, well above physiological and safety needs.

Figure 6

Maslow's Hierarchy of Needs



Note. This pyramid was crafted as a visual illustration of Maslow's thinking but is not his work (Bridgman et al., 2019). From "Diagram of Maslow's Hierarchy of Needs," J. Finkelstein, 2006, Wikimedia Commons. https://en.wikipedia.org/wiki/File:Maslow%27s_hierarchy_of_needs.svg. Reprinted with permission. CC BY-SA.

Researchers studying motivation identified two types, intrinsic and extrinsic, and began considering the impact of each on creativity. Intrinsic motivation was seen by many as an essential component of creative engagement (Bruner, 1962; Crutchfield, 1962; Torrance, 1962), suggesting a direct link between the attitude an individual brings to a task and the creativity of his or her performance. Personal interests drive intrinsically motivated individuals rather than external rewards. Amabile (1985) built on this groundwork, suggesting that extrinsic motivation may interfere with creativity. Extrinsically motivated individuals undertake a task because they view it as a means to some external goal. This orientation to environmental constraints undermines creativity (Hennessey & Amabile, 1987).

As researchers continued to study creativity, many believed creativity was not exclusively a mental process. Simonton's (1990) research demonstrated the influence of social, economic, and political events on creative production. Further studies revealed the importance of variables in influencing when, where, and why new ideas or products emerge and are adopted in a culture (Gruber, 1988; Harrington, 1990; Pope, 2005; Sawyer, 2006). As discussed in Chapter 1, Csikszentmihalyi (1999) developed a Systems View of Creativity, illustrating the interplay between the Individual, the Field (social aspect), and the Domain (cultural or symbolic aspect).

Creativity as a Construct

Researchers have struggled to agree on a definition of creativity. Historically, the concept of creativity was elusive, and, as a result, commonly used definitions of creativity vary. Imagination, genius, talent, or intelligence have often been used synonymously. While creativity can be linked to intelligence, most researchers dismiss the notion that creativity is synonymous with genius (Guilford, 1967; Amabile, 1983). Sometimes, creativity is defined in terms of novel or innovative products (Perkins, 1981). And while some theorists argue that creativity does not

need to be acknowledged and is intrinsically valuable (Maslow, 1943; Runco, 2014), others suggest that recognition is inherent to creativity (Csikszentmihalyi, 1996; Gruber, 1988; Simonton, 1990). In the inaugural edition of the *Creativity Research Journal*, founding editor Runco provided a standard definition of creativity supported by other researchers (Stein, 1953; Barron, 1955). “Originality is vital, but must be balanced with fit and appropriateness” (Runco, 1988, p. 4). However, scholars continue to debate whether creativity's mark is achievement, ability, or attitude (Barron & Harrington, 1981). This study used the APA Dictionary definition: Creativity: The ability to produce or develop original work (APA Dictionary of Psychology, n.d.).

Creativity in Education

Piaget suggested, “the principal goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have done─men who are creative, inventive and discoverers” (Jervis & Tobier, 1988). De Bono (1992) added that “without creativity, there would be no progress, and we would be forever repeating the same patterns” (p. 169). Einstein also reflected on the importance of education. “Es ist dies wichtigste Kunst des Lehrers, die Freude am Schaffen und am Erkennen zu wecken” [It is the supreme art of the teacher to awaken joy in creative expression and knowledge] (engraved plaque, Pasadena City College Astronomy Building, 1931). According to Coleman and Flood (2014), creating environments conducive to creative thinking requires creativity from teachers and other leaders and a commitment to developing students' creative thinking skills.

Creativity in Music Education

Research on creativity in music education is relatively recent, although creative methodologies appeared in some schools in the early 1900s. Most music instruction then was

content-driven and delivered by the teacher using a singing school model. There is evidence, however, that some experiential learning in music was student-centered and facilitated by the teacher (Richardson & Saffle, 1983).

Historical Perspective

Some of the earliest research in musical creativity was conducted at the Pillsbury Foundation School in Santa Barbara, California, which operated from 1937 to 1948. Established by the Pillsbury Foundation for the Advancement of Music Education, the school's goal was to study the music-making of young children. It represents the only known long-term study of the spontaneous musical expressions of preschool children. Leopold Stokowski helped build the repertoire, and the school was staffed by a young composer (Pond) and a child development specialist (Moorhead). The research of Moorhead and Pond formed the basis of four studies and a set of recordings published in the 1940s (Wilson, 1981).

Moorhead and Pond (1978) noted that when given space and a wide variety of instruments, children use instruments while creating music “as naturally as blocks or paints” (p. 93). They also found that children could produce complex melodic and rhythmic motives that were more advanced than anticipated (Pond, 1981). Their research suggested that children possess innate musicality that becomes more coherent through the natural activities of childhood (Wilson, 1981).

At the same time, Supervisor of Music Classes for the Cleveland Museum of Art, Doig researched how children aged 6 to 16 used musical elements in their original compositions. Doig (1941) collected musical pieces composed by students enrolled in Saturday morning music classes at the Cleveland Museum of Art. Doig’s research focused on the quantifiable aspects of compositional products: features of form, melodic characteristics, mode, key, and rhythmic

structure (1942a; 1942b). Her research suggested that children of all ages are capable of composing music.

Research in creativity in music gained momentum in the 1970s, fueled by the work of Guilford (1966) and Torrance (1974). Empirical studies conducted by Vaughan (1971), Webster (1977), and Gorder (1980) showed the influence of Guilford. Each devised psychometric measures of musical creative thinking as they investigated musical products. Their measures scored improvised musical products for fluency, flexibility, originality, and elaboration. In addition to these factors, Gorder added a score for musical quality, and Vaughan (1971) scored for rhythmic security, musical ideation, and synthesis. Although psychometric measures continue to be used for creative thinking research in music, other quantitative and qualitative research instruments are more common.

Development of Educational Standards/Expectations

Achievement standards are curricular statements used to guide educators in determining teaching objectives. Historically, the music education curriculum in the United States was determined locally or by individual teachers. This practice resulted in a lack of consistent expectations in elementary general music instruction.

Early General Music Education Programs

Although music was sometimes included in public school classrooms, vocal music became part of the official curriculum in Boston in 1838, with Lowell Mason serving as Superintendent of Music. Mason's vision was to make music available to all students, not just a chosen few, and is known as "The Magna Charta of Music Education" (Birge, 1973, p. 50). Public school music remained a singing school program until the late 1800s when instrumental

ensembles began to appear. By 1886, a survey from the U. S. Bureau of Education confirmed that 250 school systems in the United States offered music instruction (Mark & Gary, 2007).

Early Teacher Training

Music teacher training programs were offered at a few colleges by the turn of the 20th century, resulting in the emergence of music teacher qualifications (e.g., high school level English, proficiency on an instrument or voice, knowledge of theory, music history, and conducting; and, familiarity with school music textbooks and courses of study). Rote teaching dominated vocal instruction, with some focus on sol-fa with moveable or fixed do and limited efforts at music notation (Mark & Gary, 2007). The National Association of Schools of Music began accrediting collegiate programs in music in the late 1920s. By the 1940s, some universities offered master's and doctoral programs in music education.

Rigor in Curriculum

In the late 1950s, interest in reviewing and updating public school curricula increased. In 1957, the Soviet Union launched Sputnik 1, the first satellite to orbit the earth. The Space Age had arrived, and Americans were unified in seeking educational reform (Powell, 2007). Congress responded a year later with the National Defense Education Act, which increased funding for education at all levels.

Woods Hole Conference

The Woods Hole Conference was held at Woods Hole, Massachusetts, in 1959 to identify science education problems and recommend solutions. Simultaneously, an article published in the Music Educators Journal argued that schools in the Soviet Union emphasized music education (Lowe & Pryor, 1959). The conference marked the beginning of a new trend in educational planning. Experts in varied fields were charged with addressing the general

improvement of education. The result was a move toward discipline-based education and conceptual learning (Bruner, 1971). Music educators resolved to teach music as an academic discipline that included concepts, skills, and repertoire (Branscome, 2012). For the first time, the federal government became involved in education. After the conference, the American Association of School Administrators issued the following statement:

> We believe in a well-balanced school curriculum in which music, drama, painting, poetry, sculpture, architecture, and the like are included side-by-side with other important subjects such as mathematics, history, and science. It is important that pupils, as part of general education, learn to appreciate, to understand, to create, and to criticize with discrimination those products of the mind, the voice, the hand, and the body which give dignity to the person and exalt the spirit of man. (Aid to Fine Arts, 1961, p. 174).

Contemporary Music Project

Funded by an initial Ford Foundation grant, the Contemporary Music Project (CMP) began in 1959 as the Young Composers Project (YCP). It was administered by the National Music Council, a loosely organized group of prominent musicians and musical organizations. Young composers applied for grants to participate in the project. A committee of composers selected recipients, and the schools were chosen by influential music educators (Dello Joio, 1984). The young composers produced works for orchestras, bands, choruses, and chamber groups, mainly at the high school level, in styles ranging from traditional to experimental. Schools, however, were given no support in connecting the residency to music instruction (Covey, 2013). The second Ford Foundation grant was made to the Music Educators National Conference (MENC). In addition to continued young composer residencies, it funded a series of workshops and seminars held at various universities and targeted school music teachers (1963-

1966). A network of regional Institutes for Music in Contemporary Education (IMCE) resulted, focusing on experimental university and secondary-school music courses (1966-68) and various pilot projects. The third grant funded the Professionals-in-Residence program, projects by individual college and high school teachers, and additional workshops.

Yale Seminar on Music Education

The controversial Yale Seminar on Music Education occurred on June 17-28, 1963, at Yale University in New Haven, Connecticut. The interest of members of the Panel on Research and Development of the United States Office of Education fueled the seminar. The members believed public school music could improve if conferences comparable to those in the sciences and mathematics were organized (Steele, 1992). Composers, conductors, performers, and musicologists were invited to attend. Topics for the six seminar sessions included music reading, music repertoire, music literature, use of educational aids, musicians and composers-in-residence, and programs for talented students. Music educators felt excluded from the conversation and were disappointed with the selection of Yale because the university did not have a music education program (Hoffer, 1979). The Yale Seminar was a catalyst for organizing another conference, this time headed by music educators.

The Tanglewood Symposium

The Tanglewood Symposium was held in 1967 at Tanglewood, Massachusetts, the summer home of the Boston Symphony. Co-sponsored by the Music Educator's National Conference (MENC), the Berkshire Music Center, the Theodore Presser Foundation, and Boston University, it brought together music educators and representatives of business, industry, and government (McKoy, 2017). The Goals and Objectives (G.O.) Project of 1969 was charged with

translating the vision from the Symposium into action (Overland, 2022). Of the 35 objectives identified by that project, MENC chose 8 to prioritize:

- lead efforts to develop challenging music instruction programs,
- lead in efforts to develop programs of study that connect performing, creating, and listening to music,
- empower teachers to make instructional choices based on the needs of their students,
- advocate for the inclusion of music from all periods, styles, forms, and cultures,
- improve music teacher preparation,
- expand involvement of student members,
- assume leadership in the development of new instructional practices, and
- lead in efforts to equip all school systems with resources to support a comprehensive music program (Choate, 1968; Mark, 2020)

National Music Education Standards

Formalizing academic standards became common in many countries during the 20th century. The National Association for Music Education (NAfME), formerly referred to as The Music Educator's National Conference (MENC), developed the National Standards for Music Education (1994) that included nine voluntary content standards:

- singing, alone and with others, a varied repertoire of music,
- performing on instruments, alone and with others, a varied repertoire of music,
- improvising melodies, variations, and accompaniments,
- composing and arranging music within specified guidelines,
- reading and notating music,
- listening to, analyzing, and describing music,

- evaluating music and music performances,
- understanding relationships between music, the other arts, and disciplines outside the art, and
- understanding music in relation to history and culture (http://www.musicstandfoundation.org/images/National_Standards_-_Music_Education.pdf.)

These standards were revised (see Appendix B) in 2014 to reflect artistic processes: creating, performing, responding, and connecting. The new standards emphasize conceptual understanding (Appendix C). The reorganized and simplified standards focus on the creative aspects of musicianship (National Association for Music Education, n.d.).

Creative Thinking in Music

Creative thinking in music occurs when musical sound drives problems and their resolutions. Students explore musical ideas and apply them in problem-solving tasks. Their musical imagination is activated (Menard, 2013). Students can become more engaged with these musical experiences and, as a result, more excited about musical learning.

Instructional Implications

Elementary general music teachers who regularly provide creative thinking instruction take a constructivist approach to learning. Instruction is student-centered, characterized by exploration and experimentation (Webster, 1987). The teacher is a co-learner, guide, and facilitator. Instruction is not simply hands-on activities but strategic opportunities planned by the teacher and experienced by students who, in turn, drive the learning (Cooperstein & Kocevar-Weidinger, 2004).

Methods and Models

Teacher preparatory programs introduce music pedagogy approaches. These courses of study may incorporate some of the methodology reflected in the work of specific music pedagogy theorists. Music teachers may seek additional training specific to these approaches after their college experiences to implement more compelling creative thinking lessons.

Dalcroze

Swiss composer and educator Jaques-Dalcroze felt that traditional music training in Europe did not develop musical expressivity in students due to an over-emphasis on technical mastery of classical repertoire. True musical expression, he believed, came from within the body, resulting from physical and social interaction with others. "... the body itself shall play the role of intermediary between sound and thought, becoming in time the direct medium of our feelings" (Jaques-Dalcroze, 1921, p. 8). Jaques-Dalcroze supported the notion that any musical idea could be transformed into movement and that any body movement could be transformed into its musical counterpart (Bachmann, 1991). He developed a method called eurhythmics, where children and teachers improvise rhythmic motives. Children use body movements to respond to these motives. Jaques-Dalcroze opened a music school in 1910 devoted to this experiential approach to teaching and learning music driven by movement. The Dalcroze method develops musicality through rhythmic movement, ear training, and improvisation (Jaques-Dalcroze & Rothwell, 1930). Musical exercises combine rhythmics with solfège to form what Jaques-Dalcroze called "rhythmic solfège." Each stage of the Dalcroze method joins rhythm, meter, tempo, phrasing, shading, musical accent, and volume. Creative thinking is embedded throughout student learning (Dalcroze U.S.A., n.d.; Seitz, 2005).

Kodály

Hungarian composer, ethnomusicologist, and composer Kodály (1974) was motivated by concerns about the poor music teaching practices in Hungarian schools and the need to increase the musical literacy of Hungarian society. Although he did not formulate a method or curriculum, his contributions to music education are significant. Kodály (1974) believed that singing was central to music education. His approach to music education was based on five principles:

1. Everyone should have the opportunity to develop music literacy.
2. Music learning must begin with the voice.
3. Audiation training must begin in kindergarten and the primary grades to succeed.
4. Music skills and concepts should be taught through folk music of the mother tongue.
5. Only quality music should be used for instruction (DeVries, 2001).

This approach begins by teaching children to sing authentic folk music in tune. Instruction incorporates the use of a movable do in combination with hand signs to indicate the pitches of the scale. The foundation is the pentatonic scale (Tonic – Major 2nd – Major 3rd – Perfect 5th – Major 6th). Like Jaques-Dalcroze, Kodály uses physical movement to develop timing and rhythmic competence. Music is a multi-modal experience: kinesthetic, auditory, and visual. Students build confidence by using familiar melodic patterns (Thompson, 1980). A Kodály-based approach includes spontaneous music-making, creativity, and music literacy for students (Houlahan & Tacka, 2015; Kodály Music Institute, n.d.; Richards, 1966; Winters, 1970).

The Kodály approach to music education has come under fire due to its insistence on using music from the mother tongue (Bridges, 1989). Jordan (2012) commented, "Given the cultural pluralism of today's schools, the music educator must recognize that many different

musics are worthy of inclusion in music education programs, with the major goal being a truly world perspective rather than a vantage point from which to establish any one musical tradition as `superior'" (p. 458). Campbell (2010) suggested that teachers expand Kodály's conception of the child's "musical mother tongue" to include multiple folk traditions as a means to adapt Kodály-inspired pedagogy for the United States and other diverse societies.

Orff

Along with Keetman, Orff developed an approach in the 1920s for teaching music called Schulwerk. Orff Schulwerk is a music and movement education model designed for all children, not just the musically talented (Orff et al., 1950). "Orff's philosophy of teaching music to children stemmed from his personal belief that every child has the capability of learning, transforming, reasoning, and expressing creatively" (Southcoff & Sutherland, 2022, pp. 58-59). Orff Schulwerk develops musicianship through activities involving speech, singing, borduns, improvised rhythms, improvised movement, and improvised pitches from the pentatonic scale.

The Orff method is rooted in the belief that music, movement, and verbal speech are interrelated by having rhythm as a common element (Keetman, 1984). Music, movement, and language are viewed as cogenerative, related forms of expression belonging together (Shamrock, 1997). Active music-making is the core of the philosophy, supporting children's conceptual and affective development. Active learners develop a more thorough and long-term understanding of the material and ideas. Students engage in creative thinking regularly as they improvise and create dances in musical settings (https://aosa.org). In addition to creative movement, the Orff approach also uses body percussions (clapping, snapping, and stamping) and both tuned (metallophones, xylophones, and glockenspiels) and untuned instruments (assorted drums, bells, tambourines, triangles, shakers, and cymbals). The Orff-Schulwerk approach was introduced to

the United States at the Music Educators National Conference in 1959. Although it initially received a cool reception, by the 1980s and 1990s, Orff's methodology had become more popular. Critics of the Orff approach cite the teacher training required, the materials' somewhat disorganized nature, and the instruments' cost (Goodkin, 2004).

Music Learning Theory

Music Learning Theory is “simply an account of how we learn when we learn music” (E. Gordon, 1989, p. 5). Based on his research, E. Gordon concluded that the process of learning music was the same as learning language. E. Gordon felt the key to music learning was audiation**,** his term for the ability to hear, think, and understand music internally (Shouldice, 2018). “Audiation is to music what thinking is to a language” (E. Gordon, 1989, p. 6). Hearing, imagining, and organizing musical possibilities internally are critical to any musically creative process (E. Gordon, 1994; Swanwick, 1988; Webster, 1990). E. Gordon (1989) asserted, “To attempt to teach musical creativity to one who cannot audiate is the handmaiden of folly” (p. 4). Although E. Gordon did not coin the term audiation until 1975, musicians expressed the importance of internal hearing much earlier. Schumann (1891) espoused, “The ear should not need the eye; the eye should not need the ear” (p. 63). Copland (1952) offered, “You cannot produce a beautiful sonority or any combination of sonorities without first hearing the imagined sound in the inner ear” (p. 22).

Believing that early experiences with music and movement are crucial to musical development, E. Gordon’s approach to music pedagogy is based on introducing new skills through the familiar, working on the new skills using short, learning sequenced activities, and then embedding those skills back into something familiar (whole-part-whole concept). Although students might not hear music in their heads in the beginning stages of working creatively with

sound, most, if not all, increase their knowledge of music and skills from the process (Guderian, 2012). Students build their audiation skills through singing, rhythmic movement, and tonal and rhythm pattern instruction before being introduced to notation and music theory (E. Gordon, 2007). E. Gordon believed music creativity resulted from transforming familiar tonal and rhythmic patterns into an unfamiliar order and sequence using audiation (Alfred, 2021).

The Music Learning Theory approach has critics. Unlike the Orff and Kodaly approaches that are grounded in the pentatonic scale, Music Learning Theory begins in the major/minor tonal system, quickly adding church modes (e.g., Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian). Since the major/minor system is grounded in the Western music tradition, some music educators see a challenge in offering a culturally inclusive experience for students. However, Kratus's (2001) research indicated that students with broad access to tonalities create more interesting compositions. Some educators question the knowledge base E. Gordon used to develop Music Learning Theory (Swindell, 1984). In addition, some question E. Gordon's beliefs about musical creativity (Shuler, 2021). Although E. Gordon (1989) believed that students could learn the skills necessary to be musically creative, he initially did not think music creativity itself could be taught. However, further research changed his opinion. "Music aptitude is a product of innate potential and early environmental influences from birth (or prenatally) until about age nine, and after that time, when music aptitude becomes stabilized, practice and training does not alter a student's relative standing in music aptitude" (E. Gordon, 2011, p. 23). Ultimately, E. Gordon (2011) believed that music instruction before the age of nine should focus on providing opportunities to encourage the innate musical aptitude of students. He saw instruction after age nine as supporting students in reaching their determined musical potential.

World Music Drumming

Schmid conceived World Music Drumming in 1996 to help reestablish the importance of active music-making in schools in the United States (What is World Music Drumming, n.d.). This drumming curriculum emphasizes ensemble drumming, singing, and moving and is rooted in West African traditions. Although drumming patterns and techniques are initially taught by rote, the curriculum encourages creative thinking. The group shares and performs creative thinking products (What is World Music Drumming, n.d.). Students can improvise drumming patterns complementary to those played by others, move to music while singing or playing, and create new drum ensembles in the West African and Latin traditions (Shorner-Johnson, 2019). A unique characteristic of World Music Drumming is its focus on ensemble. Current research indicates that performing in sync with others engenders positive feelings between the participants. “Music in general, and rhythm in particular, does an uncommonly good job fostering a sense of community” (Kraus, 2021, p. 121).

Creative Thinking Activities in Music

The creative thinking activities found in music instruction fall into four major categories. Movement activities are typically based on pre-existing music. Improvisation is a broad category that can be rhythmic, melodic, or harmonic. Listening, like movement, is a response to pre-existing music. Composition is planned and can include rhythmic, melodic, and harmonic structures.

Creative Movement

“Music is sounded movement, movement is danced sound” (Goodkin, 2004, p. 17). Before 1900, classroom movement was meant to relieve stress or improve posture. The purpose of movement began to change due to the influence of Dewey’s (1910/2011) theory of

progressive education, which cautioned against separating work from play. “To be playful and serious at the same time is possible, and it defines the ideal mental condition” (p. 218). Dewey’s theories emphasize creative expression, inherent in the eurhythmic approach to music education developed by Jaques-Dalcroze (Campbell, 1991). Orff followed Jaques-Dalcroze in grounding his approach to music education in creative movement. Although movement became a standard educational practice in music classrooms by the 1990s, including movement as a teaching tool was not universally accepted. Educators like Giddings (1919) and Kwalwasser (1936) believed that musical abilities came from innate talent and rejected the idea that musical concepts were teachable. Other educators, including Mursell and Glenn (1931), felt rhythmic understanding developed through experiential activities and that the purpose of music education was to build music appreciation through playing, creating, and listening. Recent studies show that even very young children can learn music, especially if they are involved in active physical participation (Flohr et al., 2000). The music learning environment cultivates the relationship between movement and music (Goodway et al., 2013). “Movement can also be used as a non-verbal means to make music perception and interpretation visible” (Abril, 2011, p. 92). Walking, running, hopping, and jumping can all be expressed in sound (Kenney, 1997). Students learn to express their emotions in socially acceptable ways. Besides the effects on affective development, creative movement provides the ideal environment for cognitive development. Through movement, students find many different and effective ways to solve a problem or to execute an exercise (Bee, 1999). These are factors that affect children’s thinking and reasoning. Children have opportunities to use their imaginations as they move in improvised activities (Mueller, 2003).

Freedom of expression seems reinforced when improvised movement, spontaneous group dynamics, and emotional interactions with classmates converge. Recent studies indicate that creative movement helps some students overcome hesitation and actively seek opportunities to express themselves (Kratus, 1995; Volz, 2005). Students became more interested in exploring and experimenting, increasing their tolerance for unfamiliar tasks.

Improvisation

Improvisation is an integral part of any elementary music classroom. Children become actively engaged when allowed to explore sound-making materials freely and when given guided experiences exploring sound (Flohr, 2010). Through improvisation, students can express their internal musical thoughts and ideas (Azzara, 2021). Abramson (1980) stated: "To improvise is to speak the musical language of motion and pitch, without text, but clearly, expressively and memorably" (p. 66). Jaques-Dalcroze (1921) considered improvisation "as basic to life, as an expression of life, and as life itself" (p. 68).

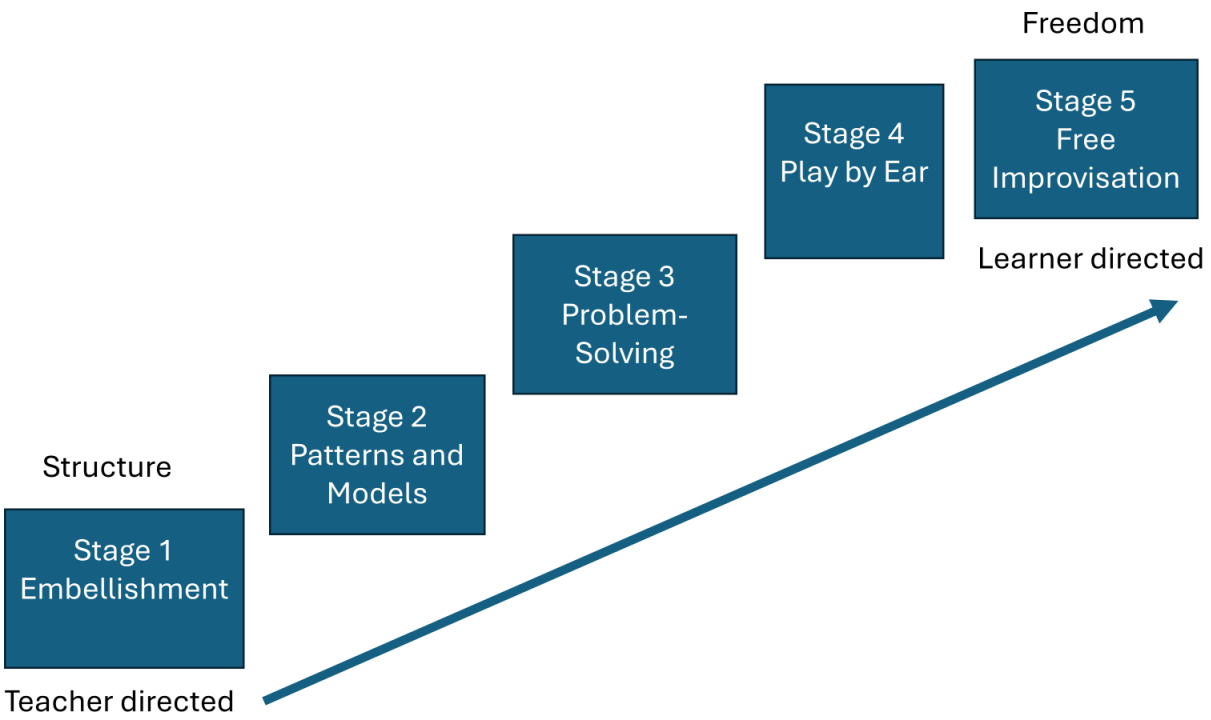
Improvisation occurs in real-time, and "the product or process is not reconsidered for change" (Webster, 1992, p. 270). It is a "spontaneous performance of original musical ideas within the context of a real-time performance" (Wiggins, 2007, p. 454). Kratus (1994) defined improvisation as "the fluid thoughts and actions of the composer in generating the product" (p. 116). However, Kratus (1990) differentiated between improvisation and exploration: "A person who is improvising is able to predict the sounds that result from certain actions, whereas a person who is exploring cannot" (p. 35). "Since improvisation is the jumping-off place from imitation to creation, it directly involves the student in the music-making process. When a student improvises, all the lights are on—thinking, hearing, feeling, and doing" (Rudaitis, 1995, p. 34).

Improvisation in music can be demonstrated through body percussions (e.g., clapping, patting, and stomping), movements (e.g., stomping, swaying, and tiptoeing), found instruments (e.g., pots and pans, spoons, and cardboard tubes), rhythm instruments (e.g., wood blocks, drums, and triangles), melodic instruments (e.g., xylophones, metallophones, and glockenspiels), or the voice. Vocal improvisation can be challenging for music educators, especially when teachers come from instrumental music backgrounds (Whitcomb, 2003). Using the approaches of Jaques-Dalcroze, Orff, Kodaly, and Music Learning Theory helps students explore vocal improvisation by learning solfege patterns in a structured but nurturing environment. These patterns serve as building blocks of their improvised vocal melodies (Thompson, 1980).

To successfully teach improvisation, teachers must understand the processes and products of this musical behavior and how these develop over time (Brophy, 2002a). Kratus (1995) developed a multilevel sequential model describing the improvisation process, beginning with exploration and ultimately transcending recognized improvisation styles. Using simplistic movement as a starting point, students gradually incorporate rhythmic patterns using body percussions and classroom instruments. Both voice and melodic instruments explore melody. With teacher guidance, exploration transitions into intentional improvisation (Kratus, 1995; Volz, 2005). The level of structure is relaxed as students become more proficient (Stamou, 2001). As shown in Figure 7, Pressing (1988) described the stages of teaching musical improvisation.

Figure 7

Pressing's Stages of Improvisation and the Continuum of Teaching



Note. Pressing's Stages of Improvisation and the Continuum of Teaching is an original visual representation of Pressing's model of improvisation pedagogy. (Pressing, 1988, pp. 143-144)

Pond (1981) described preschool children's spontaneous improvisations as often filled with repetition of the same pitches. Flohr's (1984) research confirmed that young children could use musical patterns to unify their improvisations. These musical patterns most often appear in the musical repertory that is familiar to them (Baldi & Tafuri, 2000). By kindergarten, teachers may begin teaching improvisation by modeling the desired technique and inviting the class to try or using a call-and-response model where the teacher plays a question and students improvise an answer. In his three-year longitudinal study, Brophy (2005) found that between ages 7 and 8, students began to develop an awareness of their audience. Students were more likely to shape their improvisations to please their audience. Students appeared to develop their ability to consciously apply their musical skills to improvised performances. By age 9, students'

improvisations showed increased numbers of rhythmic patterns that adhered to the beat, more repetition of rhythmic motives, and melodic phrasing.

Invented Notation

Vygotsky (1978) asserted that creating and using invented signs required high-level thinking skills and that children invented these signs to solve problems like remembering, comparing, or reporting. "The sign acts as an instrument of psychological activity in a manner analogous to the role of a tool in labour" (Vygotsky, 1978, p. 52). Unlike a tool, however, these signs are created from within. Bruner (1996) concurred, commenting, "...all cognition, whatever its nature, relies upon representation, how we lay down our knowledge in a way to represent our experience of the world... representation is a process of construction, as it were, rather than of mere reflection of the world" (p. 95). Barrett (2002) found that children are more likely to focus on a song's narrative and move back and forth using notational strategies. Although they might not remember the exact nature of their notation at a later date, they could easily distinguish their work from others. Upitis (1990) observed that when students used invented notation, their representations tended to be minimal, "only enough to remember the piece, not enough to share it with others" (p. 64).

In school, students can often create more complex music than they can notate. Both Wiggins (2007) and Upitis (1990) noted that requiring students to use standard notation can limit the quality of their work. Stauffer's (2013) and Auh's and Walker's (1999) research found that invented notation enabled students to create more expressive music incorporating advanced musical elements. Barrett (1997) observed that using invented notation freed students from the burden of using standard notation, allowed the musical experience to have more meaning, and enabled students to produce more complex work.

Creative Listening

Listening to music is often considered a passive activity where the listener contemplates and responds to the composer and performer's creativity (Dunn, 1997). The composer and performer provide creative listening opportunities; however, “it is the listener who actualizes that experience” (Morrison, 2009, pp. 83-84). “Listening to music, like comprehending verbal language, is as much a creative act as making it” (Blacking, 1979, p. 11). Webster (1987) incorporated listening as a part of his model of creative thinking despite arguing that a product must result from any genuinely creative activity. “Creativeness in music analysis/listening is the active process of understanding and explicating sound structures in written, verbal, or (in the case of active listening) mental form” (p. 162). Webster contends that as listeners construct mental pictures of music, they exercise creative thinking. Zerull (2014) characterized the creative act of musical listening as a higher-order function. The listener actively creates an original mental structure (perceptual structuring) as it unfolds. This reflection-in-action draws on the past experiences of the individual listener and provides the opportunity for creative listening, regardless of how familiar a piece of music might be (Bamberger, 1982; Kratus, 2017). Each creative listening activity is an authentic experience. Students can engage with the music at their own level. The diverse ideas shared with fellow students enrich their future listening (Kratus, 2017).

The concept of creative listening is not new. As early as 1930, music professionals advocated for elementary music instruction, including “the development of active, creative listeners, experiencing music through some form of self-activity” (Coffin et al., 1930, p. 35). Listening is “the dominant musical involvement in our culture. All listeners create the experience they will have according to their particular capabilities, personalities, and backgrounds. “Mindful

musical listening is among the most complex and most challenging acts of human cognition." (Reimer, 1989, p. 30). However, creative listening is a covert behavior. Teachers may ask students to translate their internal musical experience into something observable, like words, movements, or drawings (Kratus, 2017). Visual representations of creative listening can act as "metaphorical windows into the mind" (Kerchner, 1996, p. 124), providing insight into the mental structures formed during music listening (Bamberger, 1982; Davidson & Colley, 1987). These visual representations, or listening maps, use student-created drawings and icons to illustrate their interpretation of a music listening experience, described by Bamberger (1982) as "knowledge-in-action" (p. 193).

There are two primary forms of listening maps, figural and metric, often initially modeled by teachers (Sims, 1990). In figural listening maps, students use drawings and shapes to translate their creative listening experience. Students can trace the music, when repeated, as it unfolds. In metric listening maps, students create a visual that resembles traditional musical notation. According to Bamberger (1999), each listening map helps students transition from creative pathmakers to creative mapmakers capable of creating holistic music listening experiences. Bamberger (1999) compared this to a musician's capacity to "forget about the notes and play the music" (p. 56).

Composition

Composition is a preplanned product of original ideas (Wiggins, 1992). It is not accidental but intentional (Guderian, 2012). According to Webster (1992), composition includes the opportunity for revision during the creative process. "The composer rejects possible solutions until he finds one which seems to be the best for his purposes" (Sloboda, 1985, p. 149). Cage (2012) provided a simple definition. "The material of music is sound and silence. Integrating

these is composing" (p. 62). Although many authors see fundamental differences between improvisation and composition, others do not. For Green (2005) and Barrett (2003), composing includes many creative thinking activities, including improvising, performing, and listening. Hamilton (2021) provides a compromise: "There is no improvisation without composition and very little composition without improvisation" (p. 172).

Based on Webster's Creative Thinking in Music Model (Webster, 2002), the compositional process often begins with a musical idea (preparation) and is transformed into a brief sketch (incubation).

> In a composition classroom, the music comes from the students, and the teacher responds in accordance with the needs of the students and the qualities of their music. In such a changed paradigm, the teacher's role becomes one of establishing guidelines for student composition, fostering a supportive environment, and providing assessment of student work (Kratus, 2012, pp. 380–381).

The process of elaboration and refinement of a first draft (illumination) evolves from a final set of revisions to an ultimate copy (verification). As with improvising, young composers' first compositions usually draw on familiar music before extending and changing what they know to create something new (Kaschub & Smith, 2009). These initial compositions are often rhythmic rather than melodic. Kratus (1994, 2013) found that students can begin to compose short melodies, remember them, and share them with classmates orally or using invented notation as early as the second or third grade. Once short melodies have been completed, scaffolding can help children expand upon and refine their musical ideas (Menard, 2024).

Composition in the music classroom most often occurs within a collaborative context (Barrett, 2006). As compositions become more complex, they may span multiple class sessions

to accommodate the time involved in the creative process (Wiggins, 2007). Time allows students to explore their creativity, generate musical ideas, develop them by connecting with musical concepts, make thoughtful musical choices, and construct meaning (Hickey, 2012; Menard, 2024).

Grouping Students for Collaboration

Both Vygotsky (1934) and Dewey (2008) stressed the importance of creating a social learning environment in the classroom. Pogonowski, Bell, and Robinson (2023) emphasized the significance of collective musical cognition. This form of community learning is shared through dialogue and reflection when students are engaged in relevant activities and can act as a catalyst to develop an atmosphere of social equality within the classroom. The research of Csikszentmihalyi (1996), Gardner (2008), John-Steiner (1997), Simonton (1994), and Wallace and Gruber (1989) highlights the social nature of creative thinking.

Barrett (2006) viewed creative thinking in music instruction as a network of people cooperating and collaborating to reach a final creative product. John-Steiner (2000) characterized collaboration as engagement in a joint task. Sawyer's (2004) research found that children learn best when they collaborate in creative environments, indicating that any resulting creative product is "greater than the sum of its parts" (Sawyer & Henriksen, 2024, p. 35). Group creative activities allow all children to find their own place and self-determine their participation. With this learner-centered approach, students can develop a sense of autonomy and competence (Burnard & Kuo, 2015). Students work in an environment that develops and recognizes their voices (Carter, 2008; Lupton and Bruce, 2010). Over time, this enhances students' intrinsic motivation, social integration, and social well-being (Ryan & Deci, 2000; Schiavio et al., 2020).

This process of social construction and expression of identity as composers and creators is “at the core of what music education is all about” (Wiggins & McPherson, 2015, p. 116).

Campbell (1998) recommended forming musical communities of practice to allow children to learn by participating. The teacher leads a creative thinking activity and models ways of being a composer to build a community of composers in the classroom (Stringham, 2016). Students learn to think and create like composers (Barrett, 2006; Robinson, 2023). Teachers share compositions, provide feedback, promote divergent thinking, and encourage composing new work. The classroom environment allows students to explore their ideas, develop their skills and expressive capacities, and succeed or fail (Stringham, 2016). The collective practice, not the teacher, serves as a scaffold for students. The teacher’s role is to facilitate the community of practice (Sawyer, 2006).

Student grouping comes in many sizes and forms. In cooperative learning, students are typically arranged into heterogeneous groups or groups that vary in gender, ability, and race (Toklucu and Bayram, 2016). These groups can be formed by student choice, random selection, or purposeful teacher selection (Kassner 2002). LaPrarie and Slate (2009) found that collaboration within diverse student groups contributes positively to student achievement.

Collaboration does not mean that students always work as a group. The group may collaborate during specific stages of the creative process, giving students time to work alone during idea development. Dugosh, Paulus, Roland, and Yang (2000) studied group brainstorming to explore the potential benefits of exposure to others' ideas. They found that even when focusing on generating one's own ideas, it is possible to process the ideas generated simultaneously by someone else. This experience can enhance the idea generation of all group members. The group

generates a richer variety of ideas. Group members can learn to be creative in music and mutually support each other's learning processes (Faulkner, 2003).

Miell and MacDonald (2000) identified the advantages of arranging students in friend groups. Their research found that students produce better-quality compositions when working with friends. Students working with friends communicated verbally and musically in a manner more conducive to effective collaboration (MacDonald et al., 2002).

Some researchers, however, question the benefits of working in groups. Paulus (2000) cautioned that groups may have non-contributing members. Students in the group may be distracting or may try to dominate. Some students may evaluate the product prematurely. The anxiety felt by some students may impact their ability to participate fully (Camacho & Paulus, 1995). The number of ideas a group generates does not always lead to quality. In addition, the concern of peer judgment may negatively influence creativity (Nijstad et al., 2003; Paulus, 2000).

Creative Thinking Assessment

Music teachers typically have some degree of flexibility in planning, delivering, and assessing instruction (Abril & Gault, 2016). Although music teachers generally agree on the value of assessments, they may not use formalized assessment strategies (Salvador, 2019). They prefer informal assessments: observations, group performances, mental record keeping, peer assessments, and self-assessments (Salvador, 2019; Shih, 1997).

The assessment of creativity in music continues to be debated by both music educators and theorists (Burnard & Fautley, 2015). The teacher cannot predetermine a student's creative product; its exact nature can be unpredictable. A list of attributes cannot determine creativity. Musically correct compositions are not necessarily more creative (Auh & Walker, 1999).

Therefore, rubrics that assess musical characteristics do not assess creativity (Deutsch, 2016; Priest, 2001; Webster and Hickey, 1995).

Rubrics do have a positive side. Rubrics can evaluate a student's ability to meet the technical requirements of a creative assignment and highlight strengths and weaknesses. Rubrics can have great analytical power and reinforce essential features of a composition (Hickey, 1999). Rubrics can also be developed for peer and self-assessment (DeLuca & Bolden, 2014).

Psychologists have devised various tests to identify those who have a creative disposition (e.g., Torrance, 1974). Barbot and Lubart (2012) and Webster (1994) have developed tests to identify creative potential in music. Unfortunately, these tests do little to inform teachers about the quality of a particular piece of a student's work.

A primary goal of assessing creative thinking in music should be encouraging students to develop a unique creative point of view and musical voice (Deutsch, 2016). Students benefit most from formative assessments that support student efforts and can be embedded throughout the teaching and creative process (Leung et al., 2009; Marlatt, 2019). The focus of formative assessments is not to give grades but to provide feedback that students may use to improve and refine their work.

Feedback may take many forms. Often, the most valuable feedback teachers can provide occurs as a question. Carefully phrased questions allow the composers to gain further insight into their thinking processes, intentions, and musical choices (Stringham, 2016). Students may exchange feedback with peers when collaborating in groups. Teachers may provide feedback to students individually or in group settings. Students may self-assess or reflect on their progress during a creative thinking activity (Deutsch, 2016).

