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Emily Grace Manis
University of Northern Iowa

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INTEGRATING MUSIC IN PK-12 CLASSROOMS TO IMPACT BEHAVIOR, IMPROVE ACADEMICS, AND SUPPORT DEVELOPMENTAL MILESTONES IN CHILDREN

A Thesis Submitted
in Partial Fulfillment
of the Requirements for the Designation

University Honors with Distinction

Emily Grace Manis
University of Northern Iowa
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This Study by: Emily Grace Manis
Entitled: Integrating Music in PK-12 Classrooms to Impact Behavior, Improve Academics, and
Support Developmental Milestones in Children
has been approved as meeting the thesis or project requirement for the Designation
University Honors with Distinction
Approved by:
Dr. Allison Barness, Honors Thesis Advisor, Curriculum and Instruction
Dr. Jessica Moon, Director, University Honors Program

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Introduction

As a child, music was always a part of my life, and I believe this immersion has greatly impacted how I view music's role in the world of education. I've always wanted to be a teacher, but it wasn't until I started courses at the University of Northern Iowa that I really decided to focus on early childhood and social emotional learning. My desire to teach, combined with my passion for all things music, led to my decision to focus on how music integration can be a useful tool in every classroom. Specifically I want to focus the research and the results of this paper on creating a useful tool for educators to use in their classrooms, laid out in a way that allows educators of all age groups and content areas, to implement these ideas. To do this I will be reviewing the literature that exemplifies what benefits music integration provides. My original contribution is pulling themes from the research to create a tool for teachers to use in their classrooms. These tools are a combination of learning standards from the Iowa Core and activities that integrate music (Iowa Department of Education Academic Standards).

Music holds immense potential to be used as a versatile and effective tool for enriching the educational experience of both educators and students. As a future educator I believe that it is crucial to identify what can be implemented in the classroom that contributes to the enhancement of learning in all subjects and grades. I see music as something that can be implemented as a dynamic tool that cultivates heightened student engagement, fosters positive behavior, and aligns seamlessly with educators' efforts in guiding students towards crucial developmental milestones.

The main question that guided my research was simple, yet allowed for an impactful accumulation of research and data to support the idea that music integration does benefit classrooms. This question was:

1.) What benefits come from integrating music into PK-12 classrooms?

When I began sorting out what I wanted my final result or product to look like, I realized that most of the research I was finding was incredibly informational, but often did not include practical tools and tips for educators. With this realization, I decided that I wanted my original contribution to be a useful resource for teachers.

I begin this paper by introducing the literature in a way that highlights the benefits of simple activities such as listening to music in the background of a classroom setting. The research shows how and why basic integration of music such as background noise can lead to increased student academic performance, language development in young children, and verbal memory skills (Ivanov et al., 2003, Benetti et al., 2009, Roden et al., 2012, Geethanjali et al., 2012, Governor, 2017, Bahna-James, 1991).

I then move on to talk more about how teachers can use hands-on activities that integrate music to benefit content areas of the classroom. I focus on the benefits regarding social studies, math, science, and literature (Harney, 2020; An et al., 2013; Stufft 2015, Cornett 2003). Further still, I chose to highlight research that shows the positive correlation and effects of music activities when used in conjunction with social-emotional learning (Petillo et al., 2021, CASEL, 2023). As I stated earlier, I have focused on social-emotional learning during my time at the University of Northern Iowa, and I believe it is a crucial aspect of learning that students of all ages should be exposed to. Adding music to the learning of social-emotional skills provides

students with increased engagement and oftentimes, a more thorough understanding of these social-emotional learning concepts.

Literature Review

Music as Background Noise

In the original Mozart Effect study (Rauscher et al., 1993), Rauscher proposed that listening to Mozart for just 10 minutes before engaging in a paper-folding task could boost IQ scores by an average of eight to nine points and enhance spatial awareness. However, subsequent attempts by other researchers, such as Jenkins (2001), to replicate these findings proved unsuccessful. Even when similar results were obtained, they found that the effects were short-lived, lasting only 10-15 minutes after the music ceased. These challenges in replicating Rauscher's results, coupled with doubts about the sustainability of the effects, have cast doubt on the reliability of the Mozart Effect as a dependable method for enhancing classroom learning through music.

