The Impact of a Music Education Program on the Emotional Wellbeing of Elementary Students in a Rural Community

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ABSTRACT

Research highlights the positive correlation between active engagement in music and enhanced health and wellbeing. While some studies provide valuable insights, further empirical research is needed to explore how structured music programs within educational environments directly affect children's emotional wellbeing. This thesis focuses on the impact of music education on the emotional wellbeing of children in the music classroom setting. With an emphasis on self-esteem and quality of life as well as the perspectives of adults and students, this work aims to contribute a deeper understanding of music's impact on emotional wellbeing and the ensuing implications that result from music education's influence. Three separate chapters within this thesis present a quantitative empirical study, a qualitative thematic analysis study, and a mixed methods study to present a comprehensive picture of potential wellbeing impact. Each methodology chapter is underpinned by specific rationales and objectives collectively advancing insights on how music may influence student wellbeing in the educational environment. The final chapter reviews the overall results from each methods chapter and provides an insightful discussion on the conceptual and practical implications of music education as well as the future of music education and wellbeing. Moreover, this thesis, to the author's knowledge, is one of the first studies to explore the impact of music education on emotional wellbeing in the context of a classroom setting. The findings from this research seek to inform both policy, practice, and the public regarding the benefits of music within the educational system as well as adding to the overall literature regarding music education and emotional wellbeing.

Keywords: Music Education, Wellbeing, Self-Esteem, Quality of Life, Children, Music Intervention, Positive Psychology, Positive Education, Health, Music Therapy

Declaration And Statements

Declaration

1. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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Dated: September 29th, 2024

Statement

2. This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly marked in a footnote(s).

Other sources are acknowledged by citations and can be found in the reference section of this thesis.

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Abbreviations and Definitions

SEI-SSF	Self-Esteem Inventory - School Short Form
T1	Timepoint One
T2	Timepoint Two

Chapter 1

Introduction and Review of the Literature

"*Music is the tonal analogue of an emotive life*" – Music is life!
(Langer, 1953. p. 27)

Abstract

Music education has long been recognized as a component of personal and academic development. In recent years, a growing body of literature has highlighted music's positive impact on various cognitive, emotional, and social outcomes. The first aim of this chapter is to provide a comprehensive overview of the existing research surrounding music education. Secondly, this chapter outlines the structure and purpose of the thesis which focuses on the impact of music on the emotional wellbeing of children in the music classroom setting. Despite the emphasis on academics in the educational environment, music continues to play an essential role in shaping well-rounded, creative individuals (Szűcs & Juhász, 2023). Researching and comprehending the broader benefits of music education is crucial not only for educators but also for policymakers aiming to foster holistic student development.

***Key Words**:* Music Education, Positive Education, Music Therapy, Self-Esteem, Wellbeing, Quality-of-Life, Music Intervention, Positive Psychology

Chapter One: A Review of the Literature

Introduction

In his 2008 article, David Meyers posed a central question about the impact of music education research on fostering sustainable, high-quality music learning and engagement across the lifespan. He explored how such cultures might contribute to an enhanced public appreciation for music and music education. While not intended as a direct research topic, Meyers' (2008) question serves as a philosophical starting point, encouraging leaders to prioritize research that positions music education as a valued and permanent part of the educational landscape (2008). It highlights the need to nurture musical independence, support personal and social engagement, empower musical choices, be relevant, and enhance the quality of life and society.

Furthermore, the struggle to be 'relevant' in and apply solutions to real-world problems in today's global society of political, economic, and social environment is vital (Meyer, 2008). To ensure the relevance of music education, research should be collaborative, relational, reflective, and rigorous and as such, teachers, who are also researchers should not shy away from the difficult questions. More importantly, Meyers argued that aligning rigorous research with political advocacy undermines the value of music education. Instead, he emphasized that leaders should prioritize music education by recognizing its intrinsic value in society. (Meyer, 2008).

Music Education in the United States

Furthermore, in the United States and abroad, music educators have struggled to create consistent and viable music education programs that meet the needs of children and community members at the urban and rural levels (Schmidt, 2020). The lack of funding for such initiatives is especially challenging for music teachers (Burrack et al. 2014; Elpus & Grise, 2019; Beveridge, 2022). Unfortunately, many schools (rural and urban) have eliminated their elementary and secondary fine arts programs. This is most unfortunate since music educators emphasize the immeasurable cultural and historical value of the arts in education; a well-rounded arts curriculum is the foundation for aesthetic knowledge on par with other academic pursuits (Kritzmire, 1993; Beveridge, 2022; Sisson, 2022).

In the United States, music education is provided as a curriculum-based program for kindergarten through fifth grade (K-5th) and an elective for sixth twelfth grade (6th-12th) for public, private, and charter schools. Music classes are typically taught two to three times a week at the elementary level and five days a week as an elective at the middle school and high school level (ages 13-18 years old). However, due to budget

limitations and the lack of recognition of music education as a core subject, both in rural and urban areas, have eliminated their fine arts programs (Honea, 2015; Elpus & Grise, 2019). This negative cultural trend has impacted the United States and other countries throughout the world for decades. Currently and historically, the decline of music education in the U.S. and other countries can likely be attributed to its subordination to other educational philosophies, rather than being recognized as an independent discipline with its own inherent merit and value. (Honea, 2015; Elpus & Grise, 2019; Schmidt, 2020).

Moreover, the current landscape of music education across the United States continues to be a topic of considerable discussion, marked by significant progress and ongoing challenges (Elpus & Grise, 2019; Burrack et al., 2014; Beveridge, 2022). For example, even though music education is available in many schools throughout the United States, access can be disproportionate due to lack of funding which limits supplies, instruments, and curriculum availability. Thus, affluent areas often have robust programs, while underfunded schools may struggle to provide even the basic tenets of music education (Elpus & Grise, 2019; Burrack et al., 2014; Beveridge, 2022) Although many elementary schools offer some form of music instruction, the depth and quality can vary significantly from one school district to another. For example, according to the National Arts Education Status Report in 2019, 92% of U.S. public school students have access to music education but more than 3.6 million children or 5000 schools do not have the same opportunities. (Morrison, et al., 2022). This disparity typically occurs in schools that serve predominantly low-income, immigrant, African American, or Latino-Hispanic population school districts (Stelitano et al., 2020; Morrison, et al., 2022). Students without access to music education are typically from urban or very rural communities and public charter schools with a high percentage of students eligible for free/reduced-price meals (Stelitano et al., 2020; Morrison, et al., 2022).

Another issue of concern is teacher retention rates in rural and urban school districts. Moreover, teachers tender resignations to relocate to more affluent school districts or locations with higher paying positions (Carver-Thomas, et al. 2019; Nguyen, 2020; Goldhaber, 2020). If the music position remains unfilled, the music salary is often absorbed and placed elsewhere in the budget (Carver-Thomas, et al. 2019, Nguyen, 2020; Goldhaber, 2020). Likewise, school districts suffer from a lack of music educators due to education policies or the lack thereof, limited funds, disciplinary issues, an overall lack of administrative support, and the emotional toll on teacher wellbeing (Burrack, 2014; Beveridge, 2022; Shaw, 2020). Typically, music education encompasses a variety of areas, including general music at the elementary level, band, orchestra, choir, and more

modern courses like music technology and production at the middle school or high school level. Additionally, a majority of the challenges surrounding music education revolve around funding, resources, advocacy, and perception. As a result, music programs are often vulnerable to budget cuts, which can lead to reduced staffing, outdated equipment, and fewer opportunities for students (Donahue 2021, para. 2, 5; Bolender, Cohen, 2020, 11, 12; Williams, 2024, para 5). However, ongoing advocacy to highlight the importance of music education in fostering cognitive, social, and emotional development in students is key in preserving or improving existing programs. As schools continue to partner with local arts organizations, universities, and professional musicians, music education programs in the United States have the potential to flourish.

Music Education and Covid-19 Pandemic

In the recent past, the challenges that ensued due to the 2020 pandemic were further complicated, not only music education, but all educational endeavors across the world (Kuebel, & Haskett, 2023; Dollman, 2023; Koner et al. 2022). Specifically, within the United States, the COVID-19 pandemic significantly altered the landscape of music education in several ways. Firstly, the shift to online learning was a massive learning curve with technology integration and virtual instruction as schools and institutions had to quickly transition to online platforms for music instruction world (Kuebel, & Haskett, 2023; Shaw & Mayo, 2023; Vardi, 2024). This required teachers to adapt their teaching methods and the students to engage in music learning through digital means through the use of various technologies, including video conferencing tools, music software, and online resources (Kuebel, & Haskett, 2023; Shaw & Mayo, 2023; Vardi, 2024). Secondly, changes in the teaching curriculum and the learning environment required adaptation and flexibility. Music educators learned to modify their curriculum to suit the online format and emphasized theory, history, and solo performance rather than ensemble work world (Kuebel, & Haskett, 2023; Dollman, 2023). Many music programs adopted asynchronous learning which allowed students to learn and practice at their own pace (Kuebel, & Haskett, 2023; Vardi, 2024). This approach often included pre-recorded lessons and assignments.

Thirdly, the impact on public performance and ensemble activities resulted in the cancellation of live concerts and the creation of virtual ensembles (Dollman, 2023; Anderson, 2023). Many live performances, recitals, and concerts were canceled or moved to virtual formats, directly affecting the traditional performance aspect of music education (Kuebel, & Haskett, 2023). Some programs developed virtual ensembles, where students recorded their parts individually and combined them using editing software to create a

full ensemble performance. Moreover, access and equity issues created a digital divide and resource allocation problems for many students during the pandemic (Kuebel & Haskett, 2023; Anderson, 2023). The shift to online learning highlighted and, in some cases, exacerbated existing inequities (Stelitano et al., 2020). Students from low-income families or rural areas often faced challenges accessing necessary technology and reliable internet (Kuebel & Haskett, 2023; Shaw & Mayo, 2023). In fact, a 2020 report by RAND indicated that educators identified student disengagement, primarily resulting from language barriers and limited access to essential technology, such as computers and Wi-Fi, as a major challenge (Koner et al., 2022; Stelitano et al., 2020; Shaw & Mayo, 2023). Moreover, teachers in low-income, high-poverty schools were significantly more likely to report technology-related inequities, even when school districts provided digital devices, internet hotspots, and guidance on obtaining internet access (Stelitano et al., 2020; Shaw & Mayo, 2023). Schools and communities had to find ways to provide instruments and other resources to students who lacked them at home (Kuebel & Haskett, 2023; Dollman, 2023; Shaw & Mayo, 2023).

Lastly, the psychological and social effects on mental health and community interactions were substantial (Kuebel & Haskett, 2023; Dollman, 2023; Shaw & Mayo, 2023; Anderson, 2023). The pandemic's impact on students' and educators' mental health has been significant, with isolation and the stress of adapting to new learning environments taking a toll (Koner et al., 2022; Stelitano et al., 2020; Anderson, 2023). Despite challenges, efforts were made to maintain and build a sense of community through virtual meetups, collaborative projects, and online performances (Kuebel & Haskett, 2023; Shaw & Mayo, 2023). In summation, the Covid-19 pandemic has undoubtedly reshaped music education in the United States and other countries, leading to a greater reliance on technology, innovative teaching methods, and highlighting issues of access and equity (Kuebel & Haskett, 2023; Anderson, 2023; Stelitano et al., 2020; Vardi, 2024). While some changes were temporary responses to the pandemic, others may have had a lasting impact, potentially transforming how music education is delivered and experienced in the future. It should be noted; however, that the research study for this thesis was undertaken in the spring of 2019. Since 2020, following the global pandemic, there has been a growing emphasis on research exploring the relationship between music, health, and well-being on a global scale (Kuebel & Haskett, 2023; Dollman, 2023; Koner et al., 2022; Shaw & Mayo, 2023).

Importance of Music Education

There are numerous benefits to incorporating music education into school curricula (Sousa, 2008; Hallam & Himonides, 2022; Szucs & Juhasz; 2023). Often regarded as a universal language, music is considered inherently social with the capacity to engage students from diverse backgrounds, regardless of socioeconomic status or cultural ethnicity (Mehr et al. 2019; Hallam, 2010b; Hallam & Himonides, 2022). Through music, students can build meaningful relationships and actively participate in the school community. The social aspect of music-making positions it as a powerful tool for fostering strong social connections and promoting emotional well-being within the school environment (Wang, 2022; Ilari & Cho, 2023; Hallam & Himonides, 2022). Furthermore, in the educational environment, music can play a crucial role in supporting the holistic development of children, contributing to both their emotional and physical growth as part of a whole-school approach (Smith, 2021; Heyworth 2013; Mehr et al. 2019; Ilari & Cho, 2023). Moreover, students who engage in positive musical experiences in the classroom have the opportunity to develop attitudes that promote harmony and coexistence among individuals and cultures (Cabedo-Mas & Diaz-Gomez, 2013; Wang, 2022; Ilari & Cho, 2023). Such experiences also have the potential to strengthen interpersonal relationships and emotional wellbeing.

Music education and the creative arts are widely recognized as essential to human development and growth. Engagement in these disciplines enhances quality of life and contributes significantly to a well-rounded education by fostering critical thinking, enriching understanding of diverse human experiences, and enabling emotional expression (Hallam & Himonides, 2022; Szucs & Juhász, 2023; Wang, 2022). Beyond individual enrichment, music education plays a vital role in shaping cultural awareness and social-emotional wellbeing, particularly as students navigate the complexities of the post-pandemic world (Barrett & Bond, 2015; Smith, 2021). Educational systems, therefore, have a cultural and pedagogical responsibility to embed music education from an early age, not as an extracurricular enrichment, but as a fundamental component of a comprehensive curriculum (Ilari & Cho, 2023). Moreover, schools serve as critical environments for ensuring equitable access to music learning during key developmental stages, thereby supporting students' intellectual, emotional, and cultural growth (Cabedo-Mas & Díaz-Gómez, 2013; Tang & Corrado, 2024).

The argument for integrating music education is grounded in a convergence of international policy, national standards, educational philosophy, and empirical research. Internationally, organizations such as UNESCO emphasize the arts, including music, as integral to fostering creativity, cultural understanding, and the preservation of heritage

(UNESCO, 2006, 2021). National frameworks, such as those in the United States, highlight music education's contribution to the development of well-rounded, culturally literate citizens (NAfME, 2014; Sisson, 2022). Scholars including David Elliott, Elliot Eisner, and Susan Hallam have long argued that music education supports cognitive, emotional, social, and cultural development. More recent studies confirm that music fosters equitable access to cultural expression and inclusive education by nurturing a sense of identity and belonging (Bartleet & Heard, 2024; Tang & Corrado, 2024). These perspectives collectively affirm that music education is not peripheral but central to the mission of schooling and essential for cultivating culturally responsive, emotionally resilient, and intellectually capable individuals.

Music Education Reform

In 1979, James Mason, the president of the Music Educators National Conference (MENC), issued a statement calling for the formation of the National Council for Elementary General Music. In Mason's address at the conference, he stated that educators in the elementary music classroom instill a fundamental foundation for developing a musically and culturally informed citizenry and that as such, music education must be strategically planned, supported in its development, and rigorously evaluated as it is the only music curriculum available to all students (K-5th grade; ages 5-11) (Stanley, 2014). Thirty-five years after the formation of the first National Council for Elementary General Music, author Ann Marie Stanley echoed Mason's perspective, emphasizing that general music serves as the primary means of delivering foundational musical knowledge to all students. She argues that its significance necessitates a thoughtful, research-informed approach to curriculum design and evaluation particularly in relation to student wellbeing. (Stanley, 2014). As a recommendation for future music education research, she suggests researchers should seek out students' perspective on general music education which is one aim of this research thesis (Stanley, 2014). Furthermore, Griffin, who wrote a literature review connecting children's school music experiences with their daily lives, believed there should be a connection between children's perspectives on their musical activities and actual practices in elementary education, establishing a child-centered link between research and practice (Griffin, 2010; Stanley, 2014; Hallam & Himonides, 2022). Research suggests that general music classrooms hold considerable potential for impactful work, given their accessibility to a broad and diverse student population attending both public and private schools (Blasco-Magraner, 2021; Schmid, 2024; Szabó, 2024*).* Additionally, it is worth mentioning that private lessons are another avenue of music education's influence. However, the cost of private tuition potentially limits the

number of children who can participate in this form of a music experience. Moreover, some of the potential results are a positive influence on a student's personal and social development, value beliefs, a sense of belonging, engagement, and behavioral self-management (Heyworth 2013; Hallam & Himonides, 2022; Lohbeck 2023). Music is perceived to influence awareness of others, enhance social skills, support emotional well-being, and promote positive transfer effects. (Hallam, 2010b; Hallam & Himonides, 2022; Blasco-Magraner, 2021; Lohbeck 2023). Therefore, it is important to prepare, plan, and conduct lessons that will motivate and inspire students' participation which may result in positive outcomes in their school, friends, and family life (Schoppe, 2025).

Music Education: Health, Wellbeing, and Positive Education

Moreover, an article by Hallam & Himonides, (2022) reveals that concerns about children's health and wellbeing has led to a growth in research on the effect of the arts and music. Research suggests that active engagement with music in a group setting creates a positive learning environment that can enhance self-perceptions, creativity, self-expression, development of social skills, and contributes to health and wellbeing across the lifespan. This contribution to community cohesion can provide long-term benefits to society (Hallam & Himonides, 2022; Schmid, 2024). Furthermore, scientific research highlights a clear link between emotions, the brain, and emotional well-being. In the study "Music Feeling and the Human Brain," Habibi et al. (2014). emphasize that music-related emotions should be understood through both neurobiological and psychological or sociocultural lenses. They argue that music can evoke emotions, leading to "mental experiences" or "feelings," which in turn influence the brain's nervous system (Habibi & Damasio, 2014; Habibi et al., 2018). Neuroimaging and electrophysiological studies on both healthy individuals and those with neurological lesions show that music can regulate the nervous system by promoting homeostasis. The researchers conclude that music-induced emotions activate neural systems related to homeostasis, triggering physiological changes that support emotional wellbeing (Habibi & Damasio, 2014; Habibi et al., 2018).

Furthermore, research highlights health benefits related to active participation in music. Some of those benefits include: the release of dopamine in the brain, increased levels of secretory immunoglobulin A, reduction of cortisol levels, and temporary elevations in heart rate (Hallam & Himonides, 2022; Habibi & Damasio, 2014; Habibi et al., 2018; Ferreri et al., 2019). In the context of music education, various psychophysiological responses such as dopamine release, increased levels of secretory immunoglobulin A (sIgA), reduction of cortisol, and temporary elevations in heart rate highlight the positive impact of music engagement on students' well-being. Dopamine, a

neurotransmitter linked to pleasure and motivation, is released during enjoyable musical activities, enhancing student motivation and emotional engagement (Ferreri et al., 2019). Increased sIgA, an indicator of improved immune function, suggests that music participation can support physical health, especially in school environments (Habibi & Damasio, 2014; Habibi et al., 2018). The reduction of cortisol levels points to music's ability to alleviate stress and anxiety, contributing to a calmer, more focused classroom atmosphere. Meanwhile, temporary increases in heart rate reflect heightened emotional or physical engagement during active music-making (Habibi & Damasio, 2014; Habibi et al., 2018; Ferreri et al., 2019). Collectively, these physiological effects underscore the role of music education in promoting emotional well-being, psychological resilience, and active participation, making it a valuable tool for supporting students' holistic development, particularly in the post-pandemic educational landscape (Ferreri et al., 2019; Habibi & Damasio, 2014; Habibi et al., 2018).

In this thesis, *flourishing* is defined as living the "good life," characterized by high levels of well-being and positive mental health (Huppert & So, 2013; Varadi, 2022). Martin Seligman (2011), a leading figure in the field of positive psychology, introduced the PERMA model as a framework for understanding flourishing. This model encompasses five core elements: Positive Emotions (P), Engagement (E), Relationships (R), Meaning (M), and Accomplishment (A) (Seligman, 2011). In his book *Flourish*, Seligman describes the "engaged life" as a state of flow—where one becomes deeply absorbed in an activity, losing track of time and self-consciousness, such as when immersed in music (Seligman, 2011, p. 11). He argues that schools should intentionally teach positive education to support students in flourishing. In their article on positive education, Seligman, Ernst, Gillham, Reivich, and Linkins (2009) define it as the integration of traditional academic instruction with the cultivation of happiness and well-being. The call for positive education stems from growing concerns about rising rates of mental health issues and declining life satisfaction among children worldwide, as well as the recognition of the critical link between learning and emotional well-being (Seligman, 2011; Noble & McGrath, 2015; Duan, et al., 2020; O'Brien & Blue, 2018). These authors advocate for teaching students' specific skills that foster resilience, positive emotions, and greater engagement (Seligman et al., 2009: Noble & McGrath, 2015; Duan, et al., 2020; O'Brien & Blue, 2018). Within this framework, structured and meaningful music learning experiences in the classroom may function as a form of positive psychology intervention (PPI). Music education, when purposefully designed, can enhance students' resilience, positive affect, and engagement, while also supporting the development of meaningful relationships, a sense of purpose, achievement, and ultimately, improved well-being.

However, while Martin Seligman's PERMA model (2011) has significantly influenced the field of positive education by framing flourishing as a combination of positive emotions, engagement, relationships, meaning, and accomplishment, it has not gone without critique. Researchers have raised concerns regarding the psychometric validity of the PERMA Profiler, questioning the conceptual clarity and empirical distinctiveness of its components (Zyl et al., 2020; Ryff, 2022). Ryff (2022) argues that the elements of PERMA may overlap with existing well-being models and lacks strong factorial validity, making it difficult to justify the model's superiority or uniqueness. Moreover, critics have highlighted the Western-centric nature of positive psychology, including the PERMA framework, noting that the emphasis on individual achievement and happiness may not align with values in collectivist cultures, where well-being is often tied to community and interdependence (Christopher et al., 2018; Zyl et al., 2020).

School-based positive psychology interventions (PPIs), a key recommendation of Seligman and colleagues (Seligman et al., 2009, 2011), have also produced mixed outcomes. While some interventions report short-term improvements in well-being and resilience, a systematic review by (Cilar, 2020; Zyl et al., 2020) revealed that nearly a third of studies found no significant benefit or possible adverse effects, often due to methodological weaknesses or lack of long-term follow-up. Christopher et al., (2018) critiques the trend of implementing universal mental health lessons in schools, suggesting they may inadvertently harm students by applying a one-size-fits-all model to complex emotional needs, and potentially displace more personalized and effective mental health support.

Philosophical and ethical concerns have also emerged. Some scholars argue that positive psychology's focus on personal responsibility for flourishing neglects the structural and socioeconomic barriers that many students face (Zyl et al., 2020; Christopher et al., 2018). This individualistic lens can obscure the role of systemic inequality in shaping educational and emotional outcomes (Turner et al., 2023). As a response, researchers such as Ciarrochi et al. (2016) advocate for more context-sensitive approaches like Acceptance and Commitment Therapy (ACT), which prioritize psychological flexibility and acknowledge the nuanced realities of students' lives.

These critiques suggest that while the PERMA model and positive education practices offer valuable frameworks for promoting student well-being, they must be applied thoughtfully (Turner, et al., 2023; Ciarrochi et al., 2016). Future research and practice should strive for methodological rigor, cultural relevance, and sensitivity to individual and systemic factors to ensure positive psychology genuinely supports all learners (Ciarrochi et al., 2016; Cilar, 2020).