Research indicates that specific feedback enhances student development but that numerical or letter grades can inhibit growth and motivation because they encourage performance mindsets rather than mastery mindsets. Deutsch (2016) argues that letter grades can disrespect students' creative artistry and potential. The goal becomes scoring high, not expressing oneself musically, and motivation becomes extrinsic rather than intrinsic (Amabile, 1979).

Summative assessments occur after a creative thinking activity. The goal of summative assessment is to evaluate the strengths and weaknesses of a musical product against the initial objectives. The purpose of summative assessments is to provide feedback to students so they can move to the next cycle of creating music with an understanding of how to be more effective creative thinkers (Marlatt, 2019; Webster, 2016). Hickey (2001) adapted the consensual assessment technique of Amabile (1983) as a summative assessment tool for music compositions. This tool combines data from several experts in the field to recognize creativity. The collaborative music classroom experts include the teacher, other students, and self (Hickey, 2001; Runco, McCarthy, & Svenson, 1994).

Student composers are real composers, and their compositions should aim to express musical ideas, not to satisfy a set of criteria. A central pillar of summative assessment is a public performance of the composition (Deutsch, 2016). These performances may occur in the classroom, at a school concert, or outside of the school. Performances allow students to share their original musical ideas with an audience. The listeners' responses validate the work's authenticity and motivate the students to reengage with the creative process (Nagy, 2015).

Although summative assessments are specific to individual students, the collective summative assessment data provides important information to teachers regarding the effectiveness of their instruction and informs future instruction (Black et al., 2004; Burnard,

2012). Teachers can engage students in conversation about specific aspects of creativity using authentic examples of student work and build a common creative language. Explicit discussion of what teachers and students consider creative will help students improve their creative thinking abilities (Kokotsaki, 2011).

Creativity Mindset of Teachers

"Whether you believe you can do a thing or not, you are right" (Ford, 1947, p. 64). Mindset is a set of attitudes or beliefs that determine how someone interprets and responds to situations. Dweck (2006) coined the terms fixed and growth mindset from her research into the nature of intelligence. A fixed mindset characterizes the entity theory that intelligence is fixed and unchangeable. A growth mindset characterizes the incremental theory that intelligence can be developed and grow through learning, application, and experience (Dweck, 2006). Although people have a mixture of mindsets, Dweck's (2016) research indicates that one of their mindsets is dominant.

Vygotsky believed that all children are naturally creative beings and that creativity is a "normal and constant companion in childhood" (Vygotsky, 2004, p. 33). Kettler, Lamb, Willerson, and Mullet (2018) reported that teachers describe creativity as imaginative or unique but often associate creativity with artistic ability. With the focus in education on high-stakes testing, teachers may view creativity as interesting but not necessarily beneficial in raising achievement in reading or math (Aljughaiman and Mowrer-Reynolds, 2005; Beghetto, 2013).

Karwowski (2014) built on the work of Dweck to explore beliefs about creativity. Karwowski found that most people's beliefs about creativity are influenced by their perceptions of different levels of creativity. For example, people may view everyday creativity (little-c creativity) with a growth mindset and view creativity leading to significant accomplishments

(Big-C creativity) with a fixed mindset. The findings of Runco (2003) and Kaufman and Beghetto (2009) indicated a widespread belief that little-c creativity can be stimulated and developed. In contrast, people commonly believe that significant creative (Big-C) accomplishments require unique talents and gifts (Glück et al., 2002).

Creativity in the classroom can either flourish or be minimized based on teacher beliefs (Beghetto, 2006; Paek & Sumners, 2019; Woolfolk et al., 1990). Teachers' beliefs guide their instructional planning and shape teachers' expectations for students. These teacher expectations are compelling influences on students' behavior and, in turn, influence students' attitudes about their ability to be creative (Andiliou & Murphy, 2010; Konstantinidou et al., 2014; Plucker et al., 2004; Saracho, 2012). Since teachers can concurrently hold conflicting beliefs about creativity, their instructional decisions can be complicated and challenging (Andiliou & Murphy, 2010; Karwowski & Brzeski, 2017).

When teachers perceive creativity as a fixed trait, they may see little sense in engaging in creativity. According to Dweck (2016), "teachers with a fixed mindset create an atmosphere of judging" (p. 200), deciding very early on which students already possess the intelligence or talent to excel. Kaufman and Beghetto (2009) found that a growth mindset about everyday creativity correlated strongly with a positive self-perception. Teachers with a growth mindset about creativity are more confident in their own ability to be creative and are more likely to offer creative thinking activities in the classroom (Dweck, 2016; Siebert, 2006).

Creativity in music is a learnable and teachable skill (Balkin, 1990) that can develop with learning, practice, and experience (Koutsoupidou & Hargreaves, 2009). Current research on musical creativity reveals the impact of beliefs about talent on mindset. A belief in innate talent considers musical talent fixed at birth and unchangeable (Shouldice, 2019). Teachers with this

fixed mindset identify themselves or others as musical or nonmusical based on their ability to learn fundamental music skills (Scripp et al., 2013). This belief may be a self-fulfilling prophecy for students (Shouldice, 2019). In a survey of educators, Hallam (2010) found that more than 75 percent of the sample believed that playing an instrument, singing, and composing required a special gift or natural talent. However, "creativity is not a synonym for talent" (Balkin, 1990, p. 29).

Kladder and Lee (2019) found that most music teachers in their sample believed that student musical creativity could be developed and that creative thinking activities are essential to classroom instruction. Many teachers voiced a commitment to nurturing musical ability in all students and that some students might ultimately become exceptional musicians (Ziegler and Phillipson, 2012). "People's brains and bodies can predispose them to becoming musicians. But…it's the ones who want to play who make the most progress" (Kraus, 2021, p. 162). Cogdill (2015) asserted that teachers' music creativity growth mindset and the overt recognition of student creativity are the most critical factors in successful creative thinking activities experiences. "Every word and action can send a message. It tells children─or students, or athletes─how to think about themselves" (Dweck, 2016, p. 176).

Elementary General Music Teacher Education

In 1970, the Music Educators National Conference (now NAfME) proposed that music teacher education programs adopt a 4-year sequential course in comprehensive musicianship. Two years later, the Ohio Commission on Public School Personnel Policies published a report identifying the primary weaknesses of teacher preparation as: (a) too much time learning about teaching and not enough time observing and practicing teaching, (b) too much dependence on student teaching as preparation, (c) not enough student contact with children, and (d) having

professors too far removed from the classroom practice (Brophy, 2002b). The report suggested that universities include professional lab experiences to strengthen teaching skills and better prepare prospective teachers.

In 2000, the Undergraduate Music Education Curriculum Reform Committee distributed a survey across the United States asking music teachers about the strengths and weaknesses of their music education preparation programs and their opinions on what could improve preservice music education. The findings revealed that 83% of the teachers received no training in Dalcroze, Orff, Kodály, or Gordon during their coursework; however, 94% believed training in those methods should be included. Even though teachers reported receiving little to no training, 80% used solfege, and 92% used Kodály vocables during their instruction. Less than half of the teachers reported feeling prepared to teach singing, and only 11% reported feeling ready to teach improvisation or composition. Most teachers thought a 50-50 balance between coursework and fieldwork would improve their teacher preparation programs (Brophy, 2002b).

Hickey and Rees (2002) found that most teacher preparation programs did not include exposure to early childhood studies, music technology, world music, testing and learning assessment, research, student composition, cultural sensitivity, or different learning styles. In addition, they found that most programs did not reflect national, state, or local standards. Thornton, Murphy, and Hamilton (2004) expressed concerns that teacher preparation programs had changed very little in 40 years despite recommendations for improvements. They suggested that the higher education community had fostered an attitude of separation and independence from the concerns of K-12 educators.

Frego and Abril (2003) found that university instructors may receive minimal guidance when developing music methods courses, which are the core of music teacher training. In most

cases (87%), prospective music teachers learned about different pedagogical approaches (i.e., Dalcroze, Orff, Kodály) by reading, writing papers, or discussions. In other cases, students watched videotapes of expert teachers using a method, observed the instructor teach a lesson, or observed a guest instructor. Few music methods courses were structured using a practical application approach that included multiple observations, relevant field experiences, and meaningful reflections. The Organization of American Kodály Educators (OAKE) has endorsed 24 teacher education programs in the United States, none of which are located in Maryland (Certification Programs─Organization of American Kodaly Educators, 2024). National associations for Dalcroze and Orff have fewer university certification programs nationwide and no programs in Maryland. Kodály (1974) emphasized that teachers needed to be well-trained and believed that teachers required rigorous preparation to be effective.

Reese (2003) found that music teachers receive limited experience with composition in their teacher preparation programs. As students, they did not engage in personal composition or learn how to teach composition. The research of Dogani (2004) and Strand (2006) found that teachers lack confidence in teaching composition. "It appeared that the teachers' lack of confidence in creativity as a medium for self-expression prevented them from engaging musically with their children" (Dogani, 2004, p. 268). Reese suggests that asking music teachers with no composition experience to teach composition to students is like asking them to teach a foreign language (2003).

In response to concerns about music teacher preparation programs, Palmer (2004) proposed that music methods courses should be taught by music educators with successful K–12 experience. Palmer felt that music teacher training should provide regular opportunities for observing and teaching in real school settings. The work of Hourigan & Scheib (2009) and

Legette (2013) echoes the value of these real-world experiences. In addition, concern for preparation in classroom management strategies was clearly articulated (Brophy, 2002b; Hourigan & Scheib, 2009).

Implementing the National Standards signaled changes to music teacher preparation programs (Kertz-Welzel, 2008). A survey by the National Association for Schools of Music (NASM) revealed that 36 percent of the schools that responded had changed or were changing their curriculum or programs to address the competencies called for in the national standards for music; however, there are no common benchmarks for achievement among institutions of higher learning. NASM provides accreditation to music programs in colleges and universities, but their requirements are broad. For example, the only specific reference to improvisation and composition reads: "Students must acquire a rudimentary capacity to create original or derivative music" (NASM Handbook, 2023-24, p. 105). This broad, unclear statement leads to inconsistent expectations and practices (Abrahams, 2000). Crawford's (2017) survey revealed that most faculty responsible for teaching preparatory teacher programs do not compose and have never been taught how to prepare preservice teachers to teach composition. Although they expressed confidence in their ability to do so, Abrahams (2000) argues that "teachers cannot teach what they cannot do themselves" (p. 30). Adderley, Schneider, and Kirkland (2007) also found that college and university faculty generally believe they provide the appropriate courses to prepare prospective music teachers.

Students entering pre-service teacher training programs have memories of their elementary general music experiences (Ballantyne, 2005). Lortie (2020) suggested that classroom memories accrue over time and act as a preliminary training phase or an "apprenticeship of observation" (p. 67). These memories can significantly impact teachers'

teaching practices (Oleson & Hora, 2014). Considering that the instructional practices of college and university professors are equally influenced by their prior learning experiences, prospective teachers may face a dilemma when attempting to provide instruction appropriate to the elementary general classroom of today (Brown et al., 2021).

Elementary General Music Teacher Certification

An analysis of music teacher certification practices in the United States finds that most states provide a generalized music education certification rather than more specific designations such as instrumental, choral, or general (Groulx, 2016; May et al., 2017). All states except one have adopted an all-level (e.g., PK–12, K–12) age-level designation for music certification. However, a common structural element of any music education preparation program is choosing a specialization or concentration in one area of music. These specializations include vocal or instrumental music at an elementary or secondary level. As a result, prospective teachers may not be prepared for the broad range of teaching experiences they will likely encounter in the field or for which they are certified (Ballantyne, 2006; Groulx, 2016).

Newly certified teachers entering the profession may find themselves teaching outside their area of musical expertise (Kuebel, 2019). Teaching out of one's specialization may occur for various reasons, including teacher shortages (Hamann & Ebie, 2009), lack of openings in one's area of specialization jobs (Corfield-Adams, 2012; Kuebel, 2017), or positions that require teaching multiple areas of music (Kuebel, 2017). Administrators may expect teachers to teach in all areas of their certification (Conway, 2002).

Some factors, however, are driven by the teachers' preferences. For example, teachers may prefer teaching specific areas or age groups (N. R. Robinson, 2012; Shouldice, 2013). Elementary general music may be the most common class non–general music specialists teach

(Groulx, 2016). In some cases, teachers may not want to teach instrumental music in middle and high school due to the overemphasis on performances and contests (Shouldice, 2013). They may perceive elementary general music as more flexible. They may also feel that teaching elementary general music will improve their work-life balance (Corfield-Adams, 2012; N. R. Robinson, 2012).

Contextual Factors in the Workplace

The No Child Left Behind (NCLB) Act of 2001 focused on improving the quality of education and raising students' academic achievement in the United States (Darling-Hammond, 2007). Although the arts are considered a core academic subject under NCLB, the federal mandate has been blamed for reducing students' access to music instruction (Smith & Kovacs, 2011). Spohn (2008) found that music teachers described a significant change in school priorities. Since testing in reading and math is mandated, school schedules are crafted to give reading and math teachers common time to work with grade-level colleagues and support staff to analyze student data and develop more effective teaching strategies to meet their students' instructional needs (Luebke, 2008). Elementary general music teachers are often isolated from one another in the workplace. Many schools are staffed with only one music teacher. Teachers have not experienced significant changes in their ability to plan with colleagues. Music teachers continue to provide instruction while classroom teachers are planning. However, to ensure that classroom teachers have common grade level planning time, music teachers may work with more than one classroom of students simultaneously. Although they may be working with more students at a time, music teachers are expected to deliver their instruction within the traditional class period, typically 30 to 40 minutes (Luebke, 2008).

Elementary general music teachers articulate a concern with the negative impact of time on their ability to include creative thinking activities in their instruction (Orman, 2002; Wang & Sogin, 1997). “It is clear that the process of creative thinking takes time and is messy, yet our controlled and hurry-up classroom culture is often the antithesis of this” (Hickey, 2003, p. 34). Strand’s (2006) research supported this concern. Strand’s survey found that over half of the teachers indicated they did not have enough instructional time for composition. Teachers reported that the curriculum expectations were too extensive. Some music teachers are given additional duties, including tutoring or providing classroom support during reading and math instruction. These findings concur with the research of Abril and Gault (2016). In their study, principals reported that NCLB triggered budgetary and scheduling decisions that negatively affected their music programs.

The values of district administrators, bolstered by community support, quality teaching, and creative financing, are considered critical factors in the sustained support of music education in schools. A common concern among some teachers is that administrators perceive music as a frill (Madsen & Hancock, 2002). This perception may be more pronounced in high-need communities (Chappell & Cahnmann-Taylor, 2013). Schools in low socioeconomic communities are less likely to have a dedicated space for music instruction and to offer music instruction than those in higher socioeconomic communities (Major, 2013; Parsad & Spiegelman, 2012). Those schools with higher percentages of minority students and schools identified as needing improvement are more likely to report a reduction in instructional time spent on the arts than other schools (Access to Arts Education, 2009).

High-quality professional learning opportunities can promote positive and systemic change in schools (Gallo, 2018). School systems and administrators may focus on professional

development in reading and math instruction due to the pressure of high-stakes testing (Major, 2013). This practice results in limited opportunities for music teachers to grow professionally. According to the 2009–2010 Arts Education Survey, administered nationally by the National Center for Education Statistics (NCES), many elementary music teachers (61%) participated in at least one type of professional development activity per year. The majority of these activities, however, were not provided by their school systems and were personally sought out and personally funded (Parsad & Spiegelman, 2012). In addition, the number of hours spent in content-specific activity did not align with what researchers suggest is necessary to have any effect on instructional practices (Blank & de las Alas, 2009).

Although school administrators are traditionally considered the leaders and decision-makers of schools, distributive leadership structures are changing the decision-making processes in schools (Firestone & Martinez, 2007; Sergiovanni, 2004). Administrators trained in distributive leadership seek to leverage their entire staff's resources, creativity, and expertise to help guide decision-making and solve problems (Spillane, 2005). As a result, school teams are becoming more inclusive and collaborative. Although prior studies have found that music teachers are less likely than classroom teachers to participate in site-based management or school improvement teams, this school management trend is promising (Parsad & Spiegelman, 2012).

Elementary general music teachers often identify with the community of practice, consisting of other district music teachers or regional Orff or Kodaly specialists they see infrequently. General music teachers may avoid participating in school leadership (Kos, 2010). However, the most important community of practice is their own elementary school. “The future of the elementary music program will not rest entirely on the good graces of the building

principal but on the support of an entire organization that recognizes the importance of music education" (Luebke, 2008, p. 77).

Table 2

Significant Literature Influencing this Study

Focus	Author/s	Date/s	Relevance
21st-century skills	de Bono, 1992	1992	▪ Importance of creative skills
	Florida	2006, 2019	▪ Creative thinking as a vital economic resource
	Hilton	2008	▪ Relationship between creativity and the economy
	National Center on Education and the Economy	2008	▪ Need for creativity in every citizen
	Partnership for 21st-Century Learning	2019	▪ Creativity as an essential learning skill
Definitions of creativity	Maslow	1943	▪ An original product
	Rogers	1954	▪ Self-actualization drives creativity
	W. James	1955	▪ An original product
	Csikszentmihályi	1999	▪ Something original and valued
Creative thinking	Bloom	1956, 1968	▪ Creative thinking as the highest level of learning
	John-Steiner	1997	▪ Insight
	Paul & Elder	2006	▪ Combination of imagination and reason
	Amabile	1983	▪ Creative thinking can be taught
	Sternberg	2003	▪ Creative thinking can be taught
Creativity theories and research	Helmholtz	1891	▪ Sudden flash of thought, inspiration
	Poincaré	1915	▪ Sudden illumination after a period of rest for the conscience mind
	Wallas	1926	▪ Four-stage process of creativity: preparation (or saturation), incubation, illumination, and verification (or implementation)
	Guilford	1959-1982	▪ Structure of Intellect Model

Focus	Author/s	Date/s	Relevance
			▪ Five key elements of creativity: fluency, flexibility, originality, awareness, and drive ▪ Convergent and divergent thinking
	Csikszentmihályi	1975-2014	▪ The Systems Model of Creativity ▪ Non-linear creativity theory ▪ Creative collaboration ▪ Intrinsic motivation
	Amabile	1982-2024	▪ Creativity Intersection Model ▪ Creative collaboration ▪ Intrinsic motivation ▪ Psychological safety
Creativity in education	Vygotsky	1925-1929	▪ Zone of Proximal Development ▪ Learning and language ▪ Childhood creativity and imagination ▪ Cultural internalization
	Dewey	1884-1949	▪ Experiential learning ▪ Meaningful learning ▪ Classroom as a democratic society
Creativity in music education	Webster	1978-2024	▪ Model of Creative Thinking in Music ▪ Creativity as creative thinking
Early examples of creativity in music education	Moorhead & Pond	1937-1948	▪ Creativity in music is natural for children
	Pond	1937-1948	▪ Young children can use complex melodic and rhythmic patterns
	Doig	1941-1942	▪ Children of all ages are capable of music composition
History of music education in the United States	Birge	1973	▪ Magna Charta of Music Education of Mason, 1838 ▪ Focus on vocal music
	Mark & Gary	2007	▪ Accredited music teacher preparation programs in the 1920s ▪ Rote teaching ▪ Use of sol-fa with moveable or fixed do ▪ Limited instruction in music notation

Focus	Author/s	Date/s	Relevance
	Choate	1968	▪ The Tanglewood Symposium
	Dello Joio	1984	▪ Contemporary Music Project
	Steele	1992	▪ Yale Seminar on Music Education
	Branscome	2012	▪ Woods Hole Conference
	Mark	2020	▪ Influences on the development of the National Music Education Standards
Creative thinking in music instruction	Menard	2013	▪ Musical sound drives problems and their resolutions ▪ Activation of musical imagination
	Webster	1987	▪ Teacher is co-learner, guide, and facilitator ▪ Student-centered instruction ▪ Opportunities for exploration and experimentation
	Cooperstein & Kocevar-Weidinger	2004	▪ Strategic opportunities planned by the teacher and experienced by students
	Orman	2002	▪ Disconnect between the value of creative thinking and instructional practice
	Phelps	2008	▪ Maryland teachers' inclusion of creative thinking activities
	Fairfield	2010	▪ Impact of teacher perceptions on practice
Dalcroze method	Jaques-Dalcroze	1921	▪ Body movement as musical expression ▪ Eurhythmics
	Jaques-Dalcroze & Rothwell	1930	▪ Rhythmic solfege
	Seitz	2005	▪ Creative thinking embedded
Kodály approach	Kodály	1974	▪ Singing is central to music education ▪ Use of authentic folk music of the mother tongue
	DeVries	2001	▪ Five principles of Kodály
	Thomspon	1980	▪ Use of familiar patterns
Orff method	Orff et al.	1950	▪ Music education is for everyone

Focus	Author/s	Date/s	Relevance
	Keetman	1984	▪ Rhythm connects music, movement, and speech ▪ Active music-making
Music Learning Theory	E. Gordon	1961-2016	▪ Music Learning Theory ▪ Learning music is like learning a language ▪ Developing audiation ▪ Connection between music and movement ▪ Whole-part-whole instructional design
	Swanwick	1988	▪ Internal organization of musical possibilities
	Kratus	2001	▪ Benefit of broad access to tonalities
World Music Drumming	Schmid	1996	▪ Active music-making ▪ Emphasis on ensemble ▪ Drumming, singing, and moving rooted in West African traditions
	Shorner-Johnson	2019	▪ Encourages improvisation
	Kraus	2021	▪ Fosters sense of community
Creative movement	Campbell	1991	▪ Movement for creative expression
	Kratus	1995	▪ Spontaneous group dynamics
	Flohr et al.	2000	▪ Engagement of very young children
	Mueller	2003	▪ Explore through improvised activities
	Goodkin	2004	▪ Connection between movement and music
	Voltz	2005	▪ Confidence through freedom of expression
	Abril	2011	▪ Non-verbal expression
Improvisation	Pressing	1988	▪ Stages of teaching musical improvisation
	Webster	1992	▪ Not reconsidered for change
	Kratus	1994	▪ Fluid thoughts
	Rudaitis	1995	▪ Direct student involvement
	Brophy	2002, 2005	▪ Requires teacher expertise

Focus	Author/s	Date/s	Relevance
			▪ Development of improvisation skills over time
	Wiggins	2007	▪ Spontaneous and original musical ideas
Invented notation	Upitis	1990	▪ Standard notation is limiting
	Bruner	1996	▪ Cognition relies upon representation
	Barrett	1997	▪ Enables more complex work
	Auh & Walker	1999	▪ Enables more expressive work
Creative listening	Bamberger	1982	▪ Reflection-in-action
			▪ Knowledge-in-action
	Webster	1987	▪ Results in a mental product
	Reimer	1989, 1997	▪ Dominant musical involvement in society
			▪ Complexity of listening
	Kerchner	1996	▪ Visual representations of listening
	Dunn	1997	▪ Sometimes considered a passive activity
	Bamberger	1999	▪ Maps as holistic music listening experiences
	Morrison	2009	▪ Listener actualizes experience
	Zerull	2014	▪ Higher-order function
	Kratus	2017	▪ Personalized, authentic experience
Composition	Webster	2002	▪ Preplanned product of original ideas
	Barrett	2006	▪ Collaborative context
	Wiggins	2007	▪ Accommodating for time
	Guderian	2012	▪ Intentional
	Kratus	1994, 2012, 2013	▪ Teacher guide. Music comes from students.
			▪ Composition skills over time
	Hickey	2012	▪ Time necessary for creative process
Grouping students for collaboration	Campbell	1998	▪ Musical communities of practice
	John-Steiner	2000	▪ Engagement in a joint task
	Ryan & Deci	2000	▪ Intrinsic motivation and social integration
	Miell & MacDonald	2000	▪ Advantages of friend groups

Focus	Author/s	Date/s	Relevance
	Sawyer	2004, 2006	▪ Collaboration in creative environments ▪ Teacher as facilitator
	Barrett	2006	▪ Thinking like a composer
	LaPrarie & Slate	2009	▪ Positive impact on achievement
	Stringham	2016	▪ Community of composers
Early psychometric measures of music creativity	Vaughan	1971	▪ Scored for rhythmic security, musical ideation, and synthesis
	Webster	1977	▪ Scored for fluency, flexibility, and elaboration
	Gorder	1980	▪ Scored for musical quality
Creative thinking assessment	Amabile	1979	▪ Grades as extrinsic motivation
	Webster & Hickey	1995	▪ Challenge in identifying creativity
	Auh & Walker	1999	▪ Problems with musically correct compositions
	Hickey	1999, 2001	▪ Strengths of rubrics ▪ Consensual assessment technique
	Black et al.	2004	▪ Assessment to inform instruction
	Kokotsaki	2011	▪ Power of whole class feedback
	Burnard	2012	▪ Assessment to inform instruction
	Nagy	2015	▪ Performance as an assessment
	Burnard & Fautley	2015	▪ Assessment debate
	Deutsch	2016	▪ Problems with rubrics ▪ Grading creative products ▪ Performance and intrinsic motivation
	Webster	2016	▪ Summative assessments
	Stringham	2016	▪ Questioning as feedback
	Salvador	2019	▪ Teacher use of assessments
	Marlatt	2019	▪ Embedded formative assessments
Creativity mindset of teachers	Sternberg	1985	▪ Influence of teacher perceptions
	Runco	2003	▪ Big-C and little-c creativity
	Dweck	2006 2016	▪ Growth and fixed mindset ▪ Influence of teacher mindset
	Kaufman & Beghetto	2009	▪ Impact of Big-C thinking on instruction
	Fairfield	2010	▪ Influence of teacher perceptions

Focus	Author/s	Date/s	Relevance
	Beghetto	2013	▪ Views about the importance of creativity
	Karwowski & Brzeski	2017	▪ Conflicting mindsets
	Kettler et al.	2018	▪ Relationship between talent and creative potential
	Shouldice	2019	▪ Impact of teacher mindset on students
	Kladder & Lee	2019	▪ Teacher beliefs about creative potential
Elementary general music teacher education	Abrahams	2000	▪ Vague criteria for program accreditation
	Brophy	2002a, 2002b	▪ Primary weaknesses of music teacher preparation programs
	Hickey & Rees	2002	▪ Disconnect between music teacher preparation and standards of instruction
	Frego & Abril	2003	▪ Lack of guidance for university instructors
	Palmer	2004	▪ Suggestions for improving university courses and programs
	Strand	2006	▪ Lack of teacher confidence in meeting the demands of teaching ▪ Lack of personal creative thinking opportunities ▪ Reluctance in providing creative thinking activities in instruction
	Adderley et al.	2007	▪ Impact of university faculty beliefs on potential change
	Oleson & Hora	2014	▪ Influence of personal experiences as a student on practice
	Lortie	2020	▪ Apprenticeship of observation
	Groulx	2016	▪ Problems of broad certification
	Shouldice	2013	▪ Teacher age group preferences
	Kuebel	2017, 2019	▪ Conditions influencing acceptance of teaching positions
School academic priorities	Darling-Hammond	2007	▪ No Child Left Behind
	Luebke	2008	▪ Scheduling priorities

Focus	Author/s	Date/s	Relevance
	Spohn	2008	▪ Teacher perception of school priorities
Time	Orman	2002	▪ Negative impact of time restrictions on creative thinking instruction
	Hickey	2003	▪ Impact on creative process experiences
	Strand	2006	▪ Impact on composition opportunities
	Abril & Gault	2016	▪ Impact of additional duties and assignments
Administrator support	Madsen & Hancock	2002	▪ Music as a frill
	Access to Arts Education	2009	▪ Equity of access for minority groups
	Parsad & Spiegelman	2012	▪ Equity of access for low-income families
Professional development	Blank et al.	2007	▪ Time allocated for professional development
	Parsad & Spiegelman	2012	▪ Personal investment of music teachers
	Majors	2013	▪ Lack of system provided, content-specific professional development
	Gallo	2018	▪ Impact of professional development
Inclusive practices in schools	Spillane	2005	▪ Collaborative decision-making
	Firestone & Martinez	2007	▪ Distributive leadership practices
	Kos	2010	▪ Music teacher community of practice
	Parsad & Spiegelman	2012	▪ Impact of school management trends

CHAPTER 3: METHODOLOGY

Creative thinking is a necessary 21st-century skill that must be taught to all students beginning in elementary school (Friedman, 2006; Gardner, 2006). Opportunities for students to engage in creative thinking learning are the result of teacher planning and implementation. Past research suggests that the teacher is the most crucial factor impacting student achievement (Cogdill, 2015). Therefore, any study of creative thinking instruction must begin with the teacher. The perceptions and preparation of teachers, as well as contextual factors, influence how teachers approach their work and view their students' capacity.

The literature review has established creative thinking as essential for creative problem-solving and creativity. Music educators highlight the importance of creative activities during instruction through movement, improvisation, listening, and composition. Although research illustrates the benefits students receive while engaging in creative musical activities, research also suggests that these experiences are not consistently available to students (Orman, 2002; Phelps, 2008).

The purpose of this study was to explore factors that contribute to the inclusion of creative thinking instruction in the elementary general music classroom. I examined the perceptions, preparation, and practices of elementary general music teachers as well as contextual conditions that might facilitate or hinder creative thinking in general music instruction.

Research Design

According to Basit (2013), paradigms are: “models, perspectives or conceptual frameworks that help us to organise our thoughts, beliefs, views, and practices into a logical whole and consequently inform our research design” (pp. 14-15). Paradigms serve as

overarching philosophical systems and encompass four elements: epistemology, ontology, methodology, and axiology (Lincoln & Guba, 1985). Epistemology describes what counts as knowledge, truth, or reality (Cooksey & McDonald, 2011). Types of knowledge include first-hand knowledge based on perceptions, practical knowledge based on skills, and description-based knowledge rooted in language (Kivunja & Kuyini, 2017). Ontology is the philosophical study of the nature of existence or reality. Researchers may strive for one truth or multiple realities (de Kock, 2015). Axiology refers to the ethical issues that need to be considered when planning a research proposal and can be guided by four criteria: teleology, deontology, morality, and fairness (Kivunja & Kuyini, 2017). Teleology refers to attempts made in research to ensure that the results are meaningful and that potential benefits are weighed against potential costs. Any consequences should benefit participants, researchers, scholars, or the larger community (Schlenker & Forsyth, 1977). Deontology is rooted in Kantian philosophy and promotes ethical consistency during research. Every action taken during the study has its own consequence (Dimitrios et al., 2018). The morality criterion relates to the intrinsic moral expectations during the research to strive for a truthful interpretation of the data (Gillies & Alldred, 2012). The fairness criterion is reflected in the dignity and respect shown to participants. Principles of privacy, accuracy, property, and accessibility will guide ethical considerations (Govil, 2013; Roberts & Allen, 2015). This study incorporated all paradigm elements (epistemology, ontology, methodology, and axiology).

Pragmatism

I based my research on the philosophical framework of pragmatism. The paradigm of pragmatism can be described as “the attitude of looking away from first things, principles; ‘categories;’ supposed necessities; and of looking towards last things, fruits, consequences,

facts" (James, 1955, p. 47). James and Dewey, classical pragmatic philosophers, viewed the present as a new starting point (Johnson et al., 2007). Pragmatism "sidesteps the contentious issues of truth and reality" (Feilzer, 2010, p. 8) and "focuses instead on 'what works' as the truth regarding the research questions under investigation" (Pragmatism, 2003, p. 713).

Pragmatism focuses on the value of experiences, the practical consequences of action, and understanding authentic world phenomena (Denzin & Lincoln, 2008). The purpose of gaining knowledge is to pursue desired ends (Mertens, 2012, 2023). It is more a doctrine of meaning than methodology (Denzin, 2012). It does not claim that any one philosophy of the nature of knowledge (epistemology) or reality (ontology) is correct (Fitzpatrick, 2020). Problems may be explored using multiple techniques and methodologies. The goal is to match methods to specific questions and purposes (Mertens, 2012, 2023). The problem is of primary importance (Tashakkori and Teddlie, 1998).

Past Music Education Research Design

Historically, quantitative methods have dominated music education research. Data was collected using numeric labels and then analyzed using descriptive or inferential statistics. Quantitative analysis sought to bring insight into important issues using a straightforward process to reduce the complexities of music education. Statistical methods helped summarize large amounts of information and identify patterns "that can bring order, clarity, and meaning to what─on the surface─can seem overwhelmingly disorderly, confusing, and meaningless" (Miksza & Elpus, 2018, p. 4). However, some researchers question the use of quantitative research in music education. Participants have no room to contribute to the study and can only respond to predetermined prompts with predetermined responses (Eyisi, 2016). "Research that is content to produce objective findings that can be generalizable across genders, ethnicities, and

cultures tells a falsehood about the changing human mind, its interconnection with others, and the role that culture plays in shaping individual narratives" (Allsup, 2014, p. 60).

Qualitative research emerged in the 1990s (Conway & West, 2014). The scope of qualitative research in music education includes investigating how music is taught and learned in both formal and informal contexts through the voices of teachers (Bresler & Matsunobu, 2014; Conway et al., 2010). Qualitative research presupposes "that knowledge is neither inside a person nor outside in the world but exists in the relationship between them" (Conway & West, 2014, p. 23). Data is gathered through observations, focus groups, and personal interviews. Qualitative research seeks to reflect the richness of individual cases through "thick descriptions" and personal narratives (Geertz, 1973, p. 27). Creswell (2013) likens qualitative research to "an intricate fabric composed of minute threads, many colors, different textures, and various blends of material" (p. 42). Qualitative research is an improvisational and creative process (Graue & Walsh, 1998; Janesick, 1994). "The journey may not only lead to new knowledge; the traveler might change as well" (Kvale, 1996, p. 4).

Some scholars question qualitative research as an appropriate unilateral approach to inquiry in music education. Madsen argues: "There are things that can be counted and things that ought not be counted" (Conway & West, 2014, p. 53). Webster cautions: "I really do not believe that we can build a profession by looking at qualitative evidence only. I really believe that we need to create ways where we can blend these things in ways that lead us to know where effectiveness lies. We're not going to move very far without that kind of marriage" (Conway & West, 2014, p. 53). Onwuegbuzie and Leech (2005) agree with this assessment, adding, "Mono-method research is the biggest threat to the advancement of the social sciences" (p. 2).

Mixed Methods Research Design

I used a mixed methods research design for my study. Mixed methods research merges quantitative and qualitative methods, respecting the wisdom of both while seeking a workable middle ground (Johnson et al., 2007). Caracelli used the following definition: "A mixed method study is one that planfully juxtaposes or combines methods of different types (qualitative and quantitative) to provide a more elaborated understanding of the phenomenon of interest (including its context) and, as well, to gain greater confidence in the conclusions generated by the evaluation study" (Johnson et al., 2007, p. 119). Combining quantitative and qualitative data can lead to deeper insights and more compelling and informed findings (Johnson & Onwuegbuzie, 2004; Creswell & Creswell, 2018; Ivankova & Wingo, 2018; Miles et al., 2020).

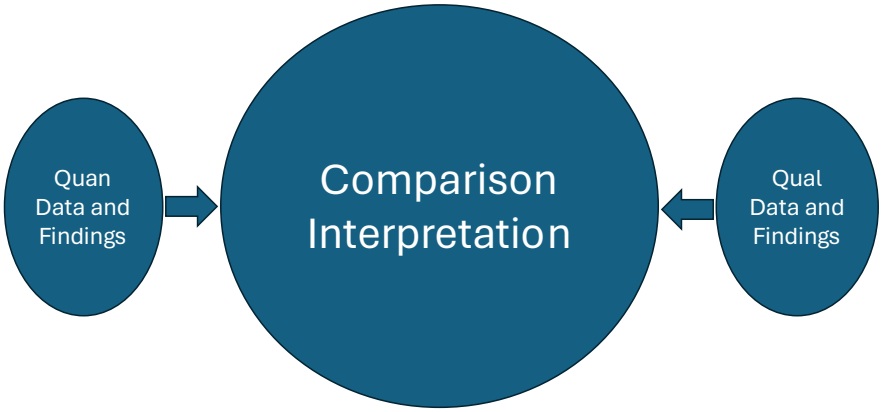
Mixed methods research has grown in popularity since the 1980s (Creswell, 2014); however, collecting qualitative and quantitative data was commonplace in many social sciences throughout the 20th century (Almalki, 2016). As early as 1991, Morse developed a notation system to aid in describing rudimentary mixed methods types (QUAL: specifying a majority of the research is qualitative, QUAN: specifying a majority of the research is quantitative, and lower case versions to indicate subservient roles in the research). These naming conventions are still in use today. Although mixed methods design continues to be debated by some research scholars, it now has distinct methodologies, procedures, and nomenclature (Creswell & Plano Clark, 2018). Within the social sciences, mixed methods research is viewed as a legitimate inquiry process (Almalki, 2016). McLafferty and Onwuegbuzie (2006) reject the idea that quantitative and qualitative research are dichotomous. This view aligns with many philosophers of epistemology who regard the blending of assumptions, beliefs, and preferred analytical techniques as a nuanced process (Johnson et al., 2004).

To clarify mixed methods designs, Plano-Clark and Creswell (2008) initially identified four main designs in mixed methods research: concurrent/triangulation design, the embedded experimental design, the sequential explanatory design, and the sequential exploratory design. In a more recent publication, Creswell and Creswell (2018) refer to the concurrent/triangulation design as a convergent parallel design. Current researchers use this terminology.

My study benefited from using qualitative and quantitative data as I explored creative thinking instruction in music. The voice of each teacher can be respected and reflected in the findings. I used a convergent parallel design for this study, as suggested by Creswell and Creswell (2018). I collected qualitative and quantitative data using an online survey and personal interviews. The online survey provided the most significant number of responses. The individual interviews added a greater depth of understanding. For the initial analysis, I considered each type of data separately. As shown in Figure 8, I integrated all data for further analysis and interpretation after this initial analysis.

Figure 8

Convergent Parallel Design for This Study



Research Questions

The research questions that guided this study were:

1. How do elementary general music teachers integrate creative thinking activities into their music instruction?
2. What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?
    - 2.1 How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?
    - 2.2 How do teachers' experiences and preparations in music education influence their practice of including creative thinking activities in general music instruction?
    - 2.3 How do contextual conditions influence the inclusion of creative thinking activities in elementary general music instruction?

Researcher Positionality

Positionality generally refers to what researchers know and believe about the world around them and is shaped by their life experiences (Smith et al., 2021). Beliefs and perceptions filter how individuals interpret everything (Bourke, 2014). Each researcher enters a study with certain ontological assumptions (beliefs about the nature of reality), epistemological assumptions (beliefs about the nature of knowledge), and axiological assumptions (beliefs about values that should guide interactions with the environment). "Positionality is normally identified by locating the researcher about three areas: (1) the subject under investigation, (2) the research participants, and (3) the research context and process" (Holmes, 2020, p. 2).

I spent the first 19 years as an elementary general music teacher. I experienced the challenges and embraced the rewards. In some respects, this made me an insider. However, as an

elementary school principal, I spent 17 years supervising and evaluating elementary general music teachers. In all that time, I rarely found being an insider an advantage. In fact, I found elementary general music teachers under my supervision uncomfortable and wary of being judged harshly despite evidence to the contrary.

During the pilot study, I considered all comments and suggestions, especially those of elementary general music teachers. I could not allow my preconceptions to interfere with potential modifications to either survey instrument. After spending 20 years away from teaching music, I rejected any assumption of my own expertise.

During the interviewing phase of the study, it was critical to consider any axiological assumptions. Although I disclosed my teaching background transparently, I recognized the need to exercise separation and remain focused on the interviewee's narrative (teleology). I created a safe, non-threatening space for the two in-person interviews. I casually engaged with the interviewee at the beginning of the virtual interviews. All twelve participants were given time before and after the questioning to ask for clarification or share concerns. It became more challenging to exercise separation during the later interviews, as I caught myself anticipating responses and wanting to chime in (deontology).

I had no personal connection with the survey participants. I provided my contact information in the online survey, but no participants reached out with questions or concerns. As I received the online survey results, I could not connect a person or face with the data. Age, gender, race, and ethnicity were invisible.

Since the interviews were personal, one-on-one conversations, I initially found it more challenging to consider this data objectively. During coding, these interviews were a recent memory. Although I was concerned about inadvertently making assumptions or dismissing the

data, the coding process blurred the personal connections. I could be objective when grouping the data by topic and theme. Assigning pseudonyms to the interview participants removed references to real names and ensured their information was confidential and secure. Once the coding cycles were completed, I was confident that the data collected from participants was anonymous (morality and fairness).

"Research is a process, not just a product" (England, 1994, p. 82). Although qualitative research represents a shared space between the researcher and participants, it is “inherently hierarchical” (England, 1994, p. 86). The researcher is also an instrument of the research (Holmes, 2020). Self-reflection and reflexive approaches are both necessary prerequisites and ongoing processes. Positionality is not static. It is always situational and context-dependent (Bourke, 2014).