Despite the debate surrounding the Mozart Effect, which complicates its use as solid proof for the benefits of music in classrooms, there are still valuable lessons to be drawn from Rauscher's study. This original experiment led to further research that focused on exploring different aspects of music and its impact on students. We can take the ideas Rauscher introduced, like how music might affect IQ, and combine them with newer studies that look at things like when and where the music is played and who's listening. This way, we can get a better grasp of how music could help students in school, using a wider range of research and testing methods.

In 2003, researchers conducted a follow-up study to further investigate the Mozart Effect (Ivanov et al., 2003). This study differed from the original in several ways. Instead of college

students in a lab, they worked with fifth and sixth-grade students in a typical school environment. Not only did they play music, including pieces by Mozart and Bach, before and during the task, but they also exposed the control group to typical school background noise. The approach in this study gives a more comprehensive understanding of how music can affect student performance on cognitive tasks. It is more closely related to primary school aged students, and examines a more specific incorporation of music in the classroom. They used data they gathered to back up the idea that classical music does affect student performance. Students who listened to classical music scored higher on a cognitive task, compared to the group of students who had typical school background noise, an improvement in student performance based on listening to classical music.

In Ivanov's (2003) study, it was observed that students who listened to both Bach and Mozart scored better on the paper-folding task compared to the control group. Although there was a slight edge for the Mozart listeners, the difference wasn't significant enough to sway the overall outcome. Leveraging Rauscher's (1993) initial work, Ivanov's study sheds light on the potential benefits of music on academic performance. Ivanov and his team provide further evidence that supports the claim that listening to classical music improves academic performance, compared to academic performance when only school background noise is present.

Examining a study by Geethanjali et al. (2012) allows the exploration of how listening to different genres of music stimulates the brain. During this study, men and women were played different clips of music while hooked up to electrodes that monitored their brain activity. The music was played while the participants were completing a task on the computer. The three genres of music played were jazz, carnatic (a form of classical Indian music), and hard rock. The data showed that when the jazz and carnatic music samples were played, participants' vigilance

and attention were higher, showing that they were more receptive to change and were paying closer attention to the mental task on the computer. When the hard rock music played there were no significant changes in brain wave levels compared to the control run when no music was being played. We can use the data gathered from this study to support the use of music (though what type of music is still important), as a benefit in the classroom.

Music Integration and Student Development

In a study conducted by Benetti and Costa-Giomi (2009), an observation was made involving a 15-month-old named James. Despite not yet being able to speak, James demonstrated the ability to imitate his family members or musical toys after hearing them play familiar tunes like "Rain Rain Go Away" and "Happy Birthday." What's noteworthy is that he mimicked these songs by producing speech-related sounds, known as babbling, with similar pitch and rhythm patterns. Babbling is considered an early indicator of language development in infants, and educators and caregivers often regard it as a significant milestone in a child's progress. Language plays a pivotal role in a child's overall development, and the findings from the study involving James suggest that incorporating music into interactions with young children may have implications for nurturing and supporting the language skills essential to their growth.

According to the findings by Slater et al., (2014), music was able to also help with students' language skills. Students of low-income families tend to fall further behind their higher-income peers throughout their academic careers. In this study, English-Spanish bilingual students whose families were considered low-income, were tested on their English reading ability. These students received musical training for one year, comparatively the control group did not receive musical training. The results showed that the group who went through musical training remained on track with their expected reading performance based on age, while the

control group's reading performance deteriorated. Though reading isn't necessarily an auditory activity, the development of reading skills relies heavily on listening and parsing out important literary elements. During the discussion, the authors note that "It is possible that playing music promotes reading fluency and rapid naming, but neither phonological memory nor phonological awareness" (Slater et al., 2014). From this data we see that music can not only assist with students' reading performance, but can help students counteract the negative effects low-socioeconomic status can have on young children's literacy development.

Natalie Sarrazin published a book in 2016 titled *Music and The Child*, where she explores and identifies the developmental connections between music and students. In her book she highlights important aspects of applying music to benefit the whole child, including, physical aspects, cognitive development, social-emotional development, and linguistic development. Her book provides examples of lessons that help teachers to meet learning standards while also incorporating music listening or activities to enhance students' engagement and learning. She also introduces the concept of a sound carpet. This activity encourages students to pay attention to specific literary elements by assigning a music sound or action to each element, and producing this sound or action everytime the literary element is mentioned.

