# CREATIVE THINKING IN THE ELEMENTARY MUSIC CLASSROOM: A REVIEW OF LITERATURE

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A CAPSTONE PROJECT PRESENTED TO THE COLLEGE OF THE ARTS
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MUSIC IN MUSIC EDUCATION
UNIVERSITY OF FLORIDA
2015

Abstract

The purpose of this capstone project was to construct a review of literature on creative thinking in the elementary music classroom. The literature review focuses on the incorporation of popular music and technological tools that encourage creative thought. The studies I consulted revealed that popular music is taught in the elementary classroom through informal teaching practices and student-centered learning. According to the research, music educators are currently using technology to improvise and compose in the elementary classroom. Creative uses of technology, popular music, and non-traditional teaching methods such as a more student-centered pedagogy and peer teaching in the classroom are explored. This project also outlines suggestions for how to apply these innovative approaches in the classroom, with included lessons plans, for a unit on creative thinking in the elementary music class.

*Keywords:* creativity, creative thinking, popular music, technology, improvisation, composition, student-centered learning

Acknowledgements

I wish to express my most sincere gratitude to Dr. Richard Webb for expertly guiding and directing me throughout the entire research and writing process. Not only was he a great source of support, but also of inspiration in the most generous way. I also wish to thank Dr. Dale Bazan for his guidance and support as a member of my committee.

The faculty and course designers for the University of Florida's master of music education program have also provided the highest level of teaching, guidance, and inspiration. This led me to develop a project that directly reflects knowledge gained from many of the courses.

Another group of people I must acknowledge are my friends and family. They have been a foundation of support from the beginning of my studies. I could not have made it this far without their encouragement. They have been my biggest cheerleaders.

Finally, I wish to thank all past and present students, as well as my music educator colleagues. My students have served as the primary source of inspiration for this project. They challenge me every single day to be a better music teacher, and they deserve the best music education possible.

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# Creative Thinking in the Elementary Music Classroom: A Review of Literature

"When we are engaged in the act of being creative, we feel we are performing at the peak of our abilities. Creative works give us insight and enrich our lives" (Sawyer, 2012, p. 3). Sawyer's statement suggests that engaging students in creative thought and activity might allow them the opportunity for a more enriched life. Research and practice suggests that if music educators encourage creative thinking in the classroom, students' lives will therefore be enriched in a variety of ways. In the past, music educators have generally overlooked creative thinking and methods of incorporating it in the elementary music classroom (Orman, 2002). However, in recent years creative thinking has increasingly become a topic of interest in music education (Hickey & Webster, 2001).

For students to reach their full potential, new and innovative teaching is seen as increasingly important for teachers to meet the educational needs of the current generation of students (Lebler, 2007). According to Lebler, traditional methods of teaching and learning are important, but as our educational practices evolve music education must be able to adapt to fit students' needs. Imagine going to see a doctor who practices medicine the same way he or she practiced it 25 years ago. Just as professionals in various other occupations are required to keep up with the new innovations in their field, music educators should be held to the same standard (Thompson, 2007). Education is a system of trial and error. Some approaches work better than others: the trick is finding what works in the music classroom and why it works. There are many new and innovative pedagogies currently in practice in music classrooms throughout the U.S. that might be unknown or inaccessible to many teachers. Crow's (2006) study suggests that many music education trainees preparing to enter the teaching field are mostly trained in the classical tradition. This focus on the classical tradition to the exclusion of other musical styles in

their own training inhibits their ability to encourage and model creative thinking in their classrooms. According to Crow, the combination of traditional methods with creative new approaches to teaching can open many doors for current and future music educators.

**Need for the Project**

Creative thinking is a topic that has been explored for students in secondary music classrooms, but it seems that creative thinking in the elementary music classroom is far less common. There is a need for pedagogical approaches to be developed and presented in a way that clearly outlines the benefits and challenges of teaching creative thought. It is equally important to make sure teachers have easy access to information about these new approaches and the means necessary to implement them. The combination of traditional methods with creative new approaches to teaching can allow current and future music educators to connect with students in new and potentially exciting ways. If more teachers have access to creative approaches to teaching, students might be opened to a whole new world of music making and learning.

**Purpose of the Project**

The purpose of this project was to explore the literature on creative thinking that clearly outlined new and innovative pedagogies in the elementary music classroom that have a high rate of success at fostering students' creative thinking. This review allows educators across the United States to develop the best practices for their classroom. Creative uses of technology, popular music, and non-traditional teaching methods such as student-centered learning and peer teaching in the classroom are explored. This project also offers suggestions for how to apply these innovative approaches in the classroom, with included lessons plans, for a unit on creative thinking.

**Personal Rationale**

This capstone project is significant to my own teaching career. It provided me the opportunity to transfer the knowledge and skills I have gained in all of my previous coursework into one final project from which many can benefit. I sought out the most current information that can be applied in my own setting. Most of my undergraduate experience was grounded in more traditional methodologies, with which I have found success with in my own classroom. However, I have seen the need to discover and apply these innovative practices to keep up with the technological and cultural needs of my students. This project is also significant to the elementary music profession. It will provide teachers access to literature that explores the challenges and benefits of encouraging creative thought, and offers suggestions on how to teach creative thinking. The research is also applicable towards advocacy of the importance of keeping music in our schools, and striving for a high quality music program fueled by the best music educators.

This project is a result of intrigue from many of the courses in the graduate program at the University of Florida. The *Vernacular Music* course, designed by Dr. Dale Bazan, provided opportunities to explore how popular music can truly influence the elementary music student. Helping students make connections between educational materials and music with which they are already familiar can increase their motivation and interest in the music classroom. Listening to a child speak of their favorite song or artist can be truly inspiring to a music educator, and can open doors for many wonderful music making opportunities. Another course that influenced this project was *Teaching Music with Technology* with Dr. William Bauer. Dr. Bauer designed this course to stress the importance and role of using technology in the music classroom. This course revealed a variety of ways for technology to be used in the elementary music room that would be

beneficial to both the teacher and students. The effective application of new digital technologies can be a rich source of innovation in teaching, and there are many pedagogical approaches for their use. *Instructional Design in Music Education* also played a critical role in the development of this project. This course focused on skills that relate to designing, developing, and implementing the processes of both music learning, and teaching. "It is desirable for a music class curriculum to reflect all elements of these approaches (objectives, repertoire, skills, and knowledge)" (Conway, 2015, p. 14). The key is to effectively plan and develop frameworks and curriculum maps that align with the pedagogical approaches while also reflecting these four elements. In order for the new pedagogical approaches to be reviewed herein to be successful, they must be thoughtfully planned out in a framework that works for both teacher and students.

Finally, the *Creative Thinking in Music* course, designed by Dr. Peter Webster, influenced this choice of project more than any other course in the graduate program. Educators should inspire creativity in all that a child does. This could mean designing a curriculum that encourages creative thinking through composition, improvisation, the use of technology, the incorporation of popular music, and a combination of new and traditional teaching methodologies. Teachers can creatively design their music curriculum to allow students to reach their full potential. They should also be provided the opportunity to discover what new and innovative pedagogical approaches are being successfully applied in the elementary music curriculum today. This was a topic that really struck me. During this course I realized that I did not encourage creative thought in the ways I should. Not only was I not encouraging creative thought, but I also had no idea how to go about doing so. As a music student myself, I never practiced being creative and was not encouraged to improvise or create in any of my music classes throughout my own music education. I want my students to be able to think creatively

and produce creative products that are meaningful. In order to do so, I found it necessary to learn how other music educators are successful in encouraging creative thought in their own classrooms.

## Review of Literature

The following is an examination of the literature on creative thinking and the elementary music classroom. First, I will detail how the literature defines creativity. Next, I will explore the literature pertaining to the traits and characteristics of the creative person and process. Third, I will discuss how the literature suggests that creativity is an important learning experience. I will then explore how the literature suggests creativity is taught through the use of popular music, through the use of digital technologies (with an emphasis on improvisation and composition), and through the use of innovative teaching practices.

### What is Creativity?

There are many definitions of creativity and what it means to be a creative person. Creativity is one of the most important aspects of what makes us interesting: When we are creative, we feel successful, imaginative, and intelligent (Thompson, 2007). According to Sawyer (2012), individuals in various economic fields have discovered that creativity and innovation are central to success. For this reason it is important to begin fostering creative thinking skills in students as early as elementary school (Kiehn, 2003).

It is widely believed that creativity is an innate ability, or some mysterious force. According to Sawyer (2012), creativity is definable, and the proposition of teaching creativity demands a practical explanation of what it is. Sawyer offers a rationale for understanding creativity:

> Explaining creativity can help us identify and realize every person's unique creative talents, help our leaders respond better to the challenges facing modern society, help us all to be better problem solvers, help us realize the importance of positive, peak experiences to mental health, and help educators teach more effectively. (p. 5)

When explaining creativity, either an individualist or a sociocultural definition may be used. According to Sawyer, the individualist definition focuses on the person. It deals with how a person thinks, learns, perceives, and remembers, and in doing so creates a new mental combination expressed in the world. Creative thought or action is brand new to the creator, without it already having been thought of or done. Creativity is a combination of all previous knowledge and thoughts to create a new and original thought or action. Simply restating something previously done or thought would not be an example of the creative process. The second definition is sociocultural which is about teamwork. It focuses on a number of creative people working together. The creative product is judged to be novel, appropriate, and useful by the group that is working together. Hickey (2012) stressed that creative thinking involves the ability to think imaginatively. It is the act of manipulating old ideas and creating new and original musical ideas. Hickey's definition seems similar to Sawyer's individualistic definition of creativity. This type of thinking is called divergent thinking, rather than convergent thinking. According to Hickey, divergent thinking allows music makers to come up with many possible ideas, rather than just one.

**The Creative Person**

Both Sawyer and Hickey describe the common personal attributes of highly creative persons in their texts. Sawyer (2012) referenced a study conducted by the University of

California at Berkeley, in which peer-nominated creative thinkers in different fields are given a creative personality assessment. The research found that the highly creative subjects had similar traits. The participants in the study had above-average intelligence, were observant, open-minded, had balanced personalities, had pleasant childhoods, and preferred complexity. Sawyer referenced other studies that identified several additional traits of highly creative people. Some of those traits included articulacy, metaphorical thinking, flexible decision-making, independence, willingness to take risks, high energy, autonomy, self-control, and self-confidence. The majority of the studies agreed on one thing: the most important characteristic of a creative person is the ability to recognize a problem and ask the right questions. Most highly creative people are only creative in one field. Exercising a high degree of creativity requires a vast amount of knowledge, training, and experience, which in turn enables one to identify problems and ask the right questions.