My identity is a complex accumulation of my life experiences. I have often referred to myself as “an old white lady.” I was born and raised in Texas in the 1950s and 1960s. Neither of my parents was college-educated. I grew up in a white neighborhood and attended segregated white public schools. College was my first opportunity to engage with a diverse community. Relocating to Maryland was pivotal. I could network with diverse peers, which helped build my sensitivity and understanding. Still, it was not until I began unpacking my racial identity that I became aware of my white privilege and the extent of its influence. I realize I can never know what it feels like to be another person, but I continue to strive to learn and grow in self-awareness.

When I was younger, I thought old people were close-minded, opinionated, and resistant to change. Now that I am an old person, I know how important it is to be open to change and nonjudgemental. Nevertheless, I worried that I might directly or indirectly influence the

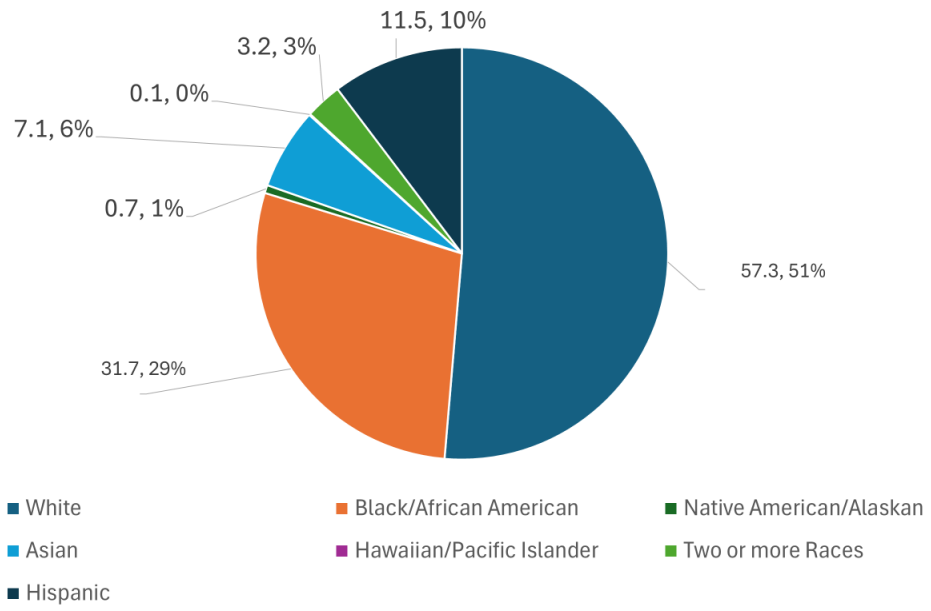
execution of this research or the interpretation of the data. Peshkin (1988) recommends self-examination by considering all our identities: the ethnic I, the community I, the worldview I, the justice-seeking I, the pedagogical I, and the nonresearch human I. Peshkin advises subjectivity audits that consider all these identities to counter those potential influences. I found his view of personal identity helpful in recognizing potential biases I could have interjected into this work. It was beneficial to conduct self-examinations before and after each interview. In addition, several of my cohort members monitored my self-assessment regime during this study. During the coding process, discussions with my committee chair served to keep my biases in check.

Context

Approximately 122,500 elementary general music teachers working in public schools throughout the United States touch the lives of countless young children each day (Sokanu, 2020). I selected elementary general music teachers employed in Maryland public schools as my sample for this non-experimental study. An estimated 780 teachers serve students in the 786 elementary schools (personal conversation with MSDE). Current Maryland demographics (U. S. Census, 2020), as shown in Figure 9, illustrate the diversity within the state.

Figure 9

2020 Maryland State Demographics



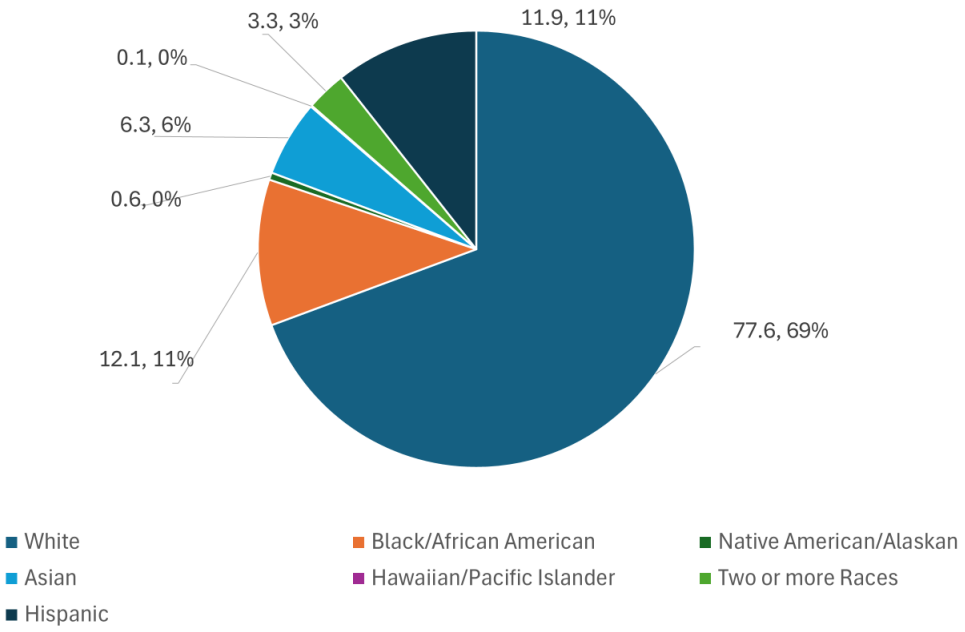
Note. From https://www.census.gov/quickfacts/fact/table/MD/BZA115221

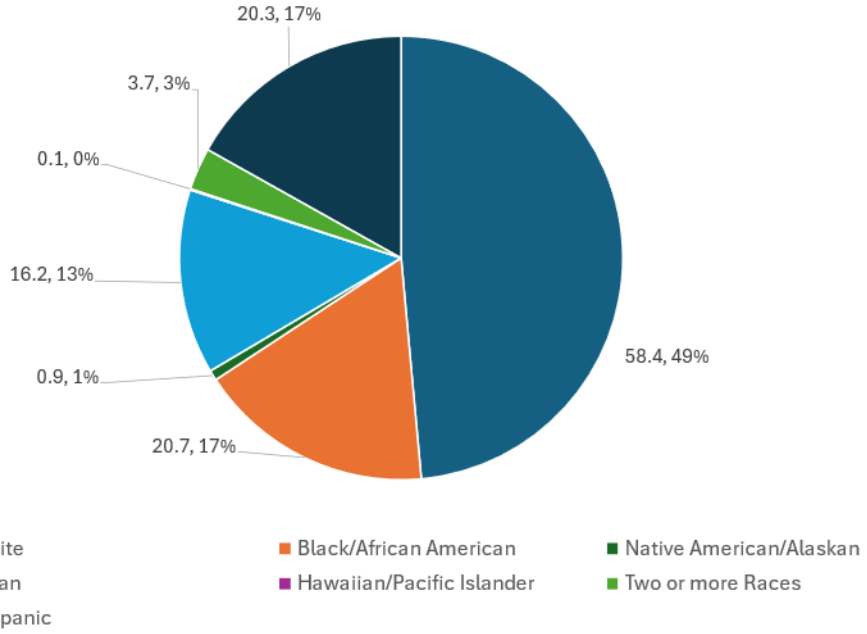
Information from elementary general music teachers was gathered using an online survey and personal interviews. I distributed the online survey through multiple social media platforms (Facebook, Twitter) and the Maryland State Music Teachers Association. After receiving permission to conduct research from Frederick and Montgomery County Public Schools, I contacted those elementary general music teachers directly through their school emails. Participation in the survey was voluntary and anonymous. Teachers completed the survey in any location with internet access.

I initially conducted personal interviews with teachers working in Frederick and Montgomery Counties. Each county has a large school system, and as shown in Figures 10 and 11, the diversity in these counties differs from that in the state. Frederick County has a higher number of White residents and a lower number of Black/African American than Montgomery County. Montgomery County has a higher number of Asian residents.

Figure 10

2020 Demographics of Frederick and Montgomery Counties





Note. From https://www.census.gov/quickfacts/fact/table/frederickcountymaryland/PST045222 and https://www.census.gov/quickfacts/fact/table/montgomerycountymaryland/PST045222

I considered the socio-economic characteristics of schools and ensured that the personal interviews captured data reflecting the diversity within the state. I contacted the music supervisors in each county for suggestions of potential candidates. Interviewees chose the location and time. After completing several interviews, I contacted several teachers in Washington County to include the perspective of teachers working in a mid-sized school system. Although several interviews were in person, most participants requested a virtual meeting using the Zoom platform.

I deleted all email exchanges immediately if any candidate declined an interview. Participants received transcriptions of conversations to review before any data analysis. Each had the option of amending the interview records to ensure that the information captured accurately reflected their thoughts. I stored all interview data in pseudonym-labeled files on my Hood One Drive. Each participant will receive a copy of the findings after the research is finalized. After that time, all personal data and contact information will be purged.

Data Collection Instruments and Methods

The data for this study was collected using an online survey and personal interviews. The online survey was available to all elementary general music teachers in the state of Maryland public school systems. Additionally, personal interviews were conducted to gather teacher responses to predetermined questions. The online survey collected both quantitative and qualitative data (open-ended responses). The individual interviews collected qualitative data.

Online Survey

I created the online survey (see Appendix D) used for this study. Many considerations guided the process, one of which was to balance the overall design by including several survey response questions that would capture quantitative and qualitative data (Alreck & Settle, 1995). The survey included Likert scale response questions, yes/no responses, multiple-choice, single-response, continuous scale, and open-ended response questions.

Likert (1932) developed scales to aid in analyzing and evaluating attitudes, knowledge, perceptions, and values. The Likert scale provides a range of answers on a spectrum. Respondents indicate their attitude or opinion (e.g., level of agreement or disagreement) by choosing from an evenly spaced set of ordered levels representing all potential options. Items may have a range of three to ten levels of responses. Likert scales are commonly used in surveys because they streamline response time for participants, are concise, and enable the researcher to obtain summated values that lend themselves to statistical analysis (Alreck & Settle, 1995).

Although Likert scale items are most prevalent in the survey, other question designs are incorporated. Yes/no questions are dichotomous, binary questions. These responses are nominal since they are not ordered (Saris & Gallhofer, 2014). Binary questions are efficient at capturing information for both respondents and researchers**.** Multiple-choice and single-response items are appropriate for responses that fall into discrete categories. Continuous scale items allow participants to manipulate a line over fixed reference points to indicate their responses. Continuous scales are more precise than other category scales and can be analyzed using interval-level statistics (Saris & Gallhofer, 2014). Open-ended response items are

optional opportunities for participants to share specifics or add additional information directly related to the preceding item in the survey.

Two existing data collection tools helped guide the design and content of this survey: Fairfield's (2010) Teachers' Perceptions and Practices of Facilitating Musical Creativity Survey and Dweck's (2006) Growth Mindset Scale (see Appendix E). In addition, I used the work of Webster (1987, 1990, 2002) to develop the content and ensure alignment with this study's purpose and the research questions (Alreck & Settle, 1995). Since clarity is essential to ensure accuracy (Alreck & Settle, 1995), several general music teachers previewed the survey before it was finalized.

The first six questions in the survey captured demographic information. The next group of questions asked participants to indicate their feelings about the content and purpose of the elementary general music curriculum. I based the content of these questions on Webster's examples of creative thinking activities (Webster, 2002).

How essential do you think these experiences are in an elementary general music curriculum?

a. Improvising melodies, variations, or accompaniments
b. Composing and arranging music within specified guidelines
c. Reading and notating music
d. Listening to, analyzing, and describing music
e. Creating movement to music

Lickert scale response choices: Very unessential, Unessential, Essential, and Very essential

The following group of 3 questions was an adaptation of Dweck's Growth Mindset Scale, targeting teacher mindsets about musical creativity and student capabilities.

a. Students have a certain amount of musical creative ability, and you can't really do much to change it.
b. Students' capacity for musical creative thinking is something about them that you can't change very much.
c. Students' capacity for musical creative thinking is something about them that you can't change very much.

In Dweck's Growth Mindset Scale (https://sparqtools.org/mobility-measure/growth-mindset-scale), responses are scored by adding respondents' answers to each item (1 = strongly agree; 2 = agree; 3 = mostly agree; 4 = mostly disagree; 5 = disagree; 6 = strongly disagree) and dividing by the total number of items (3). I duplicated these response choices in my survey. A score of 1 represents the highest degree of growth mindset (Dweck, n.d.). Dweck conducted validation studies proving its high internal consistency (.94 to .98) and retest stability (.80 across a two-week interval). These studies show that growth mindset measured by this scale is largely independent of other constructs, such as intelligence or optimism (Hong et al., 1999). Recent research has shown high internal consistency (.83 and .90) but far less test-retest stability (.67 and .45) across a four-month interval); however, the age groups used in the 2021 study (adolescents and adults) differed from those used in Dweck's validation studies (Rammstedt et al., 2024).

The following questions asked teachers' opinions about the supports and challenges that impact their instructional program.

a. Rate the degree to which you agree or disagree with the following statements:

b. I have the resources I need to implement creative thinking activities in my teaching.

c. I have enough time to implement creative thinking activities.

d. I have enough space to implement creative thinking activities.

e. Classroom management issues do not impact my ability to implement creative thinking activities.

f. Creative thinking activities (such as composition and improvisation) are part of my school district's music curriculum.

g. The building administrators at my school support my music program.

Likert scale response choices: Strongly Disagree; Disagree; Neither disagree nor agree; Agree; and Strongly agree

Do you face other issues or challenges when implementing creative thinking activities in your classroom? If yes, please explain: *Open-ended response*

The next item in the survey asked teachers if they assess creative thinking products.

Do you assess students' creative thinking products and provide feedback?

Response options are yes or no.

If yes, please explain: *Open-ended response*

The following questions asked teachers about their student grouping preferences for creative thinking activities.

Please indicate what grouping methods you use when providing creative thinking opportunities.

a. Students work alone.

b. Students work in small groups.

c. Students work in whole group.

Lickert scale response options: Never; Rarely; Sometimes; Almost always; and Always

Please explain the rationale for your most frequently used grouping method.
Open-ended response

The following survey questions asked teachers to identify the creative thinking activities they incorporate into their instruction and how frequently they are included per quarter.

Per quarter, how many times do you normally ask students in a given class to:

a. Create a song to sing using nonstandard notation

b. Create a song to sing using standard notation

c. Compose music to play on a classroom instrument using nonstandard notation.

d. Compose music to play on a classroom instrument using standard notation.

e. Improvise with their voices

f. Improvise with classroom instruments

g. Improvise with body percussion (clapping, patting, stomping, etc.)

h. Create movement or dance to music

i. Create listening maps to existing pieces of music

j. Arrange a pre-existing song, such as a folk song

Participants use a continuous scale to indicate how frequently these types of creative thinking activities are provided to students per quarter. The continuous scale ranges from 0 to 10.
Explain other creative thinking activities you have implemented in your classroom, if applicable: *Open-ended response*

The remaining questions in the survey asked about teachers' personal music experiences and training.

Please indicate your musical instrument concentration.

a. Brass

b. Guitar

c. Harp

d. Keyboard (piano and/or organ)

e. Percussion

f. Strings

g. Voice

h. Woodwinds

i. Other

Responses are selected from a drop-down list.

BEFORE your college or university program, how much instruction did you receive in:

a. Vocal composition?

b. Instrumental composition?

c. Vocal improvisation?

d. Instrumental improvisation?

e. Improvisation using body percussions?

f. Creating movement to music?

g. Creating nonstandard notation?

h. Creative listening?

Lickert scale response options: None; Small amount; Moderate amount; and Significant amount

DURING your college or university program, how much instruction did you receive in:

a. Vocal composition?

b. Instrumental composition?

c. Vocal improvisation?

d. Instrumental improvisation?

e. Improvisation using body percussions?

f. Creating movement to music?

g. Creating nonstandard notation?

h. Creative listening?

Lickert scale response options: None; Small amount; Moderate amount; and Significant amount

If applicable, explain other creative thinking activities you participated in BEFORE beginning your teaching career. *Open-ended response*

SINCE beginning your teaching career, how much training have you received in:

a. Dalcroze?

b. Orff Schulwerk?

c. Kodaly?

d. Gordon's Music Learning Theory?

e. World Drumming?

Multiple Choice response options: No formal training; Attended some workshops; Completed formal introductory course; Completed formal intermediate course; and Completed formal advanced course

SINCE beginning your teaching career, have you received training in other methods? If so, please explain. *Open-ended response*

I created this online survey using Qualtrics. The survey window opened once the Hood IRB process approved the study (see Appendix H). My original plan was to open the survey window for six weeks; however, the research approval process for one of the school systems took much longer than anticipated. As a result, the survey was active from March 2023 through the end of August 2023. I monitored the participation rate regularly. Participation was much lower than anticipated through May. As a result, I reached out to my elementary general music teachers' network and asked them to encourage others to participate. In addition, I contacted the president of the Maryland General Music Teachers Association to request that she advertise the survey through her channels. At the end of August, 64 teachers had completed the survey.

Response data remained housed in Qualtrics while the survey window was open. Once the survey closed, the Qualtrics application aided in the quantitative data analysis. I separated the qualitative data from the open-ended responses first, then used descriptive statistics to analyze

the quantitative portions of the survey. I coded the open-ended responses using the same process as responses from the personal interviews.

Personal Interviews

I developed interview questions for the personal interviews (see Appendix F) based on the work of Webster (1987, 1990, 2002). The research questions guided the development of questions designed to gather primarily qualitative data (Saldaña, 2011). I organized the questions using best practices of research design suggested by Glesne and Peshkin (1992) and Ribin and Rubin (2011). I began with a grand tour question, giving the interviewee a non-threatening prompt to start the conversation. Perception/mindset questions, listening, looking, & remembering questions, experience/behavior questions, and probing questions followed. The ultimate goal was to create a safe environment for the interviewee to gather the best information to inform this study (Brinkmann & Kvale, 2018; Glesne & Peshkin, 1992). To ensure the survey and personal interview questions were balanced and aligned with the research questions, they were charted and reviewed during the pilot for consistency (see Appendix G).

While the online survey was active, I conducted personal interviews. Interviewees chose the format and timing of their interviews and were given an overview of the questions in advance. As the Hood IRB guidelines required, each participant received informed consent to read and approve before the interviews (see Appendix I). I recorded the interviews and took some handwritten notes. I used Rev.com (recommended by some of my professors) to transcribe the interviews. When I received the transcriptions, I forwarded the narrative to each teacher for review. I scrubbed any personal information from the records once I received a response from the participants and used pseudonyms from that point forward. I stored all data files on my Hood One Drive.

Pilot Study

A pilot study can serve two purposes in social science research. It can serve as a trial run or small-scale version of a large study or be used to field test a particular research instrument (Van Teijlingen & Hundley, 2001). Pilot studies can help assess whether an instrument is a practical tool for collecting the desired data. Pilot studies bring an objective, fresh perspective that the researcher does not have (Kezar, 2000). Pilot studies also help identify issues or problems that might adversely impact data collection. Although conducting a pilot study does not guarantee success in a study, it is a best practice in social science research (Van Teijlingen & Hundley, 2001).

Before distribution, I conducted a pilot study for the online survey and personal interview questions. I enlisted select scholars, music teachers, and college students to complete the online survey and review the interview questions. Their expertise helped establish viability. Specifically, their feedback helped identify time concerns, potential bias issues, clarity of language, and, most importantly, content concerns. Experts contend that as few as ten participants can result in a meaningful pilot study (Hertzog, 2008; Johanson & Brooks, 2010; Thabane et al., 2010). Therefore, I formed a group of 10 to participate in the pilot. Concerns brought to my attention through the pilot study included:

a. the length and repetition of the survey
b. the language used in the creativity mindset questions of the survey
c. the lack of specificity of the interview questions

Based on the feedback from the pilot study, I reviewed the survey and collapsed questions when possible. I also tailored the survey structure to be more user-friendly if using a cell phone. I was not able to change the wording of the creativity mindset questions. The wording of those

questions had to be as faithful to Dweck's original as possible to maintain the validity of the scale scores. I reworked some of the language of the interview questions and added more sub-questions to encourage more specific responses. The pilot study was instrumental in improving both the online survey and interview questions.

Data Analysis Methods

The online survey and personal interviews collected qualitative and quantitative data, explicitly addressing the research questions (see Appendix I). I separated the qualitative and quantitative data from the online survey. Before any analysis, the interviewees transcribed, reviewed, and confirmed the interview recordings.

I used in vivo coding to analyze the qualitative data. I began by reading each interview transcription and highlighting anything that might describe an opinion, process, or an example of a learning experience. I followed this by repeating the process, using transcriptions I had not highlighted. I compared both sets of transcriptions and began capturing the exact language into a chart, creating an individual sheet for each interviewee. Once completed, I organized the data by topic and combined the individual sheets into one Excel document. At that time, I coded the qualitative data from the online survey and added in vivo codes to the master document. I analyzed the master by headings and sub-headings to see what patterns and themes emerged. I looked for patterns and themes and noted data representing an outlying perspective.

The quantitative data was analyzed using descriptive statistics to identify the characteristics of the data set. The analysis tools within the Qualtrics program allowed me to tease out specific data relevant to answering the research questions. I used charts created by Qualtrics to display the data discussed in the findings.

Delimitations

Factors that impact the inclusion of creative thinking education are complex and well beyond the scope of this research. This study explored creative thinking instruction in elementary general music from the music teacher's perspective. The teacher's voice was the only voice.

The online survey was limited to elementary general music teachers from Maryland public schools. Only 64 teachers completed the survey. I interviewed twelve teachers. Due to the sample size, the data was insufficient for a robust statistical analysis. Data gathered through these tools might yield different results for different populations.

A significant concern was the lack of distinction between creative thinking activities and creative thinking instruction. Although providing creative thinking activities during instruction does not guarantee that creative thinking instruction is taking place, there is no possibility of creative thinking instruction without creative thinking activities. A larger conversation is required to clarify those distinctions, and that conversation is well beyond the scope of this research.

Trustworthiness

Establishing trustworthiness in mixed methods research is critical. Using a mixed methods approach, I relied on data triangulation to establish trustworthiness (Denzin, 2012; Flick, 2004). In addition, I applied Guba's (1981) four aspects of trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability.

Triangulation

Triangulation is the practice of using multiple methods and data sources in research (Denzin, 2012). The purpose of triangulation, however, has broadened over time. Mathison (1988) views triangulation as a vehicle for strengthening the validity of research findings. Denzin and Lincoln (2008) see triangulation as a strategy for gaining additional knowledge. Others

believe triangulation is synonymous with mixed methods (Fielding, 2010). In reality, all of these definitions are true in mixed methods research. I collected data from multiple sources using online surveys and personal interviews for triangulation in this study.

Credibility

Credibility can be described as identifying the truth value. Acknowledging and exploring competing themes strengthens truth value. Anomalies (negative cases) are not simply exceptions to the rule. They are catalysts for broadening, changing, or disputing the rule (Patton, 1999). Interviewees review interview transcripts for accuracy (member checks). The descriptions from actual situations add depth to the analysis. The researcher regularly engages with peers to critically review progress. The researcher may also debrief with superiors consistently throughout the process.

To build credibility, I provided each teacher with an interview transcription to review and approve before coding. This member-checking strategy allowed teachers to amend or supplement any of their responses during the interviews. I also included anomalies or competing themes that emerged during analysis and included thick descriptions offered by teachers, whether during interviews or in response to open-ended prompts in the survey. I engaged with peers to challenge my thinking (Wolcott, 2008) and met regularly with my committee chair during the research's data collection and analysis phases.

Transferability

Although qualitative research cannot be replicated in the same way that quantitative research might, the trustworthiness of qualitative research can be strengthened by its capacity to be transferable to another situation. Transferability is the potential that findings might apply to

other cases (Guba, 1981). For this consideration, the researcher must provide detailed contextual information to help identify situations with similar circumstances while maintaining the necessary confidentiality. The use of thick descriptions and detailed information about every phase of the study can aid other researchers in determining the viability of a repetition of the study. However, transferability is debated in the qualitative research community.

I explored factors that might impact creative thinking instruction in elementary general music. I certainly believe that aspects of my research are transferable in some capacity. In fact, another researcher's work influenced how I crafted many of my survey items. However, as I was planning this research project, transferability was not a high priority.

Dependability

Dependability is the consistency of processes used in the study. The details provided in the narrative of the research design and its implementation illustrate dependability, which is strengthened by transparency and reflection (Shenton, 2004). The use of overlapping data strategies builds dependability. Audit trails and accurate records are essential components.

During the coding process, feedback from cohort members helped focus my processes and procedures. In addition, conversations with my committee members brought clarity during the data analysis. My committee chair was instrumental in the organization of the research findings.

Confirmability

The last component of trustworthiness is confirmability. Confirmability is the objectivity with which the data is handled (Guba, 1981). Although every researcher has values and beliefs

that influence how they view the world, the commitment to research free from bias is paramount. Reflexive self-assessment practices strengthen confirmability.

A mixed methods approach gave me a broad and deep data set. I reflected before and after each interview to help recognize and prevent unintended bias. Conversations with my mentor and peers further supported my goal for objectivity. Merging the quantitative and qualitative data identified points of congruence and incongruence. This process elevated the trustworthiness of my research.

Conclusion

This chapter has explained the design of this study. The paradigm of pragmatism has been discussed, and a thorough explanation of mixed methods research followed. The instruments used to collect data were discussed, and the connection to the research questions was highlighted. The choice of setting, sample, and participants and a description of the data collection process were provided. A description of the pilot study was followed by an outline of the intended data analysis. Boundaries and delimitations of the study were identified, followed by a discussion of an implementation plan to ensure trustworthiness.

Chapter 4 will discuss the qualitative and quantitative analysis process and the findings that surfaced as these data were merged. Chapter 5 will explore the findings as they relate to current literature and theory, further discuss limitations, and share implications, ending with conclusions and reflections.

CHAPTER 4: FINDINGS AND ANALYSIS

Chapter 4 presents the findings of the data analysis gathered to answer the research questions developed to address the purpose of this study. The purpose of this study was to

explore factors that contribute to the inclusion of creative thinking instruction in the elementary general music classroom. I examined the perceptions, preparation, and practices of elementary general music teachers and contextual conditions that might facilitate or hinder creative thinking in general music instruction.

Research Questions

The research questions that guided this study were:

1. How do elementary general music teachers integrate creative thinking activities into their music instruction?
2. What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?
    - 2.1 How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?
    - 2.2 How do teachers' experiences and preparations in music education influence their practice of including creative thinking activities in general music instruction?
    - 2.3 How do contextual conditions influence the inclusion of creative thinking activities in elementary general music instruction?

Context of Research

Participants were limited to general elementary music teachers in Maryland public schools. Public schools within a state have similar academic programs. Their teachers work with the same state curriculum. And they administer the same federally-mandated tests.

This mixed methods study used a convergent parallel design. I used an online survey and personal interviews to collect the data. I designed and circulated an electronic survey through Qualtrics to all Maryland elementary general music teachers. In addition, I conducted personal

interviews using a set of questions I created to address the research questions. I supplemented the qualitative data from the interviews with individual teacher responses from the survey.

Most responses from the online survey provided quantitative data, which was analyzed using descriptive statistics. Rich qualitative data was gathered from twelve personal interviews. This qualitative data was supplemented by personal responses provided through the online survey.

I analyzed the interview data after transcribing the conversations and receiving approval from each interviewee. I relied extensively on the coding processes outlined by Saldaña (2021). I began by highlighting portions of the text that stood out or captured the teacher's perspectives well. I completed a second round of coding using unmarked transcriptions and then compared highlighted words or phrases in both rounds. I transferred this data into an in vivo coding chart suggested by Saldaña (2021), which I amended slightly to accommodate summary coding data, more extensive quotes, and pseudonyms. Once this process was completed, I analyzed the data for patterns and trends.

At this point, I added the qualitative data gathered from the online survey results. A last addition to the data chart was a column indicating the relevant research question (see Figure 11).

Figure 11

Sample of Codebook Chart

RQs	CATEGORIES	SUBCATEGORIES	CODE	DESCRIPTION	SUMMARIZED DATA SAMPLES	IN VIVO CODES	QUOTES	PSEUDONYM

Since I had created the coding chart using Microsoft Excel, the additional columns were helpful as information was sorted and consolidated.

The coding process moved from a micro level of individual data bytes from each interview to a macro level of all interviews and survey contributions. Upon completing open coding, I began the process of axial coding (drawing connections between codes). Distinct categories emerged when considering the data holistically, morphing from sub-headings into headings and themes. This qualitative data is presented in a narrative form.

The data is organized by research question. The quantitative and qualitative data findings follow a brief description of the participants. A summary of the results concludes this chapter.

Participants

The population for my study was all elementary general music teachers working in public schools in Maryland. I attended the Maryland Music Educators Annual Convention in March (2023) to personally distribute business cards with my contact information and a QR code link to the survey. In addition, I posted information about the survey on my LinkedIn page. I advertised the survey on several Facebook groups and connected with the President of the Maryland General Music Teachers Association for assistance in encouraging participation. I also contacted elementary general music teachers I knew personally to ask them to contact their colleagues. A total of 105 teachers responded to some degree. Of those 105 responses, 64 were complete and formed the basis of the survey data.

As teachers completed the survey, they were able to indicate an interest in participating in a personal interview. I arranged two interviews by following up with these teachers. I also contacted music teachers directly (after obtaining school system approval) to see if they would

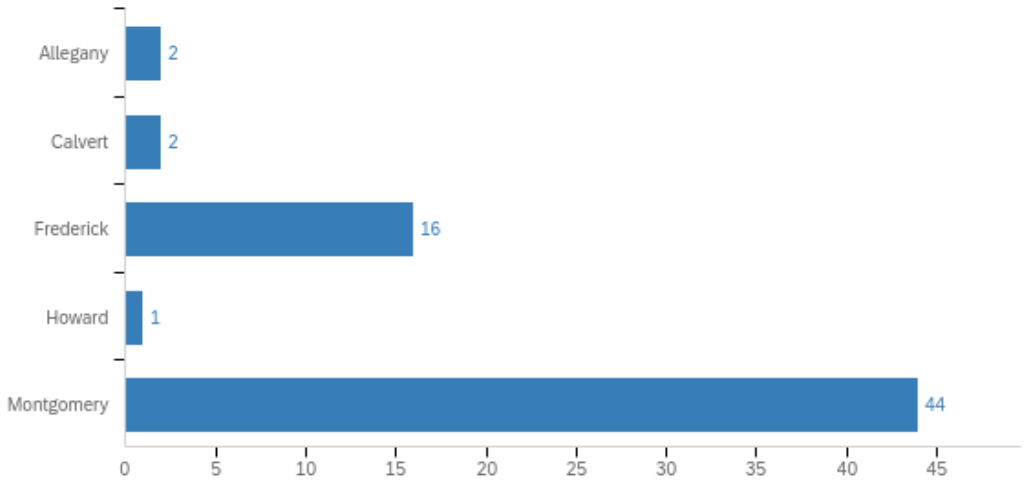
be willing to participate in an interview. Ten teachers agreed to an interview as a result of my request.

Online Survey Participants

Although elementary general music teachers participating in the online survey remain anonymous, contextual data shows that most teachers came from Montgomery and Frederick Counties. A few Allegany, Calvert, and Howard Counties teachers participated (see Figure 12).

Figure 12

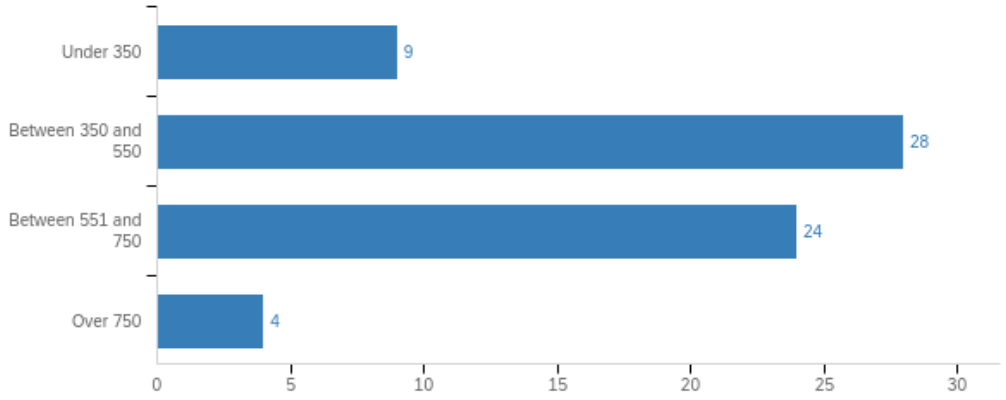
Number of Teacher Responses by County/City



Most teachers who completed the survey work in schools with less than 750 students. Only four indicated working in a school with an enrollment of over 750. Fifty-two teachers are serving students in schools with enrollments between 350 and 750. Nine are in schools with less than 350 students (see Figure 13).

Figure 13

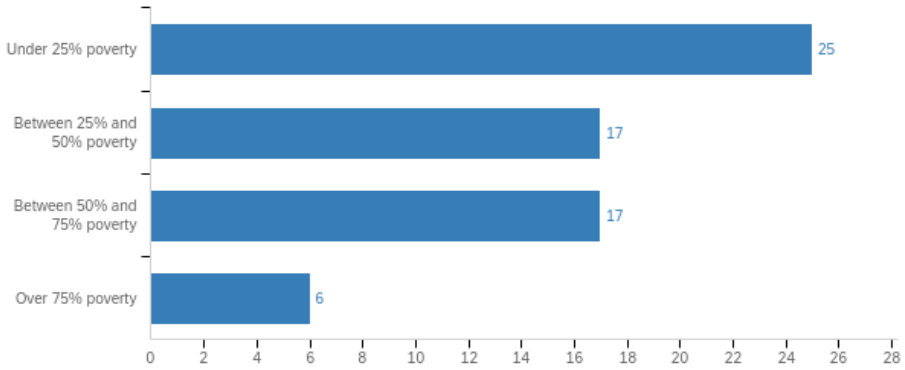
Student Enrollment of Primary/Home School



An indicator used to calculate the poverty level in Maryland schools is the number of students that receive free or reduced-price meals (FARMS) through the federally assisted meal program (National School Lunch Program). Only six teachers working in schools with over 75% of poverty participated. Thirty-four teachers work in schools with poverty ranging from 25% to 75%. Twenty-five teachers serve schools with poverty levels up to 25% (see Figure 14).

Figure 14

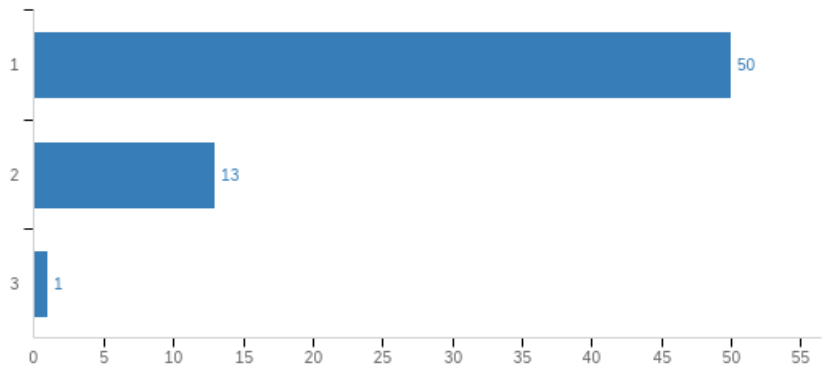
Percentage of Poverty in Primary/Home School



Overwhelmingly, teachers indicated that they meet with students once a week. Thirteen of the teachers meet with students twice weekly. Only one teacher reports seeing students three times each week (see Figure 15).

Figure 15

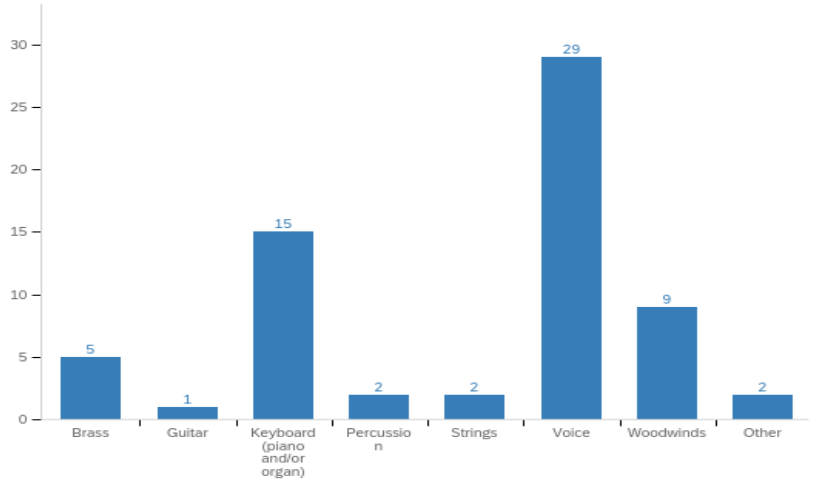
Number of Classes for Students Each Week



Teachers shared their primary musical instruments. Of the teachers participating in the survey, 55% come from an instrumental rather than a vocal background (see Figure 16). According to the data, the majority of instrumentalists had a piano/keyboard or woodwind background.

Figure 16

Primary Musical Instrument

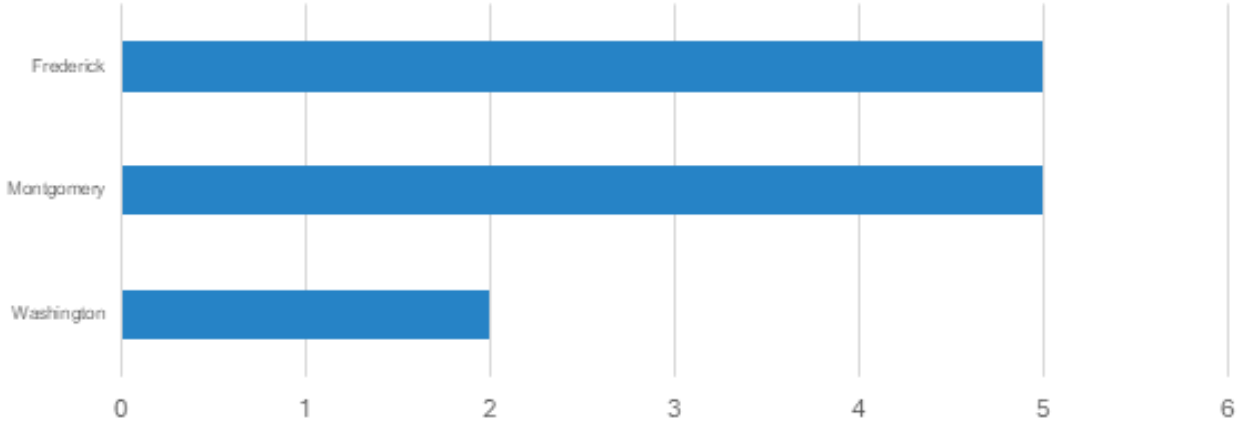


Personal Interview Participants

Twelve elementary general music teachers participated in the interviews. Ten teachers currently work in two of the largest school systems in Maryland. The other two teachers currently work in a mid-sized Maryland system (See Figure 17).

Figure 17

Number of Teacher Interviews by County/City



The interviews ranged from 50 to 80 minutes. All participants were given pseudonyms from characters in Disney movies to ensure their anonymity. I used pseudonyms when referencing data from specific interviews. A brief description of each participant follows.

Alice

Alice is a teacher with 15 years of experience working in a large Maryland school system. She grew up in a musical family. Her father was a self-taught musician, songwriter, and performer. She took dance lessons as a child, performing through high school in various shows. As an adult, she was a dance troupe member for many years. She began studying violin and entered college as a performing arts major. Alice added music education courses to her studies during college, anticipating that she would ultimately teach orchestra. Her plans changed when she accepted an elementary general music teaching position and "just fell in love with working with younger kids." She went on to become Orff Schulwerk certified and attended many workshops and conferences to supplement her skills. Alice also has helped write the curriculum for her school system. She is an elementary general music teacher in a large Title I school. Alice continues to perform on the violin.

Ariel

Ariel grew up in a musical family. Her parents are musicians, and she was interested in martial arts and music as a child. Ariel took private piano lessons for four or five years. She was part of the choir in high school. Ariel attended college as a music education major and is beginning her fourth year of teaching. She worked in 2 different school systems in Virginia before moving to a large system in Maryland last year. Additionally, Ariel is completing a master's program in music. As part of that program, she has completed her Orff Schulwerk certification. Ariel arranges and composes choral music for elementary choirs.