Music Integration and Content Areas

Music is not a resource that can solely be used to cover up mundane background noise in schools. There are many studies, books, and articles that examine the connection between content areas such as reading, math, social studies, and science and how incorporating music activities into those can help students and teachers alike (Harney, 2020; An et al., 2013; Stufft 2015, Cornett 2003). In Howard Gardner's book, *Frames of Mind* (1983), he argues that intelligence can be broken into seven spheres, and that someone's level of intelligence in one

sphere does not dictate their performance in another one of the spheres. This idea can be incredibly encouraging for educators and students of all ages. If a student lacks in one area of school or learning, we can use this knowledge from Gardner to encourage them to persevere and to seek out what they excel in. In education, this idea is crucial to the success of students and ensuring safe and inclusive learning environments. It is important that students feel competent at school and if an educator can encourage perseverance and positivity in an area of less competence, they are contributing to student success.

Another study wanted to identify the effects of a school-based instrumental program on students' verbal and visual memory (Roden et al., 2012). In this study researchers had primary school aged students participate in a variety of testing following intensive instrumental training and typical instrumental training. Results of this experiment showed that the students who participated in the intensive instrumental training program significantly improved learning and immediate recall of verbal information after one year compared to the participants who had the typical exposure to instrumental training. These results suggest that the students who improved recall of verbal information developed more efficient short-term and long-term memory strategies than those of their peers in the control group. The findings of this study are consistent with prior experimental research that show an increase in verbal memory capabilities of instrumentally trained students (Chan et al., 1998, Kilgour et al., 2000, Ho et al., 2003, Jakobson et al., 2008).

Not only is music a subject students can study on its own, it is also a form of learning that can contribute to students' comprehension of science concepts such as amplitude, wavelength and frequency (Sarrazin 2016). Music can also be considered a mathematical concept that can help students understand and practice using symmetry, proportion, intervals and tempo. These

terms are important to the concept of music, but are also frequently found in math instruction. Further explained, Tara Bahna-James (1991) makes the connection between mathematics and music clear:

Among the most basic mathematical concepts in music theory is rhythm, or a pattern of beats or notes occurring over time. Here the link to mathematics is obvious: a numerical pattern of beats, which can be counted, bears direct resemblance to the study of basic arithmetic, which is essential to the study of advanced mathematics. (p. 479)

The ability to understand and follow rhythms is typically one of the first musical skills captured in young children, similarly, when young children are first introduced to mathematical concepts, it often begins with counting.

Governor (2017) wanted to know if there were positive attitudes towards the use of music in science instruction, specifically related to engagement, attention, and deeper learning experiences. In her research she interviewed multiple teachers and found that they declared when music involvement aligned with the standardized curriculum, it was a supplement to teaching that was meaningful to both students and teachers. The teachers interviewed also attributed higher engagement with the science curriculum when they involved music and musical concepts.

Music Integration and Social-Emotional Learning

Wrapping up my research, I focused on social-emotional learning and how music integration can be tied to the development and enhancement of social skills. Edutopia is a free resource for educators to use to enhance their classroom learning. Within this database, teachers can find information, inspiration, and practical strategies they can implement in their classes. One such resource is an article on social emotional learning in preschool classrooms, and how teachers can use music to teach these social skills (Petillo et al., 2021). One of the lessons they

highlight in this article is combining Muddy Waters' song, *Louisiana Blues* with discussions on sad and strong feelings to help students understand and better recognize these sometimes overwhelming emotions.

Another important piece of research is the information on the CASEL (2023) platform, which stands for Collaborative for Academic, Social, and Emotional Learning. CASEL provides a framework for social-emotional learning that includes five main categories: self-awareness, self-management, responsible decision making, social awareness, and relationship skills. This framework is used in many school districts and classrooms to guide the teaching and learning of social-emotional skills.

Research Ouestions

As I contemplated the focus of this research it became evident that my intention extended beyond just the benefits of background music experiences in classrooms. I wanted to know more about using music generally in the classroom, but also how music activities could be integrated into content areas. As stated in my introduction, I want my original contribution to this research to be a useful tool for educators, so how do I lay out the use of music in a classroom, in a way that can be used by any and all educators? The purpose of the literature review is to pull out themes and gather evidence on the benefits of music integration in the PK-12 classroom. The literature review is a culmination of what I believe to be the most influential research regarding music benefits, to help me build my original contribution to the research, tools for teachers. One main question really encompassed what I wanted to know, and how I could use the research to create a tool for teachers, that question is:

1.) What benefits come from integrating music into PK-12 classrooms?