Background of the Study

The subject of this thesis, an elementary school in a small rural town, is a socio-economically diverse community of approximately 1000 people located in the plains of central Oklahoma. In 2009, the town lost its Kindergarten through twelfth grade (K-12th) music program due to budget constraints. In the spring of 2015, the district superintendent reached out to the University of Central Oklahoma's (UCO) School of Music to discuss ways to bring music education back into the community. The music initiative, known as the "Middle C Project," was led by graduate interns, undergraduate interns, and supervising faculty from the university's school of music to reignite a passion for music education within the public school and surrounding community. The three-year internship project was funded by a grant through the university's Student Transformative Learning Record (STLR). Three graduate students were hired to teach music during the day in three separate areas: elementary general music (K-5th grade/5-11 years old), middle school/high school choir (6th-12th grade/12-18 years old), and a middle school/high school percussion class (6th-12th grade/12-18 years old). Thirteen undergraduates were hired to teach after-school instrumental music lessons to students and adults within the community. I, the teacher-researcher was selected to teach the elementary general music classes for kindergarten-fifth grade (K-5th) At the end of the first internship year, the school board and superintendent allocated funds for one full-time teaching position the following year and hired the me to teach general music education classes (K-5th grade) and vocal music education for middle school and high school (6th-8th; 9th-12th grade). Interestingly, it is the elementary music education that sets this initiative apart. To date, there have been no other schools or universities in Oklahoma or other states that have collaborated with a university to implement a daytime general music education curriculum at the elementary level. Most music programs are implemented as an afterschool endeavor instead of being built into the daytime curriculum. As such, the "Middle C Project" was an exceptional endeavor that aimed at reinstating music education at all grade levels as part of the daily schedule.

How My Research Interest in the Topic Developed

Music has always been an integral part of my life since my childhood formative years. At the age of four, I received a small piano with a color-coded song book and from that day forward all I could think of was singing and making music. During my childhood, music became (in a sense) a form of therapy for me as I was born with a neurological left-sided weakness which for a time rendered me somewhat physically limited in certain activities and sports. Participation in musical activities through church

choirs, school activities, and private lessons provided me the opportunity to develop gross and fine motor skills, improve my self-confidence, self-esteem, quality-of-life, and overall wellbeing.

My Path to Music Therapy

Initially, as an adolescent, I sought to use my music skills to assist others in reaching personal goals through participation in therapeutic based music intervention activities. Academically, this led to a bachelor's degree in music therapy that emphasized music education, psychology, and the application of music to broader concerns of health including physical, mental, and emotional wellbeing. Several years later, I pursued a graduate degree in music education and after graduation I began pursuing a Ph.D. at Swansea University.

By definition, music therapy is a clinical and evidence-based practice that uses music to address various therapeutic goals such as emotional, cognitive, physical, and social needs. The music therapy perspective endorses the fundamental belief that music has a profound impact on the brain and body, influencing emotions, behaviors, and physiological responses. In essence, music is not just an art form; it is a therapeutic tool, particularly for children, where it has been shown to promote emotional expression, reduce anxiety, and support psychological wellbeing that can provide healing, connection, and the transformation of individuals at various stages of their lives (Smith, 2021; Szűcs & Juhász; Himonides, 2022; Schmid, 2024). The therapist’s role is to use music interventions creatively and empathetically to meet the unique needs of each person. While music is a universal language, it is also deeply personal and culturally specific. As a music therapist I was trained to consider the cultural background, musical preferences, and personal history of the individual to create a meaningful therapeutic experience. During my time as a college student, my practicum involved working with children, adolescents, and adults that experienced various mental, physical, and neurological disabilities.

During my 6-month internship (after completing my undergraduate coursework), I moved out of state to work at a veteran’s hospital on in-patient and out-patient units with patients who had varying degrees of acute psychiatric disorders. One of my primary responsibilities involved performing comprehensive assessments that considered the whole person. A music therapy assessment is a critical step in the music therapy process, where the therapist evaluates a client’s needs, strengths, and areas for growth. The goal is to gather information to develop an individualized treatment plan that outlines therapeutic goals and interventions. The components of a music therapy assessment include

background information (personal history, medical history current functioning), musical preferences and abilities, areas of assessment (cognitive, emotional, physical, social, communication, and behavioral), standardized tools and questionnaires. In music therapy, interventions are tailored to the client's needs and may include improvisation, listening to music, songwriting, singing, and playing instruments. As a therapist, I observed how the patient responded to different musical elements and activities and systematically recorded behavioral observations, responses to musical tasks, and emotional reactions. As a board-certified practitioner, I was employed at various hospitals on short and long-term psychiatric units, oncology units, physical rehabilitation units, and memory care units working with adults of all ages.

Music Therapy to Music Education

After several years of being employed in the field of music therapy, I segued into music education where I have worked for over twenty years. I resolved to work with children and adolescents from an educational standpoint but with a therapeutic approach. My purpose as a music therapist and now as a music educator is to aid students in building their wellbeing, self-esteem, and quality of life at an early age. The intent is to help them avoid or lessen adult-onset issues later in life. By assisting students in developing positive attributes such as emotional regulation, resilience, self-esteem, and social skills from an early age may improve their long-term academic, social, and psychological outcomes, ultimately improving their chances of success in adulthood (Huppert & So, 2013; Jones et al., 2015; Crooke, 2016; Lohbeck, 2023). As I am both a music therapist and a music educator, I collaborate in the regular classroom and special education environments where music is used to support learning and development. For example, when children have developmental or other disabilities, music education can be adapted with therapeutic strategies to help students engage and communicate effectively through music.

While music therapy and music education are distinct fields, they share common elements, primarily the use of music as a tool for learning, development, and healing. For example, the primary goal of music therapy is to use music as a therapeutic medium to achieve non-musical outcomes, such as emotional, cognitive, physical, and behavioral improvements. The main goal of music education is to teach musical skills, knowledge, and appreciation; and students also learn to play instruments, read music, gain a basic understanding of music theory, and develop musical performance abilities. Both music therapy and music education involve a deep understanding of music and its impact on the human mind and body. Music can be both educational and therapeutic, depending on the

context and intention behind its use. Music education can have therapeutic effects, such as increasing self-esteem, enhancing emotional expression, or reducing stress. Conversely, music therapy can improve musical skills as a byproduct of therapeutic interventions. As both a music therapist and a music educator, I am able to combine both modalities as I instruct my students by considering their educational, emotional, and physical struggles to succeed in the education environment on their way to adulthood.

Researcher Positionality and Motivation

This research is grounded in my direct experience as a graduate intern tasked with rebuilding a K–12 music education program in a rural school district during my master's studies. With support from university faculty and peers, I focused on elementary music education, working closely with students, educators, and the broader community. This grassroots initiative revealed the significant emotional and social impact that access to music education can have on children, particularly in under-resourced, rural settings.

As I documented these experiences, critical discussions with my advisor and department chair deepened my awareness of the systemic inequalities in rural education and the potential for music to support emotional wellbeing. These reflections led to my decision to pursue Ph.D. research at Swansea University. Following my internship, I accepted a full-time music teaching role in the same school, further embedding myself in the context I aim to study.

This lived experience now underpins the present research, which seeks to critically examine the perceived impact of a music education program on the emotional wellbeing of children in classroom settings. Grounded in an interpretivist paradigm with a dual perspective as a practitioner and a researcher, and informed by elements of critical realism, this study highlights lived experiences and educator/parent perspectives, drawing from my dual role as both practitioner and researcher (Holmes, 2020; Zhang, 2023, Pervin & Mokhta, 2022).

Ontology and Epistemology

The research in this thesis embraces a critical realist ontology and an interpretivist epistemology to capture the complexity of music education's impact in rural public schools. Critical realism underpins the use of quantitative surveys and observations to identify patterns and measurable outcomes, such as children's wellbeing indicators and participation rates, acknowledging that these reflect real structures and mechanisms influencing educational experiences. Simultaneously, interpretivism informs the qualitative components, semi-structured interviews and open-ended survey questions

allowing for in-depth exploration of how parents, teachers, administrators, and the students interpret and make meaning of music education within their unique rural contexts. This dual philosophical grounding justifies a qualitative, quantitative, and mixed-methods approach, integrating numerical data with narrative insights to develop a comprehensive understanding. Closed-ended survey items yield quantifiable data about perceived impacts and demographic differences (including by biological sex), while open-ended questions and interviews provide nuanced perspectives, revealing how social, cultural, and emotional factors shape stakeholder views. Observations further complement these by offering direct insight into classroom dynamics, wellbeing, and engagement (involvement). Together, these methods reflect a commitment to uncover both the objective realities and subjective meanings that define music education's role in rural children's lives.

Structure of the thesis

As the author of this thesis, the decision to adopt an article-based format reflects both the nature of my research and the current academic practices within the discipline. While scholarly communication varies across fields, a well-structured article-based thesis can enhance the overall clarity, rigor, and coherence of research presentation (Mason & Merga, 2018; Kubota et al., 2021; Schachtebeck, 2025). This format enables each chapter to function as a standalone, publishable article, with each addressing a distinct aspect of an overarching research problem (Lewis et al., 2021). It is particularly well-suited for studies that employ diverse methodologies or pursue multiple research objectives, as it provides both structural clarity and thematic flexibility (Abdolmalaki et al., 2019; Kubota et al., 2021; Paltridge, 2002). Moreover, the adaptable nature of the article-based thesis allows researchers to align their work with disciplinary conventions and individual academic focus (Wellington et al., 2005; Lewis et al., 2021; Schachtebeck, 2025). Ultimately, this approach not only accommodates the complexity of the research process but also fosters a more efficient, focused, and impactful path through doctoral writing (Kubota et al., 2021; Paltridge, 2002).

This thesis is structured as follows: chapter one provides an overall introduction to the thesis and an overview of the importance of music in the educational curriculum and its impact within the wider literature. Chapter two reports on the qualitative findings resulting from semi-structured interviews with parents, teachers, and administrators regarding their perceptions of music education's reinstatement to their school district through a university partnership and music's re-integration into the academic curriculum. Reflexive thematic analysis was utilized to analyze the data and code inductively for

themes. Chapter three reports on the quantitative findings from a self-esteem and quality-of-life survey after an eighteen-week music intervention. The findings from a music survey designed by me in collaboration with my supervisors and a Leuven Observation Scale for wellbeing and involvement are discussed in chapter four which follows a mixed methods approach. Lastly, chapter five provides an overall review of the results and discussion of the thesis. Consequently, the study findings from this thesis may be applicable to other school settings for replication in determining self-esteem, quality of life, wellbeing, and involvement.

Significance and Purpose of the Thesis

This thesis addresses a timely and relevant area of inquiry, as it explores the influence of music education on the emotional health and wellbeing of children in the classroom setting. As such, the overall purpose of this thesis is to examine the impact of active participation in music education on student wellbeing as measured through a self-esteem and quality-of-life survey; one-on-one semi-structured interviews of perceived impact by parents, teachers, and administrators; a music survey of student perceptions, and teacher observations of wellbeing and involvement.

Study Aims and Research Questions

Specifically, this thesis aims to explore the following three research questions for the three following study chapters.

1. The research question for the qualitative chapter is as follows: What is the perceived impact of music education on children in a rural public school by parents, teachers, and administrators?

2. The primary research question is as follows: Does participation in a daytime music education curriculum and related music experiences increase the wellbeing of children? It is predicted that there will be an increase in self-esteem and quality of life after a music intervention in students from the intervention school relative to those students from the control school.

3. The research question for the mixed methods chapter is as follows: What is the perceived impact of music education, and does it differ by biological sex? The literature review needs to be much fuller and much more nuanced.

Chapter 2

2. Adult Perspectives on Music Education and Wellbeing: Qualitative Findings

"*I think that if you look at the big picture of things, music is so much more than singing, it's life for me." (Teacher/Parent)*

Abstract

Music education is acknowledged by educators as an essential element of a well-rounded educational curriculum, offering substantial contributions to students' cognitive, emotional, and social development. However, in times of financial difficulties, music programs are often among the first to face reductions or eliminations. This chapter seeks to highlight the perceived impact of a daytime music education program on children in the elementary classroom by administrators, teachers, staff, and parents in a concerted effort to help preserve music education's place in the academic curriculum. In this chapter, reflexive thematic analysis was conducted to analyze insights from parents, teachers, and administrators through one-on-one interviews. These four themes emerged and highlight the importance of 1) the integration of music education within the educational environment, 2) the impact of music education and its curriculum, 3) how music implicitly underpins the mechanisms of learning, and 4) the importance of music in supporting children's development across domains. The research findings indicated an esteemed regard for music education, its value in the classroom setting, and the impact on students within the school and surrounding community. This study also suggests that positive music experiences allow students to learn, engage, and express themselves in creative and diverse ways with singing, playing instruments, movement, and performing. These findings underscore the importance of integrating music education into the academic curriculum to promote students' emotional and psychological development across domains.

Key Words: Music Education, Music Therapy, Music Intervention, Wellbeing, Children, Positive Psychology, Positive Education

Adult Perspectives on Music Education and Wellbeing

Over the last twenty years music educators the United States and other countries have struggled to create consistent and viable music education programs that meet the needs of children and community members at the urban and rural levels. The lack of funding for such initiatives is especially challenging for teaching staff and school administrators. Many schools (rural and urban) have eliminated or greatly reduced their elementary and secondary fine arts programs. This is most unfortunate as music educators at all levels emphasize that a well-rounded music education curriculum provides a solid foundation of knowledge on par with other academic pursuits (Kritzmire, 1993). The quantitative study in a previous chapter investigated the influence of music education on wellbeing as measured through a self-esteem and quality of life survey. This chapter seeks to identify the perspective of key leaders in public schools, teachers, and parents regarding their assessment on the importance of music education as part of the daytime school curriculum and its effect on the students, school, and the wider community.

Music Education in Oklahoma

Music education in the state of Oklahoma has experienced significant shortages over the past few decades. This has been primarily due to budgetary and academic concerns. The most significant budget cuts were made between 2014-2018 (Jones, 2022). By 2018, 30% of all students in Oklahoma were unable to access a fine arts program within the state's public schools (Jones, 2022). Moreover, the loss of state funding and the fallout from the COVID-19 pandemic has left its mark on music education in Oklahoma and other states (Koner et al., 2022), . However, music teachers have learned to be resourceful by writing grants and reaching out to community partners to help provide the necessary components such as curriculum, technology, instruments, and diversity in the classroom (Kuebel, & Haskett, 2023). Also, endeavors like *"The Middle 'C' Project*" (2016), a grassroots reinstatement of a K-12 music education program from the ground up in a rural community; and *El Sistema* (2014), a free after-school instrumental and social support program for children grades 3-11 in Oklahoma City public schools are a powerful and resourceful way to provide and establish long-term music education opportunities across a student's lifetime.

Music Education: Challenges and Opportunities

There is an ongoing debate about how to best integrate music education into the core curriculum. Music advocates argue for its inclusion as a core subject, while others see it as supplementary (Moore et al., 2025 ; Guhn et al., 2020). The debate over how to integrate music education into the broader curriculum seems to polarize educators, policymakers, and stakeholders. Proponents of designating music education as a core subject argue that it fosters holistic development, while critics often frame it as non-essential in a curriculum increasingly focused on standardized test outcomes (Hess, 2018; Guhn et al., 2020; Gouzouasis et al., 2019).

Proponents argue that music should be treated as a fundamental subject due to its numerous academic, cognitive, and socio-emotional benefits. Research demonstrates that music education positively influences brain development and academic achievement, particularly in reading, mathematics, and executive functioning (Guhn et al., 2020; Gouzouasis et al., 2019; Shaw, 2020). Students engaged in music programs often outperform their peers in standardized academic assessments, suggesting a correlation between music participation and enhanced learning outcomes (Guhn et al., 2020; Gouzouasis et al., 2019). Beyond academics, music fosters socio-emotional development by nurturing self-expression, empathy, and interpersonal skills. Participation in ensembles and other music-making activities has been linked to increased self-esteem, reduced anxiety, and a stronger sense of belonging among students (Blasco-Magraner, 2021; Smith, 2021; Hallam & Himonides, 2022).

However, several challenges complicate the integration of music as a core subject. One major concern is the financial aspect regarding budget constraints, particularly in underfunded rural or urban districts which often lead to the reduction or elimination of music programs in favor of subjects that are perceived as more essential (Beveridge, 2021; Elpus & Abril, 2019; Shaw, 2020). Additionally, educational policies driven by standardized testing prioritize core subjects like math and reading, which relegates music to the periphery of the curriculum (Shaw, 2020; Beveridge, 2021; Elpus & Grise, 2019). As a result, administrators may view music education as expendable, especially when performance metrics are the primary measure of a school's success.

Ensuring equal access to music education is also a significant concern. Disparities in funding and resources can lead to unequal opportunities for students from different socioeconomic backgrounds (Elpus & Abril, 2019; Shaw, 2020). Numerous studies highlight the positive impact of music education on student development, including improved academic performance, social skills, and emotional well-being (Elpus & Grise, 2019 & Guhn, 2020; Hallam & Himonides, 2022; Gouzouasis et al., 2019). Promoting

these findings can help garner broader support from all stakeholders (Beveridge, 2021; Hallam & Himonides, 2022). Successful music programs like the one represented in this study benefit from strong community support and involvement (Bartleet & Heard, 2024; Elpus & Abril, 2019). Building partnerships with local arts organizations, musicians, and businesses can enhance the resources and opportunities available to students. By understanding these perspectives and addressing common challenges, educators and policymakers can work towards creating more robust and inclusive music education programs that benefit all students (Shaw, 2020; & Beveridge, 2021; Elpus & Abril, 2019).

Music Education Abroad

As in the U.S., similar circumstances have arisen in the UK in which there has been significant decline in music education programs offered at primary, secondary, and tertiary levels in free public schools over the past decade. According to the Music Education: State of the Nation Report (2019), considerable progress was made with the England's 2012 National Plan for Music Education, however, the overall scenario is one of steep decline Daubney, Spruce, & Annetts, 2019. It is expected that music education may only be available to privileged students in the next five to ten years and that the talent pipeline for the UK's world-renowned music industry will greatly suffer (Daubney, Spruce, & Annetts, 2019). However, an article by (Bartleet & Heard, 2024) shares a glimmer of hope, predicting a resurgence in the importance of the humanities and liberal arts, and a focus on personal growth. Towards this end, the present study is therefore key, timely, and of interest to international readers within or outside of the music education profession, looking to revitalize and support music education for ages 5-19 in free public schools, in particular.

Music Education's Impact on Health and Wellbeing

Music education can have a profound impact on health and well-being, offering benefits that span cognitive, emotional, and social dimensions. Likewise, music education can support health and well-being by providing an environment where students feel safe, heard, valued, and a sense of belonging (Blasco-Magraner, 2021; Schmid, 2024). As mentioned in an earlier chapter, the World Health Organization (WHO) (1986) defines health as "a resource for everyday life, not the objective of living; it is a positive concept emphasizing social and personal resources, as well as physical capacities" (Underdown, 2006, p. 3). Health and wellbeing are fundamental resources for leading a fulfilling life. Studies suggest that children in good health are more likely to feel secure and open to engaging in new experiences (Seligman, 2011; Robb et al., 2023; Schmid, 2024; Hallam

& Himonides, 2022). As noted by Underdown (2006), children who experience high levels of health and wellbeing are more likely to develop a strong sense of self-esteem, feelings of worthiness, and the capacity to make meaningful contributions to society (Seligman, 2011; Blasco-Magraner, 2021; Tang & Corrado, 2024; Lilliard, 2018). Additionally, children who experience higher levels of wellbeing and involvement are more receptive to learning, resilient, and willing to try out new things and activities. Music education can be the vehicle that assists students in developing musical skills, identifying, and expressing emotions, and strengthening bonds with peers, the school, and the wider community, thereby positively impacting health and wellbeing (Ilari & Cho, 2023; Blasco-Magraner, 2021; Schmid, 2024).

Children's wellbeing is characterized as a dynamic process, one in which a child's external circumstances (e.g., socioeconomic background, family circumstances, and physical surroundings) interact with individual characteristics to satisfy needs to build psychological resources, competence, and promote positive social relationships (Thompson & Aked, 2009; Szűcs & Juhász). Furthermore, modern theories of wellbeing emphasize a deeper connection to oneself, others, and the surrounding environment (Mead et al., 2019). Children with high levels of wellbeing tend to exhibit positive emotions, strong self-esteem, and resilience, which contribute to healthy behaviors, self-confidence, and personal growth (Courtwright, Makic, & Jones, 2020; as cited in Robb et al., 2023). Research further indicates that participation in music activities is associated with the development of emotional and social wellbeing, particularly through positive relationships with peers, parents, and teachers (Hallam, 2010; Hallam & Himonides, 2022). To maximize these benefits, music-making experiences should prioritize fostering students' sense of competence, intrinsic motivation, and social connection (Krause, North, & Davidson, 2019).

Music research over the past couple of decades highlights the various ways that music has impacted health, wellbeing, and psychosocial wellbeing as well as other health benefits related to active participation in music (Hallam, & Himonides, 2022; Rickard, 2014). In this instance, flourishing refers to high levels of wellbeing and mental health of children in the music classroom and school environment (Huppert, So 2013; Hallam & Himonides, 2022; Lilliard, 2018; Blasco-Magraner, 2021). For example, through active participation in music, elementary school students may exhibit positive emotions, a willingness to engage in music activities, and cooperate with others (Hallam & Himonides, 2022; Tang & Corrado; 2024; Varadi, 2022). Moreover, the connection of music, health, and wellbeing has become an increasingly significant area of research (DeNora & Ansdell, 2014; MacGlone et al., 2020; Rushton et al., 2023). Positive music

experiences in the classroom can foster meaningful connections between individuals while supporting the development of interpersonal relationships and contributing to emotional and social wellbeing.

Adult Perceptions of Music Education

Perceptions of administrators, teachers, and parents on music education can vary significantly based on individual experiences, cultural context, and the perceived value of music education in the curriculum. For example, administrators oftentimes face budget constraints and may prioritize core subjects (math, science, language arts) over music education, leading to reduced funding and resources for music programs (Abril & Gault, 2016). However, other administrators may see music education as a tool to enhance overall academic performance and student engagement (Stavrou, 2024; Sun, 2022; Freeman & Shifrer, 2022). They may support music programs because of their potential to improve skills like discipline, teamwork, and creativity (Abril & Gault, 2016; Sun, 2022; Hallam & Himonides, 2022). Moreover, a potentially increasing number of administrators recognize the value of a well-rounded education that integrates the arts (Freeman, & Shifrer 2022). They actively support music education as an essential component in cultivating a balanced, engaging, and enriching learning experience for students (Barrett, & Bond, 2015; Sun, 2022). By understanding these perspectives and addressing common challenges, educators, administrators, and policymakers can work towards creating more robust and inclusive music education programs that benefit all students.