Hickey (2012) listed characteristics of highly creative persons, something that would seem to support Sawyer's (2012) assertions. These characteristics include risk taking, humorous, independence, curiosity, attraction to the unknown, complexity, open-mindedness, an interest in fantasy, and heightened perception. However, Hickey identified some negative personality traits as well. She stated that the highly creative person might also be aloof, distractible, compulsive, sloppy, and rebellious. Those characteristics tend to describe students that often get into trouble in the classroom. This suggests that some of the most creative children never get the opportunity to express their creative nature as a result of the teacher's frustration at the student's behavior. According to Hickey, little time and patience is given for the creative process in the music classroom for this very reason. This is not to say that all students with behavior problems are creative. However, if the teacher can distinguish the students with behavior problems as having

creative problems, they can work to channel that energy into something more productive and positive using creative tasks and activities. All children have the ability and potential to be creative. It is up to the teacher to offer tasks and activities that might involve taking risks or allowing the students to be silly. Allowing students to behave in such a way will create a positive classroom environment where students feel comfortable, free to explore, and free to be themselves.

**The Creative Process**

Over the years there has been much written on the creative process. Psychologists have tried to observe the creativity trends and the order in which they occur. Sawyer (2012) outlined the creative process in eight stages. The first stage is the creator's identification and formulation of a problem. Once the creator has thought of a problem, he or she can begin to formulate it in a way that might lead to a solution that is creative in nature. In the second stage the creator must acquire knowledge relevant to the problem. Creative results are not the product of a fleeting thought: A creative person must master and practice the knowledge in their subject area to gain expertise. In the third stage the creator must gather a range of information that might be but is not necessarily related to the problem. Seemingly unrelated information is actually relevant to the problem in some way, and the awareness of this information can lead to a creative solution. The fourth stage is an incubation stage during which the creator takes time off from actively trying to solve the problem. Taking time off will allow the creator to subconsciously process all gathered and related information. During stage five, Sawyer states that the creator generates a large variety of ideas. Although the incubation stage is for subconscious gathering of ideas, conscious attention can also lead to a variety of solutions. In the sixth stage the creator combines ideas in unexpected ways. In many cases, creative products combine existing ideas in unusual

and new ways. Stage seven instructs the creator to select the best ideas and apply relevant criteria. The creative process usually results in a variety of solutions. Many of these will not be the best possible solution. It is the responsibility of the creator to determine which of these ideas they must explore further in their study. The last of Sawyer's stages in the creative process is for the creator to externalize the idea using materials and representations. Creative ideas are not magical moments of insight. Sawyer feels it is important for creative ideas to spark, develop, and alter as they are put out into the world.

Hickey (2012) detailed a similar creative process to the one that Sawyer (2012) described. She stated that some models of the creative process take into account personality, as well as cognitive abilities and creativity skills. The research suggests that there is a combination of both convergent and divergent thinking skills utilized during the creative process. Problem-finding behavior is also an important aspect of the process and is a trait usually found in highly creative people. After participating in the creative process one usually arrives at the creative product, which is the tangible result. The creative product might be an improvisation, composition or an originally altered performance of a well-known piece. However, the product should be new and appropriate. A product is not necessarily creative simply because it is original. For a product to be creative it should not only be original, but also aesthetically interesting to others. Hickey suggests that teachers should encourage students to be thoughtful and creative about their creative products. She also suggests that allowing students the freedom to explore and thoughtfully consider the process in its entirety gives them the chance to produce something of educational value. Teachers should be careful not to discourage students while they are in the process of creating.

**Why is Creativity Important?**

"Whether you put a pencil to paper, draw a brush across canvas, or bring a new idea to fruition, you demonstrate your creative capacity to express your freedom" (Thompson, 2007, p. 1). Thompson seems to suggest that when a person embarks on the creative process, he or she is gaining the inner freedom to come up with original thoughts, ideas, actions, or possibilities. In our younger years we all started out as creative beings. Playing, pretending, and using our imaginations to dream up our wildest ideas are the beginning stages of practicing creative thinking as a child. However, as we age the freedom to think creatively dwindles. Thompson reviewed a study by Land (1973) in which Land gave a group of five-year olds a creativity test that was designed by NASA to select their own group of innovative engineers. The results of the creativity tests showed that ninety-five percent of children scored in the "highly creative" range. These children took the same test five years later at the age of ten. The results of this test showed that only thirty percent were rated "highly creative." These students were tested one last time at the age of fifteen. This time the results showed that only twelve percent of them were considered "highly creative" at this point. Over ten years, the number of "highly creative" students relative to the total test group decreased by 83%. Those results indicate that there is a need for developing thought in students, starting particularly with young children.

Kiehn (2003) also described the importance of fostering creative thought in young children. He compared the creativity of musical improvisation by students in the second, fourth, and sixth grades. Over a twelve-week period, the participating students were given two types of creativity tests, which were scored by two different judges. Participants were given the tests alone in small rooms with little noise. For one of the tests, participants were given six open-ended improvisational tasks. Participants were asked to maintain a steady beat while the tester

performed a different rhythm. Participants had to create musical answers for the tester's musical questions. The second test asked the participants to improvise while the tester maintained a steady beat. Other improvisational activities were performed using black and white bells. The final task asked the participants to improvise musically to match how they feel during a thunderstorm. The judges examined the tests for music fluency, ideation, and rhythmic security.

The results of Kiehn's (2003) two tests suggest that creative abilities vary according to age. Kiehn observed a steady growth in creative ability between the second and fourth grades, followed by a "developmental plateau" between the fourth and sixth grades. There are several contributing factors that might explain this developmental plateau. The first potential contributing factor is sociological or psychological pressure. The students in these grades may feel pressure to conform to the preferences of children their own age. This is a difficult time for students to have creative thoughts that separate them from the rest of their peers. There are social pressures that are difficult for a young person to deal with. The second group of potential contributing factors is comprised of the participants' individual personality traits. Kiehn discovered that imagination, anxiety, and curiosity had an impact on the musical creativity among third graders. This study concluded that more research is necessary to determine how different instructional methods possibly affect the creative process, and how to avoid the developmental plateau in children as they age. Both Kiehn and Thompson (2007) suggest that it important to begin developing creative potential in children at a very young age.

**Teaching Creativity**

Before one begins to focus on teaching creativity, there are several pedagogical prerequisites. "To teach creatively, one must be creative, teachers must ask open-ended musical questions that stimulate thinking, music educators must function within the culture of their

classroom as the 'guide on the side' rather than 'sage on the stage', and care must be taken to establish a safe and nurturing environment" (Robinson, Bell & Pogonowski, 2011, p. 51-52). Understanding these approaches is very beneficial. Robinson, Bell, and Pogonowski seem to be suggesting that in order for one to teach creatively, they themselves must practice being creative.

According to Sawyer (2012) there is a common idea that a creative solution arises from a moment of magical insight, discrediting the hard work that realistically makes up creativity. People don't just have a single moment of insight that inspires an artistic masterpiece. There might be several moments of insight followed by hard work and revision throughout the entire creative process to develop an artistic masterpiece. Creativity has to be practiced, and as these skills are developed, one will most likely become more creative. Sawyer is suggesting that music educators must develop their own creativity before teaching creativity. Another important aspect of teaching creatively is to ask open-ended questions. Teachers must guide students throughout the creative process rather than tell them what to do. This must be done carefully as well so that the teacher doesn't accidentally force his or her own ideas onto the student. That aspect goes along with the idea of the teacher being a "guide on the side" rather than a "sage on the stage" (Robinson, Bell, and Pogonowski, 2011). According to Sawyer, lecturing is not as effective as guiding students through the learning process. When one teaches creativity, he or she acts as more of a facilitator and collaborator. Once again, it can be understood that the teachers must design their classroom and lessons to create a space of creative learning. Research has revealed that it is important to promote a positive and nurturing environment in the classroom. Often it is the teacher who shuts down the creative nature of a student by not encouraging their work in the most positive way possible (Thompson, 2007). Thompson explains that students shouldn't be afraid to explore their creativity, and teachers should emphasize the safe space in the classroom

for optimal success. Once a music educator has followed these prerequisites, they can begin to teach creativity in their own classroom.

Wilson (2001) listed several suggestions for how to spark the creative process for students. The first way mentioned is for the teacher to provide material and give certain parameters that the students may use to complete their creative task. When the teacher limited the parameters of the assignment and gave specific instructions, the students were inspired and motivated to come up with creative ideas that were totally unique. This suggestion is also a great stepping-stone for beginners in the creative process. According to Wilson, many people found it difficult to come up with a completely unique idea and creative problem when they are not given a prompt or any guidelines to follow. Wilson also suggested that the teacher guide students with pointed questions to help them figure out their own ideas for their composition. Without these questions, Wilson stated, students might lose their intent or main idea along the way. These questions could help students stay on task and remain to their creative ideas. Overall, Wilson concluded that the most important thing a teacher can do is create a friendly atmosphere in the classroom. Students who feel like they are supported are less likely to be afraid of thinking creatively, and more empowered to express new and original ideas.

**Fostering Creativity through Popular Music**

The research suggested that music teachers around the country struggle with different ways to foster creative thought in students in the music classroom. Many children don't have the opportunity to be exposed to classical music on a regular basis and therefore have a tough time relating to classical music. However, when these students talk about their favorite song or musical artist their entire face lights up (Biamonte, 2011). According to Bowles (1998), when students make personal connections to their music education they gain the mental freedom and

motivation to participate with their best efforts. Bowles feels that providing students with this type of curriculum does require music teachers to remove the traditional curriculum from the classroom, but bridge the gap between classical and popular music.

Over the last several decades, music education professionals have questioned popular music's place in the public school music curriculum. In 1967, the Music Educators National Conference, also known as MENC, met in Tanglewood, Massachusetts where they held a national symposium of music educators from all over the country (Isbell, 2007). During the symposium, a panel concluded that students should be offered more musical experiences that allow them to connect to their world outside of the classroom. The panel also determined that music of all periods, genres, styles, cultures, and forms belong in the curriculum as well as current popular music that teenagers listen to. It was decided at the Tanglewood Symposium that popular music does have a place in schools. Isbell referenced O'Brien's (1982) statement that poor music is poor music, while music that demonstrates craftsmanship is music of value. This is true of both classical music and popular music, and suggests that popular music is full of value and can have a great impact on students in the music room. Isbell also reviewed studies conducted by other researchers. Isbell concluded from this research that schools should use popular music because students prefer this style, and they will more likely be motivated to participate.

Biamonte (2011) studied the relevance and importance of teaching popular music in the classroom. According to Biamonte, students in today's world are surrounded by an array of new technologies and enjoy instant access to all types of media. Teachers have the opportunity to use these new media sources to connect, inspire, and motivate students so that they may have an exciting experience in the music classroom. The text contained sixteen essays from a variety of

contributors. Biamonte and the other contributors all seem to agree that teaching pop music informally equips students with skills that they might not acquire through traditional methods. For example, pop music can be taught without notation, which can be a good tool for developing aural skills. Biamonte also described different ways to incorporate elements of both popular music and popular culture into elementary music lessons. Several great tools she suggested to help teachers incorporate popular music into their curriculum are *Guitar Hero, Rock Band*, *Dance Dance Revolution*, and *YouTube*.