Methodology

After finding literature that supported my question, I created a google spreadsheet that helped organize and analyze the research. In the spreadsheet there were sections for each piece of research to be broken down into the following categories: APA citation, research and evaluation questions, participants, design and procedures, measures taken during the study, analyses and tests, results, and how the study results related to my main research question. The purpose of this spreadsheet was to help me find themes within the research to determine what my original contribution would ultimately focus on.

Thompson, W. F., Schellenberg, E. G., & Letnic, A. K. (2012). Fast and loud background music disrupts reading comprehension. Psychology of Music, 40(6), 700-708. https://doi.org/10.1177/0305735 511400173	What is the effect of background music on reading comprehension?	16 females, 9 males (17-26 years old)	Four comprehension tests, 5 minutes in between each. 4 minutes to read each passage with headphones on playing music, then without the headphones, they had 3 minutes to answer 6 multiple choice questions	2 pilot experiments were completed prior to the actual experiment, to gather data for a baseline to measure the results of the final experiment.	4 comprehension tests; 6 multiple choice questions	Performance with music was similar to without, but performance was significantly worse when fast and loud music was played.	"Listening to background instrumental music is most likely to disrupt reading comprehension when the music is fast and loud."
Savan, A. (1999). The effect of background music on learning. Psychology of Music, 27(2), 138-146. https://doi.org/10.1177/0305735 599272005	What is the effect of background music on learning?	10 boys (11-12 years old)	Recording of Mozart was played during 10 successive 40-minute science lessons, trials done with different frequencies each time	Participants were video-recorded to monitor coordination, work output, task completion, neatness, noise-level, concentration span, and attention-seeking behavior. The video was then used to watch back in comparison to the lesson before and after music was implemented.	Each behavioral parameter was scored out of 10, with 1 being least favorable and 10 being most favorable.	"When participants were played Mozart orchestral compositions during normal science lessons there was a significant drop in all physiological parameters and a resultant improvement in behavior. Observed coordination was improved, all pupils completed the set tasks neatly and quietly, their concentration span lasted throughout the forty-minute lessons and there was no attention-seeking behavior."	Mozart's orchestral compositions being played in the background of a classroom resulted in improved behavior, task completion, and a longer time in concentration.
Popescu, M., Otsuka, A., & loannides, A. A. (2004). Dynamics of brain activity in motor and frontal cortical areas during music listening: A magnetoencephalographic study. Neurolmage, 21(4), 1622–1638. https://doi.org/10.1016/j.neuroimage.2003.11.002	What are the dynamics of brain activity in motor and frontal cortical areas during music listening?	5 male volunteers	A piano piece was played into the ears of the participants while they were attached to a magnetometer, tracking brain activity.	Subjects seated comfortably, low ambient illumination, fixated on a central point.	Analyzed a 10-second clip of activity	Many of the changes lasted for several seconds (brain activity lingered, did not just fade when the music stopped)	Dynamics during music listening- primary and secondary auditory cortices; posterior parietal areas. These are used for language, memory, and music processing

(Screenshot of spreadsheet for example)

Once I had all of the research in the spreadsheet, it was time to dive into the findings and pull out themes that helped to answer my research question. Something that really struck me during my synthesis was the lack of practical tools for teachers. There was a lot of information regarding how music can benefit students in the classroom, but it was a lot of data and there weren't a lot of actual integration techniques or suggestions. I decided to make this the purpose of my original contribution, to create a tool for teachers that provides practical, research-based

11

integration activities that are tied to Iowa Core Content standards (Iowa Department of

Education Academic Standards).

To present these integration ideas, I begin with the content area (mathematics, science,

social studies, literacy), and the grade level standard, along with the actual standard written out.

The standard is followed by the activity, which is briefly explained so that it can be easily

modified to fit the needs of any specific classroom. Following the explanation of the activity is a

section that explains the connection between the activity and how it benefits the classroom.

Along with the main content areas, I have also included a section where I present ways to use

music in conjunction with social-emotional learning, and the reasons those activities benefit the

classroom. To wrap up the tools for teachers, I have included a section specifically for early

childhood educators on how music can be used to support developmental milestones in young

children, and how this benefits the classroom.