Belle

Belle enjoyed dancing and singing from an early age. Her family was not musical but always supported her interest in the arts. She also took piano lessons for eight years. Belle became involved in musical theater and attended an arts high school during her junior and senior years. After attending college for music education, she took a position as an elementary music teacher in a large Maryland school system. At the time of the interview, Belle had just completed her first year of teaching.

Charlotte

Charlotte did not grow up in a musical family but became interested in the clarinet in elementary school. She switched to bass clarinet in high school and began taking private lessons. In addition to taking band in high school, Charlotte participated in county band, orchestra, and state band. She received a music scholarship to college, but her parents were concerned with her intention to become a music teacher. After receiving a music education degree, Charlotte initially struggled to find a position. She eventually accepted a position teaching elementary general music, although her training focused on instrumental music instruction. She transferred to

another after one year of teaching in one of the large Maryland school systems. Charlotte has consistently taught elementary general music. She has worked for over 15 years in this system, teaching in three different schools.

Ella

Ella grew up in a family of pianists. Both her mother and grandmother were well-known in their country. Ella began playing the piano early and attended a competitive music school through high school. She continued her study of music in college. Due to unforeseen circumstances, her family immigrated to the United States. Ella gradually began teaching elementary general music in a large school system in Maryland while honing her English speaking skills. She has remained in this system as an elementary general music teacher for 20 years. In addition to her work in elementary music, Ella maintains a piano studio of private students.

Jack

Jack grew up in a family that enjoyed music and encouraged him to develop his skills as a musician. After taking up the trumpet in elementary school, he switched to French horn and played in band and orchestra in both middle and high schools. Jack took private lessons in both piano and French horn. In high school, he taught himself to play the guitar and formed bands outside of school with friends. Jack also began playing percussion. He entered college as a performance major until an unfortunate event made it impossible for him to continue playing the French horn. Jack switched to a music education major, seeking to teach band and orchestra in middle and high school. He became disinterested in band or orchestra due to the contest-driven model used by most school systems. Jack landed at a large Maryland school system as an elementary general music teacher and has been in this position for 25 years. He has served as a

mentor for new general music teachers and has supported curriculum writing. He is an active composer of a variety of music. Jack continues to perform in bands throughout the area.

Mary

Mary grew up in a musical family. Her father was a singer. He performed in bands and sang in choirs. Although Mary remembers singing her entire life, she never joined a chorus until college. She began playing the flute in elementary school and continued to play in middle and high school. Mary intended to become an instrumental music teacher but, with counsel from her advisor, took both choral and instrumental methods classes. She remembers dreading her elementary school student teaching assignment, but, in her words, "The kids sang, and I swear to you, the clouds parted, and I never looked back." She has worked in a large school system in Maryland for 18 years. Mary's current teaching assignment is in a medium-sized elementary school that serves a diverse community.

Peter

Peter has fond memories of his family enjoying music. He played violin in elementary school but switched to flute for middle and high school. The global pandemic interrupted his college experience, and he took classes virtually for the last two years. Peter completed his student teaching in a virtual environment. He accepted a position in a mid-sized school system in Maryland and has been teaching elementary general music for three years.

Riley

Riley's parents were not musicians. Her father was a school principal. Although she wanted to take violin lessons in elementary school, her parents gave her a choice between clarinet and cello. She chose the clarinet, and the rest is history. Riley took private lessons on and off during middle and high school and took band in school. Initially, she was going to college for

a music education degree, but changed to performing arts, much to the dismay of her family. Riley participated in most performing groups, including chorus and chamber singers. After teaching private lessons for many years, she joined a large school system as a paraeducator. After several years, Riley returned to school to gain certification as an elementary general music teacher. She just completed her first year of public school teaching. Riley does not teach private lessons anymore and rarely performs. Her husband of many years is a working musician.

Sebastian

Sebastian was born in South America. His family immigrated to the United States when he was six years old. They weren't necessarily musical, but his uncle plays guitar and uses other stringed instruments when playing music from his country. During elementary school, a friend suggested that he start playing the trumpet so they could be in class together. Sebastian stuck with it, but his friend did not. In a few years, Sebastian taught himself to play his dad's guitar, and soon after, he began playing drums. In middle and high school, Sebastian played in the jazz band and participated in the youth orchestra. He worked with a private teacher in high school who helped refine his technique and bolster his music reading abilities. Although he didn't see himself as a musician, it "eventually kind of hit me that this might be my thing." Sebastian went to college on a trumpet scholarship, but his parents were concerned that he could not make a living as a musician. During college, he performed with many ensembles and as a soloist. Sebastian chose to take music education courses in addition to his performance-focused ones. Inspired by an "exceptional educator" during his student teaching, he followed the elementary school path. Once Sebastian began teaching, he recognized the need for additional training and completed a master's program in Kodály. Sebastian has been teaching in a large school system in Maryland for eight years. He is currently pursuing a doctorate.

Violet

Violet's parents were not musicians, but they enjoyed listening to music and singing in their church choir. Singing was often part of family gatherings, and her parents bought an organ and piano for the home. Violet began taking piano lessons in first grade and continued through high school. She did not participate in either band or orchestra but did play for some of the shows. Violet began college as a performance major but switched to music education by the end of her sophomore year. During this time, she began teaching private piano lessons and continued teaching privately for many years. Her student teaching experience was in middle school. After college, she served as a church musician for five years. Violet taught elementary music for two years in a private school before being hired as an elementary music teacher in another state. However, she discovered that she would be teaching fourth grade. She relocated to Maryland two years later and accepted an elementary general music teacher position in a large Maryland public school system. Violet has remained with that system for 20 years. Her current school has a large special education program and serves a diverse community.

Wendy

According to her parents, Wendy was born singing. She joined the chorus in middle school and began taking private voice lessons. In high school, Wendy was in the acapella choir, competed in contests, and sang in other venues. Although starting college as a performance major, she quickly realized that she did not want to have a career as a performer or a private voice teacher. During student teaching, Wendy became "enthralled" with elementary general music. After graduation, she accepted a position as an elementary general music teacher in a large public school system in Maryland. Wendy has been teaching for five years. She currently works in two schools. Her home school is small and located in an upper-middle-class

neighborhood. Two days a week, she teaches at a large elementary school that serves many low-income families. Wendy is in the process of earning her Orff Schulwerk certification.

Integrating Creative Thinking in Music Instruction

My first research question sought to learn about the creative thinking activities that elementary general music teachers incorporate into their music instruction. I was interested in identifying specific types of creative thinking activities and how frequently teachers offer these activities during instruction. I was also interested in learning how teachers group students for creative thinking activities and how teachers assess these creative activities and the resulting products.

Types and Frequency of Creative Thinking Activities

The online survey asked teachers to indicate how often they included creative thinking activities in their instruction each quarter using a sliding scale of 0 to 10. Organizing responses by a nine-week quarter aligns with the grading period in Maryland public schools and the curriculum documents arranged by quarter. The survey describes ten creative thinking activities encompassing movement, listening, improvisation, and composition (see Table 3).

Table 3

Types and Frequency of Creative Thinking Activities

Creative thinking activities	Number of times in a quarter										
	0	1	2	3	4	5	6	7	8	9	10
Creating a song to sing using nonstandard notation	9	15	15	9		1		2	1	4	
Creating a song to sing using standard notation	6	26	10	7	5				1		2
Composing music to play on a classroom instrument using nonstandard notation	9	14	16	6	9	3	2	1			

Composing music to play on a classroom instrument using standard notation	4	23	15	6	4	4	2		1		2
Improvising with voices	9	7	12	7	1	2	3	4	2	5	7
Improvising with classroom instruments		3	13	9	8	9	3	3	9	1	1
Improvising with body percussion	1	7	7	9	5	6	3	9	7	2	3
Creating movement or dance to music	1	7	14	8	3	4	3	3	6	2	11
Creating listening maps to existing pieces of music	12	16	9	2	3	1	1	1	1	1	
Arranging a pre-existing song	11	11	5	4	1			1			1

Teacher survey responses identify movement as the most commonly used creative thinking activity. Teachers indicated that improvisation with classroom instruments and improvisation using body percussions were the next most common opportunities for students to engage in creative activities. Improvisation with voices, however, was not that common overall, but it showed that seven of the responding teachers provided vocal improvisation activities more than ten times a quarter. Composition of all types ranked as one of the least frequent activities. Responses for creating listening maps and arranging music indicated that they were either never part of instruction or provided to students only once a quarter.

The survey gave teachers an option to provide details from their lessons. I asked teachers to share examples of their creative thinking activities during the interviews. I compiled data from both sources to provide an in-depth narrative of examples of creative thinking instruction.

Using Movement to Develop Creative Thinking

Eleven of the twelve teachers interviewed indicated that their most frequently occurring creative thinking activities involve movement. Long before children come to school, they learn to do new things with their bodies. Whether jumping or crawling or performing pantomimes like

yawning or swimming, young children are active learners who comfortably express themselves with their bodies, making movement an easy entry point to creativity. Many teachers echoed the connection between young children and movement. “Toddlers sing and dance before they can speak” (Alice). “Movement happens in every single class at every single grade level” (Violet), and “There is always movement” (Jack).

Roles of Movement during Instruction

Teachers pointed to the multiple roles of movement during instruction. Some teachers use movement as students enter the room to ease the transition into class and set the stage for learning. Others spoke of using movement to redirect student attention or provide closure to instruction. “Movement serves a lot of purposes in any classroom setting. It prepares the mind. It gives the body a break. It increases your airflow. It releases tension” (Jack). “I try to do sign language. We do breathing. I show them exercises to relax before we listen to certain things” (Ella).

Teachers working in schools with high numbers of emergent multilingual learners (EMLs) and special education students (Ariel, Charlotte, Mary, Sebastian) shared the advantages offered to these students when they participate in creative movement. Movement provides an access point for students acquiring English proficiency and certain special needs students, especially non-verbal ones. Teachers referred to movement as an equity tool, giving all students opportunities to be engaged in learning by offering non-language-based instruction requiring action-based responses.

Movement acts as a reinforcer. Teachers gave examples in the primary grades using large body movements like walking and marching to help internalize the beat of music. Body percussions (clapping, patting) help children experience rhythms. Movement contributes to the

understanding of fast-slow and high-low. As children enter the upper grades, body movements can become more intricate, involve more fine muscles, and prepare students for understanding more complex music structures. “Music is a physical activity to me. Always it influence(s) every muscle in our body” (Ella). “If you get it in your body, it will then eventually get to your brain, but your body needs to understand it before your brain can” (Riley).

In addition, the visual nature of movement can serve as a monitoring tool to access students’ conceptual understanding. Teachers shared the challenges of assessing students. Due to the nature of the schedule of an elementary general music teacher, new groups of students arrive five or ten minutes after another group leaves. Teachers have limited opportunities to reflect on student performance in individual classes. Having a visual way to check for understanding during instruction gives teachers quick opportunities to determine how individual students are acquiring and using new knowledge. It also gives teachers instant feedback on the clarity of their lessons. “The body shows what’s happening. If it [the music] goes up, body goes up. If it goes down, it [the body] goes down. If it goes fast, it goes fast. If it goes slow, it goes slow. So usually when we hear the music, we start moving to it” (Ella).

Intertwined Nature of Movement and Listening

When students are engaged in creative thinking activities involving movement, their product is a response to a stimulus. Typically, this stimulus is aural in nature. Alice described this as an “intertwined” relationship between movement and listening.

Belle shared an example of a lesson in which students (K-1) used movement to describe how a specific piece of music made them feel by portraying an animal of their choice. Mary described a lesson in which groups of students created movements for different sections of a piece (rondo) and then performed their sections for each other.

Using Listening to Develop Creative Thinking

Teachers most often framed listening as a catalyst for an observable creative experience. Although creative listening is an active process, it occurs inside the listener and does not result in an automatic demonstrative product. Movement was the most frequently used way to express creative listening, especially in the younger grades. "As they're [students] a little bit older and writing is not as much of a challenge, [they can engage by] doing some creative listening with either drawing what you hear, creating a story, or answering questions" (Alice). Three of the twelve teachers interviewed gave examples of creative music listening without movement.

Musical Quilt Creative Listening

A musical quilt is a creative listening experience based on the visual of a patchwork quilt. Instead of using small pieces of cloth, a musical quilt uses short samples of different types of music. Music samples can come from different musical eras, genres, or cultures. Ariel described a quilt activity where students listened to snippets of folk music from various cultures. Students stood in a quilt square grid placed on the floor. Each student began by stepping into a square. As the music selections changed, students moved to a different quilt square. In this example, the movement was not part of the creative experience. The movement signaled the end of one music sample and the beginning of another. Students experienced unfamiliar music intended to expand their sound repertoire through creative listening.

Listening Map Creative Listening

Listening maps are visual representations of creative musical listening. Listening maps are often drawn by the listener and serve as a visual representation of the music. Listeners may create listening maps using pictures, symbols, or lines during the listening process. A listening map is highly adaptable. Words are unnecessary. Students needing support may use preprinted

cards. In discussing her instruction, Mary shared that listening maps allow each student to illustrate how they visualize the "journey" of the music from beginning to end. Once the listening piece is over, students may listen again while following their map to hear the music. These maps can even be shared with others, providing a third listening guided by a listening map created by another student.

A different listening map creative thinking activity described by a survey participant asked students to listen to music and then draw what they imagined the music was about. Students shared their drawings in small groups. The groups identified the similarities and differences in their drawings.

In another listening map activity provided by a survey participant, students created a visual representation of the rhythm or melody in a known folk song. They could choose iconic (invented) notation or manipulatives for their visual display. Once completed, students were able to share their work with the group.

Sound Story Creative Listening

Sound stories provide students the opportunity to arrange a story to music. They begin by listening to a story from children's literature, not music, but require the creative comprehension of the story elements. Students reimagine the story in sound and movement. Many teachers gave examples of using improvisation with literature during interviews or in the survey. These sound stories may occur at the moment or may become more complex compositions. Students typically have options for choosing from multiple musical instruments or manipulatives such as pom poms, mini popsicle sticks, scarves, magnetic flashcards, and more.

Audiation Creative Listening

Audiation allows students to hear music inside their heads. It enables students to organize, retrieve, and even predict music sounds. Audiation is a critical musical skill in improvisation and composition. An example of creative audiation shared by Violet uses a well-known tune (e.g., “Mary Had a Little Lamb”) performed with parts of the tune missing. Students do not know what parts will be unsung but must be ready to begin on the correct pitch when singing resumes. Another example shared by Jack uses the major scale. After singing the scale, students sing the correct pitches when he signals. Initially, Jack may only ask students to sing pitches within an ascending or descending scale. Over time, this may become a more complex challenge as he selects scale steps out of order. In the primary grades, the instruction focuses “on really honing in on matching pitch, really developing their ear and really listening” (Wendy). Building aural skills over time increases “their [students’] ability to learn music from listening” (Ariel). In their responses, teachers emphasized students' need to audiate while creating.

Using Improvisation to Develop Creative Thinking

Improvisation is the creative activity of musical composition in the moment. Improvisation may include moving and listening and, at times, be impromptu and unorganized. Teachers, however, spoke most often about improvisation as a more complex process than simply moving to music. They described improvisation as strategically aligned with actual class instruction, drawing on skills students have already developed and new techniques they are exploring. Improvisation focuses on the building blocks of music: rhythm, melody, harmony, meter, and form. These ideas capture the essence of the conversations: “It may be a rhythm only. It may be a body percussion. It might be using a rhythm instrument. It might be using a melodic instrument. But there is always making of your own music in my class” (Jack). “It’s

[improvisation] a good way to improve your skills" while expressing yourself (Belle). "It's not just about an improvisation, it is about working on the quality of the improvisation" (Peter).

Rhythm-Focused Creative Improvisation

Students can experiment by adding rhythms after demonstrating the steady beat on classroom instruments. For example, Sebastian asked students to list their favorite summer foods. The naturally occurring rhythms in those words served as a jumping-off point for improvisation (e.g., hamburger = ♩♪♪). The class identified the rhythms inherent in the words, practiced chanting them, and then chanted and played them on the instruments. Once students were comfortable with the rhythms, they improvised their own rhythmic pattern using the word rhythms. "If you want to go fast, use the watermelon (♬♬), watermelon, watermelon, watermelon."

Rhythm-focused improvisation can also occur when students take known songs and dances and create new dance steps based on their preferences. For instance, when moving around the carpet to the folksong "Hop Ol' Squirrel," a survey participant asked students to improvise new movements before replaying the song.

Melody-Focused Creative Improvisation

Melody-focused creative improvisation can come from using your voice or melodic instruments. After becoming familiar with singing the folksong "Alabama Gal," Sebastian introduced the dance. While dancing, an empty transition occurred as students moved back into position between verses. He asked students to improvise a vocal interlude using "lu" between verses of the song.

Although most teachers shared examples of improvisation that gave students opportunities to explore as a precursor to composition, Ella offered this example of

improvisation as a performance goal. Improvisation is a core element of jazz. She worked closely with an individual student to perform a solo in a chorus performance that included scatting.

Another example of a melodic improvisation activity began with students performing a simple bordun (tonic and dominant pitches in a repeated pattern). Jack asked individual students to improvise using two notes in that pentatonic scale for eight beats. Periodically revisiting this lesson gave students an easy pathway to more challenging melodic improvisation by the end of the school year.

Harmony-Focused Creative Improvisation

To help students explore the possibilities of their voices, Violet played "Don't Worry, Be Happy," recorded by Bobby McFerrin. After listening, she revealed that McFerrin had used his voice for every sound and created the recording by multi-tracking. Students were placed in small groups and tasked with creating a vocal accompaniment to the chorus (8 measures) of the Irish folksong "Rattlin' Bog." Students created their accompaniment by the end of the first class period, then reviewed and rehearsed in the second. Each group improvised for the class using a recording of the song. "From kindergarten on, I'm encouraging kids to experiment with their voice and find alternative ways of using their voice for improvisation" (Wendy).

Meter-Focused Creative Improvisation

Mary shared an example using the nursery rhyme "Hickory Dickory Dock" as the basis for discovering meter and rhythm. Once the students were comfortable reciting the rhyme in unison, they used xylophones configured to a pentatonic scale to improvise melodies. This activity allowed students to explore improvisation in 6/8 time, which conveys a feeling of two but has six beats per measure (compound duple meter).

Form-Focused Creative Improvisation

Form-focused creative improvisation is multi-purpose. Students have the opportunity to improvise while actively listening to the music. Listening skills are improved because students must know when to start and stop their improvisation while exploring different music forms. Teachers most often referred to 2-part (AB), 3-part (ABA), or rondo form (e.g., ABACA) when describing form-focused improvisation.

After introducing and practicing the Mexican folksong "La Raspa," Peter asked small groups of third-grade students to improvise a new movement for the A section of the dance. The small groups then performed their movements as everyone sang and danced. A survey participant shared a similar example. Using "Für Elise" by Beethoven, kindergarten students were given scarves and asked to improvise during the A section. In this example, students were simultaneously improvising to the music.

Using Composition for Creative Thinking

During the interviews, teachers characterized composition as the most complex creative thinking activity in elementary general music. Composition occurs when students turn their unique musical ideas into created musical works, and teachers spoke of the importance of engaging students in composition activities in all elementary grades. Movement, listening, and improvisation reinforce music skill acquisition and strengthen students' ability to compose over time. As students transition from primary to upper grades, teachers gave examples incorporating elements of the creative process into composition activities. Composition becomes a multi-class endeavor, resulting in a product that is captured (written in some format) and can be reproduced.

Students can struggle with composition, especially at the beginning. By definition, composition requires students to formulate a musical idea as the first step. Students must then turn that idea into a musical product. Many teachers echoed the importance of giving students

structure through guidelines and parameters. “I always give parameters when I’m looking for a bigger activity because I feel like it just frames the activity for the kids, and then they don’t waste time trying to figure out some elementary steps along the way. I mean, music is a one-day-a-week activity. We cannot waste time in music class” (Jack). “[I want students to have] room to make their own decisions and have ownership of what they’re creating within structure that all kids need” (Alice). “You need to give them enough parameters so that they understand exactly what they need to do, but give them enough room so they have some ability to stretch it. The level of production was unbelievable” (Riley).

Composing an Ostinato as an Accompaniment

Violet shared a lesson on composing an ostinato (persistent, repeated pattern) accompaniment for “Mary Had a Little Lamb” in her fourth-grade classes. She began by playing a portion of Ravel’s “Bolero.” Students were already familiar with the term ostinato and were asked to identify and describe the ostinato in the music. Then, using “Mary Had a Little Lamb,” she guided the class through identifying the song’s structure. Students mapped out the measures and meter (16 measures, 2/4 time). Students then grouped themselves in self-selected groups. They could create either a rhythmic ostinato to perform on the rhythmic instrument of their choice or a melodic ostinato to perform on the melodic instrument of their choice (preset to a pentatonic scale). By the end of the first class, groups agreed on a pattern. During the second class, students revisited their patterns, making any adjustments they wished. Then, students wrote the patterns using a 16-measure frame. Students had the option of using invented or standard notation. The following class period, groups practiced their ostinato before performing for the rest of the students. As part of the fourth class, groups were randomly paired and taught each other their ostinati.

Composing a Jingle

A teacher shared through the survey that her upper-grade classes compose jingles as public service announcements or a part of puppet shows. The school's new show features these compositions. Initially, when introducing the concept, she gave examples of jingles and had students talk about what they heard. From that experience, the students described what a jingle included. Students are given topics and work together to compose text and then set the text to music. Students must share their ideas with others to get feedback as they work to finalize their jingles. Once completed, the jingles are performed and recorded in class. One jingle is randomly selected and shared in a news broadcast.

Composing using Technology

A survey participant reports using a digital audio workstation (DAW) to create compositions with upper elementary students (e.g., Chrome Music and Bandlab.edu). Although the learning curve for teachers can be substantial, the teacher feels compelled to provide creative activities for students using these currently free tools. "This is how they consume music, so we must use musical preference to help facilitate that." Before students begin using the programs for specific compositions, they have time to explore in peer groups. Some programs assist students with music-writing skills, making the music-creating process more accessible. Sebastian and Belle have also introduced technology into student composition. Students can use the electronic keyboard to hear their musical ideas as they brainstorm without interference from competing classroom noises (using headphones). Many students may continue exploring these tools outside of music class since they are readily accessible. Both Riley and Belle emphasize the need to explore music technology further, not just for use in the elementary music classroom but for potential students' interests in the future. "It's [music] such a big industry, and kids still think that

oh, if I wanted to be a professional musician, my choices are I could be a teacher, or I could be a pop star" (Ariel).

Composing a Song

Several teachers shared examples of songwriting. Some teachers plan this process for years, beginning with students composing a new set of lyrics or rhythmic accompaniment to a familiar song. These experiences help students understand the relationship between words and rhythm and meter, moving from simplistic rhythmic structures to more complex ones. Teachers may follow this by having students listen to present-day popular music and identifying the elements of those songs that make them compelling. Young composers usually draw on familiar music before extending and changing what they know to create something new.

Sebastian typically asks students to create a rhythmic structure when creating songs. Once the rhythmic structure is defined, it serves as a guide for composing lyrics. At this point, the activity usually shifts from a whole class activity to small group or even individual work. Once the lyrics are written, it is time to create a melody. Ultimately, students create a harmonic accompaniment for the melody. Sebastian may tape or record the songs to share with others. On occasion, lower grades attend a class concert. Students can share their recordings with their families. "I will often guide this process throughout the year and use the songs we have created in our final performance" (survey participant). "Singing a pop song at promotion is nothing. Singing something they wrote….that's something special and more meaningful" (Charlotte).

Composing a Soundtrack

Another example of composition shared by a teacher through the survey is creating a soundtrack for a silent film. This work is similar to a sound story. The text is the basis for the creative thinking activity in a sound story. In a soundtrack, the silent film guides the creative

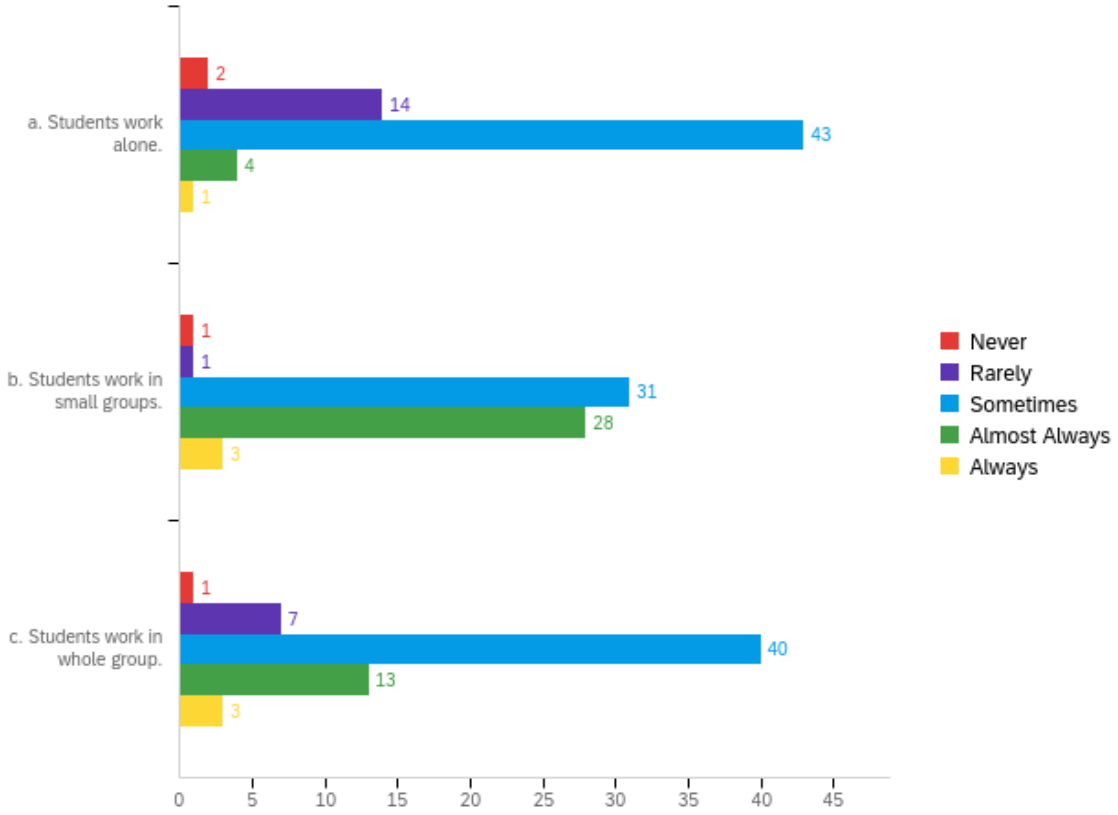
thinking activity. Due to its complexity, this activity spanned multiple class sessions. A short silent film was shown to students numerous times as the teacher supported them in identifying and characterizing points in the story. Small groups of students created music for specific portions of the story. Once the groups finished, students performed their respective parts during the silent film. Students gave each other feedback, and revisions followed. Replaying a recording of the performance enables the students to be the audience for their combined composition. Creating a soundtrack gives students an alternative way of thinking about sound stories and a window into the movie industry.

Grouping Students for Creative Thinking

The survey asked teachers to identify their preferences when grouping students for creative thinking activities. Response choices included whole group, small group, or alone. Their responses indicate that most teachers approach grouping flexibly (see Figure 18).

Figure 18

Preferred Grouping of Students for Creative Thinking Activities



The most commonly occurring responses for each type of learning configuration were sometimes or almost always. Teachers were less likely to have students work alone (16 rarely ever or never); however, most teachers indicated that students may sometimes work alone (43). Data from the interviews align with the survey results. Teachers acknowledged that students can engage in creative thinking activities in various ways and provided examples of activities better suited for a particular grouping. Modeling, teachers shared, was more appropriate for a whole group setting. Small groups were often used when groups of students were collaborating on a creative activity. The nature of the creative thinking activity determined the choice of grouping to provide students with conditions that encourage the best creative results.

Whole Group Creative Thinking

Teachers shared that the most common use of whole group is the teacher-led modeling of a creative thinking activity. Modeling ensures that all students receive the same messages about the process and have an opportunity to ask questions and seek clarity. During the whole group, students participate by making suggestions, indicating agreement or disagreement, and performing the resulting product as an example for others or in unison. A teacher participating in the survey believes using whole groups in primary classes can maximize time on task by eliminating transitions and allowing teachers to monitor understanding better. However, another teacher from the survey cautions some students may get lost or excluded during a whole group activity.

Small Group Creative Thinking

Although teacher-led modeling is considered best in a whole group setting, other creative activities are better suited for students working in small groups or pairs. Teachers from the survey voiced many benefits of students working in small groups. Students may feel more comfortable and "more willing to take risks and try new things." Students are less likely to be overlooked and have support from their peers. Small groups help support those who are not as confident in their ideas to be heard and contribute. "I have a lot of ELL [English language learner] students. Group work is super helpful for them." As students engage in discussion, "creativity flows better" because they can "bounce ideas off of one another." Students have "more creative freedom" and may "come up with ideas that they might not have thought of on their own." Working in small groups "builds social-emotional skills, problem-solving skills, allows peer tutoring and support in learning, sparks different ideas, and supports higher order thinking/executive function."

Other advantages echoed by teachers of small group activities include less arguing and fewer ideas to consider, resulting in more collaboration. From a management perspective, small groups allow teachers to interact more frequently and effectively with students, providing support and feedback as needed. One survey participant added this thought. “In the creative arts, while we are sometimes able to work alone, we often need to know how to collaborate with others through a creative process.”

Teachers responding to the survey did raise several concerns about students working in small groups. For example, “some students may just copy their partners and not be creative.” More vocal students may overshadow other students and limit opportunities for group members to hear and consider everyone’s ideas. “Students collaborating in small groups is great, but sometimes this creates students who are insecure about creating on their own.”

Individual Creative Thinking

Teachers acknowledge that some students prefer to work alone. When students make choices about grouping, this preference is usually honored. Teachers recognize the benefits of individual creative thinking. “The creative process often involves the initiation of ideas that are (eventually) shared with others” (response from survey). Some teachers believe that students should engage in creative work individually, feeling that students function at the highest levels when creating independently. “This allows each student to show their own creativity and not be overshadowed by someone else in a group setting” (response from survey).

Student Choice when Grouping for Creative Thinking

Teachers most often let students group themselves. However, teachers occasionally discussed grouping students strategically, pairing more capable students with less confident students. They rationalized that stronger students usually support the learning of others.

However, several teachers thought it appropriate to group stronger students at times. “They have that higher level of thinking, and then they allow themselves to really take it above and beyond” (Ariel).

Order of Grouping for Creative Thinking

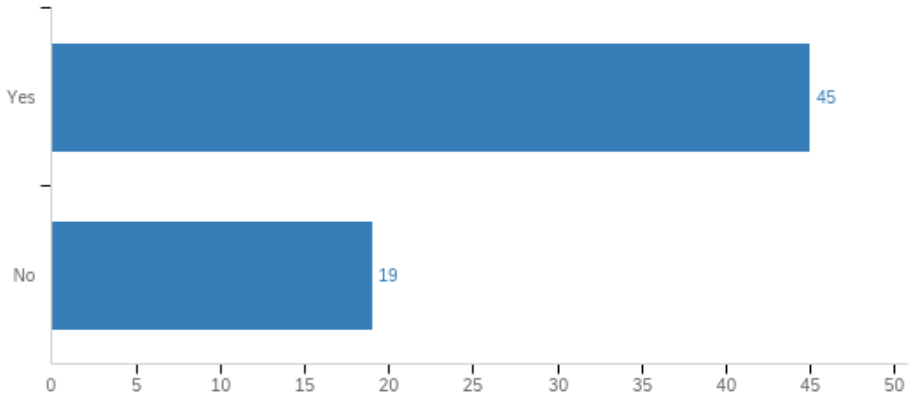
Teachers differ in their thoughts about the best grouping order during creative thinking activities. Many teachers feel that the activities should flow from whole group to small group to individual work: “an I do (whole group modeling) we do (small groups with my assistance) you do (individual) model” (response from survey). Other teachers, however, switch the order and prefer whole group to individual to small group, believing this to be the best. In their minds, this gives students time to formulate individual ideas after the whole group modeling. When they move into small groups, students can share their initial thinking. Teachers believe this structure encourages more individuality, peer feedback, and self-reflection.

Assessment of Creative Thinking

As shown in Figure 19, seventy percent of the teachers participating in the survey indicated they assess creative thinking products.

Figure 19

Assessment of Creative Thinking Products



Teachers expressed strong opinions about the assessment of creative thinking during the interviews. Alice, Ariel, Jack, Mary, Sebastian, and Violet believe assessing creativity is inappropriate. As a result, these teachers struggle with their school system's expectations for grading creativity or creative thinking products.

Rubrics for Assessment of Creative Thinking

When teachers assess creativity, they overwhelmingly give examples of using rubrics, often district-created. However, when discussing the nature of the rubrics, teachers point out that these rubrics assess technical music-writing skills and not creativity. The rubrics are often nothing more than a list of items needing to be included (e.g., the number of measures required, the accuracy of the note writing, the agreement of notes and meter). Neither creative thinking nor creative products lend themselves well to traditional or standardized assessments. "Zero creativity. There could be kids that would technically check every box, but if you actually played what they wrote..." (Alice).

In response to ineffective rubrics, some teachers continue to explore other rubric options, seeing the value in providing clear guidelines to students. Several teachers spoke of using a checklist of expectations, including documentation of peer feedback with or without a response, evidence of revisions, self-assessments, student performances, or self-reflections on the creative process. Other elements that some teachers may include in their rubrics are positive group participation, documentation of giving feedback, and listening respectfully to the performance of others. Although these do not address the students' creative product, they are essential behaviors contributing to a creative classroom atmosphere.

In some cases, teachers indicated they have students build their own rubrics for creative thinking activities. Teachers can see what students value when creating. This information is beneficial in determining where to go next in their instruction (Mary).

Feedback for Assessment of Creative Thinking

Teachers cited feedback as the most commonly used assessment tool during the interviews. Teachers believe feedback is an efficient and effective means of engaging with students during creative thinking activities, especially when working in small groups. The small group structure helps teachers connect with all students in a class and provide verbal feedback to a particular group or specific student in real time. Teachers see the value of giving feedback when the creative process is underway. Sometimes, this feedback is informal and unfocused, commenting on something the teacher likes, hears, or sees. Still, more often, teachers spoke about giving focused feedback in the form of questions as students worked to refine their creative products. Examples include:

- Can you read this?
- Are you able to play this?
- Does it sound like you are coming home at the end?
- What did the other people in your group say?
- Do you think this sounds good?
- Do you think something is missing?
- Why did you choose this?

Due to time constraints, none of the teachers spoke of providing written feedback to students during creative thinking activities. Violet shared this sentiment. “[It] doesn’t do them any good to get feedback a week later because they aren’t in the moment.” Written feedback,

when provided, is most often given at the end of a creative activity. It may be an exit slip, checklist, or a short narrative that includes comments about the creative product (examples provided through survey responses and interviews).

Learning Environment for Creative Thinking

Teachers recognize the classroom environment's impact on creative thinking activities. During the interviews, teachers spoke about the challenges caused by the spread of COVID-19. Public education moved to a virtual platform. As students returned to in-person learning, educators had a heightened awareness of students' social-emotional struggles. Restrictions to discourage infection spread impacted classroom practices. Peter shared his struggle to provide creative, appropriate general music instruction when students initially returned to buildings. Small group activities were impossible, singing and instrument playing were compromised, and students remained in their regular classroom during music to decrease movement in the building. All of these factors limited the opportunities for creative experiences.

Although the pandemic threat has subsided, teachers see the residual effects. Students, as a whole, seem less confident learners. Charlotte shared that in the music classroom, "Everybody can hear. Everybody can see you move." She pointed out the negative consequences when students feel belittled or teased. Recognizing that positive environments help students feel empowered to take risks and share their creative efforts, teachers spoke of building classroom climates that are welcoming and safe. During interviews, teachers stressed the importance of establishing positive, trusting relationships with students. Many gave specific personal examples of a "fantastic music teacher" (Mary), a teacher that "influenced and encouraged me" (Charlotte), or a "phenomenal orchestra teacher. He was just wonderful. I'm still close to him" (Alice). Another teacher voiced being "grateful thinking back to all of the different music

teachers…that helped me along" (Sebastian). Emphasizing the power of the student-teacher relationship, Ariel spoke of her priority of "getting them [students] comfortable with me and often with each other to start to take those risks." Teachers also see the benefit of remaining in the same school. "I've been at the same school now for five years. And the difference in what I can do with kids five years down the road? It's just day and night" (Wendy).

Student Capacity for Creative Thinking

An unexpected theme from the interviews was a lack of student capacity for creative thinking. Teachers explained that typical elementary school assignments can be completed during class. The assignments have clear instructions. Students complete the tasks by supplying responses that are either correct or not. The creative process is much different.

The creative process can be daunting for students. Teachers spoke frequently about the need to build student capacity for creative thinking because the pathway to creativity does not follow a straight line. Without experiences from which they can draw, it is easy for students to become frustrated and give up during a creative task. "Even though they really want autonomy and want to make choices, when they're given the opportunity to do all of that, they shy away from it because it's messy" (Mary). Students may have a framework to guide them but no specific directions. "They don't want to experiment" (Charlotte). "So they [the students] would say to me like, oh, can't you just tell me what you want? Yes, I want to hear what you're thinking" (Mary).

The creative process requires time and effort, but students are used to tasks that are completed quickly with a speedy response. Teachers spoke of the struggle to build students' stamina and grit while honoring students' needs for instant gratification (Ariel, Charlotte). It can be difficult to identify ways of celebrating small steps in a process that is not linear.

Students do not like to make mistakes. Instead, most like to do it right the first time. However, making mistakes is inevitable in the creative process, and a more creative product often results. Teachers expressed the difficulty of creating a culture of mistake-making as an opportunity in the school environment (Alice, Mary). From Ariel's perspective, building a creative culture takes time. She seeks to transform students' attitudes "so that down the line they're more open to the creative process of allowing something to flop and just kind of rolling with it." Wendy shared, "I try to model the importance of making mistakes to try and build some tolerance for it. That's the one thing that I battle all the time."

A central theme in the interviews was the importance of embedding pieces of the creative process in every lesson and providing just enough structure so that students have the stamina and confidence to meet the challenges of creative work. As early as the primary grades, teachers spoke of giving students opportunities for choice during instruction. The choice in a lesson might be as simple as choosing between playing a steady beat with rhythm sticks or hand clapping, but gradually builds into more impactful choices like writing an accompaniment using pitched or non-pitched instruments (Alice, Ella, Jack, Mary). Exercising choices give students some control over their learning (Ariel, Peter). Teachers, however, acknowledge that giving choices is "relinquishing power back to the students" (Sebastian) and is not always easy.

In conjunction with helping students build a personal skill set that can tackle creative thinking tasks, teachers spoke about assisting students in understanding and navigating different aspects of the creative process. Learning about the steps in the creative process happens as students learn music content. For example, Ella shared that when teaching crescendo (gradually becoming louder) and diminuendo (gradually becoming softer), students typically show their understanding as they move, sing, or play instruments. Students may also recognize these

changes in dynamics as they listen to music. Her next step is to ask students to create a movement improvisation to music with crescendos and diminuendos. Demonstrating their knowledge becomes a guideline for the improvisation.

Several teachers took this idea of connecting instruction to the creative process further. Mary stressed the importance of developing students' understanding of the components of music. She gave the example of a rhythm.

> Can you do it? Can you read it? Can you write it? Great! Can you put it into context of something that we're doing? If I give it to you, does it make sense? Do you understand how it interplays with this? But the last thing I would do for them is, okay, so if you really understand it, you're going to be able to use it in something that you generate for yourself.

Similarly, when teaching the tonic (do) in music, Mary spoke of connecting do to a feeling of being home, then adding that expectation to compositions. "You're going to want to start on either sol, mi, or do because it's around home, and we want to start at home and come back home" (Mary). When listening, Mary helped students recognize basic compositional techniques, like repetition and contrast, and then incorporate some of them into their compositions. "These are things that composers have done over time that have worked. What do you think? Do you like it? Do you not like it? What do you like about it? What don't you like about it? How would you do it differently? What from their work would you borrow?" (Mary).

Feedback from peers is a valuable part of the creative process. Teachers spoke about the importance of teaching students how to give feedback. Initially, teachers spoke of providing students with a sentence starter like "I liked _____." Over time, teachers suggested these sentence starters could include, "I liked _____ because _____." The feedback might move from

an “I liked” prompt to a “I noticed _____” or “I noticed _____. What made you choose that?” From this point, the peer feedback can become an opportunity to engage in a discussion that might ask more about the choices made while creating and include revision suggestions. Jack prefers thinking about these peer exchanges as critiques. “I think critique is maybe a better way to think about it, where you’re really letting kids talk to each other about what they heard, what they would’ve liked to have heard more about, and that has the most impetus for change.” As teachers build feedback-giving skills, they also acknowledge the need to develop feedback-receiving skills. Teachers shared that it is not always easy for students to give or receive feedback respectfully!