Likewise, music teachers often believe deeply in the intrinsic value of music education. They view it as a critical aspect for students' emotional and social development as well as a unique means of self-expression. Teachers recognize music education as a valuable tool for developing a range of student skills, including neurological development, auditory processing, critical thinking, and physical coordination (Chanda & Levitin, 2013; Habibi, 2018; Hallam & Himonides, 2022). These perceived benefits highlight the multifaceted role of music in supporting both cognitive and physical growth within the educational setting (Hallam & Himonides, 2022). Music teachers also value cultural awareness and appreciation for the diversity that music education can foster in students' lives. Many music teachers feel they must constantly advocate for the importance of their programs, particularly in schools where budget cuts threaten the arts (Schmidt, 2020). As such, music teachers may feel undervalued compared to teachers of core subjects (Elpus & Miller, 2024; Abril & Bannerman, 2015).

Additionally, parents' perceptions can potentially be influenced by their own experiences and cultural backgrounds. Those parents who had positive experiences with music education are more likely to support it for their children (Hallam & Rogers, 2016). Likewise, many parents recognize the cognitive and social benefits of music education; and they may support music programs because they believe these programs enhance creativity, discipline, and academic performance (Rickard, et al., 2017). Some parents see music education as an important extracurricular activity that complements academic learning and provides a balanced educational experience. Others may prioritize academic subjects or sports over music, depending on their child's interests and career aspirations. Also, the financial aspect of music education can influence parents' support as well. For example, if music programs require significant fees for instrument rental/purchases, private lessons, performance attire, or other expenses, some parents might be less supportive due to financial constraints (Schmidt, 2020). It is the purpose of this study therefore to identify key perceptions of adults regarding music education's impact on children within a rural community.

Interviewing and Reflexive Thematic Analysis in Education

Interviewing is a dynamic process that involves the researcher and the participant, with the interview data being the foundation for qualitative methodology. While field notes and reflections as a teacher and researcher in the story were beneficial, the interview data is what I, the researcher, relied on for the picture to emerge and interpret its meaning. It is only through interviews that one can assess a person's perceptions, thoughts, and emotions, as it allows us to see through their eyes and discover what we cannot observe (Patton, 1990; Merriam, 1998; Braun & Clarke, 2006, 2013, 2022). Given the interpretive nature of this study, qualitative methods were selected as the most appropriate means of investigating the perceived impact of music education on children's emotional wellbeing, development, and classroom engagement in rural public schools. The research aimed to capture the subjective experiences and perspectives of the parents, teachers, and administrators regarding their thoughts on how music education impacts children on an emotional, social, physical, cognitive, and educational level. This type of research question is best answered through qualitative inquiry, which allows for in-depth exploration of how individuals make meaning of their experiences within specific social, cultural, and educational contexts (Braun & Clarke, 2013, 2022).

Moreover, qualitative research enables a rich, detailed understanding of human behavior and experience that cannot be captured through numerical data alone. As Xu & Zammit (2020) notes, qualitative methods are particularly effective for exploring values,

perceptions, motivations, and the meanings people attach to their experiences thereby making them well-suited to research that examines complex, context-dependent phenomena such as emotional wellbeing and educational practices in rural setting of my study. Within this qualitative framework, semi-structured interviews were selected as the primary data collection method. Interviews provide the flexibility to explore the participants' thoughts while also ensuring consistency across interviews through a set of open-ended questions. This approach allowed participants to express their views in their own words while giving the researcher the opportunity to explore emerging ideas in greater depth.

Moreover, interviews were especially appropriate for this study because they centered on the participant’s voice, aligning with the interpretivist paradigm that values lived experience and the subjective meaning individuals attach to their personal and social worlds. They were well-suited for exploring how the parents, teachers, and administrators understood and experienced music education in the rural context where educational and cultural dynamics often differ significantly from those in urban settings. Interviews also facilitate the collection of context-rich, narrative data, which is essential for identifying recurring patterns and themes related to children’s wellbeing in the educational context and the perceived value of music programs. Furthermore, this method supports the critical realist aim of uncovering deeper, often unspoken mechanisms and structures that may influence the participants' perceptions, even if those influences are not immediately visible or articulated during the interview.

Additionally, interviews enabled me, the researcher, to establish a better rapport with the participants who were my co-workers and supervisors, thereby developing a deeper level of trust that encouraged openness and authenticity. This was crucial for discussing sensitive topics such as emotional wellbeing and the value placed on music education in rural schools. These topics were personal and shaped by not having a music education program in their school for several years. In sum, qualitative interviews were chosen because they aligned with the ontological and epistemological foundations of the study, supported the exploration of subjective meaning, and allowed me, the researcher, to gather nuanced insights into how music education was experienced and understood by those most directly involved with the children in the school.

This study employs qualitative thematic analysis as the primary method for analyzing qualitative data collected through semi-structured interviews and open-ended survey responses. Thematic analysis, as defined by Braun and Clarke (2006, 2022), is a method for identifying, analyzing, and interpreting patterns of meaning, referred to as themes, within qualitative data. It offers a theoretically flexible and accessible approach

that is particularly well suited to explore participants' perceptions, experiences, and understandings of music education in their community. Given the exploratory nature of this research, which investigates the perceptions of parents, teachers, and administrators regarding the impact of music education on children in rural public schools, thematic analysis provides a systematic yet adaptable framework for interpreting a range of viewpoints related to emotional wellbeing, curriculum integration, and developmental outcomes across cognitive, emotional, and social domains (Braun & Clarke, 2013, 2022).

An inductive approach to thematic analysis was adopted in order to allow themes to emerge directly from the participants' accounts, rather than being constrained by pre-existing theoretical frameworks or assumptions. As Braun and Clarke (2006, 2022) advocate, this data-driven approach involves generating initial codes and developing themes that are grounded in the raw data. This strategy ensures that the analysis remains rooted in the lived experiences of the parents, teachers, and administrators by allowing the emergence of insights into how music education is perceived to support children's emotional development, self-esteem, classroom engagement, and overall wellbeing within under-resourced and often overlooked in rural educational environments.

The use of thematic analysis aligns with the study's interpretivist and critical realist philosophical stance. From an interpretivist perspective, understanding the subjective meanings that individuals assign to their experiences is essential particularly in a socially embedded and context-dependent domain such as music education in rural communities (Pervin & Mokhtar, 2022). Critical realism further complements this view by acknowledging that while perceptions are shaped by individual experiences, they are also influenced by deeper structural factors such as educational policy, funding disparities, cultural values, and community resources (Zhang, 2022). These underlying structures may not be directly observable, but they can be inferred through participants' narratives and situated experiences.

Therefore, the use of inductive thematic analysis not only facilitates an authentic interpretation of diverse perspectives but also supports the identification of broader contextual influences on the integration and perceived value of music education. This approach enables the researcher to highlight how music education contributes to children's holistic development emotionally, socially, academically, and how it is integrated into the educational environment and curriculum. in ways that reflect local priorities and limitations. In an under-researched rural setting, such as the one featured in this study, this methodology provides a robust and context-sensitive lens through which to examine the intersection of music education, wellbeing, and educational equity.

Aims, Research Questions and Predictions

This chapter aims to focus on the parents, teachers, and administrators' perceptions on the importance of music education in a daytime music program at a rural public school, music education's potential impact on wellbeing, and its value to the community. As the researcher, I sought to understand and identify the perceived impact of a daytime music education program on children in the elementary classroom by interviewing administrators, teachers, staff, and parents at the experimental school in a rural community. The research question for the qualitative chapter is as follows:

What is the perceived impact of music education on children in a rural public school by parents, teachers, and administrators?

Methods

Participants

To stay consistent with the importance associated with exploring different groups of adult perceptions of music education, participants in the qualitative study included administrators (superintendent and principals), teachers, and parents of the students from the experimental school in this thesis. The school is located within a rural community 30 minutes (21 miles) away from Oklahoma City (second largest city in Oklahoma). Due to the town's smaller population, there is only one school district. The town has a current population of 1,286 according to current online demographic information. The town's mean population was 688 in 2016 and has grown steadily every year since the reestablishment of a Kindergarten through 12th grade music education program which includes elementary general music (Kindergarten – 5th grade), middle school and high school vocal music, band, orchestra, drum corps and color guard (6th-12th grade). The school's student population growth includes children who transferred in from other communities or small towns in the area. As mentioned in a previous chapter, this rural school district decided to rebuild a K-12 music education program (elementary general music and MS/HS choir, band, and orchestra) by forming a partnership with a local university in the fall of 2016 through a graduate and undergraduate student internship program called the *Middle C Project*. As the researcher in the study, I sought to document the outcomes of rebuilding a music education program as noted by the perceptions of parents, teachers, and administrators with special regard given to wellbeing. As such, a total of twenty-seven parents, teachers, and administrators were interviewed for the qualitative study. This included five administrators, sixteen teachers who were also parents, and six parents of students who participated in the quantitative study.

Ethical Considerations

The study was approved by the University of Central Oklahoma's Office of Research Integrity and Compliance's Institutional Review Board (IRB) on November 26th, 2018 – IRB Application #: 2018-142. Participants interviewed in person were given a consent waiver to read and sign. Participants interviewed by phone were notified of the letter and gave verbal consent.

Research Design

The qualitative design for this study employs a cross-sectional research design as interviews were administered one time over the course of the study (Brewer et al., 2015). The qualitative data is comprised of interviews recorded via a digital recorder of parents, teachers, and administrators. All data was collected through in-person interviews or over the phone. The intent of the qualitative data analysis was to find common themes in the research and develop understanding through Braun & Clarke's reflexive thematic analysis (Braun & Clarke, 2006, 2022).

In this study, I will employ an inductive data analysis to discover the meaning of information shared by participants by identifying themes and patterns (Lewis, 2015). Open-ended questions were used to gather information that was subsequently grouped into codes, themes, and categories. Likewise, qualitative research, like other forms of research, is "appropriate to the degree that it "fits" the problem" (Kantorski & Stegman, 2006). Studies of the qualitative variety focus on the "lived experience of real people in real settings," and qualitative researchers "seek to understand" the world from those who are experiencing it (Hatch, 2002, p. 6; Kantorski & Stegman, 2006). It has been suggested by author Brian Roberts (1994) that quantitative methods coming from a "positivist paradigm" generally focus on "education improvement" or change. Whereas qualitative studies focus on the humanistic or interpretive paradigm involving relationships between education, society, and individuals (Roberts, 1994).

This research is grounded in an interpretivist paradigm, which is the most appropriate stance for exploring the perceived impact of music education on children's emotional wellbeing through interviews of parents, teachers, and administrators. Interpretivism posits that reality is socially constructed and that knowledge is shaped by the meanings individuals assign to their experiences (Creswell & Poth, 2018; Braun & Clarke, 2022). This philosophical orientation is particularly relevant to a study focused on emotional wellbeing and educational experiences, as it prioritizes understanding the lived realities of participants i.e., parents, teachers, and administrators within the specific cultural and educational contexts of rural schools. The interpretivist approach values

subjective meaning-making, emphasizing that knowledge is co-constructed between the researcher and participants through reflexive and context-sensitive engagement (Pervin & Mokhta, 2022; Wells & Giacco, 2024).). It recognizes that emotions, perceptions, and the significance of music education are not fixed or universal but are deeply influenced by social, cultural, and environmental factors (Wells & Giacco, 2024; Pervin & Mokhta, 2022). As such, rather than seeking objective, generalizable truths, this study aims to explore how stakeholders interpret and experience the role of music education in supporting children's emotional wellbeing. The use of interviews complements this approach, enabling participants to articulate their thoughts and feelings in their own words and offering the researcher access to rich, contextually grounded insights that may be overlooked by quantitative methods alone (Nowell et al., 2017; Braun & Clarke, 2022). An interpretivist stance thus provides a robust foundation for exploring the diverse, nuanced, and relational nature of music education and wellbeing in rural school contexts.

Data Collection

A survey designed by me in collaboration with the supervisory team was utilized in this study. Seeking information through semi-structured qualitative surveys has invaluable benefits to research, especially in the field of education relating to the benefits and success of school programs (Brewer, et al., 2015). Likewise, survey research provides a vehicle for gaining deep insight into the "thoughts, opinions, and attitudes" of a particular population (Brewer et al., 2015 p. 46). Given that survey research is descriptive in nature, it allows the researcher to draw conclusions and perform diverse types of analyses; and it may also provide a springboard for a more in-depth type of analytical research (Brewer et al., 2015).

Interviews were completed towards the end of the school year as the quantitative study was ending. Administrators, teachers, staff, and parents were notified by email, phone call, and word of mouth about the opportunity to share insights regarding the music education program through one-on-one interviews. All interviews, except for phone interviews, occurred on site at the end of a school day or during a teaching break. Participants who were interviewed in person were given a consent letter to read and sign outlining the purpose of the study and the minimal risks involved with participation. Participants interviewed by phone received the same information and gave verbal consent.

Interview data and field notes are the only source of information for the qualitative study in this thesis. This is an evaluative study, one in which information was

gathered to develop a deeper understanding of how the music education program impacted the children, the school (administration and teachers), parents, and the community at large. The participants were reassured that there were no right or wrong answers to the interview questions and that the researcher's aims were focused on discovering their perceptions of the perceived impact of music education on students since its reinstatement in 2016.

Data Management

Audio recordings were collected during the parent, teacher, and administrative staff interviews. Transcripts were then transcribed, anonymized, and coded according to established qualitative research methods (Braun & Clark, 2006). All audio recordings and master code sheets were kept in on a password protected laptop. U.S. Federal Regulations requires all signed consent forms to be held for 3 years following study closure.

Data Analysis

Once the interviews were complete, all the raw data were imported into Atlas.ti.9 to organize, review, and code the data. Braun and Clarke's (2006, 2012, 2015, 2019) thematic analysis also known as reflexive TA was used to analyze the interview data. Thematic analysis allows a researcher to see participants from different perspectives while highlighting similarities and differences and finding unintended insights into their stories (Nowell, et al, 2017). Reflexive TA facilitates the identification of themes, patterns, and stories within the interview data (Braun & Clarke, 2006, 2013, 2015, 2019). The participants responses were analyzed by the actual language they used. No attempt was made to ascribe meaning or add meaning to the responses in any way (2006, 2012). The Braun and Clarke (2006, 2012) 6-step non-iterative process includes:

1. Familiarizing oneself with the data
2. Generating initial codes to identify important details that are relevant to the research question.
3. Searching for themes, examining the codes and data to identify patterns of meaning.
4. Reviewing themes: Checking themes against coded extracts; generate a thematic map.
5. Defining and naming themes includes a detailed analysis, getting more specific for each theme.
6. Producing a report: Final analysis and discussion that relates back to research question. (Neuendorf, 2018; Braun & Clarke, 2006, 2013, 2022)

The Braun & Clarke step-by-step process of analyzing the data is key in enhancing the teacher-researcher's ability to conduct theoretically and methodologically sound analysis (Xu & Zammit, 2020; Braun & Clarke, 2006, 2013). In adherence with Braun and Clarke's (2006, 2013) guidelines, I, the researcher, was the only coder in this study.

Statement of Researcher Reflexivity

Braun and Clarke's reflexive thematic analysis (RTA) is a method for identifying, analyzing, and reporting patterns (themes) within qualitative data. This approach was first introduced in their 2006 paper but has evolved over time to emphasize the reflexive nature of the process. This process of reflexivity involves critical self-awareness regarding the researcher's assumptions, experiences, and position and helps shape the research process and outcomes. Additionally, Braun and Clarke (2014, 2022) are critical of rigid, checklist-like approaches to thematic analysis that limit the creativity and reflexivity of the researcher. They encourage researchers to embrace the messy, iterative process of theme development, advocating for a more flexible and dynamic approach to analysis (Braun & Clarke, 2014, 2022). As the researcher, I actively engaged with the data and its subjectivity which was integral to the process. Likewise, I followed an inductive approach and applied this type of reflexive analysis to my data. Overall, Braun and Clarke's reflexive thematic analysis offers a nuanced, flexible, and reflexive approach to qualitative research, providing a valuable tool for researchers who wish to explore complex qualitative data in an iterative and context-sensitive manner. A statement of reflexivity written in the first-person to emphasize the role of the researcher in the analytical process is provided below.

Role of the Researcher - Teachers as Researchers

The concept of the teacher as a researcher is rooted in the idea that educators, who are deeply engaged in the teaching and learning process, are uniquely positioned to investigate and improve educational practices. This approach can be justified through several key arguments. Firstly, through research, teachers can systematically examine their own practices, identify areas for improvement, and implement changes that enhance student learning (Kincheloe, 2002; Gurr, 2024). As Cochran-Smith and Lytle (1999) argue, "teacher research positions and teachers as knowers and learners, are capable of generating knowledge that contributes to educational theory and practice" (p. 277). This process empowers teachers to move beyond mere implementation of external mandates, allowing them to tailor their teaching strategies to meet the specific needs of their

students (Zeichner & Noffke, 2001; Gurr, 2024). Secondly, by engaging in research, teachers can evaluate and refine theories in the context of their own classrooms, leading to more practical and applicable insights (Xu & Zammit, 2020;). According to Stenhouse (1981), "it is teachers who, through reflective inquiry, can connect theory and practice, thereby enriching both their own professional knowledge and the wider educational community" (p. 109). Thirdly, research participation fosters continuous professional development. It encourages teachers to critically reflect on their work, stay engaged with current educational trends, and contribute to the broader educational literature (Holmes, 2022). Zeichner and Noffke (2001) emphasize that "teacher research is a form of professional development that is embedded in the practice of teaching itself, leading to empowerment and a stronger professional identity" (p. 301).

Additionally, when teachers conduct research, they take ownership of the change process, leading to more sustainable and meaningful reforms. Fullan (1993) notes that "change is most effective and lasting when those who are responsible for its implementation are actively involved in its design and development" (p. 44). Teacher-led research allows educators to be active agents of change, rather than passive recipients of externally imposed innovations (Fullan, 1993; Xu & Zammit, 2020; Savitz, et al., 2021). Subsequently, teachers who engage in research contribute valuable insights and practical knowledge to the wider educational community (Zeichner & Noffke, 2001; Gurr, 2024). This can lead to the development of best practices that are grounded in the realities of the classroom. Author Kincheloe (2002) states, "teacher research challenges the traditional hierarchy of knowledge production in education by valuing the lived experiences and insights of teachers as legitimate and important sources of knowledge" (p. 54).

Furthermore, classrooms are diverse and complex environments, with unique challenges that may not be adequately addressed by generalized educational research and teachers, through research, can develop solutions tailored to their specific context, thereby improving outcomes for their students (Elliot, 1991; Savitz, et al., 2021). Lastly, Elliott (1991) highlights that "teacher research allows for the exploration of context-specific questions, leading to more nuanced and effective educational practices" (p. 127).

In this study and throughout this thesis by design, I am both the teacher and the researcher. As noted in research, the researcher should reflect on their own biases and how these might affect the research process and outcomes. In this case, I, the researcher understood, acknowledged the potential bias, and planned steps to prevent this happening during the study.

Results and Discussion

This chapter presents and discusses the qualitative findings of the study, which aimed to explore the perceived impact of music education on children's emotional wellbeing in a rural public school. The study adopted an interpretivist paradigm, which values the subjective experiences of individuals and seeks to understand phenomena through the meanings participants assign to them (Creswell & Poth, 2018). In line with this framework, semi-structured interviews were conducted with teachers, parents, and school administrators to capture a broad range of perspectives.

The data were analyzed using thematic analysis, following the six-phase process outlined by Braun and Clarke (2006, 2021). This flexible yet rigorous approach allowed for a systematic identification and interpretation of recurring patterns across the dataset. Through a process of coding, categorization, and theme development, four central themes emerged that reflect the participants' lived experiences and views regarding music education's role in arural educational community.The four themes are:

1. Integration of Music Education within the Educational Environment

2. Impact of Music Education and its Curriculum

3. Music Implicitly Underpins the Mechanisms of Learning

4. The Importance of Music in Supporting Children's Development Across Domains

Each theme is presented in turn with a subtheme and supported by direct quotations from participants that exemplify core ideas. This discussion also integrates relevant literature to contextualize findings and highlight how the data align with or diverge from existing scholarship. In doing so, the chapter not only shares the voices of those most closely connected to rural music education but also places their insights within broader academic and policy discussion.

By grounding the findings in the participants' authentic experiences and supplementing them with interpretive commentary, this chapter aims to offer a nuanced understanding of how music education is perceived to influence children's lives in a rural community. The following section presents a thematic map outlining the main themes and subthemes that emerged from the data analysis. Additionally, a second table illustrates adult participants' perceptions of music education within the broader educational curriculum, including themes, subthemes, and participant quotations.