According to Green (2006), many music educators agree, with some regret, that students often have an unenthusiastic approach to music in their classrooms. Of the research already done on popular music's effects in the classroom, many studies have found that students would rather listen to popular music than any other style (Minks, 1999). Minks' study stated that her fifth graders are excited to hear the new song on the radio, show off by singing all the words, and take ownership of said music. Minks studied students ranging from age five to eleven in a small northeastern elementary school. For four months she visited and observed music class, spoke with parents and teachers, and conducted interviews with fifth grade classes. The study evaluated the way the participants talked about and responded to music. The fifth graders' music talk was usually connected with a special school-time activity. If the students were well behaved, their music teacher allowed them to play recordings of their own popular music. The students were also allowed to get out of their chairs to move to the music. This informal part of class time provided an entry point for learning about the role popular music can play in students' lives in and outside of school. Compared to teaching particular concepts using the traditional ways of classical music, using a song the students might be familiar with might motivate them to participate in the lesson more actively. The student will feel ownership of this music and feel a

stronger connection to it. If the student is excited about what he or she is learning then he or she is more likely to retain the information, as well as apply creative thought to musical practice.

In contrast to Minks' findings, Bowles (1998) completed a study on the preferences of elementary students; she referenced Raynor's Session III of the Symposium, *Motivation and Creation,* which took place in 1983. Raynor stated, "teachers can influence intrinsic motivation by choosing the tasks and materials for learning or performance that have been found to provide substantial inherent interest" (Bowles, 1998, p. 193). It is up to the teacher to find out which tasks and activities will motivate and also be of value to his or her students. This is an interesting point because nowhere does it say that popular music must be the source for these intrinsically motivating tasks and activities. The point being made is that it is not necessarily the style of music that will motivate the students, but the way in which the style is taught. Bowles suggested that the music teacher must find activities and plan *lessons* that the students will enjoy, rather than *styles* of music.

After a teacher has decided to incorporate popular music into their curriculum, he or she might be unsure of how to teach it effectively. Evans' (2014) dissertation not only discussed the importance of popular music in the school curricula, but also instructed teachers on how to select popular music elements that are appropriate and have value in the music classroom. Evans studied how teachers are currently using popular music by administering a survey to a variety of teachers and students. She found that 65% have a curriculum that includes popular music selections or popular music activities. The teachers who claimed to not use popular music at all criticized the repertoire of popular music material with clear musical concepts. 35% of participants acknowledged that they used popular music in extra curricular activities by sponsoring clubs or other activities. The teachers who were already incorporating popular music

into their classroom went about it in a variety of ways. The research showed that teachers use popular music as listening examples for a particular musical concept, musical style, subject/lyrical content, historical value, or fun and enjoyment. Teachers also use popular music in performance for students to experience a particular musical concept, style, subject/lyrical content, historical value, or fun and enjoyment. Other uses listed included allowing students to listen for instrumentation purposes or a 'History of Rock and Roll' unit.

Evans (2014) also analyzed student reactions to the use of popular music. When students were asked about their general reactions to activities and lessons utilizing popular music, 83% had positive responses. Many of the students enjoyed being able to recognize the music as well as discover connections between the classroom and their own personal lives. They also claimed to be more motivated to participate in the activity because it was familiar. The last set of questions in Evans' survey expanded upon teachers' professional opinions about whether or not to incorporate popular music into the music classroom. Every participant responded that their opinions were a direct result from their own experiences as educators. 24% claimed to be influenced in some way by a professor. Only 18% of the participants received any kind of instruction in popular music through undergraduate or graduate classes. 82% of participants were in favor of utilizing popular music to teach or supplement musical concepts. Other responses stated that they could use popular music to generate motivation or enthusiasm, increase student attention, participation, and make stronger connections to students' personal lives.

Green (2006) listed several recommendations for other researchers to pursue including a variety of surveys and trial lesson plans based on what the students would find familiar and what they would prefer. She suggested using informal music practices as a way to incorporate popular music into the classroom. She discussed five main characteristics of informal music practices.

The first characteristic is that informal learners choose music that they identify with and enjoy. People are usually comfortable with what they are familiar with and tend to like it more. By allowing students to choose what they want to learn, they will be more likely to take ownership of it. The second characteristic involves the learner copying recordings by ear. Students usually respond from notated or verbal instructions for this characteristic. This practice can develop a student's aural musicianship in ways formal music practices might not be able to. Third, the learner is self-taught, which means that the learning takes place in a cooperative setting with other people. Many rock bands practice in this type of an informal setting by making music together and learning together. Isbell (2007) described the teacher who taught using informal music practices in the classroom. He discussed how Davis (2005) wanted to show how the techniques and skills used in a rock band rehearsal could also be incorporated into a more traditional ensemble. Davis found that the participants grew musically and socially during the project. The students' composition skills as well as aural musicianship improved. The students were also engaged in the music making while having a great time doing so. The fourth characteristic involves the assimilation of knowledge and skills in unconventional ways. Every student will learn these skills differently, and the process of how they get to the final result is just as important as the result itself. The fifth and final characteristic requires that the learner improvise, compose, perform, and listen during the entirety of the informal music practice. Those skills emphasize the use of creative thought. In a more traditional and formal setting, the emphasis usually isn't creating. According to Green (2006), Isbell (2007), and Davis (2005), these informal learning practices incorporating popular music allow students to develop techniques, skills, and concepts that are less likely to be developed in a more traditional classroom setting.

After Green (2006) examined the different practices of informal music learning, she detailed a research study she conducted on the problems and possibilities of bringing informal learning practices into the secondary music classroom. The project was administered to ninth grade students at 21 schools in London and Hertfordshire, England. The study involved learning and teaching strategies that attempted to replicate the informal learning strategies. The first stage of the project focused on the first four informal learning practices discussed above. The participants were asked to bring in their own CDs, form small groups with each other, and then choose a song from all the choices they had brought in. The students were then instructed to copy the song aurally from the chosen recording as a group, using whatever instruments they desired. During this process, the teacher took a step back into a more observant role that provided guidance and feedback when necessary.

Green (2006) and the teachers involved in this project were initially apprehensive about what sort of outcome they would get. However, the results showed three specific items. First, the natural learning process was observed. During the class times, the students would copy the song by initially matching the percussion to the vocal line, and then creating their own beat by questioning what they were actually hearing. The students worked together in the natural learning process to come to the final product. Second, there were issues with the participants in the group actually listening to each other. There were several instances where most of the participants in the group were playing to a common beat, but one participant would be out of that beat. Instead of stopping and correcting the problem, the groups would continue for several minutes at a time. This tendency for the groups to keep moving forward without stopping to correct raised concerns about flow and cooperation. This contrasts with traditional and classical learning processes. The third item was the nature of the teacher's role. In many of the groups, the

students started the project singing and playing instruments in tune. However, as the project progressed, they would start to slip out of tune and play less accurately. Normally the teacher would step in to help with these problems. But for this project, the teacher acted more as an observer. To everyone's surprise, the participants ended up correcting themselves without any teacher input. The participants also progressed much farther than anyone expected them to. The participants were interviewed at the conclusion of the project. All of the strongest responses from students had to do with motivation, enjoyment, and relevance to their own lives. When asked how it felt to be thrown into the project without much help, the students responded that it was all part of the fun. They enjoyed working out the problems on their own. Participants also claimed that their listening abilities improved over the course of the project. After this stage of the project, students continued to listen and copy music for six to eight weeks. Students then had the opportunity to write songs in band with occasional visits from musicians offering input.

After covering examples of how popular music is already being used, there are still issues with educators not being prepared to teach popular music (Isbell, 2007). Isbell's research indicated that many teachers are not comfortable teaching popular music due to their unfamiliarity with it, which creates resistance. According to Isbell, popular music does not need to replace traditional classroom practices but should instead be taught alongside it. Popular music has been overlooked in music education for many years. This might be because many teachers are unfamiliar with its subject matter, or teachers simply haven't been trained to teach this way. Green's (2006) book on informal learning revealed how teachers can use informal learning practices to develop skills found in popular music that have been previously ignored. This text is a pedagogical guide for how teachers can use a more informal practice to teach students the concepts and skills they have previously taught in a more traditional way. "Informal and formal

musical experiences prepare music in different types of settings, as different as a recital hall is from the garage" (Isbell, 2007, p. 10). Isbell further suggested that although these experiences use different approaches to create music, they both have value. There is no need to choose which type of practice to use in the classroom. Both types of practices can be used together to strengthen different skills and concepts in students. According to Isbell, modern music educators can make more meaningful connections with their students by focusing less on notation, and more on encouraging creative thought through student collaboration and engaging in the learning process alongside their students.

Student response to informal learning practices can give a music teacher a whole new outlook on music education (Jaffurs, 2004). Once the educator sees the excitement, enthusiasm, and enjoyment of music making using these different types of practices, it opens up a whole new educational world. Jaffurs conducted a study where she observed her students creating music in a "garage band style." This study used five participants- two girls and three boys - from three different families. During the first rehearsal Jaffurs gathered data as the group practiced their first song and then composed an original song. During the second rehearsal, she recorded the practice and then asked the band to watch the video and discuss what was occurring. She asked the group questions about instrument choice, selection of members, leadership, compositional practices, rock band preferences, schedules, and parental influences on their music. Jaffurs noted that the rock band used both verbal and non-verbal communication skills to interact with each other. The participants' interviews and discussion about the video viewing showed a connection to formal music education, informal music education, musicianship, composition, improvisation, and collaborative relationships. The participants also described themselves as equal band members: not one of them was considered the leader. There was also peer learning and peer

critique. Jaffurs concluded that by understanding how children teach themselves, music educators could create an effective learning environment using more informal learning practices. She also discovered what aspects each participant valued in his or her own learning environment. Each student was allowed to practice something that they could connect to and will probably be more likely to experience new things in the future.

There has been much discussion on why popular music is needed and suggestions on how to incorporate it into the curriculum. Still missing from the existing body of knowledge is how popular music is actually motivating student performance. These books, articles, and dissertations go into detail about the use of popular music, but we do not have much evidence on student reactions. The closest piece of information on student reaction in the research discussed was what kind of activities students like to participate in during music class rather than the genre or style. Educators might be well served to know how incorporating popular music is affecting their students. Much of the research indicated that students prefer listening to popular music on their own, but that does not mean that they can't promote a combination of both popular and classical music in their elementary music class.

**Fostering Creativity Through the use of Technology**

"The world today is one in which technology is increasingly interwoven into the fabric of our lives. Cell phones, ubiquitous Internet access, global positioning system units, computers, multimedia, tablet devices, digital music players, and videogames are all commonplace and increasingly affordable" (Bauer, 2014, p. 4). Bauer is suggesting that digital technologies are is in every aspect of daily life, and students today have access to just about every kind of technological medium. Because of this, it is important that teachers seize every opportunity to allow technology to be used in the classroom. Not only does technology provide a connection to

what each student might be accustomed to, but also these different types of technologies allow teachers to educate their students in a variety of ways. This variety allows for differentiation among students and accommodation for different learning styles. However, the most exciting thing that technology can do is encourage creative thinking in more advanced and culturally relevant ways. In the current world, technology is a key factor in the way music is created, performed, consumed, and preserved. The creative use of technology can allow students to express their individual musicianship in the most effective ways. People are using technology creatively for music in many different areas. Musicians often use digital technologies to come up with new and unique sounds for their performances. Composers and arrangers use software and hardware on their computers to capture sound to creatively express their music. Bauer suggests that technology has allowed the world to interact with and experience music in new and creative ways.