Tools for Teachers

In the following section I lay out the practical, research-based integration ideas for

educators to tie music into content areas of learning. It is important to be flexible when teaching,

and to speak to that, each content area has one grade level activity and standard tied to it.

Although I only present one grade level and standard for each activity, the activities are broadly

presented, so that they can be easily modified to fit the needs of many different grade and content

areas

Content Lessons and Music

Content Area: Mathematics

Grade Level: Fifth Grade

Standard: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so. (5.OA.B.3) (DOK 1,2)

Activity: Hold a vote for students to choose two different songs, these need to be available as sheet music, and printed off for each student once they've decided. Using the sheet music, create two rules for each song that students have to follow. For example, the rule might be "Add three, then multiply by two, starting at the second note." Have students apply this rule to the music for a specific amount of time, and at the end have them identify and discuss patterns they see within the music and within the notes they identified using the rules. At the very end of the lesson play the two songs out loud and prompt students to think about where and when they hear something that sounds like a pattern. Have them annotate, highlight, or markup their sheet music with patterns they think they hear while listening, and use the sheets to have a discussion about the patterns they found compared to the patterns they heard. The purpose of this activity is to challenge students' thinking about patterns, and to connect their thinking to something they experience everyday, music.

13

Benefit of Classroom Integration: There are many terms used in mathematics that can be

cross-referenced and used to describe and discuss music as well. In Natalie Sarrazin's

book, Music and The Child (2016), she describes a few of the vocabulary words that can

be used in both areas, as well as benefits of incorporating music into mathematics

lessons. Some of the words she cites are: pattern, variation, sequence, arrange, and

expression. The benefits she describes are: increased student engagement, more positive

outlooks on learning, positive demeanor change in students, and increased creativity. Tara

Bahna-James (1991) also gives us a link between music and mathematics, pointing out

that a mathematical pattern is essentially the same idea as a pattern in music. For

example, she discusses how science concepts such as vibration and the use of various

materials used to make instruments, can be connected to music concepts like vibration to

create sound, and the specific instruments made.

Content Area: Science

Grade Level: High School

Standard: HS-LS1-5. Use a model to illustrate how photosynthesis transforms light

energy into stored chemical energy.

Activity: Songs can be created to help students connect their learning to a well-known

tune they already have memorized. Teachers can utilize these songs as additional tools to

14

help students with the content they're learning. Along with classroom experiments,

explorations, and assessments, students can use songs to similar tunes to help understand

and comprehend science concepts, such as photosynthesis. If teacher's choose, they can

challenge students to create their own songs that help them remember the scientific

processes they've learned or are learning about. Incorporating music into a science lesson

not only provides students with more opportunities for learning, but gives them another

mental tool to connect when they're trying to remember something. Jam Campus has a

song about photosynthesis that uses the tune of a popular song from 2016, this could be

used as an example if teachers choose to have students create their own songs.

Benefit of Classroom Integration: Science can be a difficult topic for many students,

giving them a personal connection will not only help them to enjoy the content more, but

will help them develop a deeper understanding of the topic. In Natalie Sarrazin's book,

Music and The Child (2016), she outlines various benefits of incorporating music into

science lessons. Some of the benefits vital to this activity are: using student interests as a

lesson hook, deeper understanding of both the art (music) and the content, and a

motivation to learn and persevere when learning is difficult.

Content Area: Social Studies

Grade Level: Second Grade

Standard: SS.2.22. Identify context clues and develop a reasonable idea about who created the primary or secondary source, when they created it, where they created it, and why they created it.

Activity: Play the song Goober Peas for the class, and have them just listen to the words and think about what they hear. Play the song twice, and after the song finishes, ask students prompting questions about who created the song, where and when they created it, and why they created it. These questions are to get them thinking about what they heard in the song and what ideas they might have about it. After students have thought about the questions, give them time to discuss their ideas with their small groups or elbow partners. Once everyone has had time to discuss, tell the students the details about this song, that it was sung by a Confederate soldier during the Civil War, to tell others about how they were living. This music portion can be tied into a larger social studies lesson about the Civil War, or used as an example of primary and secondary sources.