Figure 2.1 Thematic Map of Themes and Subthemes

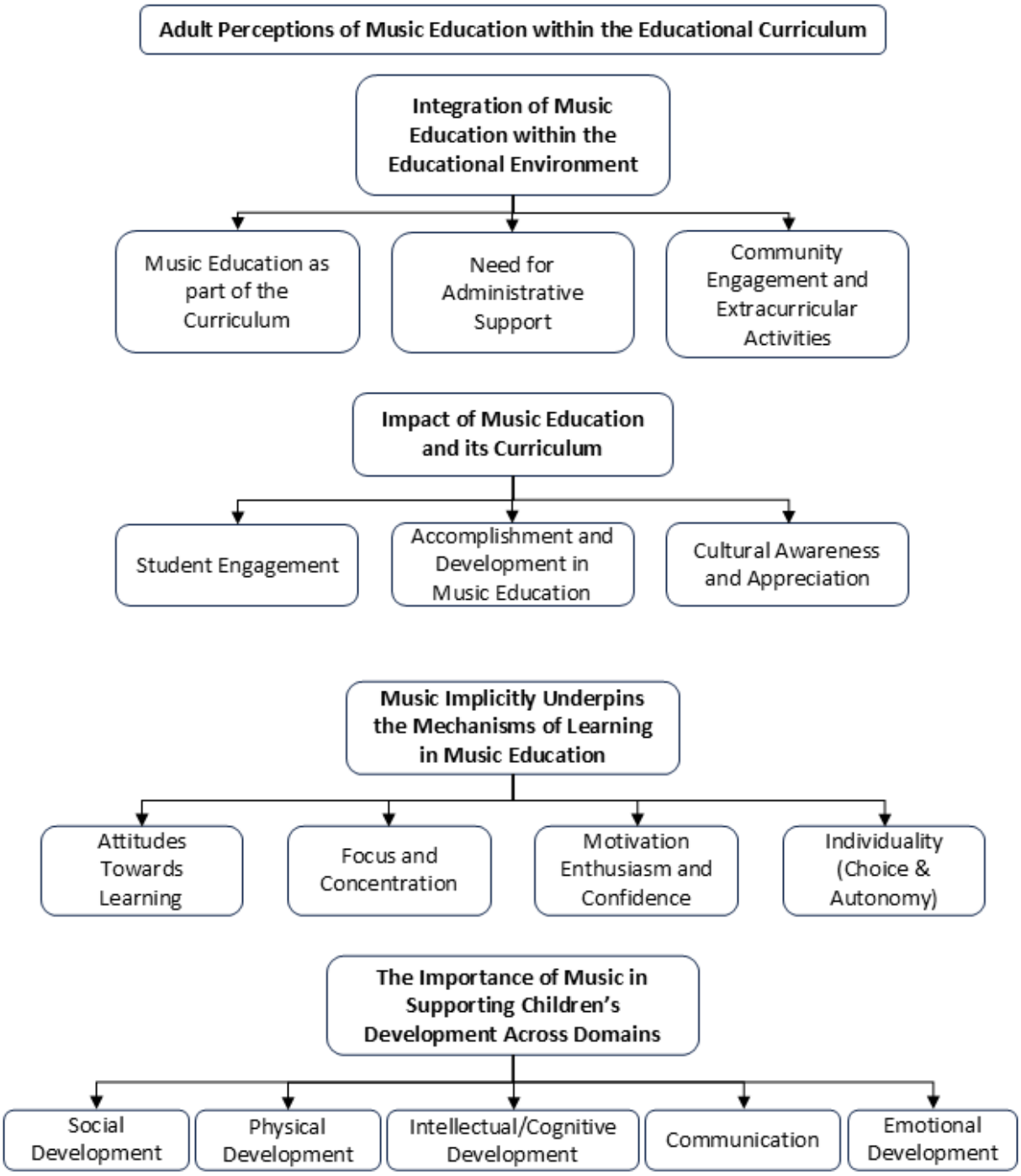

Table 2.1

Adult Perceptions of Music Education within the Educational Curriculum

Themes	Subthemes	Quotes
1. Integration of Music Education within the Educational Environment	1. Music Education as part of the Academic Curriculum	*"I think music of all types in school is important. I also know it is good for the brain and it helps with learning. (Elementary Principal)* *"I think music makes our students well-rounded. It gives them options." (School Superintendent)* *"Music has strengthened the students' knowledge base." (Teacher Assistant/Parent)* *"We know how important music is to the educational aspect of a child's learning, growth, and brain development." (Teacher/Parent)*
	2. Need for Administrative Support	*"Music Education is underrated. It's just as important as academics. It's not an add on. It's part of the academic structure. It shouldn't be funding dependent." (Principal/Teacher)* *"I think it's incredible where we have come in five years. You guys have done a masterful job of coming from zero to here in five years. I don't know anybody that can do that. To come from*

Themes	Subthemes	Quotes
		nothing to an impressive display. I think it is wonderful what our music program has done, and we are way ahead of schedule." (School Superintendent) *"I am thrilled that we have a music program now and that our district finds it important." (Teacher/Parent)*
	3. Community Engagement and Extra-Curricular Activities	*"We didn't have a music program for a long time. I think music brings community involvement." (Teacher/Parent)* *"Look at the parent and community involvement. People from the community came to performances that didn't have kids. It's community members building relationships with the school through the music program." (Teacher/Parent)* *"Being in a rural school, it's all about community involvement. I remember when the program was like this and now we're doing Grinch and Annie musicals. Giving people that believe in music and in the community a place to invest." (Prncipal)*

Themes	Subthemes	Quotes
2. Impact of Music Education and its Curriculum	1. Student Engagement	"*I was very pleased that he took a liking to drama and music opportunities in elementary. I was really, really happy that there was something else besides the status quo of sports that he could be a part of." (Parent)* *"I know a couple of girls that really enjoyed music. They had some bad things happen to them this year and I know they have really enjoyed going to music. I think it might help them to work through some things that they might be going through." (Teacher/Parent)*
	2. Accomplishment and Development in Music	*"Music is so important for children…I think they learn so much through music" (Teacher/Parent)* *"I've seen kids that never would have stepped up and done anything musically without you encouraging them to take a chance to be a part of a musical or a performance. The kids do such a great job." (Vice-Principal/Parent)*
	3. Cultural Awareness and Appreciation	*"I have noticed that as my students have explored some Oklahoma things, a lot of them*

Themes	Subthemes	Quotes
		are music centered. A lot of the things that the students research are music based. A lot of the things that we look up for Oklahoma are singers or people in the music industry." (Teacher/Parent) *"I love that our students are learning about different genres of music." (Teacher/Parent)*
3. Music Implicitly Underpins the Mechanisms of Learning	1. Attitudes towards learning	*"We have a middle school student that has joined the music program and has really connected with it. The student feels like she finally has something that she is passionate about and it gets her to come to school" (Teacher/Parent)* *"I think playing something unique [ukuleles/instruments] helped change some students attitudes towards music positively." (Teacher/Parent)*
	2. Focus and Concentration	*"I think one challenge is finding ways to engage kids and keep them focused on learning about music. Our music program has helped kids do that." (Teacher/Parent)*

Themes	Subthemes	Quotes
		"I think the students who played ukuleles or participated in the musicals showed a better, more positive attitude because they had something specific to focus on." (Teacher/Parent)
	3. Motivation, Enthusiasm, and Confidence	*"I've seen kids that never would have stepped up and done anything without you developing that sense that you can do this and the courage to participate." (Teacher/Parent)* *"The plays, the programs, they love those…watching them, performing in them, that is their favorite thing…the big productions that you do." (Parent)*
	4. Individuality (Choice & Autonomy)	*"Music has given the students another outlet…another voice to express themselves besides sports." (Teacher/Parent)* *"Music allows kids to express themselves and discover new talents." (Principal)*

Themes	Subthemes	Quotes
		"In a small school setting a lot of times all you have is kids that care about sports. Kids can grow up without realizing that they might have a talent somewhere else. They could grow up their whole life and not realize they could sing." (Teacher/Parent)
4. The Importance of Music in Supporting Children's Development Across Domains	1. Social Development	"*I think choir and music of all types in school is important. It allows kids to express themselves, build their self-esteem, and collaborate with others" (Teacher/Parent)* *"Music teaches the students social aspects, like how to behave in concert settings for instance." (School Superintendent)*
	2. Physical Development	*"I think giving students ukuleles to play was very unique for this grade. I think they were very excited about coming and learning a hands-on type instrument." (Teacher/Parent)* *"A strength of the music program is the consistency. The kids do motions. They use their whole body and they are engaging and*

Themes	Subthemes	Quotes
		not just using their voice." (Vice-principal/Parent)
	3. Intellectual/Cognitive Development	*"I feel like music…works as a sensory mechanism, depending on what you are listening to. We listen to a lot of classical or gospel music." (Parent)* *"I love that our students are learning about rhythm, doing musicals and being creative in music class." (Teacher/Parent)*
	4. Communication	*"Music helps with communication and children associate things with memory. They are way better when we transition with music."* *(Teacher/Parent)* "*I feel like music… is a great stimulation for the mind. You can express yourself through movement, singing, playing an instrument or just by listening to music." (Teacher/Parent)* *"Music is a good way to be expressive, let out your feelings, and it's great for the mind." (Parent)*

Themes	Subthemes	Quotes
	5. Emotional Development	*"Music is emotional and feeling things." (Teacher Assistant /Parent)* *"Music absolutely affects their emotional development and wellbeing." (Teacher/Parent)* *"There's an emotional connection between people and music." (Teacher/Parent)*

Overarching Themes

The reflexive thematic analysis identified four main themes from the interview data. The four themes include: 1) the integration of music education within the educational environment, 2) the impact of music education and its curriculum, 3) how music implicitly underpins the mechanisms of learning, and 4) the importance of music in supporting children's development across domains. A discussion of the four main themes and the subsequent subthemes will be examined within the context of the broader literature while reflecting on the potential implications of positive outcomes for student participation in a music education program and its impact on wellbeing. A summary of how the themes are potential mechanisms to create positive outcomes from participation in a music education program at a public school is provided in Table 1. Themes from the data analysis are presented in detail within the context of the wider literature while reflecting the adult perceptions of music education's impact on the students within the rural community.

Theme One: Integration of Music Education Within the Educational Environment

Theme one focuses on the impact of music education within the educational environment. The identified subthemes include music education as part of the academic curriculum, the need for administrative support, community involvement and extra-curricular activities.

Subtheme One: Music Education as part of the Academic Curriculum

In rural schools across the United States, where resources are often limited and educational opportunities more constrained, the integration of music education into the academic curriculum takes on profound significance. Participants in this study consistently emphasized the importance of music education not as a luxury, but as a fundamental part of a holistic learning experience. An elementary principal stated, "*I think music of all types in school is important. I also know it is good for the brain and it helps with learning,*" highlighting music's cognitive benefits and its role in supporting core academic development. This view aligns with findings by Hallam & Himonides, 2022; Vaughn, 2000), who report that music instruction can enhance students' brain development and academic performance.

Rural educators often see music as a means of enriching the educational experience beyond traditional academic metrics. As one school superintendent noted, "*I think music makes our students well-rounded. It gives them options*." This comment underscores the value of music in cultivating versatile learners where exposure to diverse curriculum opportunities may be limited. Music education, according to Blasco-Magraner (2021), supports not only intellectual development but also emotional, social, and cultural growth, making it an essential component of a balanced curriculum.

Similarly, a teacher assistant and parent observed, "*Music has strengthened the students' knowledge base,*" suggesting that music instruction reinforces learning across subjects. This reflects research by Guhn et al. (2020), who found positive correlations between music education and enhanced abilities in mathematics and reading. Gun et al. (2020) and Gouzouasis (2019) also reported that music lessons were associated with modest increases in IQ and academic outcomes, indicating that music can bolster cognitive skills often targeted in standardized testing environments.

Beyond academics, music is seen by rural educators as a tool for engagement and personal growth. A teacher and parent shared, "*We know how important music is to the educational aspect of a child's learning, growth, and brain development*." This perspective emphasizes music's multifaceted contributions academic, developmental, and neurological and echoes Habibi et al. and McPherson and Welch's (2012) assertion that music fosters discipline, creativity, and collaboration. These are skills critical for both school success and future employment, especially for students in rural communities who may face socioeconomic barriers (Habibi, 2018).

Furthermore, the inclusion of music can be especially impactful in rural schools where students may struggle to find personal connection or motivation in traditional classroom settings. According to Hallam & Himonides (2022) and Elliott and Silverman (2015), music often re-engages students who feel disconnected, providing them with a

sense of identity, belonging, and purpose within the school community. This is particularly relevant in rural contexts where school is often the central hub for social and cultural engagement.

Freeman and Shifrer (2022) argues that arts education is central to cultivating creativity which is a key skill in the modern economy. In rural schools, where access to broader creative or extracurricular programming might be scarce, music becomes an essential outlet for developing innovative thinking (Darrow & Adamek, 2018; Duan, 2020). Additionally, Gouzouasis et al. (2019) and Gun et al., (2020) found that music participants tend to have higher standardized test scores, reinforcing the argument that music education can play a measurable role in academic achievement.

In summary, the voices of rural educators and parents reflect a deep recognition of music education's value within the academic curriculum. For rural schools, music serves not only as an academic enhancer but also as a vital contributor to student wellbeing, engagement, and lifelong success (Gouzouasis et al. (2019); Gun et al., (2020); Freeman & Shifrer, 2022). Despite systemic challenges, the inclusion of music in rural education is not merely beneficial; it is essential (Freeman & Shifrer, 2022).

Subtheme Two: Need for Administrative Support

The findings from the qualitative study reveals a strong support for music education among administrators, teachers, and parents, highlighting its perceived value as a core component of the academic structure rather than an extracurricular addition. Furthermore, it aligns with previous research that identifies administrative backing as essential for the sustainability and growth of school music programs (Isbell, 2005; Abril & Bannerman, 2015; Fregoso, 2024). However, in rural schools across the United States, administrative support is foundational to the establishment, growth, and sustainability of music education programs (Fregoso, 2024). Participants in this study emphasized a strong perception that music education is an essential component of the academic experience (Guhn et al., 2020; Gouzouasis, 2019). However, it is important to recognize that these are perceptions, reflective of beliefs and values that may not always be matched by administration or policy support.

A principal/teacher asserted*, "Music education is underrated. It's just as important as academics. It's not an add-on. It's part of the academic structure. It shouldn't be funding dependent."* This statement reveals a critical tension common in rural districts: the recognition of music education's intrinsic value versus its precarious status due to budget constraints. Although this perspective aligns with research that advocates music education as part of a well-rounded curriculum (Conway, 2015; Elpus &

Miller, 2024), the principal's language underscores the instability of music programming when it relies on discretionary or inconsistent funding.

Administrative support has long been identified as a key factor in the success of school music programs (Beveridge, 2021; Abril & Bannerman, 2015; Abril & Gault, 2016). In the case of this rural district, the superintendent took a proactive role in rebuilding a music education program from the ground up. *"I think it's incredible where we have come in five years. You guys have done a masterful job of coming from zero to here in five years... To come from nothing to an impressive display,"* the superintendent reflected. While this quote conveys sincere enthusiasm, it also highlights the exceptional nature of this progress emphasizing that without committed leadership, such transformation may not have occurred at all (Fregoso, 2024).

This experience reflects the power of administrative vision and external collaboration. The superintendent, recognizing both the cultural and academic value of music, partnered with a local university to establish an internship program that supported K–12 music instruction within a single year, an ambitious initiative that included elementary general music, choir, band, and orchestra. The success of this program demonstrates that administrative will, when combined with community partnerships and intentional resource reallocation, can rapidly reverse years of neglect in arts education.

Yet, it must be noted that such efforts, while commendable, are not necessarily the norm in many rural districts (Abril & Gault, 2016). Often, these schools operate with limited budgets and must prioritize core subjects that are tied to standardized testing and federal accountability measures (Beveridge, 2021). In this context, music programs are frequently among the first to be cut (Abril & Bannerman, 2015). As such, the superintendent's remark, though celebratory, also subtly reinforces the idea that music education thrives only when exceptional support is present and not as a systemic guarantee.

A teacher/parent's comment, *"I am thrilled that we have a music program now and that our district finds it important"* further illustrates the rarity of sustained music education in some rural schools. The expression of "thrill" suggests prior absence and a sense of surprise that music is being taken seriously. This emotional reaction reinforces how inconsistent and fragile music programming can be in rural settings, where administrative turnover, shifting budgets, or a change in the political wind can undo progress quickly. Research by Elpus and Miller (2024) and (Abril & Gault, 2016) reinforces that without administrative support, music educators often face challenges in obtaining resources such as instruments, materials, and classroom space. These barriers are often intensified in rural contexts, where geographic isolation and smaller tax bases

limit opportunities for supplemental funding or community donations (Elpus, & Grisé, 2019). Administrative leaders should therefore be deliberate in positioning music not as an "enrichment" activity, but as a core component for student engagement, cognitive development, and cultural inclusion (Elpus & Miller, 2024). The success of the district's music education program illustrates how institutional support, particularly from administrators, can transform music education from a marginalized subject into a thriving, essential element of the school experience (Beveridge, 2021).

Finally, while the participants' perceptions in this study reflect strong local advocacy and a shared understanding of music education's value, they also reveal the conditional nature of its presence in rural schools. These programs often hinge on the dedication and vision of a few key leaders, rather than being embedded in policy or structural funding models (Elpus & Miller, 2024). To ensure long-term sustainability, music education in rural public schools must be fully integrated into academic planning and consistently prioritized by administrators at every level (Beveridge, 2021; Elpus & Miller, 2024). Lastly, these findings highlight the critical importance of leadership, funding, and curriculum integration in shaping student access to quality music education and underscores the impact such programs have on students' emotional and academic lives (Abril & Bannerman, 2015; Freeman & Shifrer, 2022).

Subtheme Three: Community Engagement and Extracurricular Activities

The revitalization of the music education program in the intervention rural school emerged as a powerful catalyst for increased community involvement, positive school culture, and enriched student experiences. As one teacher/parent emphasized, "*We didn't have a music program for a long time. I think music brings community involvement*." This sentiment was echoed by others who noted that musical performances had drawn broad community attendance: "*People from the community came to performances that didn't have kids. It's community members building relationships with the school through the music program*." These responses reflect a strong sense that music education not only supports students' individual growth but also reconnects the school to its wider social and cultural environment (Bartleet & Heard, 2024).

The findings from this study align with prior research emphasizing the reciprocal relationship between music programs and community development. According to Beveridge (2021) and Campbell (2011), strong community support is essential to the long-term sustainability of school music programs, particularly in rural or under-resourced settings. This study reinforces that view by illustrating how community enthusiasm for musical events contributes not only to school morale but also to the

formation of meaningful school and community relationships (Bartleet & Heard, 2024; MacGlone et al., 2020).

Furthermore, from a sociocultural perspective, the reintroduction of music education served as a mechanism for community and identity-building in the post-pandemic educational context. One principal recalled, "*Being in a rural school, it's all about community involvement... now we're doing Grinch and Annie musicals*. *Giving people that believe in music and in the community a place to invest*." This reflects the idea that community investment in music is not just financial or logistical, it is emotional, cultural, and symbolic, offering a tangible way for stakeholders to re-engage with the school in the educational landscape (Bartleet & Heard, 2024 & Campbell, 2011).

Consistent with the findings of Putnam (2000), Campbell, 2011, and Bartleet & Heard, 2024 who argues that community activities foster social capital and strengthen networks of trust and collaboration, the music program acted as a social glue in the study setting. Events such as concerts and musicals were more than performances; they were rituals of belonging, offering families and community members opportunities to celebrate collective achievements. These findings also align with Bartleet (2024 and) Florida's (2002) proposition that creative activities like music education can spur cultural and even economic revitalization, particularly in communities that lack access to the arts.

The integration of extracurricular music activities such as band, choir, and orchestral performances was central to this renewal. Participants consistently pointed to increased student engagement and pride as key outcomes of these public-facing activities. These opportunities extended learning beyond the classroom, contributing to holistic development, including discipline, teamwork, and perseverance (Hallam, 2010b; Hallam & Himonides, 2022). The school's public performances, as documented in this study, became not only showcases of musical learning but also sites of community gathering, visibility, and celebration. As Schippers and Bartleet (2013) note, such extracurricular engagement provides both personal and social benefits that are often more pronounced in communities where opportunities for creative expression are limited (Burrack, 2014; Beveridge, 2021).

Furthermore, the findings suggest that the presence of a vibrant music program enabled strategic partnerships between the school and external community stakeholders, aligning with Schmidt's (2020) advocacy for partnerships with local arts organizations, businesses, and universities. These collaborations can serve as key drivers of sustainability and resource-sharing, especially in rural districts with limited budgets (Beveridge, 2021). Importantly, this study's participants identified the transformative

potential of music education not only for students but also for the entire community's sense of connectedness and cultural enrichment.

In sum, the findings of this study highlights that community involvement is not simply a byproduct of music education, it is a central outcome (Bartleet & Heard, 2024). The re-establishment of the music program catalyzed renewed relationships between families, schools, and the broader public, highlighting music's vital role in both educational and community life (MacGlone, 2020; Freeman & Shifrer, 2023). In doing so, the program validated the importance of arts-based educational equity in rural settings and provided a compelling case for maintaining and expanding access to music education across diverse educational contexts (Bartleet & Heard, 2024).

Theme Two: Impact of Music Education and its Curriculum

Theme two focuses on mechanisms towards developmental function of students within the music classroom. Additional subthemes include student engagement, accomplishment and development in music, and cultural awareness and appreciation.

Subtheme One: Student Engagement

Participant reflections in this study suggest that music programs provide an alternative to more dominant school activities such as athletics by offering inclusive, emotionally resonant spaces for students who may otherwise feel marginalized or overlooked (Morrison, et al. 2022). One parent described their appreciation for their child's involvement in music, stating: *"I was very pleased that he took a liking to drama and music opportunities in elementary. I was really, really happy that there was something else besides the status quo of sports that he could be a part of."* This highlights an often-overlooked equity issue in rural education: the cultural and structural dominance of sports, which can unintentionally exclude students whose interests lie elsewhere (Bartleet & Heard, 2024). The availability of music programs offers these students an alternative form of belonging and identity development, reinforcing what Tang and Corrado (2024) term intrinsic motivation and engagement that emerges from genuine interest and personal fulfillment.

Another teacher/parent noted, *"I know a couple of girls that really enjoy music. They had some bad things happen to them this year and I know they have really enjoyed going to music. I think it might help them to work through some things that they might be going through."* This observation reflects the music's therapeutic dimension and its potential to support emotional wellbeing (Szűcs & Juhász, 2023). In contexts where access to formal mental health services may be limited, such as in many rural districts,

music education can serve as a critical space for emotional regulation, reflection, and healing (Tang & Corrado, 2024; Morrison, et al. 2022; Szűcs & Juhász, 2023). This aligns with Tang and Corrado's (2024) findings that music education fosters a sense of emotional safety and personal accomplishment through creative and collaborative engagement.

Research further underscores that music inherently requires active participation, whether through performance, composition, or ensemble collaboration (Ericsson et al., 1993; Blasco-Magraner, 2021; Morrison, et al. 2022). This active engagement keeps students mentally and emotionally connected to their work and helps cultivate focus, perseverance, and teamwork attributes often linked to long-term academic and personal success (Blasco-Magraner, 2021; Hallam & Himonides, 2022; Guhn et al., 2020). These skills are especially valuable in rural communities, where cultivating student resilience and self-efficacy is essential amid socioeconomic challenges or limited postsecondary pathways (Fregoso, 2024; Beveridge, 2021). Furthermore, collaborative engagement in ensembles like bands, choirs, and orchestras provides a unique form of peer learning and social cohesion (Bartleet & Heard, 2024).

In summary, the findings suggest that music education in rural schools may contribute significantly to student engagement and feelings of accomplishment by offering inclusive, emotionally supportive, and intellectually stimulating experiences (Morrison et al., 2022). While participants perceive these benefits as profound, they also implicitly highlight the fragile infrastructure in which such programs operate (Elpus & Grise, 2019). Music education can serve as both a refuge and a launchpad for rural students but only when it is consistently supported and integrated into the educational fabric of the school (Beveridge, 2021).

Subtheme Two: Accomplishment and Development in Music

Participants in this study emphasized how music education fosters both personal and academic development in children, often highlighting transformations they had directly observed. One teacher/parent noted*, "Music is so important for children…I think they learn so much through music,"* signaling a broad perception that music facilitates holistic learning that extends beyond technical skills. Another participant, a vice-principal/parent, reflected, "*I've seen kids that never would have stepped up and done anything musically without you encouraging them to take a chance to be a part of a musical or a performance. The kids do such a great job."* These testimonies affirm that music education not only nurtures skills, but also catalyzes confidence, risk-taking, and student identity formation forms key developmental goals in any educational setting, and

especially significant in under-resourced rural schools where fewer expressive outlets may be available (Shmith, 2021).

Music education also provides nonlinear and individualized development opportunities that many traditional academic settings may not. For students who do not thrive in conventional subjects like math or reading, success in music can offer a compensatory domain for self-worth and motivation (Guhn et al., 2022; Zhao et al. 2021). This echoes the earlier participant comment about students who "never would have stepped up" without encouragement highlighting that music can be a catalyst for change, particularly when students are given permission to explore new aspects of themselves in a safe, affirming space.

Thus, the accomplishments and development observed in this rural school context speak not only to the benefits of structured music education, but also to the necessity of sustained support for such programs. While research underscores these developmental outcomes (Barrett & Bond, 2015; Rushton et al., 2022), the findings from this study highlight that in rural communities, the stakes are often higher: music education may be one of the few consistent avenues through which students can experience personal growth, recognition, and a sense of future possibility.

Subtheme Three: Cultural Awareness and Appreciation

Participant reflections in this study consistently highlighted the role of music education as a gateway to cultural understanding, particularly within the context of rural communities where exposure to diverse worldviews can be limited (Bennett, 2023; Christopher, 2018). One teacher/parent noted, *"I have noticed that as my students have explored some Oklahoma things, a lot of them are music centered. A lot of the things that the students research are music based,"* while another remarked, *"I love that our students are learning about different genres of music."* These comments suggest that students are not only engaging with music for performance or artistic appreciation but are also using it as a medium for exploring both local heritage and global traditions (Bennett, 2023).