**Using Digital Technologies for Improvisation**

Two types of creative thinking that are most commonly facilitated through technology are improvisation and composition. Improvising in the elementary music classroom can be overwhelming for the elementary music educator. Allowing children under the age of ten the opportunity for improvisation seems easier to avoid than to accomplish (Bauer, 2014). However, the study of improvisation is a necessary educational activity for music students of all ages. According to Bauer, students are able to foster creative thinking by developing aural skills and providing musical practice and cooperative ensemble participation through the use of technology. Improvisation is used in a wide variety of musical activities for people of all ages and skill levels. It is an important part of jam sessions and jazz performances by more experienced musicians, but could also be used by younger students to experiment with different

pitches and rhythms. Improvising is considered by some to be nothing more than a gratifying creative outlet, but there are also many benefits of allowing students to improvise in music class. According to Bauer, the act of improvising can lead students to better understand notated music, improve their ability to perform for an audience, and increase their sight-reading and aural skills.

There are many ways improvisation skills can enhance creative thinking through the use of technology. Bauer (2014) listed several suggestions for teachers to incorporate in their classroom. Students might use electronic or digital instruments or digital audio workstations to engage in free improvisation. This type of improvisation allows students to use technology to produce sounds without having to follow any specific guidelines or rules. Students might also use digital or electronic instruments, recording software, auto-accompaniment software, or mobile apps to echo musical patterns. According to Bauer, when students begin to improvise, it is necessary for them to strengthen their aural skills. Instead of echoing teacher-provided patterns, technologies can provide the patterns for the student to practice. Another great improvisation activity that uses those same technologies involves posing rhythmic questions to students and asking them to give a rhythmic answer. In the past, the teacher or other students might have had to provide the question, but now the question can be performed using those technologies. Some other activities Bauer discussed using the technologies mentioned above for improvisation includes improvising melodies over a given accompaniment, improvising in groups, or improvising an accompaniment.

Beegle (2010) performed a study that examined fifth grade students' improvisation and their collaborative interaction in groups as they planned and reflected on their improvisational responses to given prompts. Participants were two classes of fifth grade children. Each participant was assigned to a group of four. Over a twelve-week period, Beegle gathered data

from questionnaires, audio- and video-recorded observation of the participants planning, improvising, and evaluating performances, field work notes, and individual and group interviews with students. Each class participated in twelve improvisational lessons that took place in three different units. For each unit, three different art forms were used as prompts: a poem, a painting, and a portion of a professional music composition. Children were asked to work in groups to improvise a piece of music relating to the prompt. These pieces were constrained to a one-minute time limit. After performing their piece for the class, each group was asked to perform it again in a different way. After each performance, dialogue was opened for peers to give feedback.

The results from Beegle's study suggested several different developing themes. She found that every group planned their improvisations using the same four-part process, and that the participants' relationships and social roles correlated with their musical relationships and roles. It was also determined that the musical products differed depending on what the prompt was and how much freedom for musical expression that prompt allowed. Beegle also found that the student's interviews, processes, and reflections showed that each group used similar strategies for planning and evaluating improvisation performances. Beegle's study did not use technology for improvisation, but educators could easily transfer Beegle's prompts to other mediums that do involve new technologies.

Niknafs' (2013) mixed methods research study examined how general music teachers in the state of Illinois are currently using improvisation and their beliefs and practices related to improvisation. Using a survey modeled after Strand's (2006) survey for the use of composition, this survey on improvisation was given to general music K-8 teachers. 87% of responding teachers claimed to use improvisation activities in their classroom, while 13% claimed not to use any improvisational activities. The results also showed that the improvisation activities are not

the main focus in many general music classrooms, but are used some of the time. The participants in the survey agreed that improvisation is a great way to develop musical creativity in students. However, improvisation still ranks lower in priority than other musical tasks. Many participants claimed that they were more likely to teach improvisation in their classroom if they themselves had some sort of improvisation background. The attitudes the participants had on improvisation also showed that while they think it's important to teach, it often lends to a more chaotic or disorderly classroom. When the participants were asked what they wanted their students to learn through improvisational activities, they stated that the enrichment of other musical skills, promoting musical understanding, encouragement of free and creative thinking, advance student independence, and enjoyment were all important goals.

Orman's (2002) study defined and categorized the nine national music standards to determine the amount of class time spent on each one. The participants consisted of 30 experienced elementary music specialists that taught in a large, affluent area in the eastern part of the United States. For the study, each participant was required to submit a videotape of his or her own teaching in all grade levels. However, the participants were not told what the study was about or what researchers would be looking for in the videos. Orman found that that across all grade levels, the largest portion of time was spent with the teacher talking and the second largest portion of time was spent with the teacher modeling. The least amount of time was spent listening to student performance and listening to music. Orman determined that of all the national standards, singing, playing instruments, and reading/notating were the most prevalent activities in the classroom. The remaining standards comprised less than 5% of class time. The standards that require more creative or artistic skills, like improvisation, received very little class time. Many of the teachers who participated in Orman's study said they felt they did not have

enough time to cover the more creative standards. Another concern the study revealed is that teachers spend too much time lecturing. Both Orman (2002) and Niknafs' (2013) studies revealed that improvisation activities in the elementary music classroom receive a little amount of time. They suggest that educators are interested in implementing improvisation activities in the classroom, but need direction for how to begin doing so.

**Using Digital Technologies for Composition**

Another way to encourage creativity through the use of technology is by composing. Composition is a major musical activity in which students have to make creative and artistic decisions. Other areas of the music education curriculum might not provide that same type of experience. Music composition is an important aspect of a child's music education that often gets ignored. Similar to teaching improvisation, many teachers may feel uncomfortable allowing their students to compose. This might come from a fear of not even knowing where to begin. Using technology to compose has made it a lot more accessible for students to create in the music classroom. Bauer quoted Kaschub and Smith (2009), who have developed five-point rationale for why students should compose. Both believed that composing encourages children to creatively discover new understandings of the world, allows children to discover their musical potential, develops knowledge that goes alongside other musical experiences, invites children to demonstrate all of their musical knowledge, and allows the child to explore, grow, and creatively think and produce meaningful and artistic products. This rationale leads us to believe that it is necessary to involve composition in the music classroom starting at the earliest age possible so students can practice and improve through their secondary years.

According to Bauer (2014), there are two main ways that music educators use composition in the classroom. One way is to use standard musical notation, and the other way

involves non-traditional strategies using production/digital audio software. Bauer indicated that many teachers often use the standard musical notation because it is what they are familiar with. It could be that many of these teachers also believe that learning how to read and write music in their standard form is what allows a person to be "fluent" in music. Many of the people advocating for non-traditional composition methods, are often standing up for students who are interested in music, but have little to no formal background knowledge about it. In the elementary classroom, it is beneficial to use software that allows sounds to be shown non-traditionally or graphically. These programs use icons or images that are focused mainly on the sounds the student chooses. Bauer suggested several different technological programs teachers could utilize in their classroom. One program that uses icons or images to match sound is Morton Subotnick's *Making Music.* This program can also be downloaded on a mobile device using the app called *Pitch Painter.* There is also a free version that can be downloaded online called *Creating Music*. The students compose by drawing lines on a blank screen. Students can play around with timbre, tempo, and other variables. Bauer (2014) seems to suggest that this method of composition is perfect for the younger student as it can almost be related to musical finger painting. Students can perform their pieces for the class and revise as needed. A more advanced type of technological composition using a non-traditional approach is through the use of *GarageBand*. The *GarageBand* program allows students to make music by using loops and digital audio. Using this program, students can explore every element of music. Students can also import recorded sounds of themselves performing on real instruments. These programs allow students who don't have notation skills to be able to participate in music and think in sound. According to Bauer, these programs can jumpstart creativity in a child by helping to generate new musical ideas.

Orman (2002) revealed how little compositional tasks are currently being incorporated in the classroom. The results revealed that teachers spend the least amount of time on tasks that require creative thinking. The two most creative national standards are improvisation and composition. According to Orman, many teachers believe they do not have enough time to effectively teach composition in their classroom. However, the study also revealed that almost 50% of class time is spent with the teacher talking at the class. Orman's research leads us to believe if teachers can find a way to effectively distribute their time, then these more creative activities, like composition, could be taught successful in the elementary music classroom.

Research on music composition and compositional practices has suggested that there are methods of instruction to help children move through these practices with increased skill and knowledge. Strand's (2006) study surveyed the current teaching beliefs and practices related to music composition in Indiana. Through this survey, Strand attempted to determine how and why teachers are currently teaching composition, and how to define composition as it appeared in teaching practice. The participants completed a survey about demographics, practices, and perspectives related to composition in the classroom. Results from the study revealed that participants do compositional activities, but not frequently. There were a variety of responses on why these teachers currently incorporate composition into their classroom. Teachers incorporate composition because they believe their students learn more, it enriches their student's learning, it is used for assessment, as a fun and creative outlet, and a way to incorporate technology. The participants who do not use composition responded that there were too many other activities to accomplish, not enough time, and a lack of access to technology, they are uncomfortable, and believe it's too chaotic.

Wilson and Wales (1995) study examined the compositions of children between the ages of seven and nine. They sought out to discover the nature of children's rhythmic and melodic representations of music. The compositions were created using computer software that didn't require any formal education of musical notation. Each participant was tested individually for 30 minutes in each subject, and was instructed to complete one compositional and two listening tasks. Before beginning the compositional tasks, students were given a quick lesson on how to change pitch and rhythm by using certain symbols. The researchers analyzed the method of composition, the way they used the playback mechanism, the use of the eraser tool, and the level of familiarity to manipulate the computer. The compositions that the children created contained non-traditional representations of melodic contour, tonality, and rhythms without having additional private music study. Wilson and Wales' data suggested that children have the ability to represent musical structures with musical experiences gained at home and in the school environment.

The research has suggested that music educators have little time to teach compositional activities in the elementary music classroom. Miller (2004) conducted a survey to determine whether classroom composition could be implemented in the amount of limited time in any given class period. Miller conducted the study in her own teaching situation where she observed her own students. Data were collected in a variety of ways. She videotaped during the compositional process and during student performances. Miller collected copies of student work, as well as self-critique papers, group-critique papers, project critiques, and verbal critiques.

Miller discovered throughout her study that it is possible to successfully integrate creative thinking activities, like improvisation and composition, into every grade level. Individual composition activities allowed students to work at their own pace while group composition

activities allowed the students to use their individual strengths collectively. The results also suggest that students were capable of continuing on work on the same composition from week to week. They were able to recall the information, and actually enhanced recall skills. Each grade level was able to accomplish many compositional tasks throughout the study with the limited time constraints.