Giving quality feedback is a thoughtful process requiring active listening. As teachers discussed listening, there was a common belief that listening skills need more direct instruction. Peter spoke of the struggle of “figuring out how to do a listening kind of activity and still have the kids be present and actively listening.” Ariel concurred, “It’s been really hard fighting that attention span. Longer time listening activities were a struggle. They zone out really quick.” Teachers think that improved listening skills will benefit all students engaged in the creative process, whether giving or receiving feedback.

Teachers believe guidelines are essential as students develop their understanding of the creative process. Guidelines move from concrete requirements (e.g., number of measures; Have I written down something that others can understand? Can I perform this?) to more aesthetic decisions (e.g., Does my melody sound good? If not, what changes will I make?). Students make judgments about their work and move back and forth in the creative process based on these judgments. Students must also consider feedback from others. They share their work with peers and teachers, receive comments, and make more decisions. Alice and Mary shared examples of

using guidelines or checklists to assist students with the feedback-reflection-revision process. "Did you do this? Were you able to play it? Did you get feedback from your friends? Did you choose to accept the feedback? Why or why not? And that really shows me that they are following the creative process" (Jack).

Students have a product to share with others at the end of the creative process. Students may share during in-class performances, gallery walks, performances for other students, and recordings. Many teachers see this as an additional opportunity for feedback to individual students or the entire group (e.g., "I wonder" statements, "glow and grow" reflections).

Factors that Impact Creative Thinking in Music Instruction

My second research question explored circumstances that could potentially impact a teacher's ability to include creative thinking activities in elementary general music instruction. I looked at three possible influencers: teacher perceptions about creativity and creative abilities, teacher experiences and education, and contextual factors experienced in the workplace. I began by gathering data from the survey and the interviews to form a knowledge base in each area. Once this data picture was complete, I looked for links or connections when comparing teacher perceptions, teacher experiences and education, and contextual factors with instructional practices.

Teacher Perceptions of Creativity and Creative Thinking

Personal beliefs about innate musical talent and its relationship to creative capacity influence teacher perceptions about musical creativity and creative thinking. If teachers perceive talent as a requirement for musical creativity and creative thinking, then students without innate musical talent do not benefit from creative thinking activities. On the other hand, if teachers

perceive a student's capacity to engage in creative thinking in music is not determined by innate musical ability, all students can benefit from creative thinking activities.

Teacher Perceptions of Creative Capacity

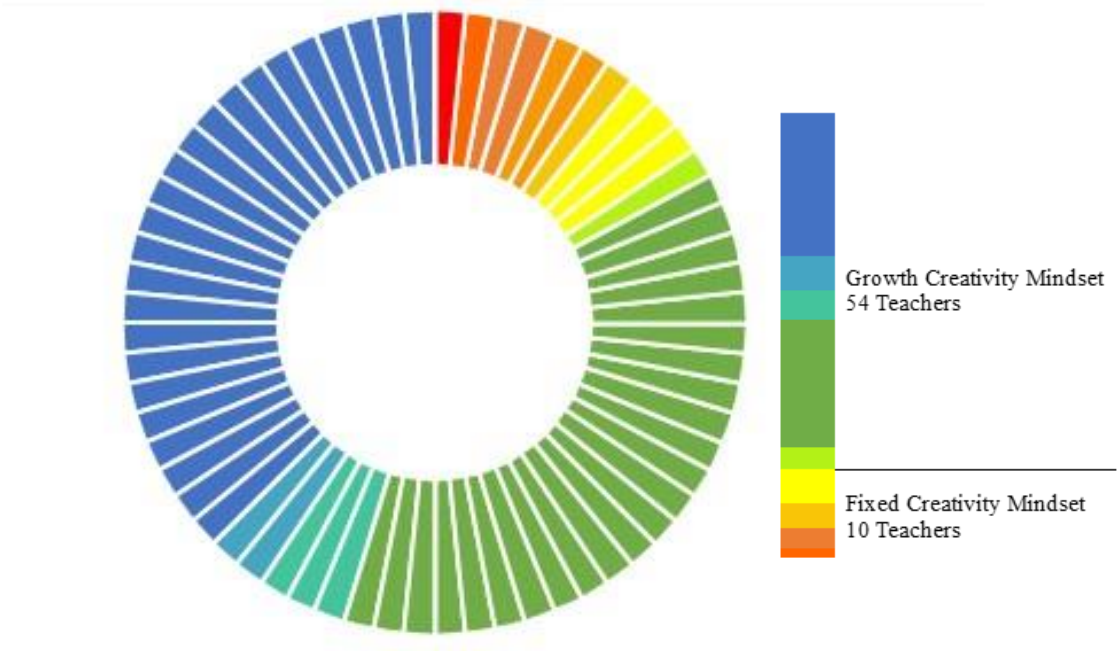
To capture teachers' perceptions in the survey, I modified a mindset scale developed by Dweck (Dweck, n.d.; Dweck et al., 1995). Teachers responded to the following three statements:

- Students have a certain amount of musical creative ability, and you can't really do much to change it.
- Students' capacity for musical creative thinking is something about them that you can't change very much.
- Students can learn new things, but you can't really change their musical creative ability.

Response options included Strongly agree (5), Agree (4), Neither agree nor disagree (3), Disagree (2), and Strongly disagree (1). Responses provided a scale score for teachers representing their perceptions of students' abilities to think creatively in music. I define this as a creativity mindset. A scale score of three indicated a completely neutral position. For the purposes of this research, I decided to consider all scores lower than three to be indicative of a growth creativity mindset and scores three and higher to indicate a fixed creativity mindset. Using this interpretation of the scores, 54 teachers participating in the survey scored in the growth creativity mindset range and 10 teachers in the fixed creativity mindset range (see Figure 20).

Figure 20

Creativity Mindset of Teachers Participating in the Survey



Interviews with teachers about musical talent revealed divergent opinions. Three of the twelve teachers firmly believe that musical talent exists and that it is innate. “I do believe that there is an innate talent in people” (Charlotte). “I think there is” (Riley). “Absolutely, there is musical talent. Some kids have more” (Ella). Teachers spoke of “outliers” (Sebastian, Violet) or people with “extraordinary” (Jack) and “amazing, unexplained gifts” (Peter). Alice cautioned that “access” to musical experiences profoundly impacts how we recognize talent. “I really think it’s just about exposure.” Sebastian spoke about how we view or qualify talent, questioning whether we use notions from our Western classical training to judge high value or high quality. Wendy was the vocal skeptic. “I do feel like talent is overrated, even if there is such a thing as talent. And I don’t know that I believe that there is.”

Some teachers acknowledged people having “music aptitude” (Ariel, Sebastian), a “natural inclination” (Belle), or “tendencies that come easy.” (Violet). Ella suggests that

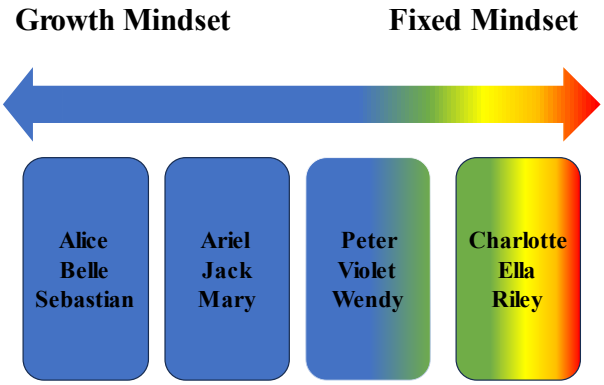
languages can impact children's musical abilities. For example, the lyric quality of Chinese may foster natural singing ability. Other examples include the connections between the articulate style of Russian and German speakers and musical rhythmic patterns or the relationships between the percussive nature of many African languages and drumming. Some teachers referenced good eye-hand coordination, fine motor skills, and a good ear for matching pitch. "What really exists is interest. My focus is not so much talent as an innate gift, but more talent as almost like a drive" (Sebastian). "I could sing as a college person, not because I was musically talented, but because I sang growing up my entire life" (Mary).

At the same time, teachers cautioned that a lack of music experiences before beginning school might negatively impact students' capacity for music creativity, especially in the early grades. "If they [students] don't have experience…they cannot show the creative thinking because they don't know how" (Ella). "In the olden days…music was the heart of family entertainment…now, it is not a part of everyday life for folks…You get kindergartners that have really no experience with authentic music making" (Alice). "They don't play music at home. They don't do dance parties. They don't sing" (Charlotte).

The divergent opinions about innate talent and creativity made it challenging to identify the creative mindsets of the interviewed teachers. Based on the use of keywords and the nature of teachers' conversations, I chose a creativity mindset that I believed best matched their individual perspectives. Similar to the survey results, these teachers' creative mindsets fall on a continuum and not necessarily in a category (see Figure 21).

Figure 21

Teachers' Musical Creativity Mindset Range from Interviews



Creative Potential of Elementary Students

Most teachers believe students can demonstrate creativity in elementary general music regardless of student propensity or deficits. “No one has such a leg up…no kid who’s going to have such a deficit that they cannot contribute in a lesson. I don’t think, especially in the general music classroom, that music talent means anything” (Ariel). “You can go really far with the right dedication and instruction and work” (Riley). “We start to foster this creativity by making students aware of the choices that they’re making. Are they doing it intentionally?” (Mary). “I think it’s [creativity] the most accessible part of music” (Belle). “Often the most creative thinking in students comes from the students who wouldn’t necessarily be [thought of] talented” (Violet). “I have taught in schools with special programs for students who struggle, and I have found that they also are capable of showing great creativity. You might have to look for it more closely or differently than you do for the general population, but it is there. All you have to do is watch” (Jack).

Importance of Creative Thinking in Elementary School

During the interviews, teachers discussed the importance of including creative thinking activities in their elementary general music classes. “I think it is mandatory to include creative opportunities. Having worked in elementary school, I can tell you firsthand that there are very few opportunities for kids to be creative in school, and music is vital for the development of that creative thought” (Jack). “Every human being is capable of creativity. And I think that it’s our job as teachers to provide opportunities to grow and to foster it. I think the importance of including creativity for your students is, it’s immeasurable. It’s just monumental” (Mary) “For some of them, this [elementary general music] is as far as they will go. And if I don’t let them do it [creative thinking], they will have never experienced it at all” (Ella).

Personal and Educational Experiences of Teachers

To understand the potential influence of teachers’ personal and educational experiences, I questioned teachers about their early childhood experiences with music or musical creativity during the interviews. I also asked about their K-12 educational experiences and any exposure to music through extracurricular activities. I inquired about their music teacher preparation program in college and their first teaching experiences. Teachers also shared any additional music training they have accessed since beginning their teaching and offered examples of musical endeavors they continue to pursue outside of their work as elementary general music teachers. The survey collected information about teachers’ educational experiences. Teachers indicated how much training they received before, during, and since college in personal musical creativity or providing creative musical activities during instruction.

Early Childhood Experiences

Eight of the teachers interviewed indicated that their families were musical. “My grandmother and mother were musicians from conservatory. My grandmother was a very famous

piano teacher. I remember sitting in the chair for hours watching her teach" (Ella). Two of the eight had performing musicians as parents. Their parents sang with bands or with other singers. In some cases, their parents were self-taught. One parent was a composer as well. The other six teachers referred to their parents as amateurs, singing and playing instruments with the family or in a church choir. All of the teachers remember participating in the music-making from an early age. "I started to play piano before I started to talk, literally" (Ella). "The arts were always just a huge part of my family" (Alice). A teacher shared in the survey, "I created my own creative thinking activities; created my own dances, skits and performed them for my family and friends."

Although the remaining four teachers did not describe their parents as musicians, all but one indicated that their parents supported their interest in the arts, providing instruments, private lessons, and other out-of-school opportunities such as dance lessons. "They [my parents] always supported me" (Wendy). One teacher characterized her family as very focused on sports, not music.

K-12 Education

Teachers participating in the survey shared their level of instruction in creative musical activities before attending college (see Table 4).

Table 4

Degree of Instruction in Creative Musical Activities Before College

Creative activity	Amount of instruction received			
	None	Small amount	Moderate amount	Significant amount
Vocal composition	46	12	4	3
Instrumental composition	34	22	3	5
Vocal improvisation	47	12	3	2
Instrumental improvisation	28	23	9	4
Improvisation using body percussions	44	11	7	2
Creating movement to music	28	26	5	5
Creating nonstandard notation	51	10	1	2

Creative listening	27	23	8	6

The data indicate that an overwhelming majority of teachers participating in the survey received little, if any, instruction in creative musical activities during their K-12 experience. For every creative activity, 78% to 95% of responses reveal that teachers had no instruction. Teachers received the most instruction in creative listening (22% moderate and significant amounts) and the least instruction in creating nonstandard notation (less than 1% moderate and significant amounts).

Of the twelve teachers interviewed, one attended parochial school. The rest attended public schools. When reflecting on their elementary music experiences, none remembered any opportunities for creativity. Even as they moved through middle and high school, creative thinking opportunities were almost non-existent. Jack and Sebastian recall participating in a middle and high school jazz band. Both remember a few opportunities to improvise but mostly played jazz from a music score with fully notated parts. Ariel was part of a jazz choir in high school and remembers having some opportunities for structured improvising. Neither Jack, Sebastian, nor Ariel recollect learning much about jazz during those classes.

Belle spoke about her high school experience while attending a performing arts school. Here, there were multiple opportunities to engage with music in different ways. Classes also included dance and theater. Her memories of improvisation, however, were connected to theater classes. She worked on improvisation as a response to forgetting lines, with the idea that any presentation must work through errors seamlessly on stage.

Alice, Ariel, Charlotte, and Violet mentioned taking music theory in high school. Neither Alice nor Charlotte had a piano background, but they could read music. However, it was their first experience interpreting two lines of music simultaneously (melody and harmony). Ariel

found that she was often helping others rather than learning. Violet was too far ahead of the other students in the class. Based on the teacher's request, she moved to another course.

Extra-Curricular Opportunities

Teachers offered many examples of extra-curriculars that contributed to their knowledge of music. Eleven interviewees and two survey participants specifically mentioned taking private music lessons at some point before college. "There was a lot more opportunities for just fun free singing. It was just me and my voice teacher" (Belle). Jack and a teacher from the survey remember going to special music camps during the summers. During the conversations, some offered specific examples of experimenting with different forms of music (Belle) and improvisation (Alice, Jack, Sebastian, Wendy). Other survey participants mentioned exploring jazz singing through vocalizing and "riffing." One dabbled in composing children's songs. Teachers shared memories of performance opportunities, including recitals, festivals, contests, and dinner theater. Alice even joined her father on stage. "I grew up just hearing all sorts of different music. We went to live performances, theater, dance, music" (Alice).

Teachers also spent time exploring music on their own. "Improvising on the piano and just kind of having fun. Starting at such a young age with creating kind of made it less scary" (Belle). "I realized early on that I had a knack for music. I just never thought of myself really as a musician" (Sebastian). Jack and Sebastian taught themselves to play other instruments (e.g., guitar, drums) and formed bands with friends. They switched back and forth between instruments as the need arose. No one was reading music. They listened to popular music and created their versions of those tunes together. "None of us really knew what we were doing. We just knew that we liked music and we would figure things out." (Jack).

College Preparation

As part of the online survey, teachers registered the level of instruction they received in creative thinking activities in music (see Table 5).

Table 5

Instruction Received during Music Teacher Preparatory Program

Creative activity	Amount of instruction received			
	None	Small amount	Moderate amount	Significant amount
Vocal composition	24	25	10	5
Instrumental composition	11	27	16	10
Vocal improvisation	25	31	5	3
Instrumental improvisation	17	30	9	8
Improvisation using body percussions	19	32	9	4
Creating movement to music	16	29	13	5
Creating nonstandard notation	30	24	6	4
Creative listening	19	22	13	10

Teachers indicated receiving the most significant amount of instruction in college in instrumental composition (26 moderate and significant amounts) and creative listening (23 moderate and

significant amounts). They reported receiving the least instruction in vocal improvisation (8 moderate and significant amounts) and nonstandard notation (10 moderate and significant amounts). However, for each creative activity, most teachers reported receiving either a small amount of instruction or none. Learning about vocal improvisation (56), nonstandard notation (52), and improvisation using body percussions (51) were the least addressed creative activities in their college coursework. In every case, teachers' responses show that their teacher preparation program did little to build personal creative abilities or to acquire the pedagogical knowledge necessary to provide creative experiences for students.

Teachers who attended college twenty-five or more years ago described their teacher preparation program as performance-based, emphasizing personal musicianship. Although enrolled in a music education program, Violet remembers methods courses taught by professors in the education, not the music department. At that time, no formalized music curriculum was available. Music teaching preparation focused on teaching students to read and write standard music notation and singing. Rhythm instruments were only a slight mention. Western music classics dominated listening. Programs did not include courses in movement, improvisation, or composition. “I didn’t learn about Gordon. I didn’t learn about Kodály. I didn’t learn about Dalcroze. I didn’t even learn about Orff” (Charlotte).

Teachers who attended college more recently describe music education programs that retain some of the same practices. There is still an emphasis on building personal musicianship; however, some programs provide some training in movement, listening, improvisation, and composition. Teachers complete their college preparations with a working knowledge of Dalcroze, Orff Schulwerk, Kodály, E. Gordan, and Feierabend and how to implement these practices in general music classes. “I had a very nice blend of just heavy-duty performance

schedule and then just education courses" (Sebastian). "We had a homeschooled group where we taught twice a week. We were definitely encouraged to not just stick with a textbook or a specific set of plans, but to really come up with more engaging things on our own" (Ariel).

Early Experiences Teaching Creative Thinking

Teachers have vivid memories of challenges during their first years of teaching. The most veteran teachers remember having no curriculum to follow. Violet explained, "When I first started teaching, there was no curriculum, no materials." She shared memories of her first teaching assignment in a regular classroom with a tape player, an out-of-tune piano, two student songbooks, and a few rhythm sticks. "There was not any comprehensive flow chart of where kids started and what you wanted them to be able to do by the end of any grade level, let alone by the end of their elementary school experience" (Jack). "I didn't think about teaching creativity or planning creative thinking activities" (Violet). No one knew what to do when the first national standards came out (Mary). Although some school systems provided professional development, most teachers spoke about learning through trial and error. "I did a lot of experimental things with students, and some of them were fantastic, and a lot of it just bombed" (Mary).

Newer teachers also faced challenges in their first years of teaching. "On my first day, I was like, I don't even know what to talk to you guys about. It was so much trial and error, and it was so much more error than I had thought it would be" (Belle). "The first year, you're just so overwhelmed. I wasn't able to really get there [creative thinking activities]" (Alice). "I realized I did not know anything about anything about anything. That first year was incredibly difficult. I did almost no creativity-based lessons at all. That first year was an absolute nightmare" (Peter). "I had no idea what I was doing [for creative thinking activities], and I didn't get the results I wanted, and the kids were very confused" (Riley).

Post College Learning

Once teachers began teaching, each expressed feeling unprepared. Some spoke of the difficulty of organizing a classroom and developing and implementing a classroom management system. However, the most often echoed concerns focused on a lack of music teaching skills and an inability to implement a logical instructional sequence.

Teachers with more experience recall having no training to draw on. With no curriculum, individual teachers chose the content of their music instruction. Although some teachers approached this problem by doing personal research (Jack), other teachers chose materials for students to do each class without much regard for an overall plan with instructional goals. “I spent probably the first 15 years of my teaching career filling the time with musical experiences that had little connection to each other” (Violet).

Once the National Standards for Music Education were introduced in 1994, many school systems began to build curriculums based on those standards. The advent of written curriculums signaled a significant shift in elementary general music expectations. “We had something to go by, which was a great help even for experienced teachers that had never had the time or taken the time to really think strongly about where kids were and where you wanted them to be” (Jack). Unfortunately, neither experienced nor new teachers were prepared or equipped for the changes. Although some school systems provided professional development to help support a more hands-on approach to music learning, most music educators struggled to understand the implications of the standards and how to teach music based on those standards. “We didn’t know how to teach it yet. And we were learning as we were going, sort of building the ship as we’re flying” (Mary).

The energy created by the National Standards increased the interest in searching for methods of teaching music that provided students with strong foundational skills necessary for

improvisation and composition. Access to instruction in Dalcrose, Kodály, and Orff Schulwerk became more available, but teachers had little financial support from school systems to seek out these opportunities. Although some teachers attended training (Alice, Ariel, Sebastian), many others were learning by trial and error (Charlotte, Violet).

Responses from teachers who participated in the survey show that many have sought additional music training (see Table 6).

Table 6

Training Received Since Beginning Teaching Career

Creative activity	Amount of instruction received				
	No formal training	Attended some workshops	Completed level 1	Completed level 2	Completed level 3
Dalcroze	39	20	4		1
Orff Schulwerk	14	37	5	4	4
Kodály	13	36	6	1	8
Gordon's Music Learning Theory	39	19	5		1
World Drumming	30	26	3	4	1

According to this data, teachers in the survey most often participated in Orff Schulwerk and Kodály workshops or certification programs, followed by training in World Drumming, Gordon's Music Learning Theory, and Dalcroze.

The conversations with less experienced music teachers reveal that little has changed in most teacher preparation programs. Ariel and Peter spoke of the need to seek additional training to acquire any depth of knowledge of Dalcrose, Orff Schulwerk, or Kodály (often referred to as DOK). “Looking back, I've always said that DOK training should have been part of Music Ed degree... once you are out and especially once you start a family, it is difficult to make time for summer trainings and daycare!” (response from survey). “It wasn’t until I took Orff level one that I was like, whoa, mind blown” (Ariel). A teacher from the survey shared her experience attending an unusual program offered by a Maryland university. It “offered a unique certificate in DOK- Dalcroze, Orff, and Kodály which was a 3-4 week summer program that spanned about 3-4 summers. It was fantastic and brought highly certified specialists to teach us in week blocks; it was incredibly fun, educational, and engaging!” In addition, as teaching in the United States has evolved, a significant interest in providing a culturally sensitive curriculum has emerged. Music teachers, often trained in the Western classical tradition, must seek training to expand their knowledge of world music (Ariel, Wendy).

Teachers participating in the survey offered additional examples of beneficial training. Two teachers attended some workshops in Feierabend First Steps and Conversational Solfege. One teacher participated in World Music Pedagogy and Music Together (early childhood) training. Another teacher shared, “I was a long-term apprentice for a Suzuki Piano Teacher/Trainer who received his credentials from Dr. Suzuki in violin and Dr. Kataoka in piano. The method as it is taught in Japan is very different from what I had seen in the U.S. prior to meeting teachers who had studied in Japan. Unfortunately, there are misconceptions about the method among some music teachers who may have only seen the American version.”

Three interviewed teachers have pursued master's degrees to further their studies. Riley completed a master's program to prepare for becoming an elementary music teacher. Sebastian and one of the teachers from the survey completed the American Kodály Institute Master's program. Ariel is completing her master's degree this year. She is also completing her Orff certification levels as part of that program. Sebastian is currently at work on his doctorate in music education.

In addition to their work in elementary general music, teachers often continue to work as musicians outside of school. Ariel, Ella, and Sebastian give private music lessons. Alice and Jack perform with bands. Ariel and Jack compose.

> I found composing very enchanting. I think it was an outgrowth of learning more about improvising first, obviously in jazz, and then using that process in the creation of new music. I, to this day, am still involved in playing in bands, and now, of course, it's a profitable side job, and there's a whole cadre of us. So, my own personal need for creative fulfillment, I'm getting through what I do nine to five as a general music teacher and also by what I do with my non-school time. So it's been really great. (Jack)

> I really enjoy writing choral music for my choir. That has been kind of my creative outlet. A big project of mine was transcribing all of our music into large notation that did not have the piano part that was clear for them [the students] to read. And taking time to focus more on my piano playing, forcing myself to sit down more and to improvise to movement stuff for the kids during the lessons on piano or other instruments. And so being able to take my professional level of music, playing ability and use that to not only demonstrate for the kids, but it fills my cup so that I'm getting that fulfillment. (Ariel).

Contextual Conditions

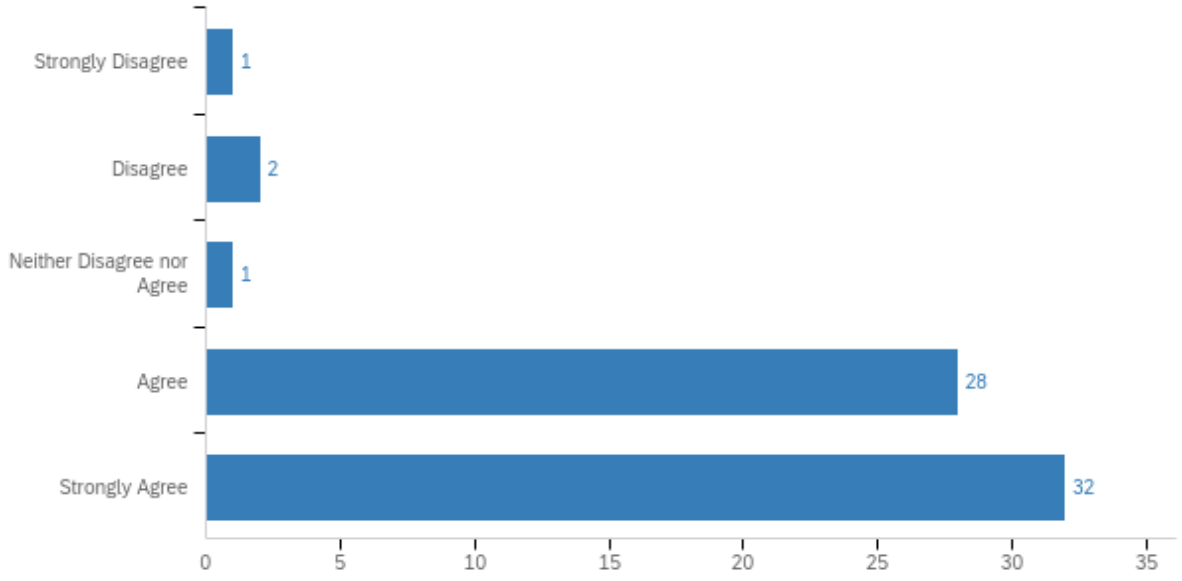
I explored contextual conditions in the workplace that might influence a music teacher's ability to incorporate creative thinking activities in elementary general music instruction. In the survey, I asked teachers to respond to statements about curriculum, resources, time, space, classroom management, and administrator support. I also gave teachers the option to provide additional information. During the interviews, teachers described supports or barriers within those topics. These conversations, however, provided a deeper consideration of supports and barriers, and a broader scope of themes emerged. Additional themes included support for novice teachers, professional development, job allocations and assignments, challenges associated with large schools, class configurations, special needs students, inclusion and respect, and student behaviors. I organized these themes by the level of ownership in a school system, system level managed, and building level managed.

System Level Supports

The Maryland Department of Education provides a state curriculum for elementary general music, including creative thinking activities and products. Each school system uses this state curriculum as a guideline for their elementary general music curriculum. As shown in Figure 22, 92% of teachers surveyed agree or strongly agree that creative thinking activities are part of their elementary general music curriculum.

Figure 22

Teachers' Responses to the Expectation for Creative Thinking Activities



Teachers also spoke of the availability of system-created resources to support creative thinking instruction in the music classroom. Alice shared her experiences as part of the team focused on embedding 21st-century critical thinking, creativity, collaboration, and communication skills into the system's elementary general music curriculum. In addition to the curriculum writing, her team created rubrics, language, and process tools for our elementary music teachers. They even created some visuals for students. "We had this whole thing. What hat are you wearing today? They were different…We had descriptors so the kids could self-identify where they felt like they were and that the whole point being depending on you and your skills and interest and where you are, you might have a different hat on a different day" (Alice).

Mary, Riley, and Belle shared an example of another system's music curriculum directly supporting creativity. Their school system has process guides to support teachers' understanding of the curriculum standards and objectives. In this case, creative activities are designated as

measurement topics in two of the four marking periods. As a result, creative activities are directly assessed and documented explicitly on students' grade reports.

Most teachers spoke positively about their school systems' elementary general music curriculum. "Our county curriculum encourages creative thinking practices" (response from survey). "There are standards and indicators that are very clear but not overly prescriptive. With that, there are a lot of resources developed for new teachers so that you're not feeling like you have nothing, but you're not required to use this song or this activity or this whatever to teach this indicator. So, once you're comfortable, you do have the ability to really make it your own, which is what educators love about their jobs" (Alice).

Teachers gave several examples of professional development support for novice music teachers at the system level. In the past, teachers in one of the large systems described meeting daily for a week before pre-service started. The system supervisor planned training that included introductions to Kodály and Orff Schulwerk and strategies for incorporating these methods in the classroom. "I didn't have any of that in college. It really helped" (Violet). In addition, a fellow teacher served as a mentor through the first year. This experienced teacher was available to answer questions, visit on non-instructional days, look over lesson plans, and connect the new teacher and other elementary general music teachers. "He was incredibly helpful because I had a hard time getting used to only seeing each class once a week. He would come by my school, and he was always a phone call away. Plus, he introduced me to other music teachers, so I began to feel like I was part of something, not just out there on my own" (Violet). During the first year, the music supervisor completed a formal observation and gave teachers content-based feedback. Mary, Jack, and Violet shared that two days each year were designated for elementary general music professional development, and this practice continued until the supervisor's retirement.

Currently, this system assigns a consulting teacher to all new teachers for their first year. This consulting teacher is an experienced elementary general music teacher who steps away from the classroom to provide direct support for novice teachers. Belle and Riley shared their experiences with a consulting teacher. At the beginning of the year, the consulting teacher was available to help them with room set-up, classroom management tools, and curriculum and grading. Although Riley had been working in schools, she was not responsible for setting up a classroom or choosing classroom management practices. In her previous role, she was always with other staff in classrooms. Belle did her student teaching in a virtual environment, so she did not have experience either. The consulting teacher observed them during instruction, provided feedback, and helped with planning. The consulting teacher was also able to set up times to watch colleagues. "Peer visits were something that was very helpful for me. Just watching somebody else do it. Choosing a classroom that looked similar to mine" (Belle).

In addition to consulting teachers, the music supervisor in this system holds voluntary monthly meetings for new teachers. These hour-long meetings include mini professional development opportunities and allow new teachers to build relationships with each other and their supervisor. Riley shared that second-year teachers have discussed the possibility of continuing to meet at least quarterly.

Teachers from another large school system spoke of having support from an elementary general music instructional specialist. During their first two years, this instructional specialist formally observed the teachers, giving content and process feedback specific to their role as elementary general music teachers. These observations, coupled with observations by building administrators, served as the basis for the teachers' final evaluations each year.

Peter and Alice described using a vertical structure of teaching responsibilities in another school system. Rather than having middle and high school teachers who only serve secondary students, instrumental music teachers serve all instrumental students in a high school cluster. As a result, instrumental teachers work with the same students from elementary school through high school. The other advantage to this alignment is the opportunity for elementary general music teachers to form supportive relationships with other music teachers over time and collaborate to cultivate a strong vertical music program. "The instrumental music teacher that was teaching the instrumental students at the elementary school that I was working at was also the teacher that was working with the middle school instrument players as well as the high school instrument players. And if not for him and his encouragement, I don't know that I would be here today" (Peter).

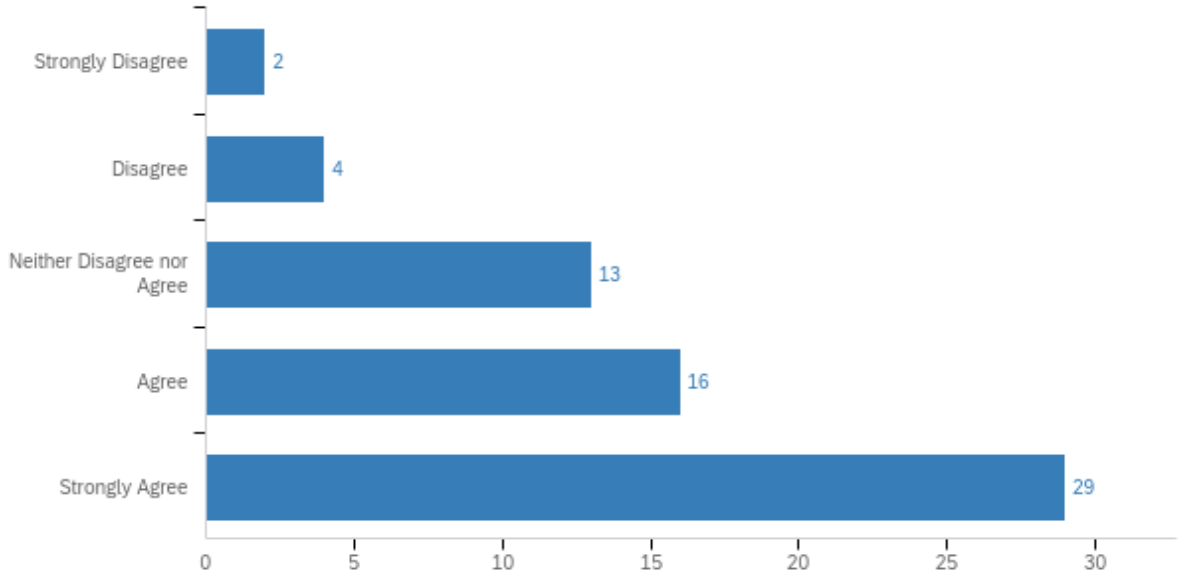
All teachers referenced overarching support personnel in their school systems. Titles for these positions vary, but this demonstrates a commitment by the school systems to provide focused consideration of elementary general music content and the program of study for elementary school students. Although not directly mentioned by teachers during the interviews, their school systems provide opportunities for elementary students to hear live performances of professional musicians.

Building Level Supports

In the survey, teachers indicated their level of agreement with the statement: The building Administrators at my school support my music program (see Figure 23).

Figure 23

Teachers' Perception of Building Administrator Support



According to the data, a majority of the teachers participating in the survey feel that the building administrators support their music program. Of the 64 responses, 45 indicate they agree or strongly agree. Only 6 of the teachers disagreed or strongly disagreed.

During the interviews, some teachers shared examples of positive relationships with the administrators. “Not only am I supported here. I am trusted. They know that every day, I’m trying to improve my own pedagogy regardless of whether anybody shows up” (Sebastian). “If they come into class, they are very willing to step in and join the activity. They appreciate the fact that kids have fun in my room but are still learning. They like the fact that they’re moving around. So while they don’t understand the big pieces of what I do, they do see that kids are acquiring knowledge, and they see the culminations of that in programs that we do” (Wendy). “I have a great relationship with my administrators because I don’t send kids to the office. I take care of my own classroom management” (Peter).

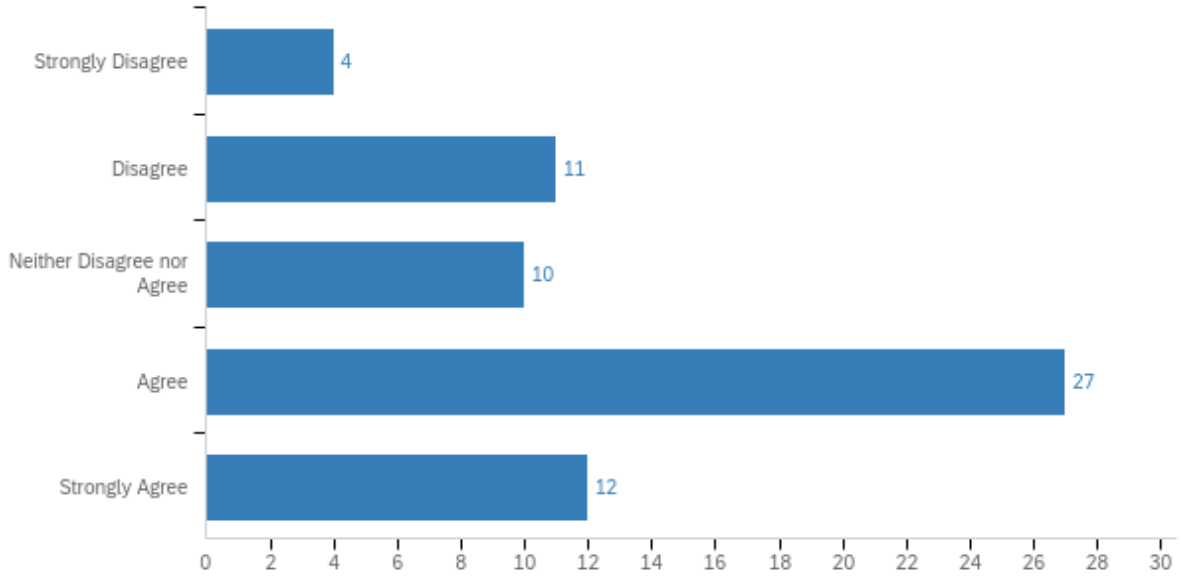
Three teachers shared the administrator's support of the chorus. Wendy has been able to schedule the chorus during the student day. More students now have the opportunity to participate. "It doesn't require parents to make an extra trip to the school to either bring their kids early or pick them up. So that's been a really strong and something that's really supported by the community activity" (Wendy). Belle was part of building the schedule for her school this year. She was able to schedule a chorus time during the student day that will allow students to participate without missing important classroom content. Ariel switched the chorus time at her school from the afternoon to the morning with support from the administration.

Wendy also shared the administration's support of an alternative professional development choice for the specialists at her school. During staff meetings, "the administrators have been really good about releasing me, the musician, and the art teacher, and the PE teacher from a lot of the in-depth reading and math professional development that doesn't really apply to us. So, we get to select our own things that we want to work on, and it has been great to feel supported… We've kind of paired up with some teachers at other schools. So we've actually been able to network and have our own small little PD with our peers that's also been supported by the principal" (Wendy).

Teachers participating in the survey responded to the statement I have the resources I need to implement creative thinking activities in my teaching (see Figure 24). Although 39 teachers (61%) agreed or strongly agreed with that statement, 23% of teachers had opposite opinions and disagreed or strongly disagreed. Another 16% of teachers indicated a neutral opinion.

Figure 24

Teachers' Perceptions of Availability of Resources for Creative Thinking Activities

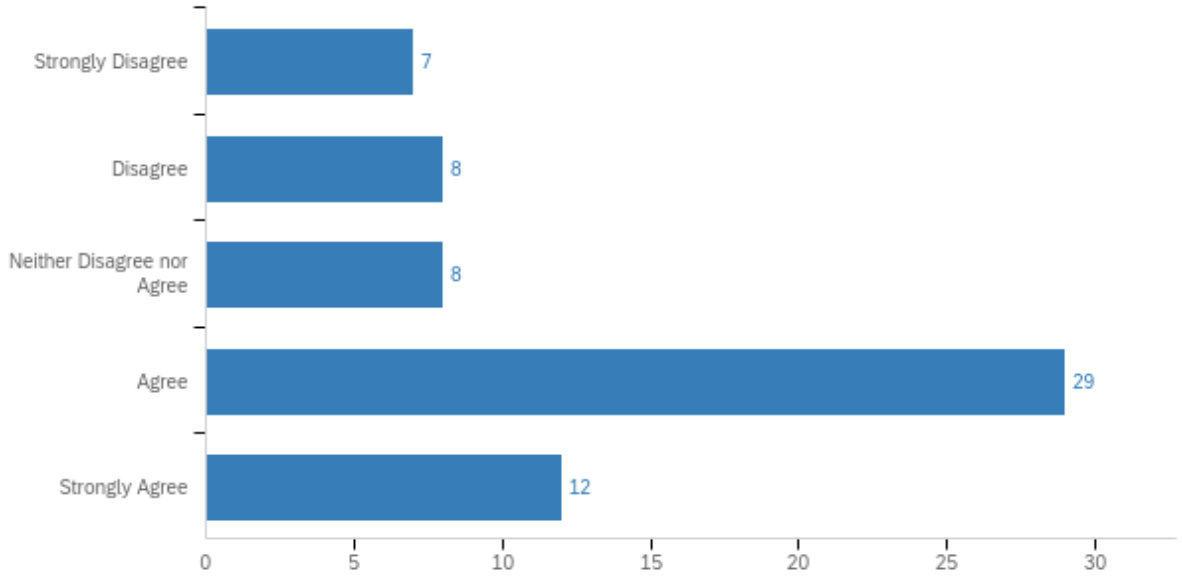


All but one of the teachers interviewed spoke positively about the administrators' support for purchasing materials. "If I need things, the administrator has been pretty supportive" (Peter). "I asked him to buy instruments for us. I didn't have enough. Things I needed, he bought" (Ella). "I have never had to beg, borrow, or steal for any materials" (Mary). "I have an administrator that listens to my supply requests and is fairly generous about that." (Peter). "I actually have a surplus of things. If something breaks, I go, I tell [the principal], and she's like, here approved. Go" (Belle).

The majority of the teachers participating in the survey indicated that they have enough space to implement creative thinking activities (41 agree or strongly agree). However, 15 teachers either disagreed or strongly disagreed. Another 8 teachers gave neutral responses (see Figure 25).