This aligns with Christopher et al. (2018) and Campbell's (2004) assertion that music education can broaden students' intellectual and cultural horizons by offering immersive engagement with a variety of musical styles and histories. In rural educational settings, where cultural exposure may often be limited to dominant local traditions, this function of music education becomes especially critical (Papageorgiou, 2023; Nettl, 2015; Christopher, 2018; Bennett, 2023). Teachers' and parents' observations highlight how music serves as both a mirror of students' immediate cultural surroundings and a window into the broader world (Nettl, 2015; Bennett, 2023).

This dynamic resonates with Henninger (2018) and Nettl's (2015) argument that music is deeply entwined with the social and historical contexts from which it originates. Participants' perceptions indicate that, through music education, students are beginning to traverse cultural boundaries, moving from the familiar terrain of regional genres such as country or gospel music toward an appreciation for African drumming, Latin rhythms, jazz improvisation, and other global forms (Nettl, 2015; Christopher, 2018). Such exposure not only enhances musical literacy but, as Henninger (2018) notes, can cultivate *cognitive empathy,* the capacity to understand and emotionally connect with the lived experiences of others across cultural and historical divides.

Interestingly, some participants noted that students' musical inquiries often began with locally relevant figures or traditions before expanding outward. The emphasis on researching Oklahoma musicians illustrates a meaningful pedagogical strategy: grounding cultural learning in familiar contexts before expanding to global dimensions. This pedagogical duality reflects what Henninger (2018) refers to as *glocal* learning, educational experiences that integrate global awareness with local relevance.

From a critical standpoint, this subtheme supports the view that music education can function as a culturally expansive and socially responsive practice, particularly when it emphasizes exploration, inclusion, and critical reflection (Henninger 2018; Bennett, 2023). Within rural schools, such an approach can play a compensatory role by addressing the often-narrower cultural exposure available to students (Papageorgiou, 2023; Bennett, 2023). However, it also challenges educators and administrators to ensure that the curriculum moves beyond tokenistic inclusion of world music and instead offers sustained, meaningful engagement with diverse traditions (Christopher, 2018; Bennett, 2023).

Thus, the participant insights not only affirm the value of culturally inclusive music education but also reflect its potential to transform how students understand identity, both their own and others' (Bennett, 2023; Papageorgiou, 2023). This dimension of music education was perceived by participants as central to the students' emotional and intellectual development, reinforcing the need for music to remain an integral part of rural schooling despite pressures to prioritize standardized academic subjects.

Theme Three: Music Implicitly Underpins the Mechanisms of Learning

Theme three focuses on the impact of music education and the curriculum on students within the music classroom. Subthemes for this theme include attitudes towards learning, focus and concentration, motivation, enthusiasm, confidence, and individuality (choice & autonomy).

In music education, implicit and explicit learning mechanisms often interact and complement one another. While explicit learning provides the foundational knowledge and technical skills needed to engage with music, implicit learning helps students internalize these skills and apply them more fluidly and creatively (Toomer & Elgort, 2019). Over time, what begins as explicit learning may become implicit as students gain proficiency and experience (Toomer & Elgort, 2019). As stated, music education involves both implicit and explicit learning mechanisms, each playing a crucial role in how students acquire musical skills, knowledge, and understanding (Zarza-Alzugaray, 2020). These mechanisms shape how students learn to play instruments, understand music theory, engage with rhythm and melody, and express creativity through composition and performance (Zarza-Alzugaray, 2020; Li et al., 2023). Implicit learning refers to the unconscious acquisition of skills and knowledge, often through repeated exposure, practice, and experience without direct instruction (Zarza-Alzugaray, 2020; Li et al., 2023; Toomer & Elgort, 2019). This type of learning typically occurs naturally as students engage with music in various contexts, leading to the internalization of patterns, techniques, and responses (Szabó, 2024 & Mackey & Gass, 2022). Explicit learning involves conscious, intentional efforts to acquire knowledge or skills, often through formal instruction, deliberate practice, and direct teaching of concepts (Mackey & Gass, 2022; Toomer & Elgort, 2019).

Subtheme One: Attitudes towards Learning

The qualitative data revealed that student attitudes toward music education are deeply influenced by meaningful experiences, engaging teaching strategies, and a sense of belonging. One teacher/parent noted, "*We have a middle school student that has joined the music program and has really connected with it. The student feels like she finally has something that she is passionate about and it gets her to come to school*." This highlights a critical insight that music education is not simply a curricular subject, but a potential motivational anchor for students who might otherwise feel disengaged from the broader school environment. Especially in rural settings, where fewer extracurricular options may be available, music can serve as a crucial point of connection, fostering both emotional wellbeing and educational continuity.

Another participant emphasized the role of instrument variety in shaping student attitudes: "*I think playing something unique [ukuleles/instruments] helped change some students' attitudes towards music positively*." This supports research by Hallam & Himonides (2022) and Blasco-Magraner (2021), which suggests that active, student-centered pedagogies such as the Orff Approach, Kodály Method, and Dalcroze

Eurhythmics can promote positive affective responses by making music learning both engaging and accessible.

Positive attitudes toward music are closely linked to motivation both intrinsic and extrinsic. As O'Brian & Blue (2018) argue, intrinsic motivation such as a personal passion for music or enjoyment of creative expression leads to more sustained engagement than motivation that is purely external (e.g., grades or public recognition). The middle school student described above exemplifies this point: their sense of purpose and connection to school was enhanced not by performance pressure, but by the internal satisfaction derived from musical engagement (Concina, & Gesuato, 2025. Thus, while preparing for a school concert might boost short-term enthusiasm, long-term commitment often stems from deeper, intrinsic connections to music learning (O'Brian & Blue, 2018).

Importantly, the teaching environment plays a decisive role in shaping students' perceptions. When educators demonstrate joy, passion, and dedication to music, they can model and transmit these values to students (Elliott, 1995; Crawford, 2019). A supportive, non-judgmental classroom where students are encouraged to take creative risks, select instruments, or contribute ideas can significantly enhance their attitudes (Crawford, 2019; Fallon, 2012). As a teacher, I encourage student choice regarding instrument choice and music activities which results in an increase in positive engagement. This aligns with Fallon's et al. (2012) behaviorist perspective that constructive reinforcement, such as encouraging feedback and recognition of effort, can shape student behavior and foster a positive learning disposition.

In rural schools, such as the one in this study, these dynamics take on heightened significance. With limited exposure to specialized programs, students' early experiences with music may profoundly shape their long-term attitudes (Blasco-Magraner, 2021). When those experiences are empowering and affirming, music can become a lifeline for engagement, a source of identity, and a platform for personal expression (Crawford, 2019; Blasco-Magraner, 2021). By incorporating diverse instruments, flexible pedagogy, and supportive teacher-student relationships, rural music educators can cultivate environments where students not only enjoy music but are motivated to pursue it meaningfully (Crawford, 2019; Concina & Gesuato, 2025).

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Subtheme Two: Focus and Concentration

A recurring insight from participants was the role of music education in fostering student focus and engagement in learning, an especially critical function in rural schools where external stressors and limited resources often impede academic consistency. One teacher/parent remarked, "*I think one challenge is finding ways to engage kids and keep*

them focused on learning about music. Our music program has helped kids do that." Another observed, "*I think the students who played ukuleles or participated in the musicals showed a better, more positive attitude because they had something specific to focus on*." These reflections underscore a broader belief among adult participants that music offers more than just creative enrichment; it provides structure, purpose, and cognitive stimulation that extends beyond the music classroom.

This perception aligns with a well-established body of literature linking music education with enhanced attention, concentration, and executive function (Freeman & Shifrer, 2022; Gouzouasis et al., 2019). Research suggests that structured musical activities, such as playing instruments, reading notation, and participating in ensembles, require and develop sustained attention, working memory, and cognitive flexibility (Tierney & Kraus, 2013; Zuk et al., 2014; Hallam & Himonides, 2022). Darrow and Adamek (2018) further argue that the repetitive and disciplined nature of musical practice builds cognitive stamina over time, a point echoed in participant descriptions of students' increased ability to stay on task during rehearsals or performances (Jones, 2015; Zarza-Alzugaray, 2020). The cognitive multitasking involved in musical engagement, coordinating physical movement, auditory processing, and visual cues, was highlighted by several participants as a unique advantage of music programs (Guhn et al., 2020; Freeman & Shifrer, 2022).

Participants' experiences also reflected the concept of "flow," a state of deep concentration described by Csikszentmihalyi (1990, 1996), which emerges when students engage in appropriately challenging tasks with clear goals and immediate feedback. Music education, particularly performance-based activities, frequently creates the conditions for such immersive experiences (Blasco-Magraner, 2021; Morrison, 2022). One parent noted that students who had opportunities to perform showed more motivation and focus, suggesting that the musical environment supported both emotional and cognitive engagement (Hallam & Himondides, 2022; Morrison, 2022).

In addition, the emotional regulation fostered through music, such as reduced anxiety and improved mood, was cited by participants as a contributing factor to student attentiveness (Zarza-Alzugaray, 2020; Ferreri et al., 2019). This aligns with findings by Thoma et al. (2013), demonstrate that music can reduce stress, thereby supporting optimal learning conditions. Adults in the study noted that students seemed calmer and more centered after participating in music, a sentiment that highlights how emotional wellbeing and cognitive performance are intertwined (Habibi et al., 2018; Hallam & Himonides, 2022).

Crucially, adult participants also emphasized the long-term behavioral benefits of music education, particularly in cultivating habits of persistence and self-discipline (Culp & Robison, 2022; Crawford, 2019). These observations resonate with Duckworth and Gross's (2014) work on grit and effortful practice. Participants viewed the structured demands of musical learning as a tool for developing resilience and patience, qualities transferable to broader academic contexts (Freeman & Shifrer, 2022; Gouzouasis et al., 2019). In rural schools where students may face greater adversity, these traits are especially valuable.

Subtheme Three: Motivation, Enthusiasm, and Confidence

Teachers and parents in this study observed positive transformations in students who were actively engaged in music education. One parent remarked, "*I've seen kids that never would have stepped up and done anything without you developing that sense that you can do this and the courage to participate*." Another shared, "*The plays, the programs, they love those…watching them, performing in them, that is their favorite thing…the big productions that you do*." These reflections illustrate the emotional and motivational benefits students derive from participating in music-related performances. They align with a core theme in the study: the role of music education in fostering confidence, enthusiasm, and a willingness to take risks particularly in educational environments where such opportunities may be limited.

Critically interpreting these observations through theoretical frameworks further supports the claim that music educators play a pivotal role in cultivating environments conducive to emotional and social growth. This finding resonates with Gurr's (2024) theory of growth mindset, which posits that students are more likely to persist when they believe their abilities can develop through effort. Teachers in this study often described the school music culture as a place that welcomed all ability levels, celebrated progress, and encouraged participation which resulted in students who were enthusiastic, confident, and motivated, a practice supported by the literature (He & Suttachitt, 2024; Lohbeck's, 2023).

Zheng and Bian (2018) advocate for feedback focused on effort and improvement rather than innate ability, a strategy echoed by teachers who praised perseverance and reframed mistakes as part of the learning process (He & Suttachitt, 2024; Gurr, 2024). These pedagogical choices appear to contribute not only to musical competence but also to emotional resilience and a positive learning identity, as suggested by (Hallam & Himonides, 2022; Guhn et al. (2022). The qualitative data also align with Zarza-Alzugaray, (2020) and Lohbeck's (2023) concept of self-efficacy, which emphasizes how

successful performance, even in small tasks, can build a students' belief in their capacity to succeed. Teachers and parents recounted how students who were once hesitant began taking initiative and expressing themselves creatively through music. This transformation is particularly significant in rural contexts, where students may face limited access to enrichment opportunities (Darrow & Adamek, 2018; Ioannidi, 2019; Rushton, 2022). As one parent observed, "*I've seen kids find their voice here, and it's through music that they feel heard and seen."*

Subtheme Four: Individuality (Choice & Autonomy)

Participants in this study emphasized that music education can provide students with an outlet for self-expression and an opportunity to explore their individual identities beyond conventional school norms, particularly in small, rural school settings where athletics often define student identity. One teacher/parent explained, "*Music has given the students another outlet… another voice to express themselves besides sports*," while a principal remarked, "*Music allows kids to express themselves and discover new talents*." These comments highlight the way music programs function as a counterbalance to the cultural emphasis on sports in rural education, offering alternative spaces where students can uncover and develop talents that might otherwise remain dormant. Another participant captured this reality poignantly by sharing "*In a small school setting, a lot of times all you have is kids that care about sports. Kids can grow up not realizing that they might have a talent somewhere else… they could grow up their whole life and not realize they could sing*."

These reflections align with existing literature that highlights the role of music education in developing student autonomy, identity, and self-worth, particularly when other avenues for creative exploration are limited (Zhao et al., 2021; Szűcs & Juhász, 2023). Teachers and administrators have described how music allowed students to make those meaningful choices, whether through selecting instruments, participating in performances, or exploring genres. Such agency helps students develop ownership over their learning experiences, which is crucial for emotional engagement and sustained interest (Zarza-Alzugaray et al., 2020). These qualitative insights affirm scholarly arguments that student-centered music classrooms, which encourage personal voice, creative risk-taking, and choice, lead to higher levels of motivation and participation (Smith, 2021; Schoppe, 2025). Particularly in under-resourced rural environments, music can serve as one of the few spaces where students experience success and recognition outside of academics or athletics. For example, when music teachers in your study reported students "*coming out of their shell*" or being "*recognized for the first time*," they

were reflecting the literature's emphasis on the transformative power of inclusive, expressive learning environments (Guhn et al., 2020; Zarza-Alzugaray et al., 2020).

Furthermore, the study highlights that music education develops a sense of individuality and validates students' cultural and social identities. Teachers and parents shared examples of how music allowed students to feel "*seen*" for who they truly are which mirrors the work of Burnard (2012), Smith (2021), and He & Suttachitt (2024), who argue that students thrive when given the opportunity to express their lived experiences through music. In rural contexts with limited curricular diversity, this validation becomes especially crucial (Schoppe, 2025). One administrator noted that "*music was the only place some students felt like they belonged*," a sentiment that aligns closely with Beveridge's (2021) claim that arts education in low-access settings often serves as a critical form of social affirmation.

Furthermore, data from the study also emphasizes the importance of educator support in balancing student autonomy with appropriate scaffolding. As Sisson (2021) and Darrow & Adamek (2018) assert, autonomy must be carefully nurtured through supportive teaching that fosters emotional safety and creative risk-taking. Several participants commended the encouraging music environment that allowed students to take ownership without fear of failure (Reynolds, 2018; Smith, 2021; Draper, 2024). These descriptions resonate with Zhao et al. (2021), who found that students are more likely to persist and flourish in creative disciplines when they feel emotionally secure and respected (Robb et al., 2023). In summary, the qualitative findings provide compelling, evidence that supports the literature on music education's capacity to promote autonomy, identity development, and emotional wellbeing, especially in rural schools where cultural and expressive outlets can be scarce (Crawford, 2019; MacGlone et al., 2020; Hallam & Himonides, 2022).

Theme Four: The Importance of Music in Supporting Children's Development Across Domains

Theme Four highlights the integral role of music education in promoting holistic child development across multiple domains. Participant narratives reflected how music engages students not only artistically but also socially, physically, intellectually, communicatively, and emotionally, which are dimensions aligned with the widely recognized SPICE framework (Osunjimi, 2022). SPICE, an acronym for Social, Physical, Intellectual, Communication, and Emotional development, offers a structured lens for understanding the multifaceted benefits of educational activities, particularly in early and middle childhood (Osunjimi, 2022). Within the context of this study, the SPICE model

provides a useful framework to explore the wide-ranging impact of music on children's growth and wellbeing.

Subtheme One: Social Development

The data from this study emphasizes music education's powerful role in cultivating social development, particularly through collaborative and participatory learning environments (Zarza-Alzugaray et al., 2020). As one teacher/parent noted, "*Choir and music of all types in school is important. It allows kids to express themselves, build their self-esteem, and collaborate with others*." This sentiment was echoed by a school superintendent who emphasized music's role in teaching students "*social aspects, like how to behave in concert settings*." These reflections are consistent with research suggesting that music classrooms offer a unique context in which students can build social competence, develop empathy, and learn interpersonal responsibility (Barrett & Bond, 2015; Bartleet & Heard, 2024). Music education promotes social skill development through ensemble-based instruction such as choir, band, or group performance where students must actively listen to one another, maintain rhythmic and melodic synchronicity, and share responsibility for the group's success (Crawford, 2019; Bartleet & Heard, 2024). These collaborative structures mirror real-world social settings and reinforce key skills such as communication, cooperation, and mutual respect. Barrett and Bond (2015) assert that such experiences foster a sense of belonging, helping students build peer relationships and social identities grounded in shared musical goals.

Furthermore, music education supports emotional and social engagement by allowing students to express themselves in personally meaningful ways (Reynolds, 2018). When students participate in music activities that reflect their interests or cultural backgrounds, they are more likely to feel understood and valued (Zarza-Alzugaray et al., 2020). This emotional resonance deepens their connection to the subject and enhances social cohesion among peers who share similar musical interests (Custodero, 2005; Zarza-Alzugaray et al., 2020). Students who might otherwise feel marginalized in the school environment may find acceptance and community through music, particularly in rural schools where extracurricular options may be limited (Bartleet & Heard, 2024; MacGlone et al., 2020). Active engagement is a key mechanism through which these benefits unfold (Crawford, 2019; Zarza-Alzugaray, 2020). Participation in music requires sustained attention, physical coordination, and expressive output whether singing, playing an instrument, composing, or improvising (Crawford, 2019; Elliott & Silverman, 2015). This immersive nature of music learning helps students develop focus, discipline, and persistence Bartleet & Heard, 2024; Guhn et al., 2020)

These structured milestones help maintain motivation and clarify purpose, offering students a sense of accomplishment that reinforces further engagement (Hallam & Himonides, 2022). This cyclical relationship between goal-setting, effort, and achievement is central to developing both academic discipline and personal agency (Bartleet & Heard, 2024; Ericsson et al., 1993). In sum, as shared by participants in the study, music education may contribute significantly to students' social-emotional and cognitive engagement, particularly by providing spaces for collaboration, choice, and meaningful achievement (Hallam et al., 2018). These findings highlight that music education is not only a site for creative expression but also a critical domain where students learn how to navigate relationships, take initiative, and experience the intrinsic rewards of communal learning (MacGlone et al., 2020; Reynolds, 2018; Bartleet & Heard, 2024).

Subtheme Two: Physical Development

The integration of instrumental practice and movement-based activities in music education appears to contribute significantly to students' physical development. One participant reflected, "*I think giving students ukuleles to play was very unique for this grade. I think they were very excited about coming and learning a hands-on type instrument*" (Teacher/Parent), highlighting both the novelty and engagement fostered through instrument-based learning. Another echoed the value of embodied learning: "*A strength of the music program is the consistency. The kids do motions. They use their whole body and they are engaging and not just using their voice*" (Vice-principal/Parent).

Such observations align with existing literature emphasizing that music education can enhance both fine and gross motor skills through activities that require coordinated physical control, such as playing instruments or incorporating movement (Blasco-Magraner, 2021). The development of fine motor abilities, particularly hand-eye coordination, finger dexterity, and posture regulation, is refined through consistent instrumental practice. Furthermore, engagement in rhythmic movement, dance, or the use of percussion instruments promotes bodily awareness and expressive physicality, which can support broader physical fitness and well-being (Hallam & Himonides, 2022).

Beyond the physiological benefits, music education fosters social interaction and cooperative learning through ensemble participation, which strengthens communication skills and musical literacy. Performing collaboratively also serves to enhance students' confidence and self-perception, as successfully achieving musical goals can cultivate a sense of personal accomplishment and resilience (Hallam & Himonides, 2022; Elliott &

Silverman, 2015). In this way, the physical aspects of music education are not isolated; rather, they intersect with emotional and psychological development, suggesting that learning through music supports holistic growth (Hallam, 2016). For many students, the opportunity to actively engage with instruments remains a highly anticipated and valued component of their educational experience.

Subtheme Three: Intellectual and Cognitive Development

Cognitive and intellectual development through music education is a multifaceted process that enhances mental functions such as memory, attention, problem-solving, and creativity. Research has long established that active engagement with music, whether through listening or performance, can stimulate cognitive processing and sensory integration (Barrett & Bond, 2015; Hallam, 2010b). One parent in this study echoed this, stating, "*I feel like music…works as a sensory mechanism, depending on what you are listening to. We listen to a lot of classical or gospel music*." This aligns with the literature indicating that listening to structured musical forms such as classical and gospel can heighten cognitive engagement and auditory discrimination (Schellenberg, 2005; Guhn et al., 2020).

Beyond passive listening, participants emphasized the impact of active music-making on student cognition. A teacher-parent shared, "*I love that our students are learning about rhythm, doing musicals and being creative in music class*," underscoring the benefits of hands-on engagement in musical performance and composition. These types of activities have been shown to strengthen spatial-temporal reasoning, working memory, and executive function (Rauscher & Zupan, 2000; Hallam & Himonides, 2022). The connection between classroom musical experiences and cognitive development supports research findings suggesting that students involved in music demonstrate advanced processing abilities and heightened creative thinking (Freeman & Shifrer, 2022; Guhn et al., 2020).

Moreover, music education promotes intellectual skills that transcend the boundaries of the music classroom. Learning to read musical notation, analyze form and structure, and engage in improvisation fosters abstract reasoning and creativity skills that are essential for both academic success and broader life challenges (Forgeard et al., 2008; Robinson, 2011; He & Suttachitt, 2024). Participants' accounts reinforce this: music is viewed not only as an expressive outlet but also as a discipline that cultivates transferable thinking skills, cultural sensitivity, and emotional intelligence (Freeman & Shifrer, 2022; Crawford, 2019).

Empirical studies corroborate the perceived cognitive advantages of music education reported by participants. For example, students actively engaged in music programs often outperform their peers in core academic subjects such as mathematics and reading (Guhn et al., 2020; Gouzouasis et al., 2019). These academic gains are thought to result from the discipline, sustained attention, and higher-order thinking cultivated through musical study (Hallam & Himonides, 2022; Cooper & Burns, 2021). Notably, participants in this study attributed similar growth to their students, suggesting that even in rural or resource-limited settings, music education facilitates deep intellectual engagement and holistic development (Crawford, 2019).

In sum, the findings from this study are consistent with a growing body of literature recognizing music education as a vehicle for cognitive enrichment and intellectual advancement (Guhn et al., 2020; Freeman & Shifrer, 2022; MacGlone et al., 2020). Participant perspectives illustrate how music supports not only memory, attention, and problem-solving, but also nurtures creativity, cultural awareness, and emotional literacy which are key elements in developing intellectually capable and well-rounded learners (Darrow & Adamek, 2018; Crawford, 2019). Lastly, music education emerges as an essential contributor to the development of lifelong learners equipped with the cognitive and emotional tools necessary for navigating an increasingly complex world (Smith, 2021).

Subtheme Four: Communication

A recurring theme in the data is the recognition of music as a tool for enhancing communication and supporting emotional expression, particularly among children. One participant noted, "*Music helps with communication, and children associate things with memory. They are way better when we transition with music*." While this quote may initially seem unclear, when viewed in context, it reflects the practical application of music in classroom routines by using musical cues as transitional tools to facilitate smoother behavioral shifts and reinforce communication through familiar auditory signals (Crawford, 2019; Zarza-Alzugaray et al., 2020). This suggests that music not only supports expressive development but also improves students' cognitive and communicative responsiveness in learning environments (Crawford, 2019).