A research study by Stauffer (2002), examined connections between the musical and life experiences of sixth grade composers and they music they created. The first part of the study tested a non-notational software program for children. As the children used the software to create music, they were observed, recorded, and analyzed. After the software testing, the study continued for six more years. During the initial two years of the project, students attended an after school session once a week for 30 minutes. The participants composed using a variety of software programs available in the computer lab. Stauffer observed what the children did without any adult interference. The results of Stauffer's study indicated that there were links between the sixth graders compositions and their musical and life experiences, musical background, pop culture, and media outlets. Stauffer's study suggested that because there were such abundant connections to media and sociocultural cues, composing with technological tools prevalent in a student's everyday life could be beneficial and more meaningful to their music education. Stauffer (2002) along with Miller (2004) and Wilson and Wales (1995) all had successful experiences with non-notational compositions in their classrooms.

**Technological Tools**

The number of research studies on creativity in children's music has been growing over the past several years. Mellor's (2008) study showed the effects of a computer-based technology on the process of musical composition. "Focal areas of the investigation include the ways in

which participants use technology to create music compositions, the effects of prior formal instrumental music tuition on the strategies used in the composition process, and the extent to which these responses can be called creative" (Mellor, 2008, p. 451). Mellor sought to determine ways that technology could be used in the classroom to encourage creative thinking. The technology used in this study was a computer program called *Dance eJay*. *Dance eJay* was chosen primarily for its appeal to younger children. The software uses original sound samples in the style of dance music that has been professionally edited to be appealing to the participants. The participants in this study were between the ages of 13 and 15 in a low socio-economic area in England. The program allowed students to perform compositional tasks and then give feedback for reflection. The results of this study showed that every participant practiced creative thinking during their compositional process. No matter the musical background or prior experiences of formal music education, every participant exhibited creative and individual thought. The participants revised and edited their compositions throughout the process to expand on their ideas as well. This is another way in which they demonstrated creative problem solving. Students with little musical background were able to create a musical product that they were proud of. *Dance eJay* is just one of the many programs that allow the student with little musical skill the possibility of seeing themselves as a musician with technology being their instrument. According to Mellor, the program motivated students to do their best, challenged them creatively, and allowed every type of participant to feel successful in their creative product.

Crow (2006) discussed the position of technology in relation to musical creativity in the classroom. In this study, he focused on how educators need to make sure they are using technology in a way that facilitates learning and creative thinking in educationally valuable ways. According to Crow, technology is being used in inauthentic ways, which can lead to a

variety of problems. Crow referenced Odam (2002) by identifying some of these problems. One of Odam's challenges is that composing takes up too much time in the curriculum, and often leads to student discipline and stress. These are similar to Strand's (2006) findings. Another problem that Crow referenced was that there is not a lot of evidence on the skills that students develop from practicing composition, and many schools do not have the resources necessary for student composition. According to Crow, in order to combat these problems, music educators are encouraged to learn about the nature of new music technology. Over the past couple years, musicians, music educators and music students have begun to use some computer-based technology in their music making. Crow's study focused on the type of technology that draws from a variety of already created musical materials that the composer can use in a variety of different ways. The types of technology referenced include the mp3 file and its associated software tools, DJ remix software, loop-based sequencers, and musical accompaniment generators. The mp3 file is a reduction of the file size of a compact disc track that retains a high quality sound. Because these files can be downloaded in a matter of seconds and then stored on a variety of devices, they enable the listener very personalized interactions with their music.

Airy and Parr (2001) conducted a study in which they investigated student perceptions of the usefulness of writing music using MIDI sequence in their musical education. The study was conducted to investigate how students have viewed and experienced MIDI software. The participants selected for Airy and Parr's study either had no prior formal music education or didn't have any MIDI experience, facilities, or computers. The general consensus of the participants was that using MIDI sequencing allowed each one of them to explore and create independently to represent their 'musical voice.' This study showed that there is educational value in using MIDI software, and it is a powerful tool that allows all types of students to access

music. According to Airy and Parr, composing in MIDI can provide students with their own musical voice and remove the barriers found in a more traditional setting. After discovering what technologies are available, it is essential to make the connection between the program itself and musical learning. Airy and Parr seem to be suggesting that technology allows students to make their own musical choices, and encourages musical creativity for every type of music student They also seem to be suggesting that it is important for the music educator to assist, support, and encourage independent creative choices in all of their students to foster a lifelong appreciation of music.

**Innovative Teaching Practices to Encourage Creativity**

To foster creativity by using popular music and technology in the elementary music classroom, traditional teaching methods should not be used exclusively. It is a common practice for educators to fall into the practice of simply lecturing to their students, rather than allowing their students the freedom to explore and learn on their own or with their peers (Blair 2009). Blair discussed the difference between the two areas of consideration for these two practices: the mindful engagement of student experiences, and the opportunity for students to actually contribute to their own musical experiences. She mentioned that educators must understand the difference between students doing musical activities by participating and joining in, and students actively engaged in lessons, which require them to think musically.

Blair (2009) outlined an example of how students can work together creatively to solve a musical problem. In the scenario, a group of students in a fourth grade general music classroom worked together to create their own arrangement of a piece of music previously learned in class. The students learned the song through iconic representations of the melody, and then took turns singing and playing instruments for call and response sections. Next, Blair instructed students to

listen to a recorded version of the piece, and create a texture chart on the board as an entire class. The groups explored rearranging the order of the different sections, combining different layers, determining the different parts, deciding when the singers would sing and instruments would play. After determining their final arrangement, the groups made a texture chart to visually represent their very own creative ideas. Rather than the teacher developing the arrangement for the students, and having the students just "do" the activity, the students had authentic musical experiences. The students created, performed, and made major musical decisions resulting in a composition they could be proud of. The students were active music makers and the teacher acted as a bystander readily available for help. This type of teaching allowed students to participate in a manner that Blair calls "informed doing". Blair seems to suggest that if the activity is designed to be student-centered, each student will be actively engaged with the music, solving musical problems, collaborating with others, and informing their own musical learning.

According to Brown (2008), music educators might be receptive to incorporating student-centered learning into their classroom, but are concerned they might lose control of the learning environment when doing so. Brown outlined two different models to help with this predicament. Like Blair's (2009) article, student-centered learning is described as students being engaged and involved in what they are doing. Student-centered learning is considered a pedagogical manifestation of *constructivism*. This theory of how we learn dates back to American educational reformer John Dewey, and the Russian-soviet developmental psychologist Vygotsky (Brown, 2008). Constructivism is the theory that students learn more by doing than by reading about something or only being told something. For example, students learn more by playing an instrument, rather than by being instructed or reading about how to play an instrument. This relates directly to student-centered learning. When teachers plan for student-centered instruction,

everything must revolve around the needs and abilities of the students. According to Brown, the teachers and students share control of the learning environment allowing students to experiment, explore, and discover independently. Students are not totally in control of the classroom, but can influence decisions being made in the classroom relating to the learning process. There are many benefits to student-centered learning. According to Brown, by encouraging students to explore, create, and independently think, students become self-sufficient, creative thinkers who understand the value of the subject matter they are learning. There is also a benefit for encouraging students to teach others. With student-centered instruction, students are teaching themselves as well as their peers. When students are taught how to think creatively it can be applied to every aspect of their life. Brown seems to suggest that elementary music teachers are not always teaching to produce future composers, music educators, or professional musicians. Instead, elementary educators usually share the common goals of instilling a love of music in their students so that they will continue to pursue music in some way for the rest of their lives.

Another approach to student-centered learning is through the practice of peer tutoring in the elementary music classroom. According to Darrow, Gibbs, and Wedel (2005), peer tutoring occurs when two students work together on an activity. Usually in peer learning one student will provide assistance, as well as instruction and feedback, to the other student. Darrow, Gibbs, and Wedel performed their own study to examine the effects of peer tutoring on music in the elementary general music classroom. They also assessed the use of a class wide peer-tutoring model. The researchers selected 104 fifth grade students of both genders at two different elementary schools located in the Midwest. The subjects were given a pretest and then a posttest on sharp and flat key signatures after tutoring sessions. Both the pretest and posttest data indicated that the class wide peer strategy was effective in the tutoring sessions of flat and sharp

key signatures. Darrow, et al. (2005) discovered that when students work together in such a way, they understand the need to support each other's academic achievement and the importance of gaining specific skills through educational activities. Although one student is doing the "teaching" and the other student is "learning," there are benefits for both (Webb, 2015). In order to teach another student, the tutor must be confident in his or her own ability to organize and explain the learning material to another person. Darrow, Gibbs, and Wedel discovered that peers are more likely to be aware of what other students do not understand. Therefore, the tutor knows exactly how and what to explain to the tutee. The students also took turns alternating between tutor and tutee. These tutoring sessions were structured and both partners had very distinct roles. The teacher was responsible for providing the partners with the materials and activities. As the tutor and tutee went about their assigned tasks, the teacher monitored, provided feedback, and reinforced tutoring behaviors while he or she gathered data. Darrow, Gibbs, and Wedel's data also determined that children are in fact capable of teaching each other musical concepts without teacher-led instruction. Finally, the data showed that students are capable of learning as they teach concepts to other students.

## Conclusion: Three Emergent Themes

As a result of this review of the literature on creative thinking in music, three themes emerged. The first theme that emerged from the research revealed that creative thinking motivates students and increases student interest in his or her music education. According to Minks' (1999) study, creative thinking in popular music motivated students to participate actively in the lesson as well as feel a stronger connection to it. Evans' (2014) study revealed similar results. The student participants responded to a survey in which they were able to discover connections between their music education and their own personal lives when popular

music was used. They also claimed to be more motivated to participate. At the conclusion of Green's (2006) study, the strongest responses from participants had to do with motivation, enjoyment, and relevance to their own lives. Appendix A: Lesson 3 outlines a lesson plan in which teachers can motivate students through the use of popular music. This lesson plan was inspired by Isbell and Green's studies in which students are engaging in the act of making music using informal learning practices typically used in correlation with popular music activities. Student interest and motivation also emerged when looking at studies on the incorporation of technology in the classroom. According to Beegle's (2010) study, the interviews and reflections showed that students enjoyed the mental freedom of creating brand new musical ideas in response to the prompts. Niknafs' (2013) study revealed that teachers use improvisational activities to encourage free and creative thinking, student independence, and enjoyment. Student enjoyment seems to be something that educators and students both strive for in the elementary music classroom. Appendix A: Lesson 1 outlines a lesson in which students are improvising using technology. This lesson fosters creative thinking and can increase student interest. Lesson 1 was inspired by Beegle's study on student success with responses to improvisatory prompts. According to Miller (2013), a study on compositional activities of students revealed that students felt motivated when allowed to explore and create individually at their own pace. Stauffer (2002) also discovered that student interest increased in compositional activities when allowed to create links between their musical and life experiences. Appendix A: Lesson 2 outlines a lesson using technology-based composition with non-notational software. Wilson and Wales (1995) and Stauffer (2002) found that students were interested and felt successful when composing with non-notational software.