Benefit of Classroom Integration: Social studies can be a challenging topic to tackle in younger grades, so this lesson builds empathy and appeals to students' pathos to help them more thoroughly understand what life was like during the Civil War. This lesson example is outlined in Natalie Sarrazin's book (2016). Incorporating this into a lesson will not only engage students and help them meet learning objectives, but it will also allow them to construct and demonstrate their understanding of a topic in a non-traditional curricular aspect.

16

Content Area: Literacy

Grade Level: Kindergarten

Standard: With prompting and support, identify characters, settings, and major events in

a story. (RL.K.3) (DOK 1)

Activity: Again from Natalie Sarrazin's book, this activity is meant to tie literature and

music together to give students the opportunity to use the arts in content areas of school.

For this activity students are going to create a sound carpet, which has students add sound

effects, vocal sounds, and instruments to a story in order to bring the story to life. Each

character has a sound assigned to them, so everytime that person is mentioned in the

story, students make the sound associated with them. This can be changed so that students

are identifying the settings and events as well as characters.

Benefit of Classroom Integration: Adding a musical component such as sound effects,

vocal sounds, or instruments to the telling of a story makes the story more interesting to

students and connects something physical to the mental component of listening to the

story. Natalie cites music and literacy having the closest bonds between music and a

content area. Additionally, in 1993, Lamb and Gregory cite in their study that a child's

ability to discriminate music sounds is directly related to their reading performance.

Social-Emotional Learning, Behavior, and Development

Although there are no Iowa Core Standards associated with social-emotional learning, as a future early childhood educator I feel it is incredibly important to address the positive effects music can have on behavior in the classroom. In early childhood a large focus of teaching is on developing social-emotional learning, which directly correlates to student behavior. Oftentimes social-emotional learning in young children helps educators nurture and support them in reaching developmental milestones regarding language and social skills. Petillo et al. (2021), created a resource to outline social-emotional learning activities that specifically integrate music in some way, and published this resource using Edutopia's database. Along with an explanation of the activities from this article, I have also included a section that describes how the activity can be used to help reach developmental milestones in young children and how they connect to the CASEL framework (CASEL 2023). At the end of each activity is a section similar to those in the content lessons, that provides research on how and why the activity can be used to benefit a classroom.

Activity 1: Louisiana Blues and Feeling Sad

Blues is a genre of music that was created by African Americans in the south to express and display the hardships and the sadness they had to go through. Muddy Waters' song *Louisiana Blues* is an example of one of these songs that clearly expresses sadness and an overall blue feeling. Using different colored cards and objects around the room ask students what they think about each color, or if it makes them feel any certain way. When you get to blue, stop and ask students the same questions, but explain that sometimes people say they feel "blue" and this is meant to show that they feel sad. After the discussion, play Muddy Waters' song and use the

time after listening to ask students to reflect on a time that they felt the blues or felt blue. This lesson encourages students to acknowledge difficult emotions, and gives them a safe space to discuss their feelings.

Benefit of Classroom Integration: Throughout this lesson students are encouraged to reflect on their own emotions and feelings, as well as recognize and label them. Self-awareness is one of CASEL's five main areas of competency (CASEL 2023), and is crucial to a person's sense of self confidence and purpose. Students' behavior is likely to be influenced by their self confidence in the classroom, along with being able to reflect on their emotions. Ensuring that they have a way to reflect on their emotions allows students to identify what might have caused a negative behavior that can be attributed to their feelings at a certain time. In young students, one of the most important aspects of development is emotional regulation. In order to regulate their emotions, they have to be able to recognize them first, and this lesson helps them to label them and bring awareness to them.

Activity 2: Fifth Symphony and Strong Emotions

Start with having students give themselves really tight, big hugs. Then explain that hugs are nice and feel good, but tight feelings like the tight hug are also a sign that you might be experiencing a strong emotion. Play the *Fifth Symphony* by Beethoven, and have students squeeze an object (can use stress balls, stuffed animals, or other classroom objects) when they think it sounds like it could be a strong emotion. After the song, ask students if their hands felt better when they stopped squeezing their object, and then take time to explain that just like they felt better after they let go of the ball, they can feel better by letting go of strong emotions. This

would be a good time to discuss some ways students can let go of strong emotions by using tools like taking belly breaths.