Another teacher/parent shared, "*Music is a great stimulation for the mind. You can express yourself through movement, singing, playing an instrument, or just by listening to music,*" emphasizing the multifaceted nature of musical engagement. Similarly, a parent stated, "*Music is a good way to be expressive and let out your feelings.*." These reflections align with the literature describing music as a universal language, one that

transcends verbal communication and facilitates emotional expression, cognitive stimulation, and interpersonal connection (Sloboda & Juslin, 2010).

More critically, music provides a structured yet emotionally open environment where students can practice and refine their emotional intelligence. According to Sloboda and Juslin (2010), music allows individuals to communicate and understand emotions in ways that words often cannot, offering a channel for both expression and emotional processing (Zarza-Alzugaray et al., 2020). This function is especially valuable for children who may lack the vocabulary or confidence to articulate complex feelings. As supported by Ferreri (2019) and Saarikallio and Erkkilä (2007), participation in music activities helps students develop emotional regulation strategies, allowing them to channel emotions constructively and recognize affective cues in themselves and others.

These emotional competencies, self-awareness, empathy, and mood regulation are essential for interpersonal development and well-being (Hallam & Himonides, 2022; Schoppe, 2025). When students perform music or engage in movement and listening activities, they are often processing and interpreting emotions in real time, strengthening their capacity for affective communication ((Zarza-Alzugaray et al., 2020; Crawford, 2019). Moreover, music provides a safe outlet for expressing difficult emotions, such as frustration or sadness, in socially acceptable and creative ways (Zarza-Alzugaray et al., 2020).

Furthermore, music supports cultural communication and shared identity. Through participation in music from diverse traditions, students learn to appreciate cultural differences and express their own backgrounds, fostering inclusion and social understanding (Crawford, 2019; Barrett & Bond, 2015). In this way, music education promotes cross-cultural communication, expanding the student's capacity to connect with others through shared musical experiences and values (Culp & Robison, 2022; Hallam & Himonides, 2022).

In sum, the findings from this study reinforce that music education is inherently communicative and emotionally expressive, offering students tools to interpret, express, and manage emotions while learning to collaborate, listen, and connect with others (Bartleet & Heard, 2024; Culp & Robison, 2022). These outcomes are not merely byproducts of music learning; they are core components of a holistic, student-centered approach to education that values the development of the whole child (Hallam & Himonides, 2022; Culp & Robison, 2022).

Subtheme Five: Emotional Development

Emotional expression and development emerged as a significant theme in participants' reflections on the value of music education. As one teacher assistant/parent stated, "*Music is emotional and feeling things*," while another observed, "*Music absolutely affects their emotional development and wellbeing.*" These statements highlight the perception that music education provides children with an avenue to explore and articulate their emotions in meaningful ways. Supporting this, Hallam & Himonides, (2022) found that music engagement plays a critical role in helping young people regulate emotions and cope with stress, enhancing both emotional awareness and resilience.

The ability to experience, interpret, and express emotions through music fosters what is commonly referred to as emotional intelligence, is a foundational skill for healthy interpersonal relationships and academic success (Saarikallio and Erkkilä, 2007). As another participant observed, "*There's an emotional connection between people and music*," suggesting that emotional development through music is not only intrapersonal but also relational. Students often develop empathy, learn to read emotional cues, and form meaningful bonds through collaborative musical activities (Saarikallio & Erkkilä, 2007; Sloboda & Juslin, 2010; Zarza-Alzugaray et al., 2020). Likewise, further reinforcing emotional development is the role of autonomy in music education.

This individualized, autonomy-supportive approach to music education complements broader developmental needs (Varadi, 2022; Zarza-Alzugaray et al., 2020). For example, playing an instrument requires and enhances fine motor control, as students engage in coordinated, repetitive actions that strengthen timing and precision (Bartleet & Heard, 2024; Schlaug et al., 2005). Group music-making activities, such as bands and choirs, also nurture essential social skills, including cooperation, communication, and leadership (Hallam, 2010b; Hallam & Himonides, 2022). These collaborative experiences allow students to learn how to listen actively, resolve conflicts, and work toward a common goal, all of which are foundational for positive social interactions and teamwork (Wang, 2022; Varadi, 2022).

Consider the example of a student participating in a school band. This experience supports physical development through instrumental technique, intellectual engagement through the study of musical theory and structure, social development through ensemble collaboration, creative growth via interpretation and improvisation, and emotional development through expressive performance (Varadi, 2022; Wang, 2022). As such, music education becomes more than a subject area; it is a developmental medium and a

holistic tool for cultivating well-rounded individuals prepared to navigate complex emotional and social environments (Crawford, 2019; Wang, 2022).

Moreover, by understanding the mechanisms through which music education supports growth, such as autonomy, engagement, and expression, educators and policymakers can better advocate for its integration within the broader educational curriculum (Hallam & Himonides, 2022; Zarza-Alzugaray et al., 2020). These insights not only validate the participants' perspectives in this study but also affirm music's role as a cornerstone of development during critical periods of childhood and adolescence (Varadi, 2022; Zarza-Alzugaray et al. 2020).

Summary of Main Findings

This study explored the impact of a daytime music education program on children in the elementary classroom through the perspectives of administrators, teachers, staff, and parents. The reflexive thematic analysis revealed several key themes that underscore the program's significance in the academic and developmental landscape of the students.

Firstly**,** theme one "**The Integration of Music Education Within the Educational Environment"** emerged strongly, with participants consistently emphasizing the impact of music education within the educational environment and how music education contributed to music education as part of the academic curriculum, the need for administrative support, community involvement, and extra-curricular activities. Parents, teachers, and administrators noted the positive effects of reintegrating music education into the educational environment, music's importance and equality within the academic curriculum, and the outstanding support of the community and the administrators of the music program. This reinforces the idea that music education is not merely an extracurricular activity but a vital component of a well-rounded education.

Secondly, theme two "**The Impact of Music Education and Its Curriculum"** emphasizing the impact of music education and its curriculum on students within the music classroom focusing on student engagement, accomplishment and development in music, and cultural awareness and appreciation. As with the first theme, the interviewees positively emphasized more opportunities for student engagement within the school environment such as concerts and music theater opportunities while another teacher shared a story regarding a few girls in her class that had suffered tremendous hardship, but they thrived and engaged during music classes. In the second subtheme, accomplishment and development, interviewees shared stories relating to the importance of music and how it is a vehicle for learning music as well as an opportunity for students to step out and try something new. In the third subtheme "Cultural Awareness," one

teacher described how her students chose to research Oklahoma music history and learned so much about the styles and genres of music and singers that came from Oklahoma.

Thirdly, theme three **"How Music Implicitly Underpins the Mechanisms of Learning"** emerged strongly with interviewees emphasizing how music underpins the mechanisms that impact developmental function of students within the music classroom. Parents, teachers, and administrators highlighted how music supports attitudes towards learning, focus and concentration, motivation, enthusiasm, confidence, and individuality (choice & autonomy). These subthemes reflect the perception that music education reinforces and enhances fundamental learning processes within the broader educational experience.

Parents, teachers, and administrators, highlighted stories regarding a truant student's school attendance, grades, and attitude improved by the motivation of participating in a musical, students demonstrating an increase in focus and concentration through instrumental activities and performances, students having a "voice" to choose something other than sports, and students auditioning and participating in musicals because they felt confident, motivated, and enthusiastic.

Lastly, theme four **"The Importance of Music in Supporting Children's Development Across Domains"** revealed the importance of music education in supporting children's development across domains. In education, the SPICE model (Social, Physical, Intellectual, Communication, and Emotional Development) is a framework often used to assess and support holistic development (Osunjimi, 2022). The subthemes are identical to the SPICE model. Interviewees emphasized the importance of music education and how it supports childhood development. For example, they highlighted music education's importantance for self-expression, self-esteem and collaboration with others and appropriate social behaviors (social), development of gross and fine motor skills through a hands on experience playing ukuleles and whole body movement (physical), music as a sensory mechanism, creativity, rhythm, and performaance (intellectual/cognitive), and emotional connections between people and music, feeling things, and music's impact on emotional wellbeing and emotional development (emotional).

In conclusion, this study highlights the multifaceted impact of music education on elementary students, extending beyond academic benefits to the integration of music education within the educational system, the impact of music education and its curriculum, music underpinning learning mechanisms, and supporting children's development across domains. The findings from the qualitative study also underscore the necessity of continued advocacy and collaboration among all involved parties to ensure

that music education remains a vital part of the curriculum to enrich students' lives and support their overall development.

Interpretation of the Findings

This study explored the impact of a daytime music education program on children in elementary classrooms through the perspectives of administrators, teachers, staff, and parents. The reflexive thematic analysis revealed four key themes that collectively emphasize music education's role not just as a supplementary subject, but as a core component of a holistic and equitable educational framework.

Theme One

The Integration of Music Education Within the Educational Environment highlights the extent to which music education was valued as an academic discipline rather than an extracurricular luxury. Participants reinforced the belief that equitable inclusion of music in the curriculum backed by administrative and community support that cultivates a richer educational climate. This finding speaks to broader systemic implications: sustained integration of music education may signal a shift toward educational policies that prioritize whole-child development, especially in underserved or rural communities. The theme also aligns with contemporary educational discourse that calls for dismantling the marginalization of the arts and ensuring they are embedded in the fabric of schooling.

Theme Two

The Impact of Music Education and Its Curriculum addresses how students not only engage with music but grow through it. The curriculum was seen as a conduit for meaningful student expression, resilience, and cultural exploration at the intervention school. The accounts of students thriving amid personal hardship, or taking pride in learning their state's musical heritage, illustrate how music can be transformative. This theme provides a strong argument for localized, culturally responsive music curricula that connect students to their identities and communities, which is increasingly recognized as a critical factor in inclusive pedagogy. The theme also suggests music serves as an important counterbalance to test-centered instruction, offering spaces where students can succeed through creativity and emotional investment.

Theme Three

How Music Implicitly Underpins the Mechanisms of Learning offers a significant insight into the indirect, yet powerful, ways in which music supports core educational goals. Participants described how music nurtured skills essential for academic success, such as concentration, motivation, confidence, and autonomy. These are not ancillary benefits; rather, they are foundational to effective learning across subjects. Importantly, this theme challenges the siloed view of disciplines and provides evidence that music operates as a cross-disciplinary force, intertwining with psychological, emotional, and cognitive domains. In this way, music education may serve as a hidden driver of school engagement and student persistence, particularly for those at risk of disengagement.

Theme Four

The Importance of Music in Supporting Children's Development Across Domains, grounded in the SPICE model (Osunjimi, 2022), provides empirical support for the idea that music education fosters well-rounded development. The specific developmental domains of SPICE, social, physical, intellectual, communication, and emotional, mirror contemporary goals for 21st-century education. This theme reinforces previous literature (e.g., Hallam, 2010; Ilari, 2023) showing how music contributes to socio-emotional competence, physical coordination, and identity development. Notably, this finding contributes to the growing advocacy for developmentally informed music programs, especially at the elementary level, where foundational skills are shaped. Collectively, these findings extend the conversation beyond a description of outcomes to a critique of current educational practices. They argue for a rethinking of curricular priorities, particularly in rural and underserved areas where music education may be vulnerable to budget cuts. The findings suggest that music education does not simply "enrich" student experience; it activates core capacities that benefit all aspects of learning and development. Furthermore, they highlight the importance of stakeholder collaboration between parents, teachers, administrators, and the community in sustaining and advocating for robust music programs.

The study's implications are both practical and theoretical: it provides a model for how qualitative inquiry can uncover the nuanced, often invisible ways music education contributes to student wellbeing and academic life. It invites scholars and practitioners to revisit the status of music within educational policy and to consider its potential as a strategic intervention for holistic student development.

Limitations and Strengths of the Study

As mentioned in the researcher reflexivity statement, I was the researcher and the music teacher for elementary music as well as the middle school and high school students who elected to enroll in vocal music. One potential limitation of this study is researcher bias as I am both the teacher and the researcher in this study due to resource constraints. As noted in research (Merriam, 1998), the researcher should be aware of their ow own biases and how these might affect the research process and outcomes. In this study, the I, the researcher understood, acknowledged the potential bias, and planned steps to prevent this happening during this study.

Engaging in research can significantly enhance a teacher's practice by fostering reflective thinking, continuous learning, and a deeper understanding of educational processes (Savitz et al., 201; Holmes, 2020).. However, the dual role of teacher-researcher also comes with potential biases that can influence the research process. As the teacher-researcher, some potential biases I encountered might include subjectivity and lack of objectivity, confirmation bias, and conflict of roles. Sometimes a teacher's deep involvement in their classrooms can lead to subjectivity, where personal beliefs, values, or emotional attachments may influence the research process and outcomes. This bias can potentially manifest in the selection of data, interpretation of results, or the framing of conclusions (Braun & Clarke, 2022). Also, I as a teacher might unintentionally seek out evidence that confirms a pre-existing beliefs or hypotheses, ignoring or undervaluing data that contradicts their assumptions. This can result in skewed findings and limit the validity of the research (Xu & Zammit, 2020). In some cases, teachers may not have extensive formal training in research methodologies, which could affect the rigor and reliability of their studies. Without proper training, there is a risk of misinterpreting data or applying inappropriate research methods (Xu & Zammit, 2020). Lastly, balancing the dual roles of teacher and researcher can create conflicts of interest. For example, a teacher-researcher might hesitate to report negative findings that reflect poorly on their teaching or school environment. This conflict can compromise the integrity of the research (Xu & Zammit, 2020).

In acknowledging the limitations of this qualitative study, it is important for me to critically reflect on factors that may have influenced the scope and interpretation of the findings. One such limitation is the relatively small and context-specific sample, which may restrict the transferability of results to broader populations beyond the rural school settings examined. Additionally, as the researcher, my professional background in music education may have introduced an interpretive bias, despite ongoing efforts to maintain reflexivity throughout the research process. Furthermore, time constraints and limited access to certain participant groups due to my schedule or others, may have constrained

the comprehensiveness of data collection. Nevertheless, measures were taken to enhance the study's credibility, including detailed field notes and peer debriefing to ensure analytical transparency and trustworthiness. These strategies helped to mitigate potential biases and strengthen the integrity of the findings. Moreover, the study's exclusive reliance on interviews, without complementary methods such as classroom observation or document analysis for this particular study, may have limited the depth of triangulation. Recognizing these limitations provides an opportunity for future research to build on this particular study's foundation. Expanding the participant base, employing mixed methods, or conducting longitudinal studies would offer a more comprehensive understanding of the impact of music education on student wellbeing and engagement, particularly across diverse educational contexts.

However, the teacher as a researcher has its strengths as well. For instance, teachers possess an intimate knowledge of their classrooms, students, and school environments. This familiarity allows them to identify relevant research questions and implement practical solutions tailored to their specific contexts (Xu & Zammit, 2020). Unlike external researchers, teachers can observe and analyze behaviors, interactions, and outcomes over extended periods, leading to more nuanced insights (Cochran-Smith & Lytle, 2009). Secondly, teachers can directly apply research findings to their practice, allowing for a continuous cycle of action and reflection (Xu & Zammit, 2020). This immediate feedback loop can lead to rapid improvements in teaching strategies and student outcomes (Stenhouse, 1975). Thirdly, conducting research can empower teachers by validating their experiential knowledge and fostering a sense of agency in contributing to the broader educational community. This role encourages lifelong learning and professional development (Dana & Yendol-Hoppey, 2014). Lastly, research encourages teachers to critically reflect on their practices, assumptions, and student outcomes. This reflective practice can lead to more intentional, informed, and effective teaching (Xu & Zammit, 2020). In conclusion, while teachers as researchers bring valuable insights and contextual knowledge to educational research, they must remain vigilant about potential biases. Addressing these biases through reflective practice, peer review, and ongoing professional development in research methodologies can enhance the credibility and impact of their work.

Implications for Future Research

One suggested direction for future research would be a study that explores the impact of music education in people that did and did not experience formal music education during their time attending school. Another approach would be to conduct a

phenomenological study with in-depth interviews to understand and describe the lived experiences and perceptions of individuals regarding music education that focuses on the meaning that participants attached to their experiences. The purpose of this type of study is to explore the perceived influence of music education (or lack thereof) on the participants' personal, social, and professional development and to understand how these experiences have shaped their identities and life choices. This phenomenological study could provide insights into the perceived value of music education, informing educational practices, policies, and advocacy. It may also highlight the emotional and social significance of music education, contributing to discussions about its role in holistic education.

Conclusion

In conclusion, this study explored the impact of a daytime music education program on children in the elementary classroom through the perspectives of administrators, teachers, and parents. Furthermore, this study also underscores the multifaceted impact of music education on elementary students that extends far beyond academic benefits. Continued and ongoing advocacy by stakeholders is crucial to ensure that music education remains a priority in schools, ultimately supporting the long-term development and well-being of students. A final note, music education should be preserved and promoted within the academic curriculum, not only for its intrinsic value but also for its contributions to a holistic and potentially lifechanging educational experience.

Chapter 3

3. Music Education and Wellbeing: Quantitative Findings

The "*engaged life…is about flow: being one with the music, time stopping, and the loss of self-consciousness during an absorbing activity*" (Seligman, 2011, p. 11).

Abstract

Current research points toward health benefits related to active participation in music. However, few studies have examined the impact of music education on the emotional wellbeing of children in the music classroom setting. This chapter adopts a quantitative approach to determine whether participation in a daytime music education class increases overall wellbeing as measured by the Coopersmith Self-Esteem Inventory and the Kid Kindl Quality of Life Survey. Ninety-three (N=93) participants were recruited from 4th and 5th grade classrooms in two rural public schools in the United States. An eighteen-week intervention study was conducted, characterized by a mixed effects counter-balanced intervention design of within- (time: pre- and post-test) and between-subject (group) factors using a quantitative approach with data collected from naturally occurring groups. The music intervention explored student engagement, peer interaction, and reported feelings of motivation and success during various music activities. Study attrition ranged from 44% (quality-of-life survey) to 49% (self-esteem survey). The high attrition may have resulted from a small sample size and low completion rate. Additionally, data was not normally distributed, contained outliers, and was characterized by a high level of variability. In lieu of a two-way omnibus ANOVA, the nonparametric Mann-Whitney U statistical test was conducted to examine the main effect of group, time, and the interaction between each school and within the intervention groups at follow-up. The nonsignificant findings are likely attributable to the small sample size, high attrition rates, and insufficient statistical power. Future research on this topic may consider a team-based approach to recruit more participants thereby increasing the sample size and administering a shorter survey to speed completion time and reduce attrition. The following chapter will present quantitative and qualitative findings in the context of these nonsignificant quantitative findings.

Keywords: Music Education, Wellbeing, Self-Esteem, Quality of Life, Children, Music Intervention, Positive Psychology, Positive Education, Health, Arts Education

Music Education and Wellbeing: Quantitative Findings

Music is a universal form of communication that not only affects behavior and social identity, but also embodies the emotional, physical, and social experience of the user (MacDonald et al., 2012,). Moreover, music is also pervasive, and it can be obtained by a person digitally and listened to anywhere at any time with few limitations. Music also plays a significant and multifaceted role in shaping various aspects of a young person's life, influencing their cultural expression, sense of identity, social affiliations, and even personal style. Music can even become a "badge of identity" to show off personality traits (Hargreaves and North, 1997). Similarly, listening to music actively or passively has potential diverse benefits. The advantages of using the "right kind of music" in education provide limitless possibilities for the "optimal learning environment" (Wilkinson, 2013). There is strong evidence to suggest music is a fundamental and significant part of human development and as such it should be considered a "universal resource" for health and wellbeing research (MacDonald et al., 2012). In light of this evidence, there is a thread in the field of music research that attempts to link different types of music interventions to health and wellbeing. However, the variety of approaches, methods, participants, outcomes, and interpretations of findings can potentially create obstacles in theory building and a lack of coherent, theoretical research can limit progress in this field (MacDonald et al., 2012). This chapter presents a rigorous quantitative approach to help bridge this research gap by assessing the impact of music education on emotional wellbeing in the classroom through the construct of self-esteem and quality of life.

Health and Wellbeing

In 1986, the World Health Organization (WHO) expanded its 1948 definition to include "health as a resource for everyday life, not the objective of living" (Underdown, 2006, p. 3). It is a positive concept that emphasizes social resources, personal resources, and physical abilities (Underdown, 2006). Health and wellbeing are important resources for living a good life. Research indicates that children who are healthy are more likely to feel at ease and be more open to exploring new experiences. According to Underdown (2006), children who experience high levels of health and wellbeing are more likely to develop strong self-esteem, feelings of worthiness, and to make a positive contribution to the world. Additionally, children who experience higher levels of wellbeing and involvement are more receptive to learning, resilient, and willing to attempt new things and activities, thereby improving one's quality of life.

Likewise, wellbeing is often considered an umbrella term that encompasses happiness, health, flourishing, and optimal functioning across different contexts (Cilar,

2020; Upadhyay & Arya, 2015; Croom, 2015). It is understood as a multifaceted construct that includes both subjective experiences and objective indicators. (Cilar, 2020; Upadhyay & Arya, 2015; Croom, 2015). Given that wellbeing is a complex construct, it has components that can be measured and operationalized beyond happiness (a temporary goal) or life satisfaction, thereby highlighting opportunities for promoting wellbeing or quality of life over the lifespan, which focuses on "living the good life" (Seligman, 2011; Huppert & So, 2013). Emotional wellbeing i.e., quality of life for children and young people can be defined as "an overall state of positive emotions, [high levels of] self-esteem, and resilience" that leads a person to their full potential, high confidence levels, and healthy behavior choices (Robb et. al., 2023).

Music Education as a Positive Psychology Intervention

The field of positive psychology can be defined as the study of environments and practices that contribute to the process of flourishing and optimal functioning in individuals and groups of people (Upadhyay & Arya, 2015; Gable & Haidt, 2005). The aim of positive psychology is to promote health, wellbeing, flourishing and a meaningful life rather than concentrating on ameliorating the negative aspects of life and illness (Upadhyay & Arya, 2015). In 2011, Martin Seligman, a pioneer in positive psychology, proposed the PERMA model of flourishing, which is comprised of five positive domains: positive emotion, engagement, relationships, meaning, accomplishment, or PERMA (Seligman, 2011; Huppert & So 2011, Croom 2015). Likewise, Felicia Huppert and Timothy So's (2011, 2013) definition of wellbeing encompasses and complements Seligman's PERMA model with the addition of self-esteem, optimism, resilience, vitality, self-determination, and positive relationships. (Seligman, 2011; Huppert & So, 2011, 2013; Kern 2014; Lee 2017; Noble, 2015). Moreover, self-esteem and quality of life, two facets of wellbeing, will be discussed in this chapter.

Positive Education

Positive education, the offspring of positive psychology, is defined as education for traditional skills as well as happiness. It also promotes learning, creativity, socialization, civic-mindedness, an increase in life satisfaction, and the alleviation of depression. etc. (Seligman et. al, 2009; Waters, 2011; Kern 2014; Lee, 2017). The need for positive education arises from an overall dissatisfaction with life and an increase in mental distress and depression among children worldwide (Duan, et al., 2020; Oliveira, 2022; Ryff, 2021). It is vitally important to preserve the synergy that exists between learning and positive emotions, and to teach children the skills to increase resilience,

positive emotion, and engagement. (Seligman et. al., 2009; Lee et al., 2017; Kern, 2014; Noble, 2015). A positive education approach [through music education] can guide students to a happier and more engaging life which results in a higher self-esteem and an overall better quality-of-life (Lee, Krause, Davidson, 2017).