Another theme that emerged from the literature was a revelation that teachers do not feel prepared to teach creativity in their elementary music classroom. This appeared in the research on popular music as well as the utilization of technological tools in the classroom. Evan's (2014) study revealed that teachers are concerned with the repertoire of popular music material. The study also revealed that only 18% of participants had received any kind of instruction in popular music through collegiate courses. Isbell (2007) came to the same conclusion as well. His study revealed that teachers are not comfortable teaching popular music due to unfamiliarity. Because of this common finding, Green (2006) described how teachers could use informal learning practices to develop popular music skills. Future music educators should be offered courses in popular music so they feel comfortable enough to incorporate it in their classroom. Educators also felt unprepared to encourage improvisation and composition using technological tools in the elementary music classroom as well. Niknafs' (2013) study revealed that teachers who did not incorporate any kind of improvisation in the classroom were unfamiliar with it, or were worried it would create a chaotic atmosphere. Another concern from Orman's (2002) study determined that teacher's have difficulty preparing for the amount of time necessary for an improvisatory or compositional activity. Miller (2004) also explored time constraints in her study. Lack of technological tools is another way teachers feel unprepared. According to Strand's (2006) study, teachers do not have access to technology they would use in compositional activities. Due to these limitations and setbacks, music educators are uncomfortable encouraging creative thought through the incorporation of technology. Further studies could focus on how teachers are being prepared to teach popular music and use digital technologies in the elementary classroom.

The third and final theme that emerged throughout the review of literature was that of student success. This theme seems to be the most significant of the three. Educators want the best

for their students and any kind of activity that promotes success in the classroom is a beneficial one. When students are motivated and inspired they are more likely to work harder on the assigned task. Usually this produces a result they can be proud of. The use of popular music and technology in the elementary classroom encourages creative thought and promotes student success and pride. Student-centered learning allows the students themselves to take control of their own education. According to Brown (2008), encouraging students to explore, create, and independently think, allows students to become creative thinkers who feel successful about they subject matter they are learning.

Creative thinking is an ever-evolving topic of inquiry in music education research. The studies explored in this review of literature suggest many benefits to a learners' individual knowledge construction in the areas of student motivation, teacher preparedness, and student success. Appendix B details my personal reflection on how to take the literature reviewed and apply it in an elementary music classroom to benefit young learners. By conducting more research into these practices, we will shed more light on creative thinking in the elementary music classroom.

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# Appendix A

## Unit on Creative Thinking: Lesson Plans

**Lesson 1: Improvisation**

For this lesson, students are able to learn about and develop improvisation skills using basic techniques as well as incorporating technology. This type of lesson was inspired by Beegle's (2010) study on the subject of student improvisations response to prompts. This lesson plan allows the teacher and students to prompt each other musically with the prompt being the call, and the student following with a response. This lesson also maximizes instructional time, which Orman (2002) suggested might be a concern with improvisational activities.

The teacher uses a PowerPoint and defines the act of improvising for students. After demonstrating and modeling, students practice improvising rhythmic questions and answers with the teacher. After the teacher feels as if the students are comfortable with the technique, the students are then paired off to practice with each other. Each pair goes alternates providing the improvised rhythmic question and answer. The teacher observes and offers feedback to each pair. Throughout the process, the teacher encourages that students include part of the question in their answer. Once all students are comfortable improvising, the teacher assigns iPads to each person. Students are then allowed to use the http://improvise.free.fr/play.htm website to improvise using virtual instruments.

## Music Education

### 3rd Grade

Essential Question: How can we improvise using the call/response method?
Dates: Anytime

| Materials | Differentiated Instruction | Interdisciplinary Connections | Assessment | Vocabulary |
|---|---|---|---|---|
| Promethean board, PowerPoint on improvisation, and iPads<br><br>**Technology Integration:** ___ Stereo<br>___ Recording Device ___ Television<br>___ Power Point/Projector/ActivBoard<br>___ Computers/Animated Listening Map<br>___ iPod/MP3 Device/iPad<br>___ Other: | **Enrichment:** Students will learn how to improvise by clapping, and with virtual instruments using the call and response method.<br>**Review:** Students will review previously gained knowledge on the practice of improvisation. | ☐ reading<br>☐ writing<br>☐ language arts<br>☐ social studies<br>☐ math<br>☐ science<br>☐ art<br>☐ technology<br>☐ physical ed | ☐ performance<br>☐ participation<br>☐ oral response<br>☐ quiz/test<br>☐ written work<br>☐ rubric<br>☐ skills<br>☐ other: | Improvisation, call and response |

## GPS & Newton County Curriculum:

- **M3GM.1a** Sing melodies in the range of an octave using appropriate head voice, accompanied and unaccompanied.
- **M3GM.1b** Sing speech canons, rounds, partner songs, ostaniti, and songs with multiple stanzas.
- **M3GM.1c** Sing from memory multiple songs representing various genres, tonalities, meters, and cultures including at least one song in a foreign language.
- **M3GM.1d** Sing and identify a simple sequence of pitches which include low Sol, low La, Do, Re, Mi, Sol, La, and high Do.
- **M3GM.2a** Perform by ear and from notation rhythmic patterns using body percussion as well as a variety of instruments with appropriate technique.
- **M3GM.2b** Perform simple body percussion and instrumental parts (e.g., ostinati) while other students play or sing contrasting parts.
- **M3GM.2c** Perform pentatonic and other melodic patterns using instruments with appropriate technique.
- **M3GM.3a** Read aloud rhythmic patterns including quarter note, quarter rest, paired eighth notes, beamed sixteenth notes, half notes, dotted half notes, and whole notes using traditional symbols in 2/4 and 4/4 meter.
- **M3GM.3b** Notate rhythmic patterns including the use of quarter notes, quarter rests, paired eighth notes, beamed sixteenth notes, half notes, and whole notes in response to teacher performance.
- **M3GM.3c** Read melodic patterns within a treble clef staff which include low Sol, low La, Do, Re, Mi, Sol, La, and high Do.
- **M3GM.4a** Improvise simple rhythmic patterns using a variety of sound sources and answers to given rhythmic questions.
- **M3GM.4b** Improvise simple pentatonic melodies and accompaniments.
- **M3GM.5a** Create rhythmic motives to enhance literature.
- **M3GM.5b** Compose rhythmic patterns in simple meter including quarter notes, beamed sixteenth notes, quarter rests, half notes, paired eighth notes, and whole notes.
- **M3GM.5c** Compose simple melodic patterns.
- **M3GM.5d** Arrange rhythmic patterns creating simple forms and instrumentation.
- **M3GM.6a** Distinguish between repeating and contrasting sections, phrases, and simple formal structures – AB, ABA, ABBA, rondo.
- **M3GM.6b** Describe music using appropriate vocabulary (allegro, adagio, forte, piano, upward, downward), appropriate mood and timbre adjectives.
- **M3GM.6c** Identify & classify classroom, folk, and various orchestral instruments by sight and sound.
- **M3GM.6d** Aurally distinguish between solo vs. ensemble, and accompanied vs. unaccompanied singing.
- **M3GM.6e** Identify and describe the members of the string family.
- **M3GM.6f** Identify electronic keyboard and electric guitar by sight and sound.
- **M3GM.6g** Aurally recognize the pentatonic scale.
- **M3GM.6h** Aurally distinguish between duple and triple meter, and recognize time signatures 2/4, 3/4, and 4/4.
- **M3GM.7a** Evaluate musical performances of themselves and others.
- **M3GM.7b** Explain personal preferences for specific musical works and styles using appropriate vocabulary.
- **M3GM.8a** Describe the relationship between music and the other arts.
- **M3GM.8b** Describe the relationship between music and disciplines outside the arts.
- **M3GM.9a** Perform, listen, move, and/or distinguish between music from various historical periods and cultures (e.g., various world regions).
- **M3GM.9b** Describe how music and musicians function in various cultures.
- **M3GM.9c** Demonstrate appropriate audience behavior for the context and style of music performed.
- **M3GM.10a** Respond to contrasts and events in music with gross and fine locomotor and non-locomotor movements.
- **M3GM.10b** Perform choreographed and non-choreographed movements.
- **M3GM.10c** Perform line and circle dances with and without a partner.
- **M3GM.10d** Demonstrate with Curwen hand signs Low Sol, Low La, Do, Re, Mi, Sol, La, and high Do.

## Objectives (Knowledge and Skills Statements):

- Students will improvise answers to questions provided by teacher using body percussion.

-Students will improvise questions and answers with other students using body percussion.

-Students will improvise questions and answers using virtual instruments with other students.

## PROCESS:

1. **Welcome and invite in.**
2. **Introduction:**
   -Introduce lesson on improvisation using prepared PowerPoint.
   -Demonstrate, show examples, and explain how to improvise.
   -Demonstrate how to improvise using the "call and response" method, encouraging that the call be represented in the response.
3. **Development:**
   -Teacher claps rhythmic question.
   -Students improvise a clapped rhythmic answer.
   -When teacher feels that students are comfortable with improvised questions/answers, teacher splits students into pairs.
   -Students take turns clapping improvised questions/answers with each other.
   -Once students have mastered clapped rhythmic improvisation, teacher assigns iPads to each student.
   -Using the website http://improvise.free.fr/play.htm, students are able to choose different instruments and use technology to practice improvised questions and answers with their partners.
4. **Assessment:**
   -Teacher visually and aurally observes pairs to determine success level of each student.

**Lesson 2: Composing with *GarageBand***

Students will spend four lessons composing and creating music using *GarageBand* software. Wilson and Wales' (1995) study had great success with students completing compositional tasks using non-notational software. Stauffer's (2002) study also had success using non-notational software programs that allowed students to create music that made connections to their own musical and life experiences. These studies inspired me to create a project using *GarageBand*. During the first lesson, students will be introduced to the functions of *GarageBand*. After teacher has demonstrated how to use the program, students are paired off and assigned an iPad. Together they explore using loop sequencing and create a piece of music together. The second part of the lesson allows students to add virtual instruments to their compositions from the first lesson. Lesson three requires that students use audio recording to record themselves singing or playing instruments to add into their composition. Finally, lesson four allows the pairs to mix their compositions into a final product. Throughout the project, students will share their compositions for the class, offering and receiving feedback, and writing reflections on each part of the process.