Figure 25

Teachers' Perception of Space Required for Creative Thinking Activities



Most teachers participating in the interviews who work at one location teach in a special music room. Those who work in older or overcrowded buildings may not have access to a specifically designed music space. At least one of the teachers is housed in a portable.

System Level Barriers

Charlotte voiced concerns with the general music curriculum, feeling it is overly restrictive. “It is dull and boring… I find I’m limited by what I’m forced to teach.” She also believes that the rigidity of the measurement topics of each quarter negatively impacts the pace of instruction. From her perspective, she does not have the time she needs for students to explore music concepts. A teacher in the survey expressed difficulty planning creative thinking activities due to the required curriculum assessments. “In my experience, I have found that my county's curriculum is very broad and the pace is so brisk, which often prohibits students’ learning deeply about a concept through creative thinking, such as improvisation and composition, as well as opportunities to incorporate authentic audience” (response from survey). “Our curriculum is jam-

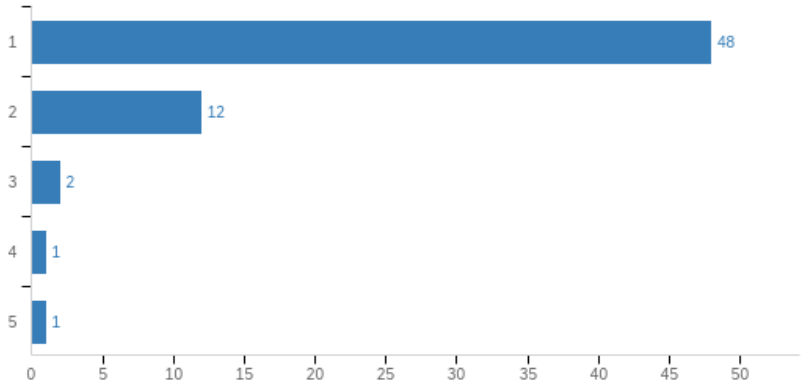
packed with content, so much that I find myself needing to choose between content/literacy and creativity/improvisation activities" (response from survey). "Time is the biggest challenge. Once a week is not what we end up getting if you factor in holidays, testing, field trips, and special school events/assemblies" (response from survey).

Many teachers referenced the lack of professional development, explaining that most music training focuses on curriculum updates rather than enhancing instructional skills. System expectations drive the professional development offered at the school level. Music teachers find the work on equity, cultural responsiveness, and social justice valuable but would also value specific music-focused training. "Knowing how to teach solfege would be helpful. Knowing how to use the Orff instruments and a process to approaching the Orff instruments would be helpful… What I want to know is how do I incorporate it into my classroom?" (Charlotte). Even though the voluntary first-year music teachers' meetings offered the most significant music-focused training, the meetings were short and not designed for breadth. "They would show us, okay, this is how this would apply in fifth grade. And I'd be like, cool, I can go teach fifth grade now. I've got it. However, what am I supposed to do with everyone else?" (Belle).

The allocation formulas used by school systems to staff general music positions are based on enrollment forecasts and the number of classrooms. Therefore, music allocations at an individual school may result in less than full-time or more than full-time positions. According to the data, most teachers who participated in the survey work in one or two schools. Only a few teachers reported working in 3 to 5 schools (see Figure 26).

Figure 26

Number of Schools in Current Teaching Assignment

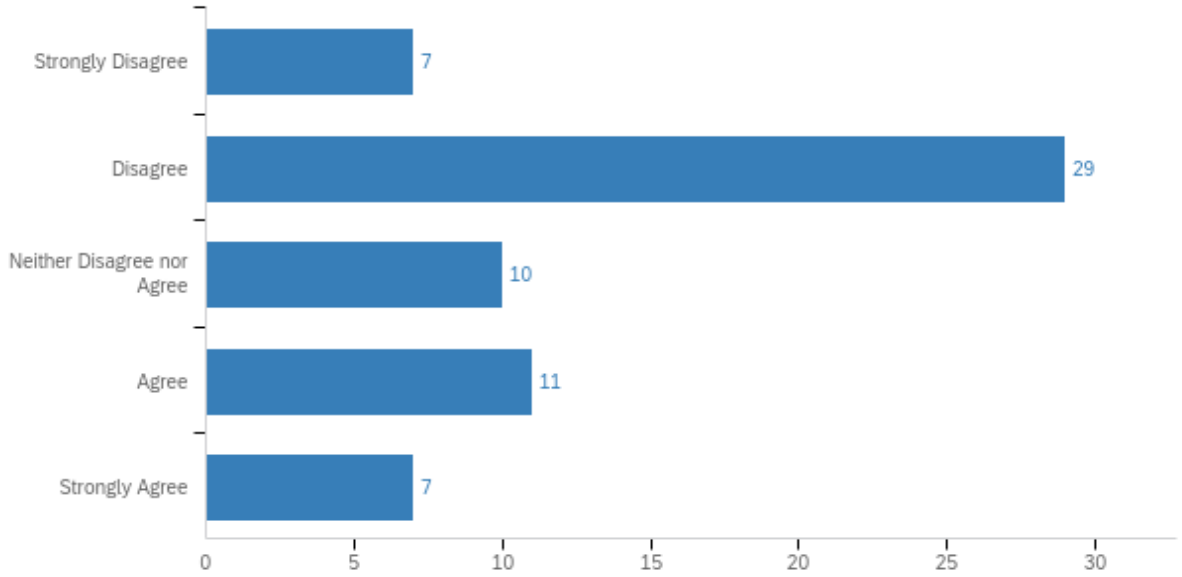


Generally speaking, teachers with more tenure are less likely to travel between schools. New hires often have teaching assignments that include multiple schools. In the interviews, several teachers shared their first-year experiences. “I was split between two schools. One school was A week B week, and they had 50-minute classes. One was 40-minute classes. I had totally different styles of administrators at both schools” (Alice). “I was split between four Title I schools during my first year” (Sebastian). “Last year, it was tough. I was at four different schools. It was a 0.4 at one school and 0.2 at all my other schools. Oh my gosh. Yeah. I can’t believe I survived it… And at the end of the year, I thought, why the hell would I want to do this again? This is insane” (Riley). This system barrier is responsible for a significant amount of building level barriers.

Creative thinking activities require adequate planning to be most effective. The minimum planning time for teachers is determined by negotiated agreements between school systems’ Boards of Education and the teachers’ union for all Maryland public schools. When asked to respond to the statement, I have enough time to implement creative thinking activities, 60% of the teachers either disagreed or strongly disagreed. As shown in Figure 27, only 30% of the teachers agreed or strongly agreed that they have enough planning time.

Figure 27

Teachers' Perception of Time for Creative Thinking Activities



In his interview, Jack pointed out, “If you teach first or second grade, you've got a group of people doing the same thing. So when you're planning, you're sharing the load, you're getting clarity, you're getting ideas, you have an ear to bounce things off. We don't have that.” Other teachers agree, citing a “Lack of time to plan with subject alike colleagues. Lack of prep time” (response from survey).

Another concern voiced by several teachers was the lack of time for planning general music instruction to students enrolled in special education programs. These students may be autistic, emotionally disturbed, non-diploma-bound, or severely cognitively or medically challenged. During interviews, these teachers shared that there are no curriculum adaptations provided by their school systems. It is their responsibility to modify the curriculum for these students. In addition, these teachers receive no help from the system to identify other teachers with the same type of students and have no dedicated time to collaborate. A novice teacher shared, “[I] didn't quite understand it [the curriculum] in the general classroom, so adapting it

was an uphill battle. I was given one training, but it was given by somebody who had a very different demographic than I did. So my students are mainly nonverbal, and we work really hard on sitting in our chairs, not hitting [me], not fighting, those kinds of things. Whereas in this meeting, they were teaching us, okay, have them echo sing this. I'm saying this is useless to me" (Belle). She had to advocate with her consulting teacher for the opportunity to observe another teacher with a similar population. Other teachers were simply on their own. "I felt like, well, how am I supposed to support them? Nobody had taught me. And again, through trial and error, I just figured it out" (Mary).

Building Level Barriers

Teachers in multiple schools shared their unique challenges. "I was in a portable at one of my schools. I was bouncing around in the other school" (Alice).

> My first teaching year, I was at four different schools, and I didn't have my own room, and I had to negotiate everything with the teacher that was there. I was kind of like the extra person at all of the schools that I was at. I met almost no one that year. I think most of the staff of the schools had no idea who I even was. I had to go into classrooms to do teaching, which, of course, teachers hated. And so I was really also very limited in what I could do in those classrooms because there were desks, and they didn't want me messing anything up. And I was very also limited because the activities that I wanted to do, I couldn't do some of them because there were other classrooms around where there was learning going on, and they didn't want a bunch of drums playing or noise (Wendy).

This was echoed by a teacher responding to the survey who shared that the "room is not soundproofed, and music bothers other classrooms."

Many teachers shared that they do not feel valued or respected by administrators. “They’re not interested in if I’m doing the curriculum. They are interested in how many office referrals I’m sending their way, any parent complaints, that sort of thing. But beyond that, they don’t give what I do a second thought” (Jack). “I don’t think my administrator has any idea what I do” (Peter). “Do they know what I teach? And the content and the curriculum? Absolutely not” (Wendy). “None of the principals I worked with had really any appreciation for the craft. They wanted to see kids moving around and smiling. They wanted programs where parents were happy. But as far as teaching a curriculum, number one, they had no idea that that would be. And number two, they didn’t care” (Violet). “I don’t necessarily believe that my admin believes in the cause of music education and believes in its purpose” (Belle). “On the first day of inservice, I was told I was going to be co-teaching with another teacher. And it was the first time either one of us heard it was going to be happening. We both looked at each other, went nice to meet you, now what do we do?” (Riley). “She [the principal] said music is fine and all, but it’s really just sort of the icing on the cake” (Mary).

Teachers in multiple schools frequently spoke of inconsistent access to materials, especially instruments. Several have experienced having no designated space in which to work, leaving the teacher in charge of looking for a teaching space. Teachers describe the difficulty of loading a cart daily with music materials for their lessons in regular classrooms. Riley, in particular, expressed the discomfort of negotiating with another general music teacher to use music resources for her students.

> I would have to go in and transport instruments from the beginning of the day to the end of the day. And then that also included negotiating with the full-time teacher. And so that was hard for me because then I sort of had to plan a week in advance to be able to have

> that conversation with the teacher so that they and I could plan our lessons. And then sometimes, being the classroom teacher at one of the schools, they're like, I really need these instruments next week. I'm like, so do I. But you win (Riley).

Ella shared that she was given an empty room and had to transport resources from the opposite side of the building. These conversations suggest that many schools have one set of music resources, regardless of enrollment or staffing. The lack of materials to support multiple teachers may partially explain why 23% of teachers indicated they did not have enough resources in the survey (see Figure 24).

Teaching in regular classrooms poses challenges for music teachers. Traditional classrooms are filled with furniture that leaves very little open space, and classrooms teachers do not want the furniture moved. Violet shared the difficulties of providing creative musical experiences in these spaces. She was limited in the number of instruments she could use with students because her teaching materials needed to fit on one cart. She could not count on having access to the technology, so sound and visuals were a challenge. Violet also found resistance to any music that might be played by the teachers nearby because it was distracting for their students. "They didn't want a bunch of drums playing or noise. And the administrators supported the wishes of the classroom teachers, not me."

Although allocations are a system level decision, each school develops its own master schedule. A significant driver of the master schedule is to provide weekly opportunities for grade level teams to have common planning time. Since elementary classroom teachers' planning time results from students participating in art, music, and PE, the classroom teachers' wishes often overshadow the wishes of the arts team and create a schedule with little consistency for the music teacher. "On Monday, we have four classes in a row, and then big break, and then one

class at the end of the day. On Tuesday, we have one class and then a break, and then four classes in a row" (Ella). "I had seven classes last year with these five-minute transitions, and it's a lot" (Riley). Another building level decision resulting from the master schedule is the method used to group students for music, art, and PE. Although there might be a class size range for regular classrooms, there is no class size range for specials. "With scheduling, bigger class sizes apparently are fine for us" (Alice). To free all teachers at a grade level for planning, sometimes students are arranged into squads, or one class is sprinkled over the others. Special education students may be included in the sprinkling, even if they are only mainstreamed during music, art, and PE. "We have a larger Learning for Independence program at our school, and most of those students are mainstreamed into specials, including music, without proper adult support with an already full class of first, second, third, fourth, or fifth graders. These students need much more attention and support, and it does not allow me to be as flexible or responsive with my general education population" (response from survey). "The Special Education population's (SPED) needs often prevent creative thinking activities in the classroom" (response from survey). "I had 35, 40 kids in a class. They sprinkled, so I would have a class and a third or a class and a half in order for every teacher to get their planning" (Charlotte). "We didn't have a lot of say. If they told me all of them [special education class] were being mainstreamed into one class, I found the class that had the lowest enrollment and put them in with that class" (Mary). The decision to combine classes may or may not consider instructional space, so large classes might occur in a music room or in a regular classroom, compounding space and equipment challenges.

Charlotte described her struggle to have adequate musical resources. She teaches in an older building and found many damaged and unusable instruments when she began work there. "I had to fight for it [instructional materials money], even though there's a minimum budget.

There were no cowbells. I had to personally buy cowbells with my own money. I had to buy mallets for all of the xylophone instruments with my own money. My parents bought three or four drums for [the school] with their money because it's like, how do you just not have these instruments?" She continued by sharing that she has networked with other elementary schools to locate surplus instruments to supplement her sparse collection.

Riley also cited unreliable technology. She could never count on having a working internet connection, smart board, or computer at any of her four schools. This inconvenience was compounded by the expectation of working with four media specialists and four user support specialists to report problems and work toward resolutions.

A recurring theme in conversations with teachers was feeling disrespected. "I don't think I have ever been in a school where the specials team [art, music, and p.e.] is viewed as being in any kind of parity with classroom teachers, which is just, it's a travesty, but it's true" (Alice). "I think nobody cares…I still feel like they [the administrators] consider us a break between teachers planning time. I don't feel we are important in anybody's mind around the building" (Ella). "It's obvious that music, art, music and art instruction are not priorities. I find that the staff in buildings are usually cordial, but they don't have the same level of respect for the arts team as they do for other classroom teachers" (Jack). "It feels more and more like we are considered support staff rather than professional staff" (response from survey). "I don't feel, I don't think I'm going to use the word welcome, but I don't feel as respected…" (Peter). "Teachers saw me as their planning time. It was very difficult to walk into a situation where you were automatically discounted for what you taught" (Violet).

Music teachers often mentioned a lack of recognition or consideration as school community members. "There's a pronounced bias against elementary specialists that influences

our voice in scheduling, duties, space needs, budgeting, and communication about student behavior plans and interventions" (response from survey). "They seem to forget that, especially those of us who've been in our schools for a long time, we know these kids. We had them in kindergarten, we had them in first grade, we had them in second grade. We have a different vantage point that is very rarely recognized or asked to be brought to the table. And it's a real shame" (Alice). "We [the arts team] tried to get a representative [on the leadership team], and we were told you are welcome to come to any of the meetings. However, everyone else at the meeting would be being paid" (Belle). "We [the arts team] come to teach, and that's all. We are not involved in anything, even when it's musical assemblies" (Ella). One teacher from the survey reported "being pulled to cover classes when subs don't show up." "If you look at the statistics, singing helps you read with fluency. Most musicians are very good at math. They understand parts of things. And so it is a real disconnect that there isn't value placed on what music can do" (Jack). "I don't feel important here, I think. And you know what? I don't do it for somebody to say good job and pat me on the head, but at the same time, I would be grateful if somebody can recognize something good I do. Because I never hear from anyone. Good job. None. No one, no one is interested" (Ella).

There are students in every school with special needs. They may not be able to understand or communicate in English. They may need specific accommodations to function well in class. They may be suffering from emotional trauma or living in poverty. They may have medical challenges. Or they may need specialized education. Teachers often have no information about students who might need additional support. "Because of the large population of English language learners at my school, there is sometimes a language barrier in communicating various concepts in the music classroom" (response from survey). "Oh, 90% of the time, we don't have

any idea if we have kids in our class with special needs. No one tells us if they're struggling in some way. It is just come to music and drop them off" (Peter). "Just had 'em in my class. The only way I found out about 'em is when I go to [online student records]. I haven't heard squat as far as EML teachers" (Riley). At some schools, information about students with special needs is stored in a file accessible to all teachers. However, music teachers are expected to review the entire file to see if any students they serve need special support. For classroom teachers, information is shared directly by the case manager."We had to ask for this a lot of years, but have a meeting with the special ed team, really go over the caseload, make sure we have IEPs and 504s, ask questions. We have a responsibility for helping them [students] have the best learning experience, making sure kids are safe, whatever" (Alice).

Professional development is often provided during required staff meetings or on designated professional development days. Teachers acknowledged that some of the training is useful and offered examples like working with EMLs, behavior management, and anti-bias, anti-racist (ABAR) instruction. However, all agreed that content professional development always focuses on reading or math. Music teachers find little of this training helpful or geared toward their instruction. Riley offered that the only "advantage of going to multiple schools is you hope you don't have to go to all these ridiculous meetings that are useless." During the interviews, only one teacher shared an example of an alternative plan for teachers who are not directly teaching reading and math.

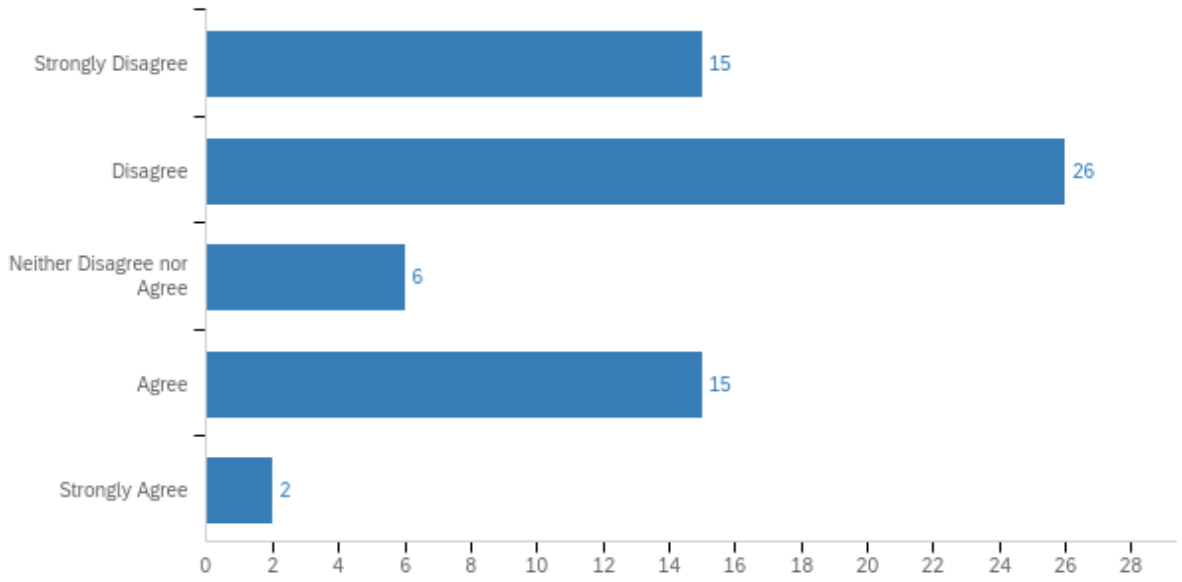
Behavioral Challenges

Classroom disruptions caused by student behaviors can interfere with creative activities. When asked to respond to the statement Classroom management issues do not impact my ability to implement creative thinking activities, 64% of the teachers participating in the survey either

disagreed or strongly disagreed. Interestingly, 27% of the teachers agreed or strongly agreed, and another 9% neither agreed nor disagreed (see Figure 28).

Figure 28

Teachers' Perceptions of Behavioral Challenges



During the interviews, first and second-year teachers spoke about their struggle to develop classroom management strategies. Although experienced in the classroom, Riley was not responsible for creating a classroom management structure during her time as a paraeducator. In addition, she was accustomed to having more than one adult in the room. “Even with all of my background, I would be in that room, and I couldn't catch all the behaviors. I was too busy trying to teach a lesson I'd never taught before to be able to classroom manage. And so it was the deer in the headlights looking at the class.” “You always student teach in the spring, and so you are never seeing those routines and expectations modeled. The biggest struggle for me was really setting up a consistent classroom expectation and environment so that the kids knew what to expect coming in the door” (Ariel). Although these problems might be universal challenges

typical of all new teachers, the interviews and survey revealed a significant concern with student behaviors in general.

School systems develop expectations for student behavior; however, it is the responsibility of individual schools to manage student behaviors based on system expectations. Many teachers find that student behaviors seem to go unchecked with few consequences. They recognize, especially now, that many kids are experiencing significant emotional and behavioral challenges that impact the learning environment of any classroom. Teachers participating in the survey voiced these concerns:

- “Right now, there are few consequences for behavior issues across the board, resulting in a higher number of behavior issues distracting from lessons.”
- “The large number of students with learning and social issues and disabilities that are part of the general classroom does have an impact on my teaching.”
- “Classes that can't keep safe when we do creative movement and kids having to sit out for unsafe behavior.”
- “Group activities are hard to accomplish due to students not getting along with each other.”

Teachers interviewed voiced similar concerns:

- “It's just gotten harder. So kids are, there's so much stress and so much trauma and so much need right now. And there's tools being taken away, seclusion and restraint” (Alice).
- Two boys there who would curse all the time and would just run out of the room, run around, and somebody would catch them and bring them back, and they would hit everybody and shout and whole entire year” (Ella).

- “Behavior is atrocious” (Charlotte).
- “Making sure that their [students] needs are met is big” (Ariel).
- “Total underinvestment in how we pay and train our support staff. So if that happens, it shouldn't be a surprise that these types of things can occur” (Alice).

Summary of Findings

Creative Thinking Activities

All teachers participating in this research indicate that they include creative thinking activities. These creative opportunities engage students in movement, listening, improvisation, and composition. As shown in Table 7, almost all types of creative thinking activities occur at least once each quarter in over 80% of the elementary general music classrooms of the survey respondents.

Table 7

Teacher Use of Creative Thinking Activities Each Quarter

Creative thinking activities	Frequency per quarter			
	Number of teacher responses	Never	1-4 times	5 or more times
Creating a song to sing using nonstandard notation	56	16%	70%	14%
Creating a song to sing using standard notation	57	11%	84%	5%
Composing music to play on a classroom instrument using nonstandard notation	63	14%	77%	9%
Composing music to play on a classroom instrument using standard notation	62	5%	78%	15%
Improvising with voices	60	16%	46%	38%

Improvising with classroom instruments	59		55%	45%
Improvising with body percussion	59	2%	48%	50%
Creating movement or dance to music	62	1%	52%	47%
Creating listening maps to existing pieces of music	47	26%	64%	10%
Arranging a pre-existing song	34	32%	62%	6%

Movement (52% 1-4, 47% 5 or more) and improvisation using body percussion (48% 1-4, 50% 5 or more) or classroom instruments (55% 1-4, 45% 5 or more) are the most frequently occurring creative thinking activities. This aligns with the information shared by teachers during the interviews, although body percussions were not specifically part of the conversations. Many examples of improvisation were offered in interviews and by individual survey responses. During the interviews, four teachers mentioned improvisation using voices specifically. Survey responses, however, indicated that improvisation using voices appears less frequently in instruction. In fact,16% of the teachers surveyed indicated that they never ask students to improvise with their voices.

No teacher who was interviewed spoke about creative listening without being prompted, and few teachers shared activities with students that involved arranging a pre-existing song (both interviewed teachers as well as teachers responding in the survey). When teachers spoke about existing songs, they only gave examples of making partial changes. This also aligns with the survey results showing that 26% never asked students to create listening maps, and 32% never asked students to arrange a pre-existing song. However, the survey results for creative listening (64% 1-4, 10% 5 or more) and arranging a pre-existing song (62% 1-4, 6% 5 or more) would suggest that over half of the teachers are regularly incorporating these activities. Data would appear to be incongruent when viewed from this perspective.

In the survey, activities requiring composing (instrumental or vocal) showed high percentages of teachers indicating these activities occur most often 1-4 times during a quarter. Statements from teachers who were interviewed or added individual comments in the survey indicated that composition activities often span several class sessions. Since these activities take longer, they would naturally happen less frequently than activities easily accomplished within one class session. It is interesting to note that nonstandard notation was never used by at least 14% of the teachers surveyed, although teachers shared several examples of using nonstandard notation during interviews (Belle, Ariel, Wendy).

Impact of a Creative Mindset

I compared the creative mindset scale score results (fixed or growth) from the survey with responses to the question, How essential do you think these experiences are in an elementary general music curriculum? to determine if any connections emerged. (see Table 8).

Table 8

Impact of Creative Mindset on Attitudes about Instructional Components

Instructional components	Creative mindset	Teacher attitudes			
		Very unessential	Unessential	Essential	Very essential
Improvising melodies, variations, or accompaniments	Fixed	1.7%	10.0%	60.0%	30.0%
	Growth		13.8%	53.4%	31.0%
Composing and arranging music within specified guidelines	Fixed		9.1%	54.5%	36.4%
	Growth		6.9%	51.7%	41.4%

Reading and notating music	Fixed	9.1%	18.2%	72.7%
	Growth	6.9%	31.0%	62.1%
Listening to, analyzing, and describing music	Fixed	9.1%	63.6%	27.3%
	Growth	1.8%	31.6%	66.7%
Creating movement to music	Fixed	9.1%	72.7%	18.2%
	Growth	8.6%	39.7%	51.7%

These data show that regardless of the creative mindset, creative thinking activities occur in elementary general music classrooms; however, arranging the data according to the creative growth mindset of teachers gives a different picture than when arranged wholistically (see Table 3).

Movement was identified as the most commonly used creative thinking activity. Under closer examination, movement is the most frequently used creative activity by growth creative mindset teachers (5.18 times per quarter), but not by fixed creative mindset teachers (3.50 times per quarter). This aligned with data from the interviews. Improvisation with classroom instruments and improvisation using body percussions were the second most common opportunities for students to engage in creative activities, but according to the disaggregated data, these types of improvisation activities are the most frequently used by both fixed and growth mindset teachers per quarter (improvisation with body percussion: 4.22 fixed, 4.89 growth.; improvisation using instruments: 4.25 fixed, 4.52 growth). Improvisation with voices, although not that common overall, is more frequently used by growth creative mindset teachers (2.78 per quarter fixed, 4.38 per quarter growth). Fixed creative mindset teachers are slightly more likely to expect students to use standard notation when creating or composing.

The personal details teachers could provide about their creative thinking activities are compelling. Of the nineteen responses submitted by teachers in the survey, only one was offered by a teacher with a fixed creative mindset. The other eighteen individual responses were provided by growth creative mindset teachers. As with the survey responses, teachers interviewed with the strongest growth creative mindset provided richer descriptions of their creative thinking opportunities.

Impact of Experiences and Education

Although this data was not available from teachers taking the survey, conversations with teachers suggest that early childhood experiences contribute to creative thinking capacity in music. Teachers with early encounters in music began their K-12 learning with pre-existing pathways for ongoing musical enrichment. The importance of this early access was echoed when teachers spoke of the capacity of their own students.

All teachers who were interviewed indicated that their elementary music experiences included little opportunity to engage in creative thinking activities. As teachers moved through middle and high school, few engaged in creative experiences unless they participated in a jazz band or choir. Extracurricular activities were the avenue for exploring creative thinking. Formal activities outside of school did little to develop musical creative thinking. Private music lessons focused on developing performance prowess, not creativity. Teachers shared that their greatest access to creative thinking was through their own experimentation, often driven by an interest in playing popular music or jazz with friends.

Even when teachers studied to become music educators, there were few opportunities to develop personal creativity or learn pedagogical methods for teaching musical creativity. Courses of study seem to have changed very little despite the formulation of national standards for music

education and the focus on building 21st-century skills. No one spoke of feeling prepared for the responsibilities of teaching general music, especially using creative thinking activities in their instruction.

Teachers participating in the survey indicated similar experiences in their college programs of study. The significance of this lack of preparation is reflected when compared to their instructional practices (see Table 9).

Table 9

Impact of Education on Teacher Practice

Creative activity	Instruction received and practice				
Vocal improvisation	Level of instruction received in college	None	Small amount	Moderate amount	Significant amount
	Number of teachers	23	28	5	3
	Frequency of including activity in instruction per quarter	3	4	7	6
Instrumental improvisation	Level of instruction received in college	None	Small amount	Moderate amount	Significant amount
	Number of teachers	16	26	9	7
	Frequency of including activity in instruction per quarter	4	5	3	7
Vocal composition	Level of instruction received in college	None	Small amount	Moderate amount	Significant amount
	Number of teachers	22	23	9	3
	Frequency of including activity in instruction per quarter	2	3	3	1
Instrumental composition	Level of instruction received in college	None	Small amount	Moderate amount	Significant amount
	Number of Teachers	11	26	14	9
	Frequency of activity in instruction per quarter	2	2	3	4
Creative movement	Level of instruction received in college	None	Small amount	Moderate amount	Significant amount
	Number of Teachers	15	28	13	5
	Frequency of activity in instruction per quarter	5	4	7	5

Creative Listening	Level of instruction received in college	None	Small amount	Moderate amount	Significant amount
	Number of Teachers	14	14	11	8
	Frequency of activity in instruction per quarter	1	2	3	10

There are noticeable differences between the instructional practices of teachers who experienced a significant amount of preparation in college and the instructional practices of teachers who experienced none in four of the six creative thinking activities. The data show that teachers receiving the most education in creative activities provide twice as many opportunities for students to engage in vocal improvisation (6 compared to 3), instrumental improvisation (7 compared to 4), and instrumental composition (4 compared to 2) in a quarter. Vocal composition is the only creative thinking activity in which teachers with no educational experience provide more opportunities to students during a quarter (2 compared to 1). All teachers use creative movement during instruction frequently (5 times per quarter on average). Teachers who have educational experience with creative listening offer many more opportunities for students to engage in creative listening activities (10 compared to 1).

During the interviews, some teachers spoke of seeking to improve their instruction through reading and personal trial and error. For older teachers, this was most common as there were limited training and workshops available in the past. Trial and error continues to be a method teachers use to improve their craft, especially for those who do not pursue workshops and trainings. Teachers who seek workshops and trainings acknowledge the benefits.

Data from teachers taking the survey supports the positive impact of seeking professional development training in different models or approaches to music education (See Table 10).

Table 10

Impact of Professional Development on Teacher Practice

Creative activity	Training received and practice				
Creative movement	Level of Dalcroze training received	None	Some workshops	Level 1	Level 2	Level 3
	Number of teachers	37	20	4		1
	Frequency of activity in instruction per quarter	5	6	5		6
Instrumental improvisation	Level of Orff Schulwerk training received	None	Some workshops	Level 1	Level 2	Level 3
	Number of teachers	10	35	5	4	4
	Frequency of activity in instruction per quarter	3	5	4	4	7
Instrumental composition	Level of Orff Schulwerk training received	None	Some workshops	Level 1	Level 2	Level 3
	Number of teachers	13	35	5	4	3

	Frequency of activity in instruction per quarter	2	2	1	4	5
Vocal improvisation	Level of Kodály training received	None	Some workshops	Level 1	Level 2	Level 3
	Number of teachers	12	35	6	1	7
	Frequency of activity in instruction per quarter	3	4	3	0	7
Vocal composition	Level of Kodály training received	None	Some workshops	Level 1	Level 2	Level 3
	Number of teachers	12	35	6	1	7
	Frequency of activity in instruction per quarter	3	5	5	0	7

Although Dalcroze training seems to have a limited impact on the frequency that creative movement activities are provided for students, Orff Schulwerk training positively impacts the frequency of instrumental improvisation and instrumental composition activities. Kodály training has a positive impact on the frequency of both vocal improvisation and vocal composition.

A valuable part of this narrative is the continuing power of experience. During the interviews, some teachers spoke about their change of practice, not because of any mandate but because their creative mindset changed over time. For example, Ella spoke at length about the

rigorous training she experienced growing up. Her entire educational experience focused on acquiring piano expertise as a prerequisite to creative thinking. When she began teaching, she followed the same philosophy. Building music skills was the goal of elementary general music. However, her beliefs changed over time.

> Creativity in my education [was] supposed to come on a top of traditional, very stable basement. If you don't have a basement, you cannot build up the house… I did the same thing… But as I grew up here and as a person and as an American, I started to find out that it's okay not to be perfect. And it's okay to explore other things because they're interesting, they're fun, they take you to other places, they open your mind to other people and other activities and other things people do. And I started to give more room for creativity (Ella).

Violet shared a similar story.

> I spent probably the first 15 years of my teaching career, filling the time with musical experiences, none of which had much creativity. It wasn't until there became a greater focus in an actual written curriculum with resources for professional development that I began to change the way that I thought about how creativity looked and what my role and responsibility was…I began learning about my own creativity and how I could perhaps develop creativity in others (Violet).

Impact of Contextual Conditions

Through the survey and interviews, teachers gave many examples of supports and barriers to their ability to include creative thinking activities in their instruction. At the system level, novice teachers receive support through specifically designed professional development and instructional support from a content specialist. Curriculums are designed to support creative

thinking activities, and some systems have developed resources that align with the curriculum expectations for those creative activities. System supervisors are in place to oversee and advocate for the elementary general music program.

At the building level, administrators support the general music program by approving the purchase of resources requested by teachers. Wendy gave an example of having some control over her professional development, providing some evidence that a few building level administrators exercise flexibility with professional development content. Generally speaking, music teachers have a dedicated space in which to work.

At the system level, the formulas used to allocate elementary general music positions can result in teaching assignments that include multiple schools. Individual teaching assignments can impact guaranteed planning time and do not consider the demands of planning creative thinking activities in isolation. Although curriculums support creative thinking activities, some teachers feel the rigorous pace and assessment expectations infringe on their ability to provide those experiences for students. Teachers of special education programs receive no adapted curriculum and are expected to make necessary adjustments themselves. Professional development opportunities are limited and are geared toward curriculum understanding rather than skill improvement.

Many of the barriers at the building level are the result of the system's allocation formula. There is little consistency across schools. For teachers with multiple school assignments, access to a teaching space and adequate teaching materials is not guaranteed. Teachers may find themselves teaching in a multiuse space or regular classrooms that may or may not be conducive to movement and other music activities. The lack of soundproofing may create problems for surrounding classrooms. Instruments and other music resources must be transported on a cart.

Schools with multiple music teachers may not have enough instruments and other materials, placing teachers in the position of negotiating with each other over access and use. Technology may be inconsistent. Although most teachers indicated that their program is supported monetarily by building administrators, not all teachers find this is true. Charlotte's description of her struggle for classroom instruments is one example of barriers created by an ill-equipped school.

During the interviews, all teachers gave examples illustrating a lack of respect afforded to them at the building level. No teacher indicated that their administrators showed any depth of knowledge about the music curriculum or interest in building that understanding. Observations and evaluations do not address content. Schools may create master schedules that sprinkle or divide classes. As a result, music teachers may have 35-40 students in each class without extra support. Music teachers feel left out of conversation and discounted by other staff members. They are often uninformed about student needs and must look for information independently. They think their expertise is overlooked as they are not always included in decision-making at the school level.

Conclusion

This chapter detailed the process of analyzing data from the online survey and the personal interviews. The results of the data analysis have been shared, and findings have been discussed using the conceptual framework of this study as a guide. Chapter 5 will synthesize the findings with current literature and theory, and discuss convergence and divergence. A discussion of limitations and suggestions for further research will be followed by concluding remarks.

CHAPTER 5: DISCUSSION, IMPLICATIONS, AND CONCLUSIONS

The ability to think creatively is an essential skill for the 21st century (de Bono, 1992; Plucker et al., 2015). Although the importance of creativity is widely acknowledged by scholars, educators, and business leaders, creative thinking is not an important component of any of the traditional academic subjects taught in elementary school. The elementary general music curriculum standards stand out, however, emphasizing the importance of creative thinking in music instruction (Standards, n.d.; Thibeault, 2020). These curriculum standards should be reflected in the instruction students receive. Unfortunately, there is little evidence that elementary music instruction is grounded in developing creative thinking skills. My research sought to understand how elementary general music teachers plan and deliver creative thinking opportunities for students and what factors influence their instructional decisions.

This chapter provides a comprehensive overview of the study, delving into the findings that shed light on the current state of creative thinking instruction in the elementary general music classroom. The discussion critically examines how these findings align with existing literature, theories, and concepts, providing a rich context for understanding the research. I also acknowledge the study's limitations and propose promising avenues for further research. The chapter concludes with a reflection on my personal journey as a researcher, underscoring the importance of this topic in music education.

Research Purpose and Research Questions

The purpose of this research was to explore factors that contribute to the inclusion of creative thinking instruction in the elementary general music classroom. I examined the perceptions, preparation, and practices of elementary general music teachers as well as contextual conditions that may facilitate or hinder creative thinking in general music instruction.

These research questions are crucial for understanding the current state of creative thinking instruction and for guiding future practices in the field.

Research Question 1: How do elementary general music teachers integrate creative thinking activities into their music instruction?

Research Question 2: What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?

2.1 How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?

2.2 How do teachers' experiences and preparations in music education influence their practice of including creative thinking activities in general music instruction?

2.3 How do contextual conditions influence the inclusion of creative thinking activities in elementary general music instruction?

Research Design

A mixed methods approach provided an opportunity to bring breadth and depth to the research using a convergent parallel design (Creswell & Creswell, 2018). I gathered most of the quantitative data through an online survey. An online survey enabled me to gather data from a large group of elementary general music teachers from diverse backgrounds and experiences. This quantitative data was analyzed using descriptive statistics. Personal in-depth interviews provided the bulk of the qualitative data. In-depth personal interviews captured teacher narratives that added greater detail and understanding about their perceptions, practices, and specific contexts. The qualitative data was analyzed using a coding process. I considered each data set independently and then looked for areas of convergence and divergence. The data was integrated prior to the interpretation of the findings (Creswell & Plano-Clark, 2018).

Creative Thinking in Music Instruction

This study contributes to the literature on creative thinking instruction in the elementary general music classroom. Some of the findings align with previous research. Other findings are not consistent with previous research and move research on creative thinking instruction in music forward.

Elementary general music teachers in Maryland incorporate many creative thinking activities during music instruction. These findings are not consistent with data from previous studies. Orman (2002), Whitcomb (2005), and Strand (2006) found that although music teachers believe in the value of creative thinking, they rarely include creative thinking activities in their instruction. The findings from Phelps' (2008) research of Maryland music teachers aligned with prior research. My findings suggest a positive increase in creative thinking opportunities during music instruction over the last 15 years.

Creative Movement

Movement was cited as the most frequently offered creative thinking activity. Although teachers acknowledged that not all movement is part of a creative activity, they gave many examples of creative thinking through movement. Creative movement offers students opportunities for self-expression and exploration in the early grades. This aligns with the theories of Vygotsky (2004) and Dewey (2011), who advocated for early childhood experiences stimulating imagination and creativity. This also aligns with the teaching philosophies of Jacque-Dalcroze (1921) and Orff (Orff et al., 1950), who based their approaches to music education on the relationship between music and movement. E. Gordon (1989) stressed the importance of early experiences with music and movement in his Music Learning Theory. Several of the teachers used the term intertwined when describing the relationship between music and

movement during their interviews. This is echoed in the words of Kraus (2021), “Moving is intertwined to hearing when it comes to making and listening to music” (p. 119).

Improvisation

Many teachers indicated they included creative thinking improvisation opportunities using body percussions, classroom instruments, and voices in their music instruction. They shared examples of rhythmic, melodic, harmonic, meter-focused, and form-focused improvisation experiences they provided students during music instruction. The most frequently referenced improvisation activities were rhythmic or melodic and most often involved body percussions or classroom instruments. This is consistent with the instructional approaches of Jacques-Dalcroze (1921) and Orff (Orff et al., 1950). During interviews, teachers spoke about the necessity of exploration of rhythm and sound during improvisation, especially for primary students. Gardner (1983) felt that these early explorations were essential to developing musical competence and were critical in building the capacity to sustain interest in later creative efforts. This need for exploration is emphasized in Vygotsky’s (1978) theory of child development and the research of Kratus (1990, 1995) and Flohr (2010). Brophy’s (2002a) research referenced the importance of understanding the processes and products of improvisation and how these develop over time through instruction in imitation, consequence, variation, and origination. These concepts are consistent with Guilford’s (1966) model for creative thinking, which highlights the interplay between convergent and divergent thinking. The evidence from this study suggests that music educators experienced in improvisation are more effective in teaching students how to improvise. This is contrary to assertions by Hickey (2012) that music educators do not need to be experienced in improvisation and composition to teach children how to improvise or compose.

Knowing the steps in the creative process does not make you effective at teaching creative thinking or creative musicianship.