Furthermore, implementing purposeful and engaging music learning activities in the music classroom may provide a relatively novel positive psychology intervention (PPI) that facilitates the development of positive outcomes in the learning process. Music can be a key to unlocking inhibitions and creating a positive environment for active participation; and, as a PPI, it has the potential to facilitate "psychological flow," which characterizes the experience of being completely consumed by an activity (Csikszentmihalyi, 1975, 1990, & 1997). As a result, music education becomes the "instrument" that provides opportunities for students to participate, flourish and experience positive wellbeing due to higher levels of self-esteem and quality of life (Lee, et al., Lee 2017; Croom 2015).

Self-Esteem

Self-esteem refers to an individual's overall sense of self-worth or personal value. It encompasses a person's beliefs about themselves, as well as their emotional states and reactions to those beliefs (Hosogi et. al. 2012). In psychology, self-esteem is often considered a key component of mental health and well-being, and it is a widely used construct in positive and formal psychology (Hills et. al., 2011). Although no official definition has been established, self-esteem can be defined as "a feeling of self-appreciation," the degree of liking oneself, feelings of self-worth in comparison with others, or "positive and negative attitudes towards oneself" (Hosogi et. al., 2012, Definition of self-esteem section, para. 2; Brinthaupt & Erwin, 1992; Cook, 1987; Coopersmith, 1967). For the purpose of this study, self-esteem is defined as a "personal judgment of worthiness that is expressed in personal attitudes towards the individual" (Coopersmith, 1967).

A higher self-esteem is associated with better mental health, social behavior, and academic performance, all of which contribute to a child's overall quality of life (Zhao, 2021; Betancourt, 2024). Likewise, studies highlight the impact of home and family life, peers, and school environment on self-esteem in pre-adolescents (Hills, Francis, & Jennings, 2011). However, research shows that a child's home environment is the most significant contributing factor to overall self-esteem development (Hosogi et. al., 2012). As such, it is key that children and adolescents know they have the right to self-

expression, evolve, build self-esteem, resilience, develop skills for conflict resolution, communication, and persevere through life's challenges (Hosogi et. al., 2012; *A World Fit for Children,* 2002). Furthermore, a "positive self-esteem protects children and adolescents from mental distress…despondency and enables them to cope…with difficult and stressful life situations" (Hosogi et. al., 2012; *WHO's Preventing Suicide*).

Research shows that as children grow, the areas where they build relationships expand to their neighborhood and school (Hosogi, et al., 2012). Once children reach the age to attend school, they begin to evaluate themselves from an academic, social, emotional, and physical perspective based on mutual relationships with teachers and friends. A healthy self-esteem supports psychological stability and positive social activity, and it is an essential ingredient for a child's psychological development (Hosogi, et al., 2012). Additionally, emotionally healthy children are more likely to develop a strong foundation that allows them to realize goals and experience a sense of accomplishment that contributes to a better quality of life (Underdown, 2006).

Quality of Life

In this study, quality-of-life and self-esteem are acknowledged as two important and fundamental aspects of overall wellbeing. Both quality of life and self-esteem work in tandem. A person with high self-esteem experiences higher levels of quality of life and a person with lower self-esteem experiences a lower quality of life. (Henriksen, 2017; Sun, 2022) Additionally, quality of life has key components that encompass physical wellbeing (overall health status), emotional wellbeing (self-esteem, quality of life, mood, anxiety, and stress levels.), educational wellbeing (school environment and learning opportunities), and social wellbeing (family, peers, and social networks) aspects of a child's life. (Lohbeck, 2023; Sun, 2022). Similar to self-esteem, quality of life does not have just one specific, clear definition but has often been linked with terms such as psychological wellbeing, subjective wellbeing, life satisfaction etc. (Sun; 2022; Roberts et. al, 2005; Park 2004). One particular definition describes quality of life as a "broad range of physical and psychological characteristics" which describes a person's ability to function and thrive (Walker & Rosser, 1988; Roberts et. al., 2005). Likewise, the World Health Organization's (WHO) Life Quality Group states that an individual's "quality of life" is connected to a person's perception of life, value system, personal goals, hopes, standards, and interests (World Health Organization, 1993). For the purpose of this study, quality of life refers to the overall wellbeing and life satisfaction experienced by children and encompasses multiple dimensions or key components that consider the physical, emotional, psychological, educational, and social aspects of a child's life.

From a developmental perspective, childhood is an optimal time to promote healthy attitudes, behaviors, and implement problem prevention (Martinsen, 2021; Lohbeck, 2023; Roberts, 1984). Likewise, prevention "is likely to be the most effective during the time of greatest competency acquisition" which occurs during childhood when skills such as "language, social development, or self-efficacy beliefs" are being formed (Roberts, 1986; Henrikson, 2017). Health promotion aids individuals in building emotionally healthy lifestyles. Prevention is taking the necessary steps to "prevent" or avoid future issues by identifying them early enough to minimize potential negative outcomes. "Prevention and promotion efforts in childhood attempts to improve the quality of life for the child during childhood and [the quality of life] for that child's later adulthood" (Roberts et. al. 2005).

Music Education Impact

Music education has been recognized as an important tool for reducing stress levels and anxiety which may result in higher levels of self-esteem and overall quality-of-life (Wilkinson, 2013; Ilari & Cho, 2023; Blasco-Magraner, 2021; Sun, 2022). Furthermore, studies demonstrate music education's impact on student wellbeing and that self-esteem is the mediating factor in the relationship between music education and psychological wellbeing (Sun, 2022). As such, music education can serve as a vehicle to increase self-esteem and quality of life by providing children with a sense of accomplishment, enhancing their social skills, and offering a platform for self-expression.

Research highlights the direct and indirect health benefits related to active participation in music. Concerns about children's health and wellbeing has led to a growth in research on the effect of the arts and music (Hallam & Himonides, 2022). But you have said above that there is not much research on music education and wellbeing. Research suggests that active engagement with music in a group setting creates a positive learning environment that can enhance self-perceptions, creativity, self-expression, development of social skills, and health and wellbeing across the lifespan. This contribution to community cohesion can provide long-term benefits to society (Hallam, 2010; Heyworth, 2013; Lee, Krause, Davidson, 2017). In conclusion, this researcher would argue that "wellbeing effects through music participation has the potential to operate within the school context…feed back into the community" and encourage music participation across the lifespan of the students (Lee, Krause, Davidson, 2017).

Music Education in the United States and Abroad

In the UK, England implemented a national music [education] program known as *First Access* previously known as *Wider Opportunities and Every Child a Musician* (Bamford & Glinkowski, 2010; Lee, Krause, Davidson, 2017). The goal of this program was to provide every child with an opportunity to learn how to play an instrument in a group setting at a primary school free of charge for one year. Students who participated in the program reported positive benefits such as an increase in confidence, fun, happiness, etc. The impact on the social level included an increase in positive relationships between children, teachers, and parents (Lee 2017). Similarly, the influence of music education extended across social, emotional, personal, and broader school domains, demonstrating significant and multifaceted effects. These dimensions are widely recognized as integral to the development of self-esteem, wellbeing, and overall quality of life. In this context, music education functioned as a critical pedagogical tool, contributing meaningfully to the promotion of positive education within the English educational system (Daubney et al., 2019). Conversely, the researcher is unaware of any national music education programs similar to the England's endeavor to implement and preserve a national music education initiative at the elementary or secondary level in the United State.

However, some music education programs have been implemented into school districts with the assistance of cities, colleges, and state leaders similar to the background of this study. Likewise, foundations at the local and national level have provided funding through grants to create or preserve music education within communities or schools. Additionally, Barak Obama signed the "*Every Student Succeeds Act*" (ESSA) (National Association for Music Education, 2016) in 2016 declaring that music education was part of a "well-rounded education." The language of the ESSA is very supportive of fine arts programs and provides some shared funding for professional development; however, it is not mandatory or a law that all public schools provide a day-to-day music education program at the elementary level or choir/band at the secondary level. Subsequently, while elementary schools suffer the most, schools throughout the United States have lost music education programs at the elementary and secondary level due to lack of funding or teacher availability (Wilkinson, 2013; Beveridge, 2021; Elpus & Grise, 2019; Shaw, 2020). The research indicates that music educators and policymakers should actively recognize and advocate for music education as an essential means of supporting and enhancing students' psychological wellbeing. (Shaw, 2020; Sun, 2022; Beveridge, 2021; Elpus & Grise, 2019).

Aims, Research Questions and Predictions

The aim of this study is to examine the influence of music education on wellbeing, as measured by the Coopersmith Self-Esteem Inventory (Coopersmith, 1981) and Kid Kindl Quality of Life questionnaire (Bullinger & Ravens-Sieberer, 2000). This study will determine whether there are any statistically significant changes and the size of those effects in student emotional wellbeing from active participation in a music class determined by higher scores at timepoint two (T2) relative to baseline (T1) for one or both questionnaires.

The primary research question is as follows: Does participation in a daytime music education curriculum and related music experiences increase wellbeing of children? It is predicted that there will be an increase in self-esteem and quality of life after a music intervention in students from the intervention school relative to those students from the control school.

Methods

Participant Characteristics

Fourth- and fifth-grade students from two rural public elementary schools in Oklahoma participated in the study. All students were invited to take part, regardless of gender, race, or disability. (physical, emotional, mental, etc.). Both participant groups were considered naturally occurring groups. Parent/guardian and student consent forms for the self-esteem and quality of life survey were distributed and collected before the commencement of the study.

A total of ninety-three (n=93) parents/guardians and student participants provided written consent to participate in the study (N=93; intervention group n=57, control group n=36). There were forty-nine female (n=49, 52.7%) and forty-four male (n=44, 47.3%) student participants between both schools. The students' age ranges were 9-12 years (M=10.20, SD=.791).

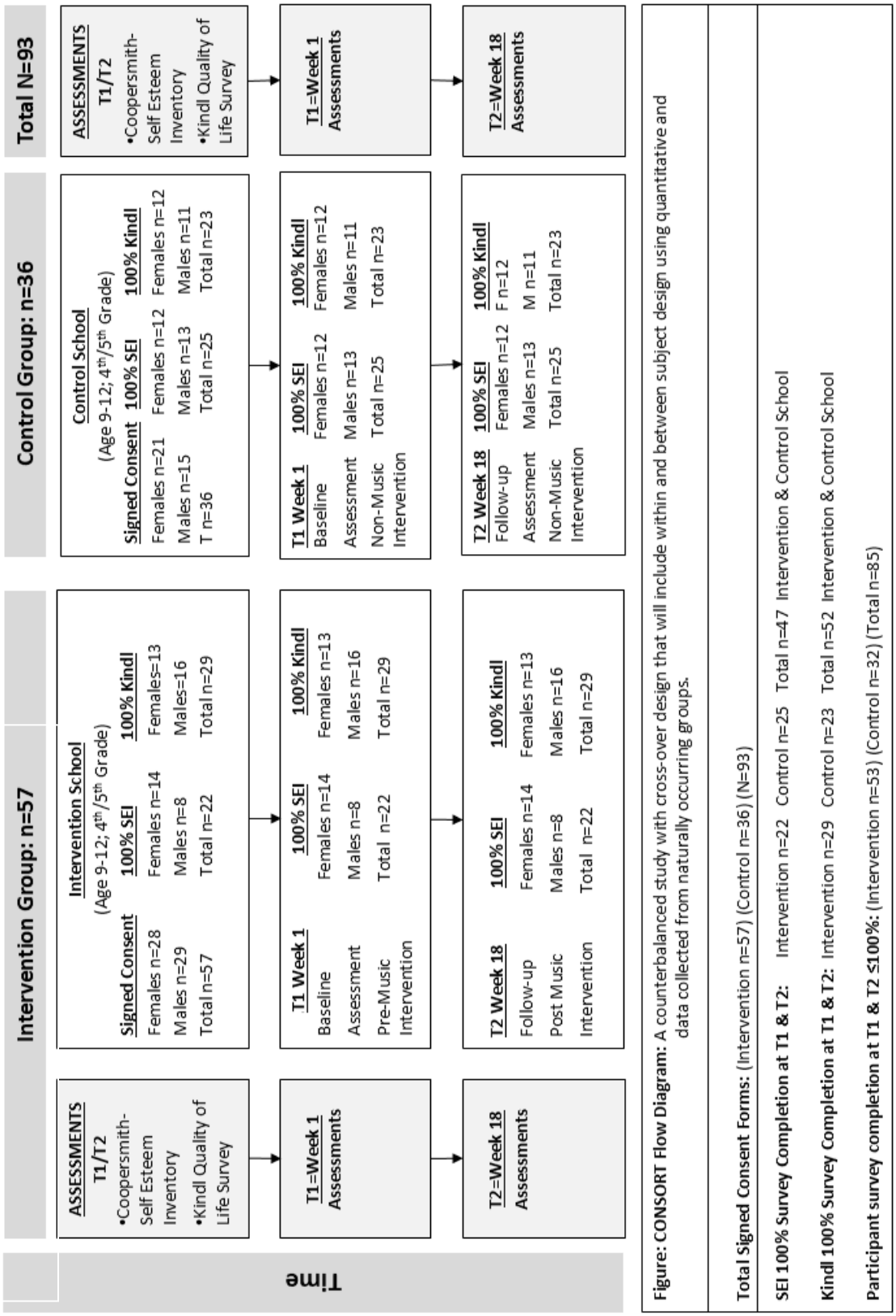
At the intervention school, fifty-seven (n=57) students, twenty-eight females (n=28) and twenty-nine males (n=29) in 4th and 5th grade, agreed to participate in the study, reflecting 49.1% females and 50.0% males (M=10.37, SD=.771). The total number of participants included nineteen (n=19) 4th grade students and thirty-eight (n=38) 5th grade students.

At the control school, thirty-six (n=36) students, including twenty-one females (n=21) and fifteen males (n=15) participated in the study, representing 58.3% females and 41.7% males (M=9.94, SD=.791). The total number of participants included twenty-two (n=22) 4th grade students and fourteen (n=14) 5th grade students.

Forty-seven (n=47; n=22, intervention; n=25, control) participant responses were collected from the self-esteem survey at T1 and T2. Fifty-two (n=52; n=29, intervention; n=23, control) participant responses were collected for the quality-of-life survey at T1 and T2.

A detailed overview of participant characteristics is depicted in the CONSORT flow diagram (Figure 3.1). This chart describes the intervention and control groups, participant numbers, age, grade level, biological sex, the type of intervention, timeline, and assessments incorporated into the study. The data flow chart of participants and missing data (Figure 3.3) depicts the progression of participant involvement and missing data in the study.

Figure 3.1 *CONSORT Flow Chart of Participants*



Ethical Considerations

The study was approved by the University of Central Oklahoma's Office of Research Integrity and Compliance's Institutional Review Board (IRB) on November 26th, 2018 – IRB Application #: 2018-142. Parent/guardian and student letters and consent forms regarding the self-esteem and quality of life survey were sent home with all 4th and 5th grade students at the intervention and control schools to sign and return prior to the commencement of the study.

Design

The study was conducted over an eighteen-week period using a pre- and post-test design, characterized by a mixed methods approach and a within-subjects framework (Time: T1 at week 1, T2 at week 18; Condition: intervention-only). Quantitative data were collected from naturally occurring groups (see CONSORT Flow Diagram for details). The control school was carefully matched to the intervention school based on key demographic factors, including socioeconomic status (SES), population characteristics, and rural location as part of a farming community. Both schools were also similar in overall district size. The control group consisted of an independently recruited sample from a school without a daytime music education program, allowing for a between-subjects comparison. In contrast, the intervention school provided the within-subject music education group. The flow chart below is a pictorial summary of the study's 2x2 counterbalanced cross-over research design that includes a within and between research design utilizing quantitative data collected from naturally occurring groups (see Figure 3.2).

Figure 3.2 *Research Design Flow Chart for Assessments and Interventions*

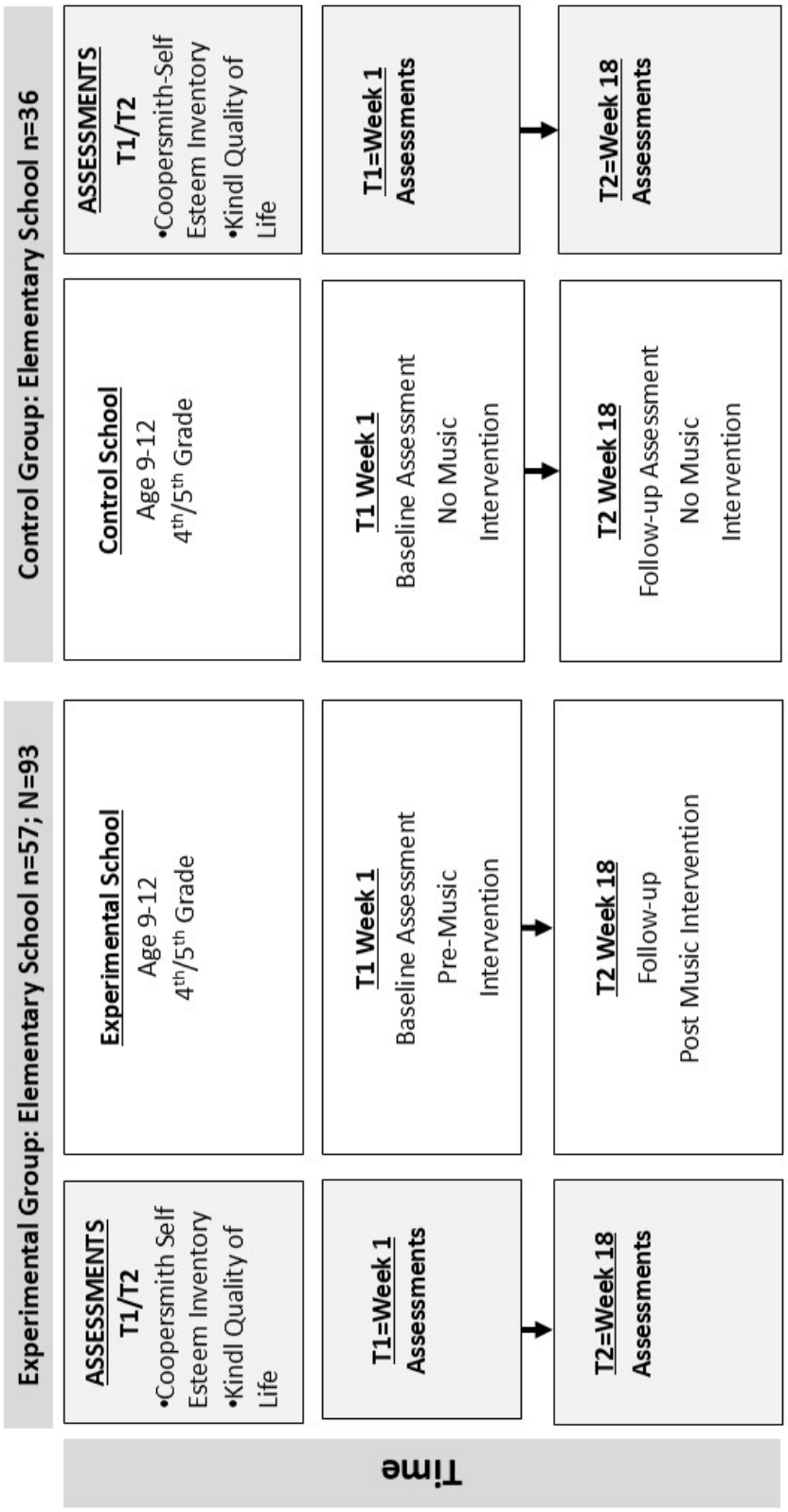


Figure: Research Design: A counterbalanced study with cross-over design that will include within and between subject design using qualitative and quantitative data collected from naturally occurring groups. Participants in study (Experimental Group) n=57 (Control Group) n=36; **N=93**

Materials/Measures/Rationale

The following measures were administered in this study: the Coopersmith Self Esteem Inventory-School Short Form, (Coopersmith, 1981; Hills, Francis, & Jennings, 2011) a standardized self-esteem survey and the Kid Kindl (Bullinger, 1994) a standardized quality-of-life survey. Both surveys were self-report measures. The Qualtrics Software program (UCO, Edmond, OK, www.qualtrics.com) collected raw scores for both of the surveys which were imported into Excel for summary score calculation, and then into SPSS (IBM version 26.0) for data analysis. The Coopersmith Self-Esteem Inventory (School Short Form) and Kid Kindl were well-founded choices for this study regarding the impact of music education on the wellbeing of school-aged children for several reasons.

The rationale for merging the Coopersmith Self-Esteem Inventory and the Kid KINDL Quality of Life Survey was a simple yet exceptional combination. Together, the measures formed a comprehensive assessment of wellbeing, strong empirical support, specificity and breadth, and target population focus. By integrating both measures together, researchers can obtain a nuanced understanding of how music education impacts both specific (self-esteem) and general (overall quality of life) aspects of wellbeing. Both instruments have strong empirical support and are widely used in educational and psychological research: Coopersmith Self-Esteem Inventory (Bedeian, 1976; Coopersmith, 1967, 1981; Hills et al., 2007, 2011; Potard et al., 2015, 2017) Kid Kindl: (Ravens-Sieberer & Bullinger, 1998a; Bullinger, 1994; Bullinger & Ravens-Sieberer, 2000; Bullinger, et al., 2008).

Their established reliability and validity make them robust choices for assessing the outcomes of educational interventions: Coopersmith Self Esteem Inventory: (Bedeian, 1976; Coopersmith, 1967, 1981; Hills et al., 2007, 2011; Potard et al., 2015, 2017) Kid Kindl: (Ravens-Sieberer & Bullinger, 1998a; Bullinger, 1994; Bullinger & Ravens-Sieberer, 2000; Bullinger, et al., 2008). Additional information regarding the numerical data may be found under their respective inventory title. The Coopersmith Self-Esteem Inventory provided specific insights into self-esteem changes, a critical component of psychological wellbeing. In contrast, the Kid KINDL survey offers a broad perspective on various life domains, allowing for a comprehensive evaluation of wellbeing. Both measures are designed for school-aged children, ensuring that the data collected is relevant and accurately reflects the impact of music education on this particular age group. In summary, the Coopersmith Self-Esteem Inventory-SSF and the Kid KINDL Quality of Life Survey were chosen for studying the impact of music education on the wellbeing of school-aged children due to their relevance, reliability, validity, and ability

to provide a comprehensive assessment of both specific and general aspects of wellbeing (Bullinger 1994, Coopersmith 1981, 1987, 2002).