## Music Education

### 4th Grade

Essential Question: How can we compose with GarageBand?
Dates: Anytime

| Materials | Differentiated Instruction | Interdisciplinary Connections | Assessment | Vocabulary |
|---|---|---|---|---|
| Promethean board, iPads, GarageBand, MIDI keyboard, CDs containing additional audio loops.<br>**Technology Integration:** ___ Stereo<br>___ Recording Device ___ Television<br>___ Power Point/Projector/ActivBoard<br>___ Computers/Animated Listening Map<br>___ iPod/MP3 Device/iPad<br>___ Other: | **Enrichment:** Students work in pairs to create creative and unique compositions using technology on GarageBand.<br>**Review:** Students will review form, composition, and arranging. | ☐ reading<br>☐ writing<br>☐ language arts<br>☐ social studies<br>☐ math<br>☐ science<br>☐ art<br>☐ technology<br>☐ physical ed | ☐ performance<br>☐ participation<br>☐ oral response<br>☐ quiz/test<br>☐ written work<br>☐ rubric<br>☐ skills<br>☐ other: | Composition, loops, MIDI, form, mixing |

## GPS & Newton County Curriculum:

- **M4GM.1a** Sing melodies expressively using appropriate head voice, accompanied and unaccompanied.
- **M4GM.1b** Sing and perform with others speech canons, rounds, ostinati, descants, multiple stanzas, and partner songs.
- **M4GM.1c** Sing from memory multiple songs representing various genres, tonalities, meters, and cultures including at least one song in a foreign language.
- **M4GM.1d** Respond with appropriate dynamics, phrasing, and interpretation to the cues of a conductor.
- **M4GM.1e** Sing low Sol, low La, Do, Re, Mi, Sol, La, and high Do within the context of a song.
- **M4GM.1f** Respond to ear training and tonal memory.
- **M4GM.2a** Perform simple melodic patterns from a major scale with appropriate technique.
- **M4GM.2b** Perform instrumental parts while other students play or sing contrasting parts.
- **M4GM.2c** Perform multiple songs representing various genres, tonalities, meters, and cultures [on instruments].
- **M4GM.2d** Perform instrumental parts expressively matching dynamics & tempo while responding to the cues of a conductor.
- **M4GM.2e** Perform simple accompaniments, including chords, on instruments.
- **M4GM.2f** Perform rhythm patterns using sixteenth notes, eighth notes/rests, quarter notes/rests, tied quarter notes, dotted quarter notes, half notes/rests, dotted half notes, and whole notes/rests, in response to teacher performance.
- **M4GM.3a** Read aloud rhythmic patterns including sixteenth notes, eighth notes/rests, quarter notes/rests, tied quarter notes, dotted quarter notes, half notes/rests, dotted half notes, and whole notes/rests using traditional symbols in 2/4, 3/4, and 4/4 meter.
- **M4GM.3b** Notate rhythmic patterns including the use of eighth notes, quarter notes/rests, tied quarter notes, dotted quarter notes, half notes/rests, dotted half notes, and whole notes/rests in response to teacher performance.
- **M4GM.3c** Read simple melodies which include low Sol, low La, Do, Re, Mi, Sol, La, and high Do within a treble clef staff.
- **M4GM.3d** Notate melodic patterns within a treble clef staff.
- **M4GM.3e** Identify flats, sharps, and note names of the treble staff.
- **M4GM.3f** Read dynamic markings: ff, f, p, and pp.
- **M4GM.4a** Improvise rhythmic patterns using a variety of sound sources and answers to given rhythmic questions.
- **M4GM.4b** Improvise simple pentatonic and diatonic melodies and accompaniments.
- **M4GM.5a** Create rhythmic and/or melodic motives to enhance literature.
- **M4GM.5b** Create simple songs using any of the following: sixteenth notes, eighth notes, quarter notes/rests, half notes, dotted half notes, and whole notes within a pentatonic scale using simple meter.
- **M4GM.5c** Arrange rhythmic and melodic patterns creating simple form and instrumentation.
- **M4GM.6a** Distinguish between repeating and contrasting sections, phrases, and simple formal structures – AB, ABA, rondo, introduction, and coda.
- **M4GM.6b** Describe music using appropriate music vocabulary (allegro, moderato, adagio, syncopation, forte, mezzo, piano, upward, downward, step, skip) mood, and timbre adjectives.
- **M4GM.6c** Identify and classify orchestral and folk instruments by sight and sound and aurally distinguish between a band and an orchestra.
- **M4GM.6d** Aurally distinguish between soprano, alto, tenor, and bass voices.
- **M4GM.6e** Identify and describe the members of the percussion family.
- **M4GM.6f** Aurally distinguish between music in major and minor keys.
- **M4GM.7a** Evaluate musical performances of themselves and others.
- **M4GM.7b** Explain personal preferences for specific musical works and styles using appropriate vocabulary.
- **M4GM.8a** Describe the relationship between music and the other arts.
- **M4GM.8b** Describe the relationship between music and disciplines outside the arts.
- **M4GM.9a** Perform, listen, move, and/or distinguish between music from various historical periods and cultures (e.g., Baroque, Classical, Romantic, and Contemporary periods and recognize prominent composers from each period).
- **M4GM.9b** Describe the role of music and musicians in various historical time periods.
- **M4GM.9c** Demonstrate appropriate audience behavior for the context and style of music performed.
- **M4GM.10a** Respond to melodic contour, contrasts, and events in music with gross and fine locomotor and non-locomotor movements.
- **M4GM.10b** Perform choreographed and non-choreographed movements.
- **M4GM.10c** Perform dances from various cultures including traditional folk dances with and without a partner.
- **M4GM.10d** Demonstrate Curwen hand signs for low Sol, low La, Do, Re, Mi, Sol, La, and high Do.
- **M4GM.10e** Perform simple body percussion exercises.

## Objectives (Knowledge and Skills Statements):

- **Perform rhythmic compositions using vocal or instrumental skills.**
- **Makes choices from the elements of rhythm to create rhythmic compositions.**
- **Apply knowledge of form in their rhythmic compositions.**
- **Introduce students to GarageBand virtual instruments and MIDI triggering.**
- **Introduce students to audio recording functionality.**
- **To compose a simple composition using GarageBand and all of its features.**

## PROCESS:

### Plan 1:

1. **Welcome and invite students in.**
2. **Introduction to lesson**:
   -Introduce the concept of audio recording and composition by showing students of large recording studios.
   -Demonstrate for students how to quickly make a song using the loop browser, MIDI instruments, and audio recording functionality of GarageBand.
   -Ask student to volunteer to demonstrate audio recording by singing or talking into the microphone to the prerecorded material.
   -Using a popular song, demonstrate how the technique of looping occurs in pop music today. Play a brief portion of the song using a pre-made loop of track, insert into GarageBand, and loop it.
3. **Development**:
   -Split students into partners and assign iPads to each pair.
   -Instruct how to open GarageBand and create a new song.
   Students will see how to change the tempo of a song, the key signature, and metronome marking.
   -Explain the different functions on Promethean board while students follow along on iPads.
   -Show students how to work with loops.
   -Allow pairs to play around with the built-in looping function of the software to begin creating their own compositions.
   -Pairs compose their own piece using loops. Once done, they are to import into iTunes.
   -Pairs share pieces with the class.
   -Students write reflection on how they used GarageBand to come up with their piece.
4. **Assessment:**
   - Read written reflection and check for understanding.
   - Observe students, ask questions, and listen to their understanding through their compositions.

### Plan 2:

1. **Welcome and invite students in.**
2. **Introduction to lesson:**
   -Introduce students to MIDI controlled keyboard.
   -Demonstrate how to connect a MIDI controlled keyboard to

| | |
|---|---|
| | iPad.<br>-Show students built in MIDI keyboard.<br>-Ask students to name different instruments, and pick different instruments for demonstration.<br>**3. Development:**<br>- Demonstrate how to use virtual instruments and MIDI keyboard.<br>- Have students pull up compositions from lesson 1.<br>- Invite students to think about what instruments they would like to use for their piece.<br>- Ask students to add instruments to the composition from lesson 1.<br>- Students should edit the MIDI performances.<br>- Pairs share work with class, and explain reasoning.<br>- Students write written reflection.<br>**4. Assessment:**<br>- Read written reflection and check for understanding.<br>- Observe students, ask questions, and listen to their understanding through their compositions. |
| | **Plan 3:**<br>**1. Welcome and invite students in.**<br>**2. Introduction:**<br>-Show students microphone and explain how they will use it to add original recorded material.<br>-Demonstrate the use of the microphone by recording instruments and vocals.<br>**3. Development:**<br>-In their pairs, students will think of sounds and instruments they could record that would fit their composition.<br>-Have students record their voices, sounds from around the classroom, or real instruments.<br>-Students arrange these newly recorded tracks to fit their compositions.<br>-Students share compositions.<br>-Students write reflection.<br>**4. Assessment:**<br>- Read written reflection and check for understanding.<br>- Observe students, ask questions, and listen to their understanding through their compositions. |
| | Plan 4:<br>**1. Welcome and invite students in.**<br>**2. Introduction:**<br>-Play different musical examples for class.<br>-Ask students if they think the music is loop based or free form.<br>**3. Development:**<br>-Pairs open compositions.<br>-Introduce and show students how to set levels (mixing) for their song, and how to use audio effects.<br>-Allow students time to finish compositions.<br>-Once songs are completed, students should export into iTunes.<br>-As a group, students will listen and evaluate each other's compositions.<br>-Students complete written reflection.<br>**4. Assessment:**<br>-Read written reflection and check for understanding.<br>-Observe students, ask questions, and listen to their understanding through their compositions. |

**Lesson 3: Popular Music**

This lesson presents students with the opportunity to learn about harmony, improvisation, and arranging with popular music. Isbell (2007) discussed using informal music practices in the incorporation of popular music. Green (2006) also outlines a study in which the teacher acts as more of a facilitator instead of a lecturer. These two studies inspired me to design a lesson where students learned and created informally using popular music. Students would be able to work together with little teacher guidance to create a vocal harmony line to a popular song.

After the teacher presents a lesson on harmony, students will have the opportunity to use iPods and *YouTube* to share their favorite band that uses harmony with the class. The teacher then plays "Story of My Life" by One Direction for the class. The teacher has already taught a harmony to the chorus in a previous class. The students are split into groups, and are instructed to create their own harmonies to assigned verses of the song. The students should record their final harmonies along with the melody on their iPods, and present their final product to the class. If the students are very advanced, they may also notate their harmony.

## Music Education

### 5th Grade

Essential Question: What is improvisation?
Dates: Anytime

| Materials | Differentiated Instruction | Interdisciplinary Connections | Assessment | Vocabulary |
|---|---|---|---|---|
| Promethean board, computer, "Story of My Life" by One Direction sheet music, "Story of My Life" recording, CDs of popular music groups with harmony (N*SYNC, The Temptations, Big Time Rush, 5SOS, The Jackson 5, etc.), stereo, auxiliary cord.<br><br>**Technology Integration:** ___ Stereo<br>___ Recording Device ___ Television<br>___ Power Point/Projector/ActivBoard<br>___ Computers/Animated Listening Map<br>___ iPod/MP3 Device<br>___ Other: | **Enrichment:** Students will explore different ways to arrange and create harmonies using popular music and technology.<br>**Review:** Students will review melody and harmony. Students will also review harmony to chorus of "Story of My Life" by One Direction | ☐ reading<br>☐ writing<br>☐ language arts<br>☐ social studies<br>☐ math<br>☐ science<br>☐ art<br>☐ technology<br>☐ physical ed | ☐ performance<br>☐ participation<br>☐ oral response<br>☐ quiz/test<br>☐ written work<br>☐ rubric<br>☐ skills<br>☐ other: | Improvisation, melody, harmony, popular music, arranging |