Creative Listening

Very few teachers indicated that they provided creative listening activities in their instruction. Dunn (1997) noted that listening to music is often viewed as a passive activity and does not automatically result in an observable product. In general, teachers indicated some level of discomfort with the concept of a creative activity, resulting in an internal, unobservable product. Teachers struggle to provide creative listening activities as examples of creative thinking. A few offered examples of listening maps, but others viewed listening maps as representative of the structure of the piece rather than the result of a creative experience. This uncertainty or confusion is supported in the literature. Csikszentmihalyi (1996) believed that "Creativity does not happen inside people's heads" (p. 23). Webster (1987) also argued that a product was the necessary result of any truly creative activity. Copland (1952), on the other hand, believed creative listening to be the freest and most abstract form of musical creativity since the entire experience occurred inside the mind. Researchers consider it the least studied aspect of musical creativity (Dunn, 1997).

Composition

Teachers indicated they provided opportunities for students to engage in music composition regularly. Most, however, focused on explaining the sequence of the activities, not on an instructional purpose. Only a few teachers connected music skill development directly with a composition activity. Therefore, it was not easy to understand the composition's purpose in many cases. For example, the work of Barrett (1996), Webster (1992), and Freed Carlin (1998) included instructions for students to create compositions with a beginning, middle, and end.

However, only one teacher described explicit instruction prior to an expectation for an ending in a composition. Teacher responses show that composition activities are spread over several class periods. This is consistent with the research of Hickey (2012) and the Model of Creative Thinking in Music outlined by Webster (2002). It is also reflected in Csikszentmihalyi's (2015) Systems View of Creativity Model and aligns with Dewey's (2011) theory of having time away from an activity.

Grouping Students for Creative Thinking

Teachers choose whole group, small group, and individual work settings flexibly, suggesting that teachers value all grouping practices and select groupings based on the creative thinking activity. Whole group activities are most often used for teacher modeling and whole class creation. This aligns with the research of Wiggins (2007) and Sawyer (2010). Smaller groups may work on creative thinking activities collaboratively. They can also be used for brainstorming with peers and providing peer feedback. Individual work may be used for individual projects or idea generation.

Grouping students for creative activities has widespread support in the research community. Group dynamics encourage divergent thinking necessary for the creative process (Guilford, 1967). Csikszentmihalyi's (2015) Systems View of Creativity is grounded in community and collaboration between the individual, field, and domain. Webster's (2002) Creative Thinking in Music illustrates the exchange of ideas (enabling conditions) to encourage divergent thinking. However, both Csikszentmihalyi (1996) and Webster (1990) realize the importance of having time to work in isolation. This is echoed in the work of Hickey (2012) and J. L. Moore (1990). Although grouping students during creative thinking activities has many merits, several teachers expressed concerns about dynamics within student groups that might

overshadow the thinking of individuals. This is supported by the research of Baumeister and Bushman (2008).

Teachers also shared different viewpoints on the sequencing of grouping. Many followed the sequence of whole group work, small group work, and individual work. However, several teachers valued allowing students to work alone first and using the small group time for sharing and peer feedback. The work of Sawyer (2010) and J. L. Moore (1990) supports giving students time alone to generate ideas in the initial stages of creative thinking. During interviews, most teachers indicated they often allowed students to self-select groups during creative thinking activities. The research of Wiggins (2003) and Miell and MacDonald (2000) recognized the value in students working in friend groups, finding students to be more productive and to collaborate more effectively when paired with friends. This resulted in a higher quality of work.

Assessment of Creative Thinking

Researchers and teachers debate the assessment of creative thinking and products. Although Wiggins (1999) feels the teacher's response to students' work is critical, Dewey (2011) cautions that assessments can have negative consequences. Teachers have differing opinions on the validity of assessing creativity and any assessment tools. Some teachers choose not to assess. Others grapple with assessment tools mandated by their school systems, often driven by skill-based rubrics. Even other teachers attempt to create their own creativity-based assessment tools.

At the center of this debate are two issues: the criteria for the assessments and the extrinsic influence of assessments. Teachers shared that school system-generated rubrics used to assess music compositions often focus exclusively on standard music notation skills. Student work may check the boxes of accurate measures and beats, similar to following a recipe. However, the student may be unable to perform the composition or even know how it sounds.

This dilemma is discussed in the work of Simonton (2013), who explores the problematic nature of creative assessment in its scrutiny of who is deciding the criteria, what the decisions are based on, and who is doing the assessment. As teachers explore alternative choices, many gravitate to using feedback as an assessment. This aligns with the research of Wiggins (1999), Hickey and Webster (2021), and Deutsch (2016), who emphasize the positive impact of feedback between teacher and student during the creative process and how that can be used as an assessment. Amabile (1983, 1996) and Dweck (2006) warn of the negative potential of any assessment. Both advocate using feedback or other assessments that focus on the work rather than an individual's ability. Dweck, along with Baer (2013), cite examples of the potential positive impact of feedback. Although a small group of teachers mentioned having students help develop rubrics for creative products, none gave examples of using peer assessments, self-assessments, or portfolios as measures of creative thinking. This is inconsistent with the work of J. L. Moore (1990), suggesting that students play an essential role in assessing their creative work.

Classroom Environment Conducive to Creative Thinking

As teachers plan and deliver creative thinking activities, they recognize the impact of the classroom environment. As early as 1954, Rogers talked about the importance of creating environments of psychological safety. Edmondson and Mogelof (2006) describe a psychologically safe environment as one that welcomes and respects questions, feedback, mistakes, and suggestions from everyone in the group, regardless of individual background or experiences. During interviews, teachers shared the need for students to feel safe and valued to be comfortable engaging in creative activities or meaningful collaboration. The work of Stringham (2016) supports this concept of a collaborative classroom community of composers. The work of Amabile (1997) and Kladder and Lee (2019) also emphasizes the importance of a

supportive classroom environment that provides choice, positive challenge, necessary resources, and encouragement. The research of Bruner (1996), John-Steiner (1997), and Fleith (2000) speaks to providing a psychologically safe environment to facilitate creative thinking. "Creating a harmonious, meaningful environment in space and time helps you to become personally creative" (Csikszentmihalyi, 1996, p. 146).

Student Capacity for Creative Thinking

An unexpected finding from this research was the need to build students' capacity for creative thinking. During the interviews, teachers indicated that students often struggle with the rigor of creative thinking and lack the stamina needed to persevere through the creative process. Many students do not welcome making mistakes and might choose to give up on a task rather than try again. Students may have trouble coping with open-ended activities that require them to seek answers by exploring the possibilities. They prefer to be told what to do so they may be finished as quickly as possible.

The work of Tough (2012) and Duckworth (2016) has explored the concept of grit. In creative thinking, grit is essential because it helps build perseverance and tolerance for failure. Grit also helps build resilience, enabling a quick brain reset of attitude and encouraging positivity in the face of failure or hardship (Perkins-Gough, 2013). Teachers shared the necessity of building grit in their students to support students' ability to engage in creative thinking. Several teachers spoke about the importance of modeling failure. Demystifying failure and refusing to be defeated by failure are principal concepts of grit (Duckworth, 2016). Teachers spoke of changing their classroom culture into a place where failures are welcome. In the words of Sawyer (2007), "Fail often, fail early, fail gloriously" (p. 178). However, learning to expect failure during the creative process should be coupled with a classroom environment that fosters

mutual support, idea sharing, and group reflections (Bruner, 1996). Teachers also shared strategies of breaking up creative thinking activities and spreading them over several class periods, scaffolding activities with structure, providing opportunities for student choice, using flexible grouping, peer feedback, and self-reflection.

Factors that Contribute to the Inclusion of Creative Thinking Activities

The most critical factor in students' creativity development is the level of teachers' interest in and dedication to promoting creativity (Dweck, 2006; Saracho, 2002). Teachers' personal experiences form the basis for their interests and passions. Personal experiences also shape the beliefs that impact how teachers do their work.

The Impact of Teachers' Creativity Mindset

Findings from this study show that most teachers have a growth creativity mindset, even though their beliefs about the nature of talent may be complex. This is consistent with the research of Karwowski (2014), indicating that teachers' attitudes about the nature of creativity and innate talent can impact their creative thinking instruction. During interviews, teachers referred to limited access or lack of exposure to musical experiences as significant challenges for students struggling with creative tasks. Teachers discussed the importance of providing opportunities for students to connect with music at all levels to build their capacity to engage more effectively in creative thinking activities. This supports Webster's (1987, 1988) view that divergent thinking benefits from an extensive knowledge base.

Teachers with a more fixed creativity mindset had difficulty sharing and elaborating on their creative thinking activities. These teachers were also more inclined to offer examples of external barriers that hamper their creative thinking instruction. This supports the research of Paek and Sumners (2019), which showed that the more teachers believe creativity to be innate,

the less confident teachers are in their ability to teach for creativity. During the interviews, however, some teachers shared personal stories reflecting a transformation in their thinking about creative potential and the importance of creative thinking activities in their instruction. This is consistent with the research of Karwowski and Brzeski (2017), who found that mindsets can change over time. When teachers' mindsets about creativity change, their instructional practices become more inclusive of creative thinking activities.

The Impact of Teachers' Childhood Experiences

Attitudes about music making can develop during early childhood. Childhood experiences can have a positive impact when families value music. During interviews, many teachers spoke of growing up in a family of musicians or a family that engaged in music-making for pleasure. These teachers had access to rich musical experiences prior to beginning school. This is consistent with Vygotsky's (2004) theory of children as apprentices and Dewey's (2008) belief in the importance of early childhood experiences.

Positive personal memories, combined with informal learning experiences, influence teachers' philosophies and musical identities more than formal schooling. Findings indicated that teachers exhibiting the best understanding of creative thinking pedagogy engaged in creative thinking in music through opportunities outside formal education. This is consistent with the research of Horsley and Penn (2014), who found a significant relationship between childhood memories and working with children. During interviews, teachers shared examples of their musical experiences outside of school. They may have benefitted from private instruction or other formal and informal musical opportunities. These experiences help shape teachers' musical identity and build self-confidence in their capability to plan and deliver creative thinking

activities for students. This connection between personal experiences and self-confidence is espoused in Bandura's (2012) self-efficacy theories.

The Impact of Teachers' Formal Education and Training

Opportunities to experience creative thinking in music are not often part of formal education. With few exceptions, teachers who attended public schools offered little, if any, examples of creative musical experiences during their K-12 education during interviews. As a result, most began their college music education program without personal experience in improvising or composition. During their college experiences, courses in improvisation and composition were not part of teachers' music education coursework, limiting their ability to explore or understand their creativity. In addition, the teachers did not receive explicit instruction in creative thinking pedagogy. This aligns with current research on the programs of study and the perceptions of preservice teachers on the effectiveness of music teacher preparation education (Campbell, 1991; Deemer, 2016; Kruse et al., 2008; Mishra et al., 2011; Whitcomb, 2013). Most teachers begin their teaching careers lacking the knowledge and experience to effectively introduce creative thinking activities into their instruction. Many elementary general music teachers are instrumentalists by training with little voice instruction (In Maryland, music education certification is not specific to instrumental or vocal music.), adding another complication to the effective use of creative thinking activities. This is consistent with Kuebel's (2019) findings, suggesting that music teacher preparation programs include both vocal and instrumental instruction.

In general, teachers feel unprepared to teach creative thinking. Teachers with the most confidence continue to make music outside of their classrooms. Although school systems provide a measure of support for new teachers, they do not provide comprehensive professional

development on any of the commonly used methods or approaches, including, but not limited to, Dalcroze, Orff, Kodaly, Music Learning Theory, and World Drumming, and do not specifically address creative thinking. Some teachers seek additional training and education outside their school systems but must incur the costs personally. This was also a concern raised by Angeline (2014) in exploring professional development options. His research found a positive relationship between professional development and the quality of creative thinking opportunities provided by teachers.

The Impact of Teachers' Ongoing Musicking

An unexpected finding from teacher interviews was the positive impact of continued personal musicking. Teachers who shared the most descriptive examples of creative thinking lessons also shared information about their ongoing personal engagement with music making (musicking). This aligns with Amabile's (1996) intrinsic motivation principle of creativity. Opportunities to pursue personal creativity fuel passion for work. Teachers' confidence in their own capabilities results in positive feelings and behaviors. Each endeavor intrinsically motivates the other.

Contextual Conditions in the Workplace

This study found that most Maryland teachers believe the curriculum adopted by their school systems supports the National Standards for Elementary General Music. This is consistent with studies conducted by Kladder and Lee (2019). As reflected in other studies, however, some teachers struggle to provide creative thinking activities due to the rigor and pacing required to meet the curriculum's expectations (D. Gordon, 2000; Stavrou & O'Connell, 2022).

The Impact of Physical Space and Resource Challenges

Teachers value access to a dedicated music space with adequate resources, indicating that a lack of appropriate space and resources undermines their ability to engage students in creative thinking activities. The need for physical space and resources is echoed in other research (Abril & Bannerman, 2015; Jacobi, 2019; McCoy & Evans, 2002). Teachers indicated that oversized (30+) class configurations also hampered their efforts to provide creative thinking activities. Oversized classes often included students demonstrating inappropriate behaviors or students with special learning needs. This is supported by the research of Slaton (2012), Abril & Bannerman (2015), and Matthews & Koner (2016). Teachers cited space and resource concerns as the most concrete challenge to creative thinking instruction.

The Impact of Multiple School Assignments

Difficulties emanating from multiple school assignments and yearly changes in assignments are also factors that hinder the inclusion of creative thinking activities. The work of Robison and Russell (2022) explores these challenges. As a result of staffing formulas used by school systems, teaching positions are pieced together and offered to new hires who are often novice teachers. Although other research did not address these phenomena, data indicates that elementary general music programs are inconsistently allocated and staffed nationally (Major, 2013; Slaton, 2012; Walker, 2015).

The Impact of Administrator Support

The importance of administrator support was a common finding in this and other studies (Abril & Gault, 2006; Robison & Russell, 2022). Although financial support was generally considered strong, teachers did not view their administrators as knowledgeable about the music curriculum or pedagogy. This is consistent with the research of Abril and Bannerman (2015). Teachers overwhelmingly indicated that performance evaluations provided by their

administrators had no connection to music content and did not help provide feedback to improve their instructional practices. The work of Nielson (2014) and Shaw (2019) echoes these teacher concerns. Administrator support with student behaviors was an additional concern in this research and the work of R. Gardner (2010).

The Impact of Professional Development

Novice teachers can benefit from support from teacher mentors, content-specific feedback during observations, and dedicated professional development opportunities. The benefits of this support to new teachers were echoed in the work of DeLorenzo (1992). More experienced teachers also could benefit from more focused content feedback and system-provided professional development. Krueger (2001) and Verdi (2022) found a similar lack of professional development opportunities in their research. They recommended offering communities of practice (Wenger, 1999) for music teachers at a school system level to benefit professional development.

The Impact of Time

Time was a primary concern for teachers, both for instruction and planning. During the interviews, teachers in one school system indicated they could meet with their students twice weekly. However, teachers from other systems indicated that music instruction was scheduled once each week. All teachers shared that their schedules remained fixed, even when holidays or other factors prevented them from meeting with students. The limited access to students was viewed as a hindrance to delivering creative thinking instruction. Orman (2002) and Strand (2006) also found this concern in their research. Adequate time for planning also emerged as a significant concern, especially for teachers with multiple school assignments or those providing

instruction to self-contained classrooms of special education students. This concern is supported by the research of Schleuter (1991) and Conrad (2006).

The Impact of School Climate

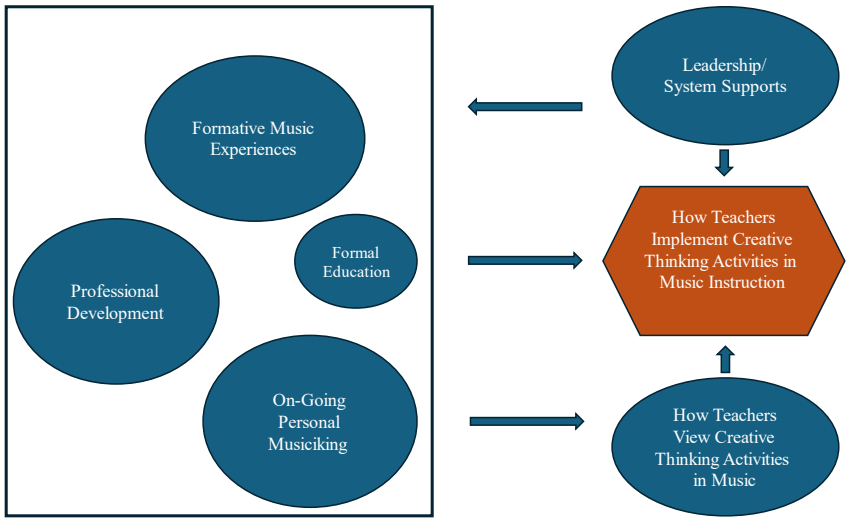
The majority of teachers describe feeling disrespected or devalued in the school setting. They are often left out of leadership roles within the school and have little, if any, voice in schoolwide decision-making. Some of the teachers shared a feeling of loneliness or isolation. Sindberg and Lipscomb (2005) and Matthews and Koner (2016) have also voiced these barriers music teachers face.

Post-Research Conceptual Framework

My initial conceptual framework helped structure my research and served as an initial guide to approaching the data. As I explored and analyzed the data, I found that factors impacting how teachers implement creative thinking activities in the classrooms have different levels of impact. I also discovered a significant factor that I had not expected. I had not considered ongoing personal musicking. The data, however, revealed ongoing personal musicking as a significant contributor to teachers' confidence in their ability to provide creative thinking instruction. As a result of analyzing the data, I also found that leadership support cannot be considered solely as a factor impacting the implementation of creative thinking activities. Leadership support contributes to the collective experiences of teachers. Based on the findings of this study, I created a post-research conceptual framework to provide a more accurate visual picture. (see Figure 29).

Figure 29

Post-research Framework



This model also captures the dynamic nature of personal experiences. As teachers accumulate experiences over time, their beliefs and attitudes may change. Since mindset is based on beliefs, teacher mindsets may also change. A fixed mindset assumes that creative ability is static. To maintain the sense of being smart or talented, it is critical to avoid failure at all costs. New musical experiences over time, however, provide opportunities to develop new skills and build confidence in exploring new possibilities. Over time, these lived experiences can be the catalyst for change. A most compelling example of a changing mindset was shared during one of the interviews.

> Creativity in my education was supposed to come on top of a traditional, very stable basement. I did the same thing. But I started to find out that it's okay not to be perfect. And it's okay to explore other things because they're interesting. They're fun. They take you to other places. They open your mind to other people and other activities and other things people do. And I started to give more room for creativity (Ella).

Implications for Theory

This study builds upon Guilford's (1959) foundational work on creative thinking. It reflects the creative thinking concepts illustrated in Amabile's (1988) Creativity Intersection, Csikszentmihalyi's (2015) Systems View of Creativity, and Webster's (1990) Model of Creative Thinking in Music. It provides evidence to support these theories and expands on some concepts and relationships.

Guilford's Structure of Intellect

This study helps extend our understanding of how Guilford's (1967) Structure of Intellect Model can be applied to enhance creative thinking through music instruction. Guilford's (1959) theory suggests that critical characteristics of creativity (fluency, flexibility, originality, awareness, and elaboration) are necessary for creative thinking. Placing students in small groups to generate ideas increases fluency in the elementary general music classroom. Flexibility is encouraged by building students' capacity to consider multiple options through questioning, feedback, and reflection. Providing opportunities for student choice stimulates originality. Improving focus by building students' stamina and grit increases awareness. Elaboration is fostered when students receive support organizing their work with frameworks and perimeters. This study also supports the idea that divergent thinking is essential for creativity. A safe classroom environment that encourages experimentation, feedback, and revision is ideal for divergent thinking.

Csikszentmihalyi's Systems View of Creativity

This study supports Csikszentmihalyi's (2015) Systems View of Creativity by illustrating the interplay between individual, domain, and field. Teachers can successfully integrate creative thinking when the classroom functions as a community of composers. Students participate as individuals (the creators), as members of the domain (the holders of musical knowledge, skills,

and techniques), and as part of the field (expert judges). As students serve in each capacity, they build their capacity to engage in creative thinking. Csikszentmihalyi's model is relevant for music teachers as well. My findings indicate that most music teachers have limited opportunities to explore and develop their creativity in formal education. In addition, they enter the teaching profession without any knowledge of creative thinking pedagogy. This lack of experience impacts their ability to be effective teachers of creative thinking.

Webster's Model of Creative Thinking in Music

Further, this study offers illustrations for Webster's (2002) Model of Creative Thinking in Music and the underlying influence of the education theories of Piaget (1968), Vygotsky (2004), and Dewey (2011). The enabling skills of Webster's model include aptitude, conceptual understanding, craftsmanship, and aesthetic sensitivity. These skills impact the quality of creative thinking efforts and are reflected in the findings in teacher comments about student products. Although this set of skills acknowledges the aptitude or innate talent that might be present in some students, it also acknowledges the importance of content knowledge and the ability to distinguish between what sounds good and what does not. For example, teachers pointed to the difference between a product that satisfies a checklist of guidelines (e.g., number of measures, meter) and a product that meets aesthetical expectations (e.g., cohesive design, quality of melodic structure). The enabling conditions in Webster's model are personal and social/cultural components. These include the personal experiences and motivation of the students, as well as the classroom environment and level of collaboration. I found that teachers recognize the value of establishing a classroom environment that provides a safe place for learning and creating. Teachers shared how they worked to build a community grounded in mutual respect and collaboration.

Amabile's Creativity Intersection

This study also expands the studies of Amabile (1988) to the context of music education in elementary music classrooms. The creativity intersection occurs when skills, processes, and intrinsic motivation overlap. Similar to findings by Amabile (1992), I found that a safe and supportive environment is necessary to foster creativity. A positive classroom environment allows students to concentrate on building their music skills, experience different creative thinking activities, and develop confidence in their ability to be creative. As students grow from their experiences, their intrinsic motivation can be fueled through well-organized creative thinking activities that include opportunities for choice and incorporate feedback rather than formal assessment. A supportive environment for teachers' professional growth is just as vital as a positive classroom environment for students' creativity. The confidence that teachers can develop through creative encounters contributes to their self-confidence as teachers of creativity.

Dewey's Philosophy of Education

Further, this study supports Dewey's (2011) assertion that learning is a social process of discovery and experimentation. Early opportunities for students to explore and improvise through movement and listening provide a foundation for more advanced creative thinking. Effective collaboration, whether in small or large groups, builds a collective musical cognition that benefits the creative efforts of all. The influence of this community of learners is reflected in Vygotsky's (2004) zone of proximal development.

Dweck's Growth Mindset Theory

Dweck (2006) highlights the importance of a growth mindset. Dweck's ideas are extended to creativity through the work of Karwowski and Brzeski (2017). I found that most teachers demonstrated a growth mindset about creativity despite feeling conflicted about the

significance of talent. Although Guilford (1950) and Torrance (1962) did not believe that creativity was dependent on intelligence, teachers' beliefs about the nature of musical talent shaped their thinking about their students' potential for creative thinking. Their beliefs influenced the planning and delivery of music instruction. Teacher beliefs and practices send students powerful messages about their creative potential.

Hickey's Adaptation of Calkins' Creative Writing Instruction Model

This study also extends models for teaching creativity in writing (Calkins, 1994; Culham, 2003) to music (Hickey, 2008). Calkins' creative writing model uses a six-step process that includes ideas, organization, voice, word choice, sentence fluency, and conventions. The model allows teachers to focus on specific aspects or traits of creative writing as they build their students' writing skills. The traits of musical compositions could include ideas and organization but might substitute mood, flow of melody, and rhythmic combinations for voice, word choice, and sentence fluency. Writing conventions might become music writing skills. This model honors and supports the ideas of students. Hickey believes this model provides teachers with a structure for giving feedback and encourages student revisions during the composition process. Evidence from this study also supports Calkin's (1994) suggestion for the +1 trait, which accentuates the importance of sharing creative work. Students need to feel a sense of accomplishment and pride by sharing their work and receiving feedback and appreciation. Teachers recognized the positive impact on students when they could share their work with others.

Gruber's Evolving Systems Model

This study also offers evidence that student composers value student work presentations. These celebrations of creative efforts give students opportunities to share their work with others

and increase their intrinsic motivation to engage in future creative thinking activities. The positive impact of sharing creative work is consistent with the evolving systems approach to creativity developed by Gruber (1989), who views success as a significant stimulus for further creative work.

Big-C, little-c Theory of Creativity

This study extends the conversation on using the Big-C versus little-c approach that assigns value to creative products based on perceived worth (Beghetto & Kaufman, 2007; Simonton, 2013). Merrotsky (2013), Runco (2014), and Simonton (2017) have warned about the dangers of ranking creativity, and their concerns are worthy of consideration when developing the creativity of elementary school students. Anything that diminishes students' creative ideas is a disservice to students and the creative process. Calkins (1994) emphasizes the importance of celebrating students' creative ideas and showing respect for the students' investment of time and effort. Creating ideas is ambitious work, and educators cannot expect students to demonstrate perseverance and grit during the creative thinking process if their ideas are not considered valuable and worthy. Findings from this study suggest the need for continual non-judgemental support for small-c creativity to foster Big-C creativity.

Implications for Practice

The data from this study indicates that activities that encourage creative thinking occur in elementary general music classes. Creativity is inherent in music but must be connected to instructional objectives and purposeful in an elementary music program. Purposeful creative thinking activities allow students to explore and synthesize music content in new and innovative ways, and the creative process provides the structure in which creativity can occur. The general music teacher has a unique opportunity to provide an instructional environment that fosters both.

Unfortunately, music teachers do not receive any instruction on the creative process or creative thinking pedagogy during their teacher preparation coursework.

Findings from this study and many others suggest that teacher preparation programs continue to focus on building the performance expertise of music education students rather than fostering the creative musicianship skills needed to teach the creative aspects of music to elementary students effectively. During the interviews, some teachers shared experiences during their teacher preparation program, indicating that some colleges and universities have already begun this work. However, this transformation will only be successful with a true partnership between music teachers, school leaders, universities, and the Maryland State Department of Education.

Maryland State Department of Education

The Maryland State Department of Education (MSDE) oversees public school districts and grants certification to Maryland music educators. MSDE has the opportunity to organize and lead a focused dialogue between school systems and higher education to identify areas of strengths and opportunities for growth and improvement in music teacher preparation programs. As part of this effort, MSDE can investigate current programs offered by higher education institutions in Maryland and highlight and share innovative programs. In addition, MSDE can be instrumental in establishing timelines for implementing course revisions in teacher preparation programs to strengthen the expertise of potential music educators in music creativity.

Higher Education Institutions

Higher education institutions can collaborate with MSDE and local school leaders to establish priorities for program outcomes and ensure the alignment of music teacher preparation programs with the expectations of the National Standards. Reimagined courses could provide

opportunities for teacher candidates to experience creative listening, vocal and instrumental improvisation, and composition through the creative thinking process early in their college program. Subsequent pedagogy courses might include field experiences for applying and practicing skills and concepts before student teaching. Exploring both vocal and instrumental aspects of music creativity is essential in Maryland undergraduate programs, given the non-specific PreK-12 certification practice. Institutions can ensure that professors teaching courses in music creativity and pedagogy are experienced K-12 educators with demonstrated expertise. In addition, professors could receive professional development in music teaching models. Lastly, expanding partnerships with public school systems could increase the authentic learning opportunities for music education students.

School Systems

School systems could formalize the practice of providing targeted support to novice teachers. Music supervisors might collaborate with other system-level staff to provide professional development support during the teacher workday. Opportunities for differentiated, creativity-focused professional development for all music teachers might be shared across school systems by advocating for common professional days. Teaching assignments could be limited to a maximum of three schools. Classroom instrument sets might be deployed to large schools to accommodate the needs of simultaneously scheduled classes. An instrument replacement review process might be developed as schools age. The knowledge of music content by school-based administrators could be fortified to increase the effectiveness of music teacher evaluations. School systems could mandate the inclusion of the arts team in school leadership to help address inequity in the workplace.

Professional Associations

Associations like the Maryland Music Educators Association could prioritize advocating for improved teacher preparation programs. They might partner with school systems to design cost-effective and meaningful professional development. Associations might also advocate for equity in the workplace for music educators.

Elementary General Music Teachers

Music teachers can effectively plan and deliver quality creative thinking opportunities for students even when resources are limited. Creative movement enables students to respond to many aspects of music (e.g., rhythmic patterns, melodic contour, tempo, mood). Improvisations can include multiple instruments and body percussions. Creative listening spans all styles and genres. Compositions can range from simple rhythms to more complex creations. A fully equipped music room may be desired but is not required.

Music teachers can advocate. They can seek active roles in school leadership and choose to participate more prominently in events. This visibility will help earn them a higher level of respect and value from other school staff. As cheerleaders of their programs, music teachers can showcase their students' work with other staff members, students, parents, and community members. These actions illustrate the importance of general music education to everyone. Teachers could join music associations to develop a broader peer network and build a stronger voice for critical issues.

Music teachers can build strong relationships with other specialists, especially art and physical education teachers. These teachers share many of the same challenges and may benefit from sharing effective practices. It is clear from the interviews that music teachers are already collaborating with other specialists in some schools. Teaming with other specialists provides

opportunities for cross-curricular planning and coordination, making the impact of instruction more powerful. Successful cross-team collaboration increases the connections of music teachers with other staff. This partnership highlights the value of music instruction, which can lead to more administrative support for music teacher planning and resources. Wendy provided an excellent example when she spoke of her administrator's support of alternative professional development for music, art, and physical education teachers.

Although some of these recommendations are revenue-based, some are not. Positive changes can be implemented without compromising budgets. A steering committee formed of school system leaders and music teachers can spearhead efforts. Starting small is still starting.

Limitations and Suggestions for Future Research

The scope of this research was limited to elementary general music teachers working in Maryland public schools. An invitation to participate in this study was disseminated through social media platforms, the Maryland Music Teachers Association, and personal outreach. In addition, email invitations were sent to all elementary music teachers in two school systems. Ultimately, 64 music teachers completed these surveys, and 12 agreed to be interviewed. This sample represents approximately 7% of the elementary general music teachers in the state. Participation in either the online survey or through an interview was entirely by personal choice. Although efforts were made to ensure the sample was representative of the population, self-selection introduces a bias that should be acknowledged. Future studies may explore collaboration between public school systems, music teacher associations, and educational institutions to conduct a more rigorous study with a larger sample.

Due to the cross-sectional nature of this study, the data represents teacher perceptions from one moment in time. Future research would benefit from a longitudinal design. This would

ensure that teacher perceptions and practices are captured over time to see how changing factors affect classroom practices.

This study was based on self-reported data of elementary general music teachers. However, self-reported data alone can provide an incomplete picture, as there could be exaggeration or confusion. The research design did not include actual teacher observations or alternative points of view from other individuals. Wang & Sogin (1997) found discrepancies between teacher claims of time spent on music activities in their survey responses and corresponding videotaped lessons. Additionally, the presence of creative thinking activities in instruction does not necessarily indicate a learning opportunity. Future studies can explore nuances in the general music classroom to observe how instruction impacts learning.

Conclusion

Scholars identify creativity as an essential learning and innovation skill in the 21st century. To successfully equip students to navigate the 21st century, all students must receive creative thinking instruction. Although education is the vehicle for learning to think creatively, the K-12 curriculum is focused on the acquisition of content objectives and knowledge that can be replicated on standardized tests. The literature on this subject only reinforces what I know to be true through my years of experience in public education.

Although music courses are part of the K-12 curriculum, music is not assessed by standardized tests. Music is considered an art form that symbolizes the human experience in all cultures. Music education aims to provide students with the tools to access that art form. “The goal, the point, the purpose, is to make music—that is, to create sounds that satisfy as only music can. That is what needs to drive our instruction: the search for creative musical meaning” (Reimer, 2003, p. 130).

The inherent connection between music and creativity is illustrated in the National Standards in Music Education. However, research suggests opportunities to engage in creative thinking activities during music instruction are limited. This disconnect between purpose and practice fueled my interest in choosing this topic for my dissertation research. My study took a holistic approach to understanding how creative thinking is taught and what factors contribute to including creative thinking activities in elementary general music classrooms.

This dissertation is the culmination of my study of organizational leadership. Although connecting creative thinking instruction and organizational leadership might be challenging at first glance, the connection is powerful. Effective leaders do not revel in their expertise. They recognize and harness the expertise of others through collaboration. Effective leaders understand the importance of building a collaborative environment that values mutual respect, honors multiple perspectives, and welcomes risk-taking.

The need to establish a safe space for learning was a significant theme throughout the interviews with teachers. The second central theme was collaboration. Whether building a community of composers in the classroom, a community of leaders within a school, a community of learners for professional development, or a community of advocates at the state level, it is essential to foster a safe environment that encourages collaboration.

The work of Csikszentmihalyi, Amabile, and Webster describes a pathway to creativity dependent on these two ingredients. The structure of creative thinking activities in the elementary general music classroom provides an access point for students to experience the power of collaboration in a safe environment. Within this structure, students can safely explore their own creativity from an early age as they develop an understanding of music.

EPILOGUE

Music has always been dear to my heart. Through my research, I have rediscovered my passion for elementary music instruction. Many music teachers in Maryland provide their students with excellent opportunities to engage as creators of music, and many more are committed to reaching that level of expertise. These are causes for celebration. As I reflect on my journey, I am proud of what I have learned and the findings from this study. Work remains, but I am optimistic for the future.

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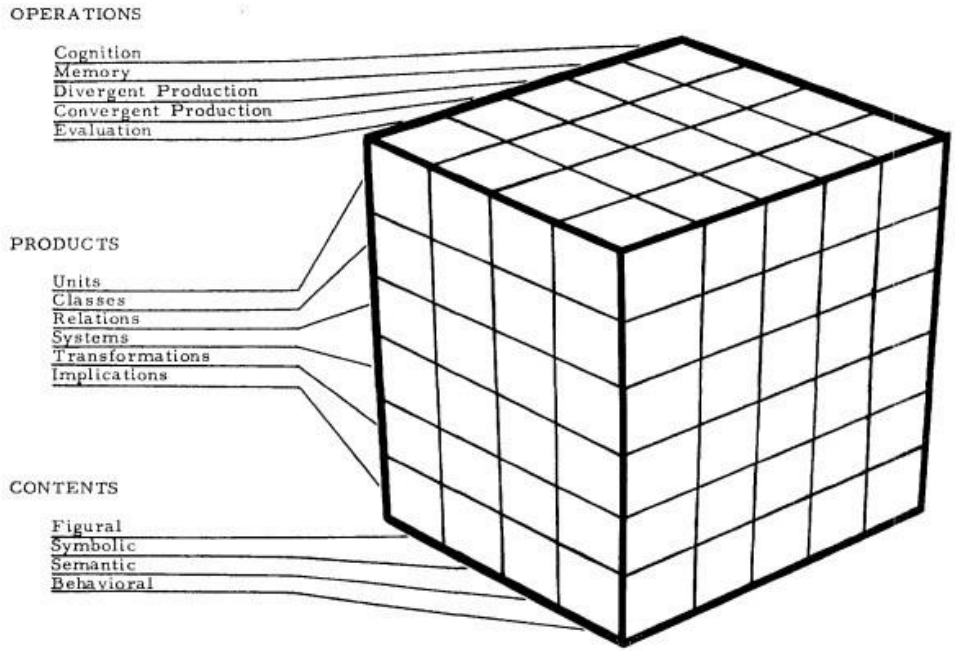
Appendix A

Guilford's Structure of Intellect Model



From "Intelligence: 1965 Model," by J. P. Guilford, 1966, *American Psychologist, 21*(1), p. 21. Copyright [1966] by American Psychologist. Reprinted with permission.

Appendix B

National Standards for Elementary General Music Instruction (2014)

CREATING						
Imagine ***Generate musical ideas for various purposes and contexts.***						
Enduring Understanding: The creative ideas, concepts, and feelings that influence musicians' work emerge from a variety of sources. **Essential Question**: How do musicians generate creative ideas?						
Pre K	K	1	2	3	4	5
MU:Cr1.1.PKa With substantial guidance, explore and experience a variety of music.	**MU:Cr1.1.Ka** With guidance, explore and experience music concepts (such as beat and melodic contour).	**MU:Cr1.1.1a** With limited guidance, create musical ideas (such as answering a musical question) for a specific purpose.	**MU:Cr1.1.2a** Improvise rhythmic and melodic patterns and musical ideas for a specific purpose.	**MU:Cr1.1.3a** Improvise rhythmic and melodic ideas, and describe connection to specific purpose and context (such as personal and social).	**MU:Cr1.1.4a** Improvise rhythmic, melodic, and harmonic ideas, and explain connection to specific purpose and context (such as social and cultural).	**MU:Cr1.1.5a** Improvise rhythmic, melodic, and harmonic ideas, and explain connection to specific purpose and context (such as social, cultural, and historical).
	MU:Cr1.1.Kb With guidance, generate musical ideas (such as movements or motives).	**MU:Cr1.1b** With limited guidance, generate musical ideas in multiple tonalities (such as major and minor) and	**MU:Cr1.1.2b** Generate musical patterns and ideas within the context of a given tonality (such as major	**MU:Cr1.1.3b** Generate musical ideas (such as rhythms and melodies) within a given	**MU:Cr1.1.4b** Generate musical ideas (such as rhythms, melodies, and simple	**MU:Cr1.1.5b** Generate musical ideas (such as rhythms, melodies, and accompaniment

		meters (such as duple and triple).	and minor) and meter (such as duple and triple).	tonality and/or meter.	accompaniment patterns) within related tonalities (such as major and minor) and meters.	patterns) within specific related tonalities, meters, and simple chord changes.
Plan and Make ***Select and develop musical ideas for defined purposes and contexts***						
Enduring Understanding: Musicians' creative choices are influenced by their expertise, context, and expressive intent. **Essential Question**: How do musicians make creative decisions?						
MU:Cr2.1.PKa With substantial guidance, explore favorite musical ideas (such as movements, vocalization or instrumental accompaniments). .	**MU:Cr2.1.Ka** With guidance, demonstrate and choose favorite musical ideas.	**MU:Cr2.1.1a** With limited guidance, demonstrate and discuss personal reasons for selecting musical ideas that represent expressive intent.	**MU:Cr2.1.2a** Demonstrate and explain personal reasons for selecting patterns and ideas for music that represent expressive intent.	**MU:Cr2.1.3a** Demonstrate selected musical ideas for a simple improvisation or composition to express intent, and describe connection to a specific purpose and context.	**MU:Cr2.1.4a** Demonstrate selected and organized musical ideas for an improvisation, arrangement, or composition to express intent, and explain connection to purpose and context.	**MU:Cr2.1.5a** Demonstrate selected and developed musical ideas for improvisations, arrangements, or compositions to express intent, and explain connection to purpose and context.
MU:Cr2.1.PKb With substantial guidance, select and keep track of the order for performing original musical ideas, using iconic notation	**MU:Cr2.1.Ka** With guidance, organize personal musical ideas using iconic notation and/or recording technology.	**MU:Cr2.1.1b** With limited guidance, use iconic or standard notation and/or recording technology to document and	**MU:Cr2.1.2b** Use iconic or standard notation and/or recording technology to combine, sequence, and	**MU:Cr2.1.3b** Use standard and/or iconic notation and/or recording technology to document personal	**MU:Cr2.1.4b** Use standard and/or iconic notation and/or recording technology to document personal rhythmic,	**MU:Cr2.1.5b** Use standard and/or iconic notation and/or recording technology to document personal rhythmic,

and/or recording technology.		organize personal musical ideas.	document personal musical ideas.	rhythmic and melodic musical ideas.	melodic, and simple harmonic musical ideas.	melodic, and two-chord harmonic musical ideas.
Evaluate and Refine ***Evaluate and refine selected musical ideas to create musical work(s) that meet appropriate criteria.***						
Enduring Understanding: Musicians evaluate, and refine their work through openness to new ideas, persistence, and the application of appropriate criteria. **Essential Question:** How do musicians improve the quality of their creative work?						
MU:Cr3.1.PKa With substantial guidance, consider personal, peer, and teacher feedback when demonstrating and refining personal musical ideas.	**MU:Cr3.1.Ka** With guidance, apply personal, peer, and teacher feedback in refining personal musical ideas.	**MU:Cr3.1.1a** With limited guidance, discuss and apply personal, peer, and teacher feedback to refine personal musical ideas.	**MU:Cr3.1.2a** Interpret and apply personal, peer, and teacher feedback to revise personal music.	**MU:Cr3.1.3a** Evaluate, refine, and document revisions to personal musical ideas, applying teacher-provided and collaboratively developed criteria and feedback.	**MU:Cr3.1.4a** Evaluate, refine, and document revisions to personal music, applying teacher provided and collaboratively developed criteria and feedback to show improvement over time.	**MU:Cr3.1.5a** Evaluate, refine, and document revisions to personal music, applying teacher provided and collaboratively developed criteria and feedback, and explain rationale for changes.