Benefit of Classroom Integration: Strong emotions happen all the time, but often, students are ignored or told to stop when they feel them. In classrooms where students are not given tools to regulate strong emotions, negative behaviors and outbursts often interrupt classroom instruction. This lesson helps students to understand that it is ok to feel strong emotions, and that there are ways they can make them feel better or not as overwhelming. This directly relates to the CASEL framework because another one of their five main areas of competency is self-management, which they describe as identifying management strategies. As I said before, young children feel strong emotions and are often not given tools or time to regulate them before a negative behavior occurs. As an educator, this lesson gives students a tool to use when they feel these really strong emotions instead of waiting until they induce a negative behavior. Although this activity only integrates music for a short time, students are exposed to various songs with "strong emotions" and are able to practice connecting both mentally and physically with what they hear. At a young age, preschoolers haven't had a lot of time to practice how to handle strong emotions, and they often do not have the tools yet to deal with them when they do feel them. In this lesson, students are given the opportunity to actually practice a coping strategy when they feel strong emotions, along with the squeezing and releasing, they are also given the opportunity to practice additional strategies at the end of the lesson.

Activity 3: Jambo Bwana and Greetings

Begin by introducing the song *Jambo Bwana* to students, and explain that it is a Swahili traditional song about saying hello, and sharing happiness and joy with the people around you. This song includes music in different languages and from different cultures with all kinds of greetings. As the educator you can choose to hand out props like scarves for the next part to incorporate another physical component. Encourage students to have a dance party while they listen to the song, and to dance like it makes them feel on the inside. After the song is over, invite students to share about how saying hello to people and seeing their loved ones makes them feel.

Benefit of Classroom Integration: When social-emotional learning is used in classrooms it is not just to educate on or talk about negative situations and emotions, it can be used to spread joy, happiness, and overall positive demeanor as well. In this lesson students are practicing their relationship skills (one of CASEL's five main competencies) by interacting with their peers during the song. As educators we can help students feel welcome in the classroom, and start the day on a positive note to decrease negative behaviors by greeting them and giving them this opportunity to greet their peers in a positive way. In this lesson students are given many opportunities to nurture their development, such as working on gross-motor skills through dance and movement. The students are also able to practice literacy skills and a wide range of speech skills by greeting their classmates in different languages.

Conclusion

Music holds immense potential to be used as a versatile and effective tool for enriching the educational experience of both educators and students. Having a pivotal role not only in preschool settings, but throughout the entire PK-12 education journey, music is a universal tool. As a future educator, I firmly believe in the profound impact of incorporating music into the

classroom environment. Beyond its evident role in academic success, I see music as a dynamic tool that cultivates heightened student engagement, fosters positive behavior, and aligns seamlessly with educators' efforts in guiding students towards crucial developmental milestones.

I began this paper by introducing the literature that highlights the benefits of using music as background noise in the classroom. From increased academic performance to enhanced engagement and attentiveness, using music in the background of a classroom should be more widely used and acknowledged by educators. Then moving into more content based integration, I presented the literature regarding how the integration of music into content lessons such as mathematics, social studies, science, and literature, can increase student engagement, attentiveness, focus, and positive demeanor. Following this I included information on how music integration can also benefit students during social-emotional learning experiences.

Navigating challenging student behaviors presents a significant daily hurdle for educators, particularly within the younger student demographic. Implementing social-emotional learning lessons infused with music can have a positive effect on student behavior, fostering a more constructive and supportive learning environment for all parties involved. Using the article from Petillo et al. (2021), I highlighted the correlation between music lesson ideas and social-emotional learning concepts, effectively reinforcing students' overall positive demeanor. We can use music as a way for students to recognize how it makes them feel, a way to be aware of their emotions. Equipping students with the ability to recognize and manage their emotions through music can serve as a powerful means to mitigate intense emotions, thereby reducing the likelihood of negative behaviors or disruptive outbursts in the classroom.

My hope for this paper is that many preservice and inservice educators will use it as a tool to enhance the learning happening in their classrooms. By providing research based benefits

and content integration ideas, educators working with all ages and content areas can confidently integrate music into their classrooms to impact behavior, improve academics, and support developmental milestones in their students.