## GPS & Newton County Curriculum:

- o **M5GM.1a** Sing melodies expressively using appropriate head voice, accompanied and unaccompanied.
- o **M5GM.1b** Sing and perform with others speech canons, rounds, ostinati, descant, multiple stanzas, partner songs, and simple two-part songs.
- o **M5GM.1c** Sing from memory multiple songs representing various genres, tonalities, meters, and cultures including songs in a foreign language.
- o **M5GM.1d** Respond with appropriate dynamics, phrasing, and interpretation to the cues of a conductor.
- o **M5GM.1e** Sing the notes of a major scale using Solfege syllables.
- o **M5GM.1f** Respond to ear training and tonal memory
- o **M5GM.2a** Perform melodic patterns from a major scale with appropriate technique.
- o **M5GM.2b** Perform instrumental parts while other students play or sing contrasting parts.
- o **M5GM.2c** Perform multiple songs representing various genres, tonalities, meters, and cultures [on instruments].
- o **M5GM.2d** Perform instrumental parts expressively matching dynamics & tempo while responding to the cues of a conductor.
- o **M5GM.2e** Perform simple accompaniments, including chords, on melodic instruments
- o **M5GM.2f** Perform rhythm patterns using sixteenth notes, eighth notes/rests, quarter notes/rests, tied quarter notes, dotted quarter notes, half notes/rests, dotted half notes, whole notes/rests, in response to teacher performance.
- o **M5GM.3a** Read aloud rhythmic patterns including sixteenth notes, eighth notes/rests, quarter notes/rests, tied quarter notes, dotted quarter notes, half notes/rests, dotted half notes, and whole notes/rests using traditional symbols in 2/4, 3/4, and 4/4 meter.
- o **M5GM.3b** Notate rhythmic patterns including the use of beamed sixteenth notes, eighth notes, quarter notes/rests, tied quarter notes, dotted quarter notes, half notes/rests, dotted half notes, and whole notes/rests in response to teacher performance.
- o **M5GM.3c** Read melodies which include low Sol, low La, Do, Re, Mi, Fa, Sol, La, Ti, and high Do within a treble clef staff.
- o **M5GM.3d** Notate simple melodies within a treble clef staff.
- o **M5GM.3e** Identify flats, sharps, and note names of the treble staff.
- o **M5GM.3f** Read dynamic markings: ff, f, mf, mp, p, and pp.
- o **M5GM.4a** Improvise rhythmic patterns using a variety of sound sources and answers to given rhythmic questions.
- o **M5GM.4b** Improvise simple pentatonic and diatonic melodies and accompaniments.
- o **M5GM.4c** Improvise simple rhythmic or melodic variations.
- o **M5GM.5a** Create rhythmic and melodic motives to enhance literature.
- o **M5GM.5b** Create simple songs using any of the following: beamed sixteenth notes, eighth notes, quarter notes/rests, half notes, dotted half notes, whole notes, or text within an octave scale using simple meter.
- o **M5GM.5c** Arrange rhythmic and melodic patterns creating simple form, instrumentation, and various styles.
- o **M5GM.6a** Distinguish between repeating and contrasting sections, phrases, and simple formal structures – AB, ABA, AABA, rondo, theme and variation, introduction and coda.
- o **M5GM.6b** Describe music using appropriate vocabulary (e.g., allegro, moderato, adagio, syncopation, forte, mezzo, piano, crescendo, decrescendo, upward, downward, step, skip), articulation terms, appropriate mood and timbre adjectives, and other musical terms: (e.g., fermata.)
- o **M5GM.6c** Identify and classify orchestral, folk, electronic, and world instruments by sight, sound, and families.
- o **M5GM.6d** Aurally distinguish between soprano, alto, tenor, and bass voices.
- o **M5GM.6e** Identify and describe the members of the woodwind family.
- o **M5GM.6f** Aurally distinguish between music in major and minor keys.
- o **M5GM.6g** Identify the musical styles of jazz, American musical theater, and opera.
- o **M5GM.7a** Evaluate musical performances of themselves and others.
- o **M5GM.7b** Explain personal preferences for specific musical works and styles using appropriate vocabulary.
- o **M5GM.8a** Describe the relationship between music and the other arts.
- o **M5GM.8b** Describe the relationship between music and disciplines outside the arts.
- o **M5GM.8c** Describe career opportunities in the field of music.
- o **M5GM.9a** Perform, listen, move and/or distinguish between music from various historical periods and cultures from the Civil War to present (e.g., jazz, musical theater, rock-n-roll, country, gospel, new age, rap, heavy metal, pop).
- o **M5GM.9b** Describe the role of music and musicians in various historical time periods.
- o **M5GM.9c** Demonstrate appropriate audience behavior for the context and style of music performed.
- o **M5GM.10a** Respond to melodic contour, contrasts and events in music with gross and fine locomotor and non-locomotor movements.
- o **M5GM.10b** Perform choreographed and non-choreographed movements.
- o **M5GM.10c** Perform dances from various cultures including traditional folk dances with and without a partner.
- o **M5GM.10d** Sign the notes of a major scale using the Curwen hand signs.
- O **M5GM.10e** Perform simple body percussion exercises.

## Objectives (Knowledge and Skills Statements):

**-Students will improvise harmonic accompaniments.**

**-Students will arrange simple pieces for voice or instruments.**

## PROCESS:

1. Welcome and invite students into classroom.
2. Present PowerPoint for lesson.
3. Assign students to groups with an iPod touch with access to YouTube.
4. Introduce lesson on harmony with PowerPoint.
5. Listen to Harmony:
   - Play examples of harmony from popular vocal music.
   - Allow students a few minutes to look up their favorite song utilizing harmony with their groups. (Teacher must approve selections).
   - Students present their songs to the class.
   - Ask students if they ever make up their own harmony to songs on the radio or in other places where they might sing.
   - Finish with playing "Story of My Life" by showing YouTube video on Promethean board.
6. Review the Harmony:
   - Review the harmony learned in previous lesson from the chorus of "Story of My Life".
   - Divide groups into melody/harmony sections.
   - Play pitches for students by rolling the chords on the piano and then play the chords simultaneously for student sections to sing or play.
7. Arrange the Harmony:
   - Depending on the ability level of students, assign each group a verse of the song.
   - Review the melody line and discuss harmony. If students play guitars or have any kind of rock band experience, they may be familiar with arranging. Or discuss techniques musicians use to harmonize. (Thinking in either vertical or horizontal lines, for example.
   - Suggest that students "make up" their own harmony. While all but one member of each group sing the harmony, have the other member experiment by singing harmony. Have students take turns "making up" the harmony
   - Ask each student group to select a favorite harmony.
   - Give the student groups practice time.
   - Groups record version on iPods, and sing their versions for the class.
8. Extension:
   - For more advanced classes, have groups notate their arrangements.
9. Perform for teacher and dismiss class.

# Appendix B

## Personal Reflection

## Personal Reflection

When reviewing the literature for this project, I noticed that I fell into many of the common traps other music educators have fallen into in the past. I began to realize that I was not encouraging a lot of creative thought in any of my elementary music classes. Not only was I not encouraging creative thought, but also I felt inadequately prepared to teach any kind of creative thinking activities in my classroom. The research has been enlightening and I am now aware of how I can begin to implement creative thinking so that my students can feel motivated and successful in their music education.

Before one can begin to encourage creative thought, there is much preparation that has to be done on the teacher's part. First of all, a safe space must be created. Because teachers have often been the first to shut down a student's creativity, it is so important that a positive environment be created in the elementary music classroom. Students must feel safe and secure so that they can express themselves without fear of ridicule or embarrassment. This takes cooperation from everyone in the classroom. I've realized that not only do I have to work to create the positive environment, but my students must help maintain the positive environment as well. I have to let go of the reigns and relax on all of the rules I have previously enforced. This is not to say that I have to let go of all control, but creative thinking and creative activities will allow for more student freedom. This will change the flow of my class, and I can find new ways to manage my classroom without constantly enforcing rules. As the flow of the class changes, the instruction will become more student-centered, which is ideal for creative thought pertaining to popular music and the incorporation of technology.

After the preparation stage, I will be ready to begin encouraging creative thought in the classroom. By examining the research, I discovered there are many ways for students to

creatively think through the use of popular music. This can be as basic as using *YouTube* to showcase famous musicians or *DanceDanceRevolution* to allow students to move to music. Utilizing popular music in the classroom also allows for student-centered instruction as well. Many of the research studies were done with students in small groups learning informally. I realized that this could be done with my older elementary music students, perhaps fourth and fifth graders. The challenge would be finding popular music appropriate for young students. However, there are many popular songs with powerful messages for young people that have authentic value in the music classroom. Students can also work together in small groups to teach each other their favorite songs, create arrangements of popular songs using classroom instruments, and listen and analyze popular songs. Students could also work together to write a song using the informal learning process. These types of activities allow students to connect to the music in meaningful ways, allows them to take ownership, and motivates them in an activity they are sure to enjoy.

Creative thinking can also be encouraged in a variety of ways through the use of technology. I teach in a low-income school where I am lucky to be equipped with a vast amount of technological tools. However, like the other teachers mentioned in a few of the studies, I have felt unprepared and insecure on actually implementing the tools. The research revealed so many manageable ways for me to use technology. Many of these tools can also be connected to the use of popular music as well. For example, students can use *YouTube*, *iTunes*, *Pandora*, etc. to listen to a variety of different styles of popular music. They might use those tools for a project, or to share with the class, or to pick a song to learn on their own without help from the teacher. Crow (2006) mentioned student-created playlists. By allowing students to create playlists, or even

podcasts showcasing their favorite songs, the teacher is encouraging creative thought and supporting what is important to each individual.

Technology can be used to improvise and compose. My students can improvise using electronic instruments to explore new sounds. Many electronic instruments and tablets allow young improvisers to engage in improvisational activities without having a substantial musical background. There are also ways where teachers can use recorded accompaniment tracks for students to improvise over.

My students can also use programs like *GarageBand* to compose individually. Programs like *GarageBand* allows for a student to create a piece of music that might sound similar to something they would hear on the radio. This is an especially useful program for a younger student with limited musical knowledge. Rather than using notational software, it allows the user to create and feel successful and proud of their work. There are other types of MIDI based programs, which allow younger students to think in sound rather than using notational software.

After researching the ways technology should be used to encourage creative thinking, I have found that one of the best ways to accomplish this is on the iPad. My school has several class sets of iPads that teachers can check out to use in their classroom. There are so many applications that are free or inexpensive that has been designed for creative thinking in music. Many of these apps combine improvisational and compositional skills. For example, *Loopesque Lite* contains is a sequencing program that allows students to create beats and patterns and arrange music. *Groovemaker* allows students to remix loops to create music that sounds like electronic or dance music. *JamPad Plus* allows students to play on a virtual keyboard. Students can also record their improvisations or compositions. Another great app is called *Cube Jam*. This app allows students to import their own songs from a music library, and then they can play

along, improvise, or record a solo over it. They also have the option to change the tempo and pitch. Two apps that can be used for very young children, like kindergarten or first grade, are *Loopesque Kids*, and *Singing Fingers*. Both of these apps allow children to draw on the iPad screen, or improvise with cute graphics.

There are so many ways music educators can encourage creative thought in their classroom. Traditional teaching methods are still of significant value, but by incorporating a few of these non-traditional methods into the classroom, teachers might just see drastic results in their students. By providing ways where students can connect to the music they are learning, they also might just be more motivated and excited to participate on a daily basis. But most importantly, by allowing students to study relevant topics in relevant ways where they aren't just being fed the information, we might just begin to see students creatively think not only in the music classroom, but also in all aspects of their life.