PERFORMING						
Select ***Select varied musical works to present based on interest, knowledge, technical skill, and context.***						
Enduring Understanding: Performers' interest in and knowledge of musical works, understanding of their own technical skill, and the context for a performance influence the selection of repertoire. **Essential Question:** How do performers select repertoire?						
Pre K	K	1	2	3	4	5
MU:Pr4.1.PKa With substantial guidance, demonstrate and state preference for varied musical selections.	**MU:Pr4.1.Ka** With guidance, demonstrate and state personal interest in varied musical selections.	**MU:Pr4.1.a** With limited guidance, demonstrate and discuss personal interest in, knowledge about, and purpose of varied musical selections.	**MU:Pr4.1.2a** Demonstrate and explain personal interest in, knowledge about, and purpose of varied musical selections.	**MU:Pr4.1.3a** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, purpose, and context.	**MU:Pr4.1.4a** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, context, and technical skill.	**MU:Pr4.1.5a** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, and context, as well as their personal and others' technical skill.
Analyze ***Analyze the structure and context of varied musical works and their implications for performance***						
Enduring Understanding: Analyzing creators' context and how they manipulate elements of music provides insight into their intent and informs performance. **Essential Question:** How does understanding the structure and context of musical works inform performance?						
Pre K	K	1	2	3	4	5
MU:Pr4.2.PKa With substantial guidance, explore and demonstrate	**MU:Pr4.2.Ka** With guidance, explore and demonstrate	**MU:Pr4.2.1a** With limited guidance, demonstrate	**MU:Pr4.2.2a** Demonstrate Knowledge of music concepts (such as tonality	**MU:Pr4.2.3a** Demonstrate understanding of the structure in	**MU:Pr4.2.4a** Demonstrate understanding of the structure and the elements	**MU:Pr4.2.5a** Demonstrate understanding of the structure and the elements

awareness of musical contrasts.	awareness of music contrasts (such as high/low, loud/soft, same/different) in a variety of music selected for performance.	knowledge of music concepts (such as beat and melodic contour) in music from a variety of cultures selected for performance.	and meter) in music from a variety of cultures selected for performance.	music selected for performance.	of music (such as rhythm, pitch, and form) in music selected for performance.	of music (such as rhythm, pitch, form, and harmony) in music selected for performance.
		MU:Pr4.2.1b When analyzing selected music, read and perform rhythmic patterns using iconic or standard notation.	**MU:Pr4.2.2b** When analyzing selected music, read and perform rhythmic and melodic patterns using iconic or standard notation.	**MU:Pr4.2.3b** When analyzing selected music, read and perform rhythmic patterns and melodic phrases using iconic and standard notation.	**MU:Pr4.2.4b** When analyzing selected music, read and perform using iconic and/or standard notation.	**MU:Pr4.2.5b** When analyzing selected music, read and perform using standard notation.
				MU:Pr4.2.3c Describe how context (such as personal and social) can inform a performance.	**MU:Pr4.2.4c** Explain how context (such as social and cultural) informs a performance.	**MU:Pr4.2.5c** Explain how context (such as social, cultural, and historical) informs performances.
Interpret ***Develop personal interpretations that consider creators' intent.***						
Enduring Understanding: Performers make interpretive decisions based on their understanding of context and expressive intent. **Essential Question:** How do performers interpret musical works?						
Pre K	K	1	2	3	4	5

MU:Pr4.3.PKa With substantial guidance, explore music's expressive qualities (such as voice quality, dynamics, and tempo).	**MU:Pr4.3.Ka** With guidance, demonstrate awareness of expressive qualities (such as voice quality, dynamics, and tempo) that support the creators' expressive intent.	**MU:Pr4.3.1a** Demonstrate and describe music's expressive qualities (such as dynamics and tempo).	**MU:Pr4.3.2a** Demonstrate understanding of expressive qualities (such as dynamics and tempo) and how creators use them to convey expressive intent.	**MU:Pr4.3.3a** Demonstrate and describe how intent is conveyed through expressive qualities (such as dynamics and tempo).	**MU:Pr4.3.4a** Demonstrate and explain how intent is conveyed through interpretive decisions and expressive qualities (such as dynamics, tempo, and timbre).	**MU:Pr4.3.5a** Demonstrate and explain how intent is conveyed through interpretive decisions and expressive qualities (such as dynamics, tempo, timbre, and articulation/style).
Rehearse, Evaluate and Refine ***Evaluate and refine personal and ensemble performances, individually or in collaboration with others.***						
Enduring Understanding: To express their musical ideas, musicians analyze, evaluate, and refine their performance over time through openness to new ideas, persistence, and the application of appropriate criteria. **Essential Question:** How do musicians improve the quality of their performance?						
Pre K	K	1	2	3	4	5
MU:Pr5.1.PKa With substantial guidance, practice and demonstrate what they like about their own performances.	**MU:Pr5.1.Ka** With guidance, apply personal, teacher, and peer feedback to refine performances.	**MU:Pr5.1.1a** With limited guidance, apply personal, teacher, and peer feedback to refine performances.	**MU:Pr5.1.2a** Apply established criteria to judge the accuracy, expressiveness, and effectiveness of performances.	**MU:Pr5.1.3a** Apply teacher-provided and collaboratively developed criteria and feedback to evaluate accuracy of ensemble performances.	**MU:Pr5.1.4a** Apply teacher-provided and collaboratively developed criteria and feedback to evaluate accuracy and expressiveness of ensemble and personal	**MU:Pr5.1.5a** Apply teacher-provided and established criteria and feedback to evaluate the accuracy and expressiveness of ensemble and personal performances.

					performances.	
MU:Pr5.1.PKb With substantial guidance, apply personal, peer, and teacher feedback to refine performances.	**MU:Pr5.1.Kb** With guidance, use suggested strategies in rehearsal to improve the expressive qualities of music.	**MU:Pr5.1.1b** With limited guidance, use suggested strategies in rehearsal to address interpretive challenges of music.	**MU:Pr5.1.2b** Rehearse, identify and apply strategies to address interpretive, performance, and technical challenges of music.	**MU:Pr5.1.3b** Rehearse to refine technical accuracy, expressive qualities, and identified performance challenges.	**MU:Pr5.1.4b** Rehearse to refine technical accuracy and expressive qualities, and address performance challenges.	**MU:Pr5.1.5b** Rehearse to refine technical accuracy and expressive qualities to address challenges, and show improvement over time.
Present ***Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.***						
Enduring Understanding: Musicians judge performance based on criteria that vary across time, place, and cultures. The context and how a work is presented influence the audience response. **Essential Question:** When is a performance judged ready to present? How do context and the manner in which musical work is presented influence audience response?						
Pre K	K	1	2	3	4	5
MU:Pr6.1.PK With substantial guidance, perform music with expression.	**MU:Pr6.1.Ka** With guidance, perform music with expression.	**MU:Pr6.1.1a** With limited guidance, perform music for a specific purpose with expression.	**MU:Pr6.1.2a** Perform music for a specific purpose with expression and technical accuracy.	**MU:Pr6.1.3a** Perform music with expression and technical accuracy.	**MU:Pr6.1.4a** Perform music, alone or with others, with expression and technical accuracy, and appropriate interpretation.	**MU:Pr6.1.5a** Perform music, alone or with others, with expression, technical accuracy, and appropriate interpretation.
	MU:Pr6.1.Kb	**MU:Pr6.1.1b**	**MU:Pr6.1.2b**	**MU:Pr6.1.3b**	**MU:Pr6.1.4b**	**MU:Pr6.1.5b**

	Perform appropriately for the audience.	Perform appropriately for the audience and purpose.	Perform appropriately for the audience and purpose.	Demonstrate performance decorum and audience etiquette appropriate for the context and venue.	Demonstrate performance decorum and audience etiquette appropriate for the context, venue, and genre.	Demonstrate performance decorum and audience etiquette appropriate for the context, venue, genre, and style.

RESPONDING						
Select ***Choose music appropriate for a specific purpose or context.***						
Enduring Understanding: Individuals' selection of musical works is influenced by their interests, experiences, understandings, and purposes. **Essential Question:** How do individuals choose music to experience?						
Pre K	K	1	2	3	4	5
MU:Re7.1.PKa With substantial guidance, state personal interests and demonstrate why they prefer some music selections over others.	**MU:Re7.1.Ka** With guidance, List personal interests and experiences and demonstrate why they prefer some music selections over others.	**MU:Re7.1.1a** With limited guidance, identify and demonstrate how personal interests and experiences influence musical selection	**MU:Re7.1.2a** Explain and demonstrate how personal interests and experiences influence musical selection for specific purposes.	**MU:Re7.1.3a** Demonstrate and describe how selected music connects to and is influenced by specific interests, experiences, or purposes.	**MU:Re7.1.4a** Demonstrate and explain how selected music connects to and is influenced by specific interests, experiences, purposes, or contexts.	**MU:Re7.1.5a** Demonstrate and explain, citing evidence, how selected music connects to and is influenced by specific interests, experiences, purposes, or

		for specific purposes.				contexts.
Analyze ***Analyze how the structure and context of varied musical works inform the response***.						
Enduring Understanding: Response to music is informed by analyzing context (social, cultural, and historical) and how creators and performers manipulate the elements of music. **Essential Question:** How does understanding the structure and context of music inform a response?						
Pre K	K	1	2	3	4	5
MU:Re7.2.PK With substantial guidance, explore musical contrasts in music.	**MU:Re7.2.Ka** With guidance, demonstrate how a specific music concept (such as beat or melodic direction) is used in music.	**MU:Re7.2.1a** With limited guidance, demonstrate and identify how specific music concepts (such as beat or pitch) are used in various styles of music for a purpose.	**MU:Re7.2.2a** Describe how specific music concepts are used to support a specific purpose in music.	**MU:Re7.2.3a** Demonstrate and describe how a response to music can be informed by the structure, the use of the elements of music, and context (such as personal and social).	**MU:Re7.2.4a** Demonstrate and explain how responses to music are informed by the structure, the use of the elements of music, and context (such as social and cultural).	**MU:Re7.2.5a** Demonstrate and explain, citing evidence, how responses to music are informed by the structure, the use of the elements of music, and context (such as social, cultural, and historical).
Enduring Understanding: Through their use of elements and structures of music, creators and performers provide clues to their expressive intent. **Essential Question:** How do we discern the musical creators' and performers' expressive intent?						
Pre K	K	1	2	3	4	5
MU:Re8.1.PK With substantial guidance, explore music's expressive	**MU:Re8.1.Ka** With guidance, demonstrate awareness of expressive qualities (such as dynamics and	**MU:Re8.1.1a** With limited guidance, demonstrate and identify expressive qualities (such as	**MU:Re8.1.2a** Demonstrate knowledge of music concepts and how they support creators'/ performers'	**MU:Re8.1.3a** Demonstrate and describe how the expressive qualities (such as dynamics and	**MU:Re8.1.4a** Demonstrate and explain how the expressive qualities (such as dynamics, tempo,	**MU:Re8.1.5a** Demonstrate and explain how the expressive qualities (such as dynamics, tempo, timbre,

qualities (such as dynamics and tempo).	tempo) that reflect Creators'/ performers' expressive intent.	dynamics and tempo) that reflect creators'/ performers' expressive intent.	expressive intent.	tempo) are used in performers' interpretations to reflect expressive intent.	and timbre) are used in performers' and personal interpretations to reflect expressive intent.	and articulation) are used in performers' and personal interpretations to reflect expressive intent.
Evaluate ***Support evaluations of musical works and performances based on analysis, interpretation, and established criteria***						
Enduring Understanding: The personal evaluation of musical work(s) and performance(s) is informed by analysis, interpretation, and established criteria. **Essential Question:** How do we judge the quality of musical work(s) and performance(s)?						
Pre K	K	1	2	3	4	5
MU:Re9.1.PKa With substantial guidance, talk about personal and expressive preferences in music	**MU:Re9.1.Ka** With guidance, apply personal and expressive preferences in the evaluation of music.	**MU:Re9.1.1a** With limited guidance, apply personal and expressive preferences in the evaluation of music for specific purposes.	**MU:Re9.1.2a** Apply personal and expressive preferences in the evaluation of music for specific purposes.	**MU:Re9.1.3a** Evaluate musical works and performances, applying established criteria, and describe appropriateness to the context.	**MU:Re9.1.4a** Evaluate musical works and performances, applying established criteria, and explain appropriateness to the context.	**MU:Re9.1.5a** Evaluate musical works and performances, applying established criteria, and explain appropriateness to the context, citing evidence from the elements of music.

CONNECTING						
Connect #10 ***Synthesize and relate knowledge and personal experiences to make music.***						
Enduring Understanding: Musicians connect their personal interests, experiences, ideas, and knowledge to creating, performing, and responding. **Essential Question:** How do musicians make meaningful connections to creating, performing, and responding?						
Pre K	K	1	2	3	4	5
MU:Cn10.0.PKa Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr3.2.PKa** With substantial guidance, share revised musical ideas with peers. **MU:Pr4.1.PKa** With substantial guidance, demonstrate and state preference for	**MU:Cn10.0.Ka** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr3.2.Ka** With guidance, demonstrate a final version of personal musical ideas to peers. **MU:Pr4.1.Ka** With guidance, demonstrate and state personal	**MU:Cn10.0.1a** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr2.1.1a** With limited guidance, demonstrate and discuss personal reasons for selecting musical ideas that represent expressive intent.	**MU:Cn10.0.2a** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr2.1.2a** Demonstrate and explain personal reasons for selecting patterns and ideas for their music that represent expressive intent. **MU:Cr3.2.2a** Convey	**MU:Cn10.0.3a** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr2.1.3a** Demonstrate selected musical ideas for a simple improvisation or composition to express intent, and describe connection to a specific purpose and context.	**MU:Cn10.0.4a** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr2.1.4a** Demonstrate selected and organized musical ideas for an improvisation, arrangement, or composition to express intent, and	**MU:Cn10.0.5a** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music. **MU:Cr2.1.5a** Demonstrate selected and developed musical ideas for improvisations, arrangements, or compositions to express intent, and explain

varied musical selections. **MU:Pr4.3.PKa** With substantial guidance, explore music's expressive qualities (such as voice quality, dynamics, and tempo).	interest in varied musical selections.**MU:Pr4.3.Ka** With guidance, demonstrate awareness of expressive qualities (such as voice quality, dynamics, and tempo) that support the creators' expressive intent.	**MU:Cr3.2.1a** With limited guidance, convey expressive intent for a specific purpose by presenting a final version of personal musical ideas to peers or informal audience. **MU:Pr4.3.1a** Demonstrate and describe music's expressive qualities (such as dynamics and tempo). **MU:Re7.1.1a** With limited guidance, identify and demonstrate how personal interests and experiences influence musical selection for specific purposes.	expressive intent for a specific purpose by presenting a final version of personal musical ideas to peers or informal audience. **MU:Pr4.3.2a** Demonstrate understanding of expressive qualities (such as dynamics and tempo) and how creators use them to convey expressive intent. **MU:Re7.1.2a** Explain and demonstrate how personal interests and experiences influence musical selection for specific purposes.	**MU:Cr3.2.3a** Present the final version of created music for others, and describe connection to expressive intent. **MU:Pr4.1.3a** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, purpose, and context. **MU:Pr4.3.3a** Demonstrate and describe how intent is conveyed Through expressive qualities (such as dynamics and tempo). **MU:Re7.1.3a**	explain connection to purpose and context. **MU:Cr3.2.4a** Present the final version of created music for others, and explain connection to expressive intent. **MU:Pr4.1.4a** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, context, and technical skill. MU:Pr4.3.4a Demonstrate and explain how intent is conveyed through interpretive decisions and expressive	connection to purpose and context. **MU:Cr3.2.5a** Present the final version of created music for others that demonstrates craftsmanship, and explain connection to expressive intent. **MU:Pr4.1.5a** Demonstrate and explain how the selection of music to perform is influenced by personal interest, knowledge, context, as well as their personal and others' technical skill. **MU:Pr4.3.5a** Demonstrate and explain how

				Demonstrate and describe how selected music connects to and is influenced by specific interests, experiences, or purposes.	qualities (such as dynamics, tempo, and timbre). **MU:Re7.1.4a** Demonstrate and explain how selected music connects to and is influenced by specific interests, experiences, purposes, or contexts.	intent is conveyed through interpretive decisions and expressive qualities (such as dynamics, tempo, timbre, and articulation/style) . **MU:Re7.1.5a** Demonstrate and explain, citing evidence, how selected music connects to, and is influenced by specific interests, experiences, purposes, or contexts.

Appendix C

Music National Standards Comparison: 1994 versus 2014

	1994 Standards	2014 NCCAS Standards				
Focus	Skills and Knowledge	Understanding / Independence Music Literacy				
Overarching Structure	9 Content Standards	Three Artistic Processes (Creating, Performing, Responding)				
		Process Components	Enduring Understandings	Essential Questions		
Outcomes	Achievement Standards (25–34 per level)	Performance Standards (13–19 per level)				
Elementary/Middle	Kindergarten–Grade 8 Two grade clusters (K–4 and 5–8)	Prekindergarten–Grade 8 Grade-by-Grade (i.e., 10 levels)				
High School	One set to cover all course types	Customized sets for four strands				
	Two Levels Advanced Proficient		Ensemble	Guitar/ Keyboard	Comp/ Theory	Music Tech
		Advanced				
		Accomplished				
		Proficient				
		Intermediate			(level ≈ gr	
		Novice			(level ≈ gr	
Connections	Content To the other arts: Standard 8	11 Common Anchors				
	Content To other content: Standard 9	Embedded within 3 Artistic Processes				
Assessment Tools	Separate Publications	Model Cornerstone Assessments Benchmark Student Work				
Format	Hard Copy	Online and Customizable [1]				
	Educator-Developed					

	Method-Neutral Voluntary WHAT IS SIMILAR Philosophical Foundations Goals

Appendix D

Online General Music Teacher Survey

You are invited to be a participant in a research study about the activities used as part of elementary general music education. This study aims to learn more about teacher perceptions and practices when integrating activities in elementary general music instruction.

The information gained through this research may contribute to a greater understanding of elementary general music teachers' instructional practices as well as the supports and challenges they face. Data from this study could offer insight to policy makers and school administrators that could lead to improving the quality of elementary general music programs across the state.

All participants in this study must be at least 18 years old. Your participation in this survey is voluntary and your responses will be anonymous. Completing the survey indicates your consent, however, you may stop at any time should you change your mind. I hope you will participate because I believe that your voice is important and should be counted.

The study is being conducted by Hood College. The researcher conducting this study is Sandra Reece. If you have questions, you may contact Sandra Reece by email at sr27@hood.edu or by phone at 240-579-1185. If you have questions or concerns regarding this study and want to speak with someone other than the researcher, you may contact Dr. Jolene Sanders, Institutional Review Board Chair, Hood College, 401 Rosemont Ave., Frederick, MD 21701, sandersj@hood.edu.

Do you teach elementary general music in a Maryland public school? (If not, you are not an eligible participant for this study.)

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If Do you teach elementary general music in a Maryland public school? (If not, you are not an eligib... = No

The next few questions are about your current position teaching elementary general music. Please respond as accurately as possible.

In which county/city do you teach?
▼ Allegany (1) ... Worchester (24)

How many schools does your teaching assignment include?
▼ 1 (1) ... More than 5 (6)

What is the enrollment of your primary assignment (home) school?
▼ Under 350 (1) ... Over 750 (4)

Please choose the best description of your primary assignment (home) school population:

▼ Under 25% poverty (1) ... Over 75% poverty (4)

On average, how many times per week do you meet with an individual class?
▼ 1 (1) ... 5 (5)

The next few questions ask for your personal feelings about the content and purpose of the elementary general music curriculum.

How essential, do you think, these experiences are in an elementary general music curriculum?

	Very Unessential (1)	Unessential (2)	Essential (3)	Very Essential (4)
a. Improvising melodies, variations, or accompaniments (1)	○	○	○	○
b. Composing and arranging music within specified guidelines (2)	○	○	○	a.
c. Reading and notating music (3)	○	○	○	○
d. Listening to, analyzing, and describing music (4)	○	○	○	○
e. Creating movement to music (5)	○	○	○	○

Rate the degree to which you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
a. Students have a certain amount of musical creative ability and you can't really do much to change it. (1)					
b. Students' capacity for musical creative thinking is something about them that you can't change very much. (2)					
c. Students can learn new things, but					

you can’t really change their musical creative ability. (3)	

The following questions ask for your opinions about the supports and challenges that impact your instructional program.

Rate the degree to which you agree or disagree with the following statement:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
I have the resources I need to implement creative thinking activities in my teaching. (1)					

Rate the degree to which you agree or disagree with the following statement:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
I have enough time to implement creative thinking activities. (2)					

Rate the degree to which you agree or disagree with the following statement:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
I have enough space to implement creative thinking activities. (3)					

Rate the degree to which you agree or disagree with the following statement:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
Classroom management issues do not impact my ability to implement creative thinking activities. (4)					

Rate the degree to which you agree or disagree with the following statement:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
Creative thinking activities (such as composition and improvisation) are part of my school district's music curriculum. (5)					

Rate the degree to which you agree or disagree with the following statement:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
The building administrators at my school support my music program. (2)					

Do you face other issues or challenges when implementing creative thinking activities in your classroom? If yes, please explain:

_____

_____

_____

The next few questions are about the types of activities that you include during instruction.

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Create a song to sing using nonstandard notation? ()

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Create a song to sing using standard notation? ()

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Compose music to play on a classroom instrument using nonstandard notation? ()

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Compose music to play on a classroom instrument using standard notation? ()

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Improvise with their voices? ()

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Improvise with classroom instruments? ()

Per quarter, how many times do you normally ask students in a given class to:

0 1 2 3 4 5 6 7 8 9 10

Improvise with body percussion (clapping, patting, stomping, etc.)? ()

Per quarter, how many times do you normally ask students in a given class to:

	0	1	2	3	4	5	6	7	8	9	10
Create movement or dance to music? ()											

Per quarter, how many times do you normally ask students in a given class to:

	0	1	2	3	4	5	6	7	8	9	10
Create listening maps to existing pieces of music? ()											

Per quarter, how many times do you normally ask students in a given class to:

	0	1	2	3	4	5	6	7	8	9	10
Arrange a pre-existing song, such as a folk song? ()											

Explain other creative thinking activities you have implemented in your classroom, if applicable.

_____
_____
_____

Do you assess students' creative thinking products and provide feedback?
▼ Yes (1) ... No (2)

If yes, please explain:

_____
_____
_____

Please indicate what grouping methods you use when providing creative thinking opportunities.

	Never (1)	Rarely (2)	Sometimes (3)	Almost Always (4)	Always (5)
a. Students work alone. (1)					
b. Students work in small groups. (2)					
c. Students work in whole group. (3)					

Please explain the rationale for your most frequently used grouping method.

_____

_____

_____

The next questions ask about your personal music experiences and training.

Please indicate your musical instrument concentration.

- ○ Brass (1)
- ○ Guitar (2)
- ○ Harp (3)
- ○ Keyboard (piano and/or organ) (4)
- ○ Percussion (5)
- ○ Strings (6)
- ○ Voice (7)
- ○ Woodwinds (8)
- ○ Other (9)

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Vocal composition? (1)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Instrumental composition? (2)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Vocal improvisation? (3)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Instrumental improvisation? (4)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Improvisation using body percussions? (5)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Creating movement to music? (6)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Creating nonstandard notation? (7)				

BEFORE your college or university program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Creative listening? (8)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Vocal composition? (1)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Instrumental composition? (2)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Vocal improvisation? (3)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Instrumental improvisation? (4)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Improvisation using body percussions? (5)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Creating movement to music? (6)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Creating nonstandard notation? (7)				

DURING your college or university teacher preparatory program, how much instruction did you receive in:

	None (1)	Small Amount (2)	Moderate Amount (3)	Significant Amount (4)
Creative listening? (8)				

If applicable, explain other creative thinking activities you participated in BEFORE beginning your teaching career.

_____
_____
_____

SINCE beginning your teaching career, how much training have you received in:

	No Formal Training (1)	Attended Some Workshops (2)	Completed Formal Introductory Course (Level 1) (3)	Completed Formal Intermediate Course (Level 2) (4)	Completed Formal Advanced Course (Level 3) (5)
Dalcroze? (1)	○	○	○	○	○

SINCE beginning your teaching career, how much training have you received in:

	No Formal Training (1)	Attended Some Workshops (2)	Completed Formal Introductory Course (Level 1) (3)	Completed Formal Intermediate Course (Level 2) (4)	Completed Formal Advanced Course (Level 3) (5)
Orff Schulwerk? (2)					

SINCE beginning your teaching career, how much training have you received in:

	No Formal Training (1)	Attended Some Workshops (2)	Completed Formal Introductory Course (Level 1) (3)	Completed Formal Intermediate Course (Level 2) (4)	Completed Formal Advanced Course (Level 3) (5)
Kodaly? (3)					

SINCE beginning your teaching career, how much training have you received in:

	No Formal Training (1)	Attended Some Workshops (2)	Completed Formal Introductory Course (Level 1) (3)	Completed Formal Intermediate Course (Level 2) (4)	Completed Formal Advanced Course (Level 3) (5)
Gordon's Music Learning Theory? (4)					

SINCE beginning your teaching career, how much training have you received in:

	No Formal Training (1)	Attended Some Workshops (2)	Completed Formal Introductory Course (Level 1) (3)	Completed Formal Intermediate Course (Level 2) (4)	Completed Formal Advanced Course (Level 3) (5)
World Drumming? (5)					

SINCE beginning your teaching career, have you received training in other methods? If so, please explain.

_____
_____
_____

Would you be interested in participating in a personal interview? If so, please provide your contact information below and I will reach out to you. If you have questions or comments for me, my email is sr27@hood.edu.

_____
_____

Appendix E

Dweck's Growth Mindset Scale

Instructions: Read each sentence below and then circle the *one* number that shows how much you agree with it. There are no right or wrong answers.

1. You have a certain amount of intelligence, and you can't really do much to change it.

Strongly agree	Agree	Mostly agree	Mostly disagree	Disagree	Strongly disagree

2. Your intelligence is something about you that you can't change very much.

Strongly agree	Agree	Mostly agree	Mostly disagree	Disagree	Strongly disagree

3. You can learn new things, but you can't really change your basic intelligence.

Strongly agree	Agree	Mostly agree	Mostly disagree	Disagree	Strongly disagree

(https://sparqtools.org/mobility-measure/growth-mindset-scale/)

Appendix F

Personal Interview Questions

1. Talk with me about your journey in becoming an elementary general music teacher.
2. What are your thoughts about including creative activities in your music instruction?
    a. What about musical talent? Is there such a thing?
    b. Can all students demonstrate creative thinking (or creativity) in music? Please explain.
3. Talk about your own experiences with creative thinking and creativity in music.
    a. Before college
    b. During college
    c. After college
4. In what ways are you able to embed/include creative activities in your instruction?
    a. Improvisation
    b. Composition
    c. Listening
    d. Movement
    e. Grouping
    f. Assessment
5. How does the administration at your school support the general music program?
    a. Talk with me about a recent example.
6. Think about the resources you have for music instruction (instruments, books, electronics, etc.). How do these resources support your instruction?
7. Think about other things that impact your instructional program. How do these other things help or hinder your ability to provide creative thinking activities?

    a. Schedule
    b. Frequency
    c. Time
    d. Student Needs

8. Think back to when you began teaching music. What were your first creative thinking lessons like?
    a. What prepared you?
    b. What do you think you lacked in terms of preparation?
9. Share an example of a recent creative thinking lesson that you thought was very successful?
    a. What do you think made it successful?
    b. How are your lessons different now?
    c. What has helped or hindered your creative thinking instruction?
10. What else would you like to share about creativity and creative thinking in music instruction?

Appendix G

Research Question Connections to Data Collection Instruments

Research Question	Online Survey	Personal Interview
1. How do elementary general music teachers integrate creative thinking activities into their music instruction?	SQ#6 On average, how often do you deliver lessons that engage students in the following creative thinking activities in music? a. Create a song to sing using nonstandard notation b. Create a song to sing using standard notation c. Compose music to play on a classroom instrument using nonstandard notation. d. Compose music to play on a classroom instrument using standard notation. e. Improvise with their voices f. Improvise with classroom instruments	IQ#8 Think back to when you began teaching music. What were your first creativity-based lessons like? a. What prepared you? IQ#4 In what ways are you able to embed/include creative thinking activities in your instruction? a. Improvisation b. Composition c. Listening d. Movement e. Grouping f. Assessment

Research Question	Online Survey	Personal Interview
	g. Improvise with body percussion (clapping, patting, stomping, etc.) h. Create movement or dance to music i. Create listening maps to existing pieces of music j. Arrange a pre-existing song, such as a folk song	IQ#9 Share an example of a recent creative thinking lesson that you thought was very successful. a. What do you think made it successful? b. How are your lessons different now than from when you first started?
	SQ#7 Explain other creative thinking experiences you have implemented in your classroom, if applicable.	IQ#10 What else would you like to share about creativity and creative thinking in music instruction?
	SQ#8 Do you assess students' creative thinking products and provide feedback? a. No/Yes	
	SQ#9 How often do you use the following formats for creative thinking activities?	

Research Question	Online Survey	Personal Interview
	a. Students work alone b. Students work in self-selected small groups c. Students work in teacher-selected small groups d. Please explain the rationale for your most frequently used grouping method.	
2. What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?		
2.1 How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?	SQ#1 Rate the degree to which you agree or disagree with the following statements. a. Students have a certain amount of musical creative ability, and you can't really do much to change it. b. Students' capacity for musical creative thinking is something about	IQ#2 What are your thoughts about including creative opportunities in your music instruction? a. What about musical talent? Is there such a thing? b. Can all students demonstrate creative thinking (or creativity) in music? Please explain.

Research Question	Online Survey	Personal Interview
	them that you can't change very much. c. Students can learn new things, but you can't really change their musical creative ability.	
	SQ#2 How essential are these experiences in an elementary general music curriculum? a. Improvising melodies, variations, or accompaniments b. Composing and arranging music within specified guidelines c. Reading and notating music d. Listening to, analyzing, and describing music e. Creating movement to music	
2.2 How do teachers' preparations in music education influence their practice of including creative	SQ#10 Please indicate the level of instruction you received BEFORE your college or university program in the following creative thinking activities in music.	IQ#1 Talk with me about your journey in becoming an elementary general music teacher.

Research Question	Online Survey	Personal Interview
thinking activities in general music instruction?	a. Vocal composition b. Instrumental composition c. Vocal improvisation d. Instrumental improvisation e. Improvisation using body percussions f. Creating movement to music g. Creating nonstandard notation SQ#11 Please indicate the level of instruction you received DURING your college or university program designed to prepare you for teaching the following creative thinking activities in music. a. Vocal composition b. Instrumental composition c. Vocal improvisation d. Instrumental improvisation e. Improvisation using body percussions f. Creating movement to music	IQ#3 Talk about your own experiences with creative thinking and creativity in music. a. Before college b. During college c. After college d. Specific instructional methods IQ#9 Share an example of a recent creative thinking lesson that you thought was very successful. c. What has helped or hindered your creative thinking instruction?

Research Question	Online Survey	Personal Interview
	g. Creating nonstandard notation	
	SQ#12 If applicable, explain other creative thinking experiences you participated in before or during your college or university program.	
	SQ#13 Please indicate the level of training you received in the following methods. a. Dalcroze b. Orff Schulwerk c. Kodaly d. Music Learning Theory (Gordon) e. World Music Drumming f. Other* g. *Please specify the organization's name.	
2.3 How do contextual conditions influence the inclusion of creative	SQ#3 Rate the degree to which you agree or disagree with the following statements.	IQ#5 How does the administration at your school support the general music program?

Research Question	Online Survey	Personal Interview
thinking activities in elementary general music instruction?	a. I have the resources I need to implement creative thinking experiences in my teaching. b. I have enough time to implement creative thinking experiences. c. I have enough space to implement creative thinking tasks. a. Classroom management issues do not impact my ability to implement creative thinking experiences. b. Creative thinking opportunities (such as composition and improvisation) are part of my school district's music curriculum. c. The building administrators at my school support my program.	a. Talk with me about a recent example. b. Do you feel support at the district level? Please explain. IQ#6 Think about the resources you have for music instruction (instruments, books, electronics, etc.). a. How do these resources support your teaching? IQ#7 Think about other things that impact your instructional program. How do these other things help or hinder your ability to provide creative thinking activities in your instruction? a. Schedule b. Frequency c. Time d. Student Needs
	SQ#4 When implementing creative thinking experiences in your classroom, do you face other issues or challenges? a. No/Yes	

Research Question	Online Survey	Personal Interview
	b. If yes, please explain:	
	SQ#5 On average, how many times per week do you meet with individual classes? 1, 2, 3, 4, 5	

Appendix H

Hood College Institutional Review Board

1**. Title of Proposal:** Creative Thinking Education: Exploring Opportunities in the Elementary General Music Classroom

2. **Principal Investigator (PI):** Sandra Reece

3. **PI Department:** Hood College Doctoral Program in Organizational Leadership

4. **PI Contact Information:** sr27@hood.edu

5. **Faculty Sponsor and Contact Information (if PI is a student):** Nisha Manikoth, EdD., manikoth@hood.edu

6. **Other Investigators (name, e-mail address, and if student, class year):** None

7. **Date of this Submission:** November 15, 2022

8. **Proposed Duration of the Project:** January 2023 through March 2023

9. **Background Information and Research Questions/Hypotheses:** Creative thinking is an essential skill for the 21st century. Half of the nation's total income is currently attributed to the creative thinking of both professional and service workers. Experts predict that everyone will need creative thinking skills to thrive. Schools must incorporate creative thinking skills in instruction as early as elementary school. The elementary general music curriculum, based on the National Standards for Music Education, strongly emphasizes creative thinking during instruction. Research indicates, however, that most instruction focuses on acquiring music and performance skills. My study seeks to explore factors that contribute to or hinder the inclusion of creative thinking instruction in elementary general music from the perspective of the general music teacher. The study looks at three potential sources of influence: teacher perceptions, teacher preparation, and contextual conditions. Teacher perceptions are mindsets about

creativity, student potential, and the purpose of elementary general music instruction. Teacher preparation includes any training or experiences before college, during college, or in specific methods or programs. Contextual factors are conditions that exist within the workplace. This data will be compared to their practice of providing creative thinking activities during instruction to see if any patterns or connections emerge.

Research Questions include:

1. How do elementary general music teachers integrate creative thinking activities into their music instruction?
2. What contributes to the inclusion of creative thinking instruction in the elementary general music classroom?
    - 2.1 How do teacher perceptions about creative thinking influence their practice of including creative thinking activities in general music instruction?
    - 2.2 How do teachers' preparations in music education influence their practice of including creative thinking activities in general music instruction?
    - 2.3 How do contextual conditions influence the inclusion of creative thinking activities in elementary general music instruction?

10. **Human Participants:**

A. **Who are the participants?** The sample for my study is elementary general music teachers working in public schools in Maryland. Any teachers may participate in an online survey. It is anonymous and voluntary. Teachers will be recruited from Frederick and Montgomery counties for the personal interviews.

B. **How many participants do you plan to have in your study?** There are approximately 780 elementary general music teachers in Maryland. A 5% participation rate would yield about 40 participants for the online survey. I will interview 5 teachers from each county.

C. **How will the participants be contacted or recruited?** I will use social media sites like Facebook and LinkedIn, as well as Maryland State Music Educators Association communication channels for survey participation. I will reach out directly to potential interviewees.

D. **Will the participants be compensated for participating?** No **If so, describe:** A donation of $5.00 per individual will be given to Hungry for Music, a non-profit that provides music instruments to underserved youths, to thank interviewees for their participation.

11**. Procedures:** The survey will be online, and teachers participate by choice, at their convenience, and in any location with internet access. Participants will log into the survey site, take the survey and close the document. They may pause the survey and return at a later date. Interviews will be conducted at a mutually agreed upon location or though Zoom.

12. **Consent:** Information will be provided at the beginning of the online survey that will briefly describe the nature and purpose of the data collection. I will provide assurance of confidentiality and anonymity, and give details about data storage and protection. I will also state how the data will be erased at the end of the research. Participants will confirm their consent by completing the survey. Teachers that are personally interviewed will read and sign a consent form prior to any questioning.

13. Risks and Debriefing: Online survey participants will not be debriefed. Interviewees will receive a copy of their transcribed interviews to ensure that the data is representative of their responses.

A. **Is there deception involved in your study?** None intended.

B. **What are the physical, psychological, or social risks of participating in the study?** No risks are intended or can be identified. The online survey instrument will collect no identifying information. Interviewees will not be identified by personal information. Any personal reference to another individual will be removed.

C. **Are there any technical aspects of equipment that pose a potential hazard to participants?** Interviews will be recorded, but not filmed. Names will be deleted from transcriptions.

14. **Privacy and Storage of Data**: The online survey data will be collected in the Qualtrics application. Once it is analyzed, it will be moved into a file on my Hood One Drive. Data will be stored during the research process. Interview participant data will be labeled with number designations. At the end of the study, data will be erased.

Online link for research request of Montgomery County Public Schools

https://sharedaccountability.mcpsmd.org/ORFARA/App.php

Online link for research request of Frederick County Public Schools

https://campussuite-storage.s3.amazonaws.com/prod/33903/86de7fb0-3a18-11e6-b537-22000bd8490f/1707858/2f047a1e-1b2a-11e8-8708-12758ff39a90/file/Application_to_Conduct_Research_200-41.pdf

Appendix I

HOOD COLLEGE INFORMED CONSENT FORM

Creative Thinking Education:

Exploring Opportunities in the Elementary General Music Classroom

1. **INTRODUCTION**

You are invited to be a participant in a research study about the inclusion of creative thinking activities in elementary general music instruction. You were selected as a possible participant because you are an elementary general music teacher working in either Frederick or Montgomery counties. We ask that you read this document and ask any questions you may have before agreeing to be in the study. We require that participants in this study be at least 18 years old. The study is being conducted by Hood College.

2. **BACKGROUND AND PURPOSE OF THE STUDY**

This study aims to learn more about things that influence the integration of creative thinking activities during elementary general music instruction from the teacher's perspective. Despite the emphasis on creative activities in the curriculum, research indicates that creative thinking activities are not commonly part of instruction. The study looks specifically at potential influences, including teachers' personal experiences, education and training, their perceptions about creativity, and circumstances out of the teachers' control. Little research has explored creative thinking instruction from this broad perspective. The information gained through this research may contribute to a greater understanding of elementary general music teachers' creativity mindsets, patterns of success, common challenges, and overall preparation when planning and delivering instruction with creative thinking activities.

3. **DURATION**

The length of time you will be involved with this study is a one-time personal interview of up to 90 minutes. Once that conversation has been transcribed, you will be offered the opportunity to review your responses and suggest additions, if desired, to reflect your thinking better. Once that document is returned, your time involvement will end.

4. **PROCEDURES**

If you agree to be in this study, we will ask you to do the following: You will identify a convenient time and place to participate in the interview. You will receive an outline of the questions before the interview, so you know what to expect. Your voice is important, so please share your thoughts and feelings as honestly as possible. The discussion will be recorded. Once transcribed, you will be able to review your comments and make any additions to ensure that the data accurately reflects your thinking.

5. **RISKS/BENEFITS**

This study has the following risks: There are no know risks. As a thank you, a donation of $5.00 will be made to Hungry for Music, a non-profit that provides musical instruments to underserved youths. Your participation will significantly contribute to this study's results and, perhaps, benefit other elementary general music teachers as they plan creative thinking activities in their classrooms.

6. **CONFIDENTIALITY**

The records of this study will be kept private. Once you have reviewed the interview transcription, your personal information will be deleted from all records. Once the study is completed, all data will be erased. In any report published or presentation given, we will not include any information that will make it possible to identify a participant.

7. **VOLUNTARY NATURE OF THE STUDY**

Your participation in this study is entirely voluntary. Your decision on whether or not to participate will not affect your current or future relations with Hood College or any of its representatives. If you participate in this study, you can withdraw without affecting those relationships. You may communicate your withdrawal by emailing your wishes to sr27@hood.edu until you approve the interview transcription. If you withdraw, your responses will be destroyed and not included in the study results.

8. **CONTACTS AND QUESTIONS**

The researcher conducting this study is Sandra Reece. You may ask any questions you have right now. If you have questions later, you may contact the researchers by email at sr27@hood.edu or by phone at 240-579-1185. If you have questions or concerns regarding this study and want to speak with someone other than the researcher, you may contact Dr. Jolene Sanders, Institutional Review Board Chair, Hood College, 401 Rosemont Ave., Frederick, MD 21701, sandersj@hood.edu.

9. **STATEMENT OF CONSENT**

You will be given a copy of this form to keep for your records. The procedures of this study have been explained to me and my questions have been addressed. The information that I provide is confidential and will be used for research purposes only. I am at least eighteen years old. I understand that my participation is voluntary and that I may withdraw anytime without penalty. If I have any concerns about my experience in this study (e.g., that I was treated unfairly or felt unnecessarily threatened), I may contact the Chair of the Institutional Review Board or the Chair of the sponsoring department of this research regarding my concerns.

Participant signature_____Date_____

Signature of Parent/Guardian [if applicable]_____Date_____

Signature of Person Obtaining Consent _____Date_____