Works Cited

- An, S., Capraro, M. M., & Tillman, D. A. (2013). Elementary Teachers Integrate Music
 Activities into Regular Mathematics Lessons: Effects on Students' Mathematical
 Abilities. Journal for Learning through the Arts: A Research Journal on Arts Integration
 in Schools and Communities, 9(1). https://doi.org/10.21977/d99112867
- Bahna-James, T. (1991). The Relationship between Mathematics and Music: Secondary School Student Perspectives. *The Journal of Negro Education*, 60(3), 477. https://doi.org/10.2307/2295499
- Benetti, L., & Costa-Giomi, E. (2020). Infant Vocal Imitation of Music. *Journal of Research in Music Education*, 67(4), 381–398. https://doi.org/10.1177/0022429419890328
- Campus, J. (2017, March 17). *THE PHOTOSYNTHESIS SONG (Parody of the Weeknd Starboy)*. Www.youtube.com.

 https://youtu.be/xMSNBlCX8LA?si=Niyr3OS1GKTMVOGU
- CASEL. (2023). What Is the CASEL Framework? CASEL; Collaborative for Academic, Social, and Emotional Learning (CASEL).

 https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/
- Cornett, C. E. (2015). Creating meaning through literature and the arts: Arts integration for classroom teachers. Pearson Education Inc.
- Gardner, H. (1983). Frames of mind: the Theory of Multiple Intelligences. Basic Books.
- Geethanjali , B., Adalarasu, K., & Rajasekaran, R. (2012, June 24). *Impact of Music on Brain Function during Mental Task Using Electroencephalography*. Semantic Scholar; World Academy of Science, Engineering and Technology.

 http://archive.music.ntnu.edu.tw/chimeitp/brain/files/brain/brain-psy07.pdf

- Governor, D. (2011). *Teaching and Learning Science through Song: Exploring the Experiences of Students and Teachers*. https://getd.libs.uga.edu/pdfs/governor_donna_201105_phd.pdf
- Harney, K. (2020). *Integrating music across the elementary curriculum*. Oxford University Press.
- Ho, Y.-C., Cheung, M.-C., & Chan, A. S. (2003). Music training improves verbal but not visual memory: Cross-sectional and longitudinal explorations in children. *Neuropsychology*, 17(3), 439–450. https://doi.org/10.1037/0894-4105.17.3.439
- Iowa Academic Standards | Department of Education. (n.d.). Educate.iowa.gov. https://educate.iowa.gov/pk-12/standards/academics
- Ivanov, V. K., & Geake, J. G. (2003). The Mozart Effect and Primary School Children.

 *Psychology of Music, 31(4), 405–413. https://doi.org/10.1177/03057356030314005
- Jenkins, J. S. (2001). The Mozart Effect. *Journal of the Royal Society of Medicine*, 94(4), 170–172. https://doi.org/10.1177/014107680109400404
- Lamb, S. J., & Gregory, A. H. (1993). The Relationship between Music and Reading in Beginning Readers. *Educational Psychology*, *13*(1), 19–27. https://doi.org/10.1080/0144341930130103
- Petillo, L., & Rizzuto, K. C. (2021, June 8). *Integrating Music into Social and Emotional Learning*. Edutopia.
 - https://www.edutopia.org/article/integrating-music-social-and-emotional-learning/
- Rauscher, F. H., Shaw, G. L., & Ky, K. N. (1995). Listening to Mozart Enhances spatial-temporal reasoning: Towards a Neurophysiological Basis. *Neuroscience Letters*, *185*(1), 44–47. https://doi.org/10.1016/0304-3940(94)11221-4

- Roden, I., Kreutz, G., & Bongard, S. (2012). Effects of a School-Based Instrumental Music Program on Verbal and Visual Memory in Primary School Children: a Longitudinal Study. *Frontiers in Psychology*, *3*. https://doi.org/10.3389/fpsyg.2012.00572 Sarrazin, N. (2016). *Music and the Child*. Open Suny.
- Slater, J., Strait, D. L., Skoe, E., O'Connell, S., Thompson, E., & Kraus, N. (2014). Longitudinal Effects of Group Music Instruction on Literacy Skills in Low-Income Children. *PLoS ONE*, *9*(11), e113383. https://doi.org/10.1371/journal.pone.0113383
- Stufft, C. (2015). A Journal of the Texas Council of Teachers of English Language Arts. *Reading* to the Rhythm: Integrating Music into Literacy Instruction, 45(45).

 https://files.eric.ed.gov/fulltext/EJ1262976.pdf