Coopersmith Self-Esteem Inventory - School Short Form

The Coopersmith Self-Esteem Inventory is a highly regarded measurement of children's global self-esteem; it has a high index of reliability and validity, and it is age appropriate (Hills, Francis, & Jennings, 2011; Potard, 2017). This measure of self-esteem also demonstrates relevance to wellbeing, and it points to the direct impact of music education. Firstly, self-esteem is a fundamental aspect of overall wellbeing. Secondly, higher self-esteem is associated with better mental health, social behaviour, and academic performance, all of which contribute to a child's overall quality of life. Thirdly, music education has been shown to boost self-esteem by providing children with a sense of accomplishment, enhancing their social skills, and offering a platform for self-expression (Hallam & Himonides, 2022; Robb et al., 2023; Ioannidi, 2019; Crawford, 2020; Zhao, 2021; Tang & Corrado, 2024). By using the Coopersmith Inventory, researchers can quantitatively measure changes in self-esteem that may result from music education. Additionally, the Coopersmith Inventory has proven psychometric properties, and it is widely recognised for reliability and validity in measuring self-esteem in children (Bedeian, 1976; Potard, 2017; Hills, Francis, & Jennings, 2011). This makes it a robust tool for assessing the psychological impact of educational interventions like music education. Lastly, the Coopersmith - School Short Form is specifically tailored for use with school-aged children, ensuring that the questions are age-appropriate and understandable, thus providing accurate and meaningful data (Coopersmith, 1981, 1987, 2002; Hills, Francis, & Jennings, 2011: Potard, 2017; Potard, 2017).

The Coopersmith Self-Esteem Inventory-School Short Form (SEI-SSF) is a standardized self-esteem measure developed to provide an alternative to the self-esteem inventory long form when time is limited. The Coopersmith School Short Form consists of 25 questions originating from its longer counterpart of 50 items and a lie scale of 8 items. The questions on the school short form were chosen for their highest correlation with the total self-score on the expanded self-esteem inventory (Bolton, 2003). The manual states that the total correlation between the School Form and the School Short Form is .86 (Coopersmith, 1981, 1987, 2002). However, the 25-item scale does not allow for differentiation by subscale and the major sources of self-esteem. The researcher chose the school short form for its ability to be combined with the Kid Kindl questionnaire to focus on the larger emphasis of emotional wellbeing.

Moreover, the Coopersmith School Short Form is based on a yes/no scale using like me/unlike me. Summary scores were totaled and based on a 100-point scale. Questions on the self-report questionnaire are phrased in a declarative manner (i.e., "I am a lot of fun to be with"). Negative items were scored correct and given one point if the students answered, "unlike me." Positive items were scored correct and given one point if the students answered, "like me." Question items that were answered indicating a lower self-esteem on the positive or negative items were given a zero, reporting scores in a range of 0-25 for the range of the Coopersmith Self-Esteem Inventory-School Short Form (CSEI-SEI-SSF). Total scores for the participants were multiplied by a factor of four resulting in a maximum total self-score of 100 according to the standardized guidelines for the self-esteem inventory (Coopersmith, 1967, 1981, 2002).

The School Short Form has a three-factor structure: personal self-esteem, self-esteem derived from parents, and self-esteem from peers (Hills, Francis, and Jennings, 2011 & Potard, Amoura, Kubiszewski, et. al., 2015). It has an internal consistency reliability (Cronbach's a=.83) as found by Hills, Francis, and Jennings (2011). The mean KR-20 estimates range from .80 to .92 (Lane, White, Henson, 2002). The mean inter-item correlation is .167 with individual values ranging from -.009 to .577. The test-retest correlations ranged from .73 to .85 for grades 4^{th}-7^{th}. It has a validity coefficient of .44 between the Coopersmith Self-Esteem Inventory (CSEI) and ratings of self-esteem (Chiu, 1988).

Kid Kindl Quality of Life Survey

The Kid Kindl is a quality-of-life survey that is comprehensive in nature, well-established for its use in research, and known for its ease of administration. Additionally, this measure offers a holistic approach that is highly relevant to music education. The Kid KINDL Quality of Life Survey encompasses various dimensions of a child's life, including physical wellbeing, emotional wellbeing, self-esteem, family, friends, and school (Bullinger, 1994; Bullinger & Ravens-Sieberer, 2000). This comprehensive approach allows researchers to capture the multifaceted nature of wellbeing. As forementioned in the introduction, music education can influence multiple domains of a child's life, not just their self-esteem. The Kid KINDL survey can help identify broader impacts, such as improvements in social relationships, emotional regulation, and overall happiness that can also be impacted by music education. The Kid KINDL survey has a proven track record as a well-established instrument that is used in numerous studies, providing a basis for comparison and ensuring the credibility of the findings (Bullinger 1994; Bullinger, et al., 2008). This survey has been validated across various cultural

contexts, making it a reliable tool for diverse populations, which might be beneficial if the study involves a heterogeneous group of students. The Kid KINDL survey is user-friendly and designed to be easily administered and understood by children, ensuring high response rates and the collection of reliable data (Bullinger 1994). This is crucial in school settings where time and resources might be limited.

The Kid Kindl is a twenty-four item, generic, health-related quality of life assessment for children and adolescents ages 3-17 that assesses six dimensions (Bullinger, 1994). The subscales measure physical wellbeing (pw), emotional wellbeing (ew), self-esteem (se), family (fa), friends (fr), and everyday life/school (sc). Each question utilizes a likert-type scale with five answers (never, seldom, sometimes, often, always) (Kindl Manual 2000). The survey is generic; therefore, it can be used to assess quality of life (wellbeing) for ill and healthy children. The researcher chose the Kid Kindl quality-of-life survey for this reason as many additional health and quality of life surveys were developed for parents, chronically ill children, children who are hospitalized, and those with disease/condition-specific diagnoses (Bullinger & Ravens-Sieberer, 2000).

Several studies have been conducted regarding the psychometric properties of the Kindl survey. In the 2008 BELLA study, analysis testing of the psychometric properties revealed that the Kindl is a reliable instrument for measuring health-related quality of life in children and adolescents through self-report (Bullinger, Brutt, Erhart, & Ravens-Sieberer, 2008). Additional results indicate a good scale utilization/fit and a moderate internal consistency (Bullinger, et al., 2008).

The first steps in the psychometric calculations included an item analysis and a reliability analysis of the Kindl survey using the Multitrait Analysis Program (MAP) of the New England Medical Center at Tufts University in Boston, MA (Hayes et. al 1988). The scale fit was 80% for all subscales using the MAP program. The reliability was checked by confirmatory means. The internal consistency of Cronbach's alpha reached values of around a=.70 for most subscales with the overall scale displaying a consistency coefficient of a=.80 (Kindl Manual, 2000).

Summary scores were calculated and based on a 100-point scale. Each question has a value of 1-5 with one being the lowest and five being the highest. Eleven questions were reverse scored. High scores indicate a higher quality of life. Negatively scored items (10 questions total) were reverse scored to correspond to a higher health-related quality of life. The Kindl minimum score is a one and the maximum score is a five. Sub-scales were scored by adding the items in each sub-scale to determine the raw score. Each sub-scale consisted of four question items. The formula for scoring each sub-scale is as follows: the sum of the sub-scale minus four divided by sixteen and multiplied by one hundred. This

gives the raw subscale score. Once the sub-scale raw scores were determined, they were combined to form a total score, which was then transformed to values between 0 and 100. The formula to tally the total score for each questionnaire is the total sum minus twenty-four divided by ninety-six multiplied by one hundred (Kindl Manual 2000).

Procedure

The self-esteem and quality of life surveys were administered to the students (intervention and control school) at baseline and follow-up (week one and week eighteen). A Qualtrics survey link (https://www.qualtrics.com) was delivered electronically by email to the classroom teachers at timepoint one and timepoint two. Students at the control school completed the online surveys during computer class. Students at the intervention school completed the surveys during their music class time after their classroom teachers uploaded the link using Google Classroom.

The music intervention for the study was carefully selected to encourage active participation. Learning to play ukuleles, group singing, and group movement activities were chosen for the music intervention. Every student attending music class was taught three basic concepts: how to tune a ukulele, three basic chords, and a simple strumming pattern for accompaniment while singing during the music intervention phase. The students learned how to play three songs (*He's Got the Whole World in His Hands, Yankee Doodle, and Over My Head*) over the course of the semester using the same set of chords for each song.

Music classes were forty-three minutes in duration, two days a week with an alternating third day every other week for all students at the intervention school. Students at the control school did not have a music education or a fine arts program built into their daily curriculum, however the students attended physical education and computer classes.

Data Collection and Outcome Measures

Data were collected and stored online through the Qualtrics Software (https://www.qualtrics.com). The total time estimated to complete the surveys at each data point was twenty minutes. Additional demographic information was collected (i.e., age, grade level, race, gender and physical diagnosis, mental health diagnosis, and/or learning disorder) from both schools. For organization purposes, student participants at both schools were assigned a participant identification number to be entered at the beginning of the survey for data point week one & week eighteen. A numbered master code sheet was created to link the survey with additional background information (i.e.,

potential mental health diagnosis, an individualized education plan (IEP) for learning disorders, and/or a physical diagnosis) listed in the signed parental consent forms.

Data Management

All survey data completed by participants was stored on a password protected laptop. U.S. Federal Regulations requires all signed consent forms to be held for 3 years following study closure.

Statistical Analysis

The following section outlines the analytical framework for the quantitative chapter. All statistical analysis was conducted using IBM SPSS Statistics Version 26. Prior to inspecting the data, the planned statistical analysis was a full two-way omnibus mixed ANOVA including two groups (*intervention and control school between-subjects factor*) by two timepoints (*T1 and T2 within-subjects factor*) design. However, due to not normally distributed data, the nonparametric Mann-Whitney U statistical test was conducted to examine the main effect of group, time, and the interaction between each school and within the intervention groups instead of the two-way omnibus mixed ANOVA. Two planned comparisons were used to analyze the data for significant differences between the two schools. The two analyses compared the intervention school's pre/post-music intervention scores with the control school's no music-intervention scores at T1 and T2 to determine whether there would be any significant, quantitative statistical differences of change over time by group.

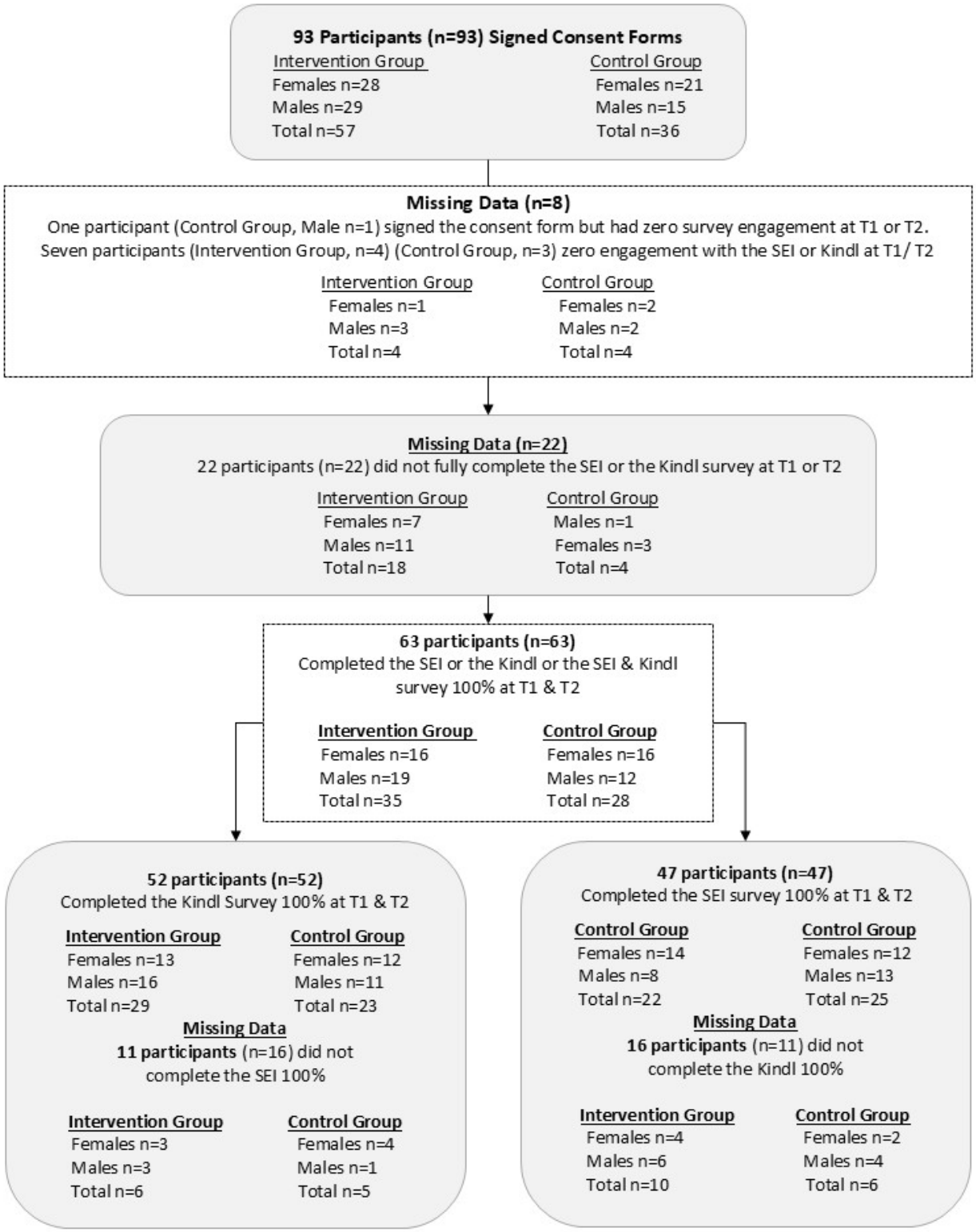
Missing Data

The missing data treatment approach was listwise deletion. Although only a single item was missing, listwise deletion was employed due to the item's central role in calculating a composite score for a validated measure. Given the study's small sample size and the assumption that the data were missing completely at random (MCAR), this approach aligns with best practices to preserve the reliability and integrity of the scale (Little & Rubin, 2019; Finch, 2018). The Data Flow Chart of Participants and Missing Data (Figure 3) describes the full exclusion process. The criteria for inclusion required students to answer all (100%) of the questions on the self-esteem measure or quality-of-life survey at T1 and T2. Ninety-three signed consent forms were collected from parents/guardians and students. From this total, 51% completed the self-esteem measure 100%, and 57% completed the quality-of-life survey 100%. Eighty-five (n=85) out of ninety-three (n=93) students participated by answering at least one or more of the

questions on one or both surveys (self-esteem and quality-of-life) at T1 and T2. One (n=1) male student (control group) provided consent for participation but had zero survey engagement at T1 and T2. Seven (n=7) participants missed a complete timepoint for either self-esteem or quality-of-life at T1 or T2. In sum, forty-six (n=46) participants were excluded from the self-esteem inventory analysis, and forty-one (n=41) participants were excluded from the quality-of-life survey analysis.

Figure 3.3

Data Flow Chart of Participants and Missing Data



Results

Primary Analysis – Descriptive Statistics – Self-Esteem Inventory

The descriptive statistics are located in Table 3.1 for the intervention and control groups. This table includes mean, median, standard deviation and a few other key descriptors. The graphs and histograms were calculated with a 95% confidence interval and a +/-1 for standard deviation. The intervention and control group's self-esteem scored data were not normally distributed as evidenced by the bimodal distribution in the histograms at T1 and T2. The line graphs indicated a substantial overlap of the error bars, significant variation, and no obvious differences in the visualizations between groups at T1 and T2. (See Figures 3.4, 3.5, and 3.6)

At T1 (week 1) the intervention group's summary statistic line graph and histogram indicated a median of 58 (Mdn=58) and a standard deviation of 17.577 (SD=17.577). At T2 (week 18), the median and standard deviation increased to 62 (Mdn=62) and 22.267 (SD=22.267). Likewise, at T1 (week 1), the control group's summary statistic line graph and histogram indicated a median of 62.56 (Mdn=62.56) and a standard deviation of 15.615 (SD=15.615). At T2 (week 18), the median increased to 72 (Mdn=72) and the standard deviation decreased slightly to 15.535.

Table 3.1
Descriptive Statistics for Self-Esteem at the different Timepoints by Group

	N	Range	Min	Max	Mean	Standard Deviation	Variance	Median	% of Total N	Kurtosis	Skewness
Self-Esteem Score T1	47	68	20	88	60.4	16.539	273.554	68	100	-0.632	-0.466
Self-Esteem Score T2	47	80	16	96	64	18.946	358.957	68	100	0.339	-0.827
Self-Esteem ScoreT1 - Intervention school	22	68	20	88	58	17.577	308.952	58	46.8	-0.377	-0.319
Self-Esteem Score T2 - Intervention school	22	80	16	96	61.3	22.267	495.827	62	46.8	-0.291	-0.555
Self-Esteem Score T1 - Control School	25	52	32	84	62.6	15.615	243.84	68	53.2	-0.876	-0.596
Self-Esteem Score T2 - Control School	25	64	24	88	66.4	15.535	241.333	72	53.2	1.147	-1.053

Note: Table 1 contains the descriptive statistics for the intervention school and control school at T1 and T2 which illustrates measures of frequency, central tendency, and dispersion or variation

Figure 3.4

Distribution Frequency of the Self-Esteem Inventory score at the Intervention and Control School at T1

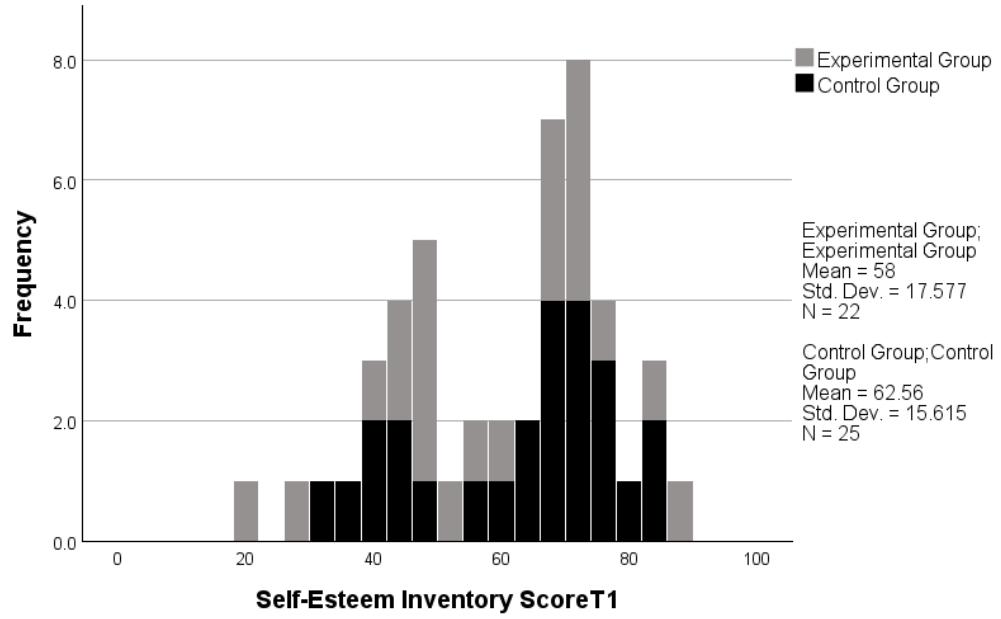
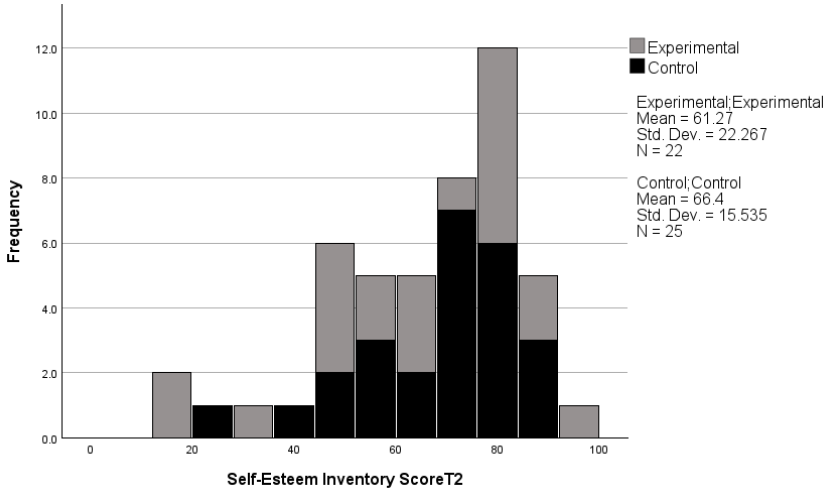


Figure 3.5

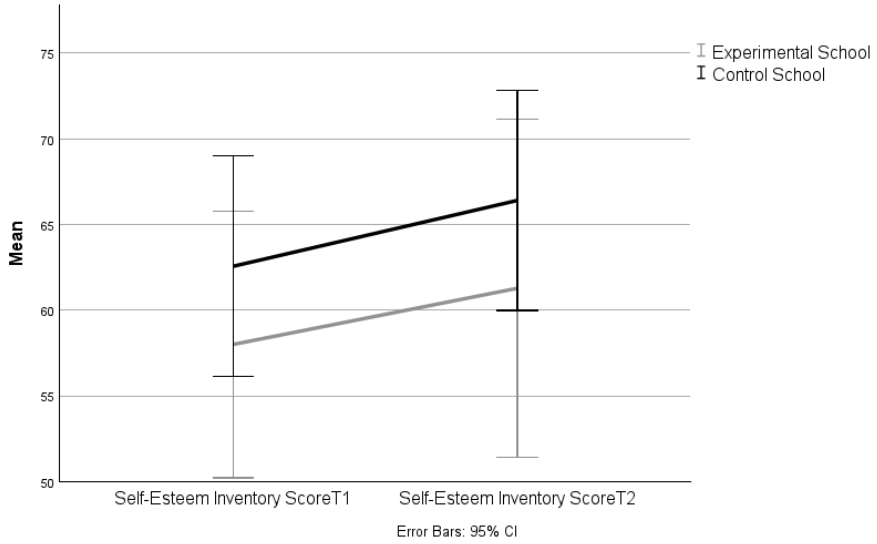
Distribution Frequency of the Self-Esteem Inventory score at the Intervention and Control School at T2



Note: Figures 3.4 and 3.5 above for the Self Esteem Inventory at T1 and T2 indicate the distribution of scores is bi-modal and this will have implications for next steps in the data analysis process.

Figure 3.6

Multiple Line Mean of the Self-Esteem Inventory Score at T1, Mean of the Self-Esteem Inventory score at T2 INDEX at the Intervention and Control School



Note: The Line Graphs are displayed for the purposes of visualization and seeing the differences by groups over timepoints and by group to display the overlap of scores.

Table 3.2

Tests of Normality for the Self-Esteem Inventory for the Intervention and Control School at T1 and T2

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SEI-SSF ScoreT1	.187	47	.000	.947	47	.034
SEI-SSF ScoreT2	.137	47	.028	.938	47	.015

Note: The data on this table indicates that the Assumption for Normality has been violated at T1 and T2. It supports the visualization observations in the histograms above.

Secondary Analysis – Descriptive Statistics – Quality of Life Survey

The quality-of-life scores indicated fifty-two (56%) participants (intervention group, n=29; control school, n=23) completed the survey 100% at T1 and T2. Descriptive statistics are located in Table 3.3 for both groups (intervention and control). This table includes mean, median, standard deviation and a few other key descriptors.

The intervention group's summary statistic line graph and histogram indicated a median of 72.92 (Mdn=72.92) and a standard deviation of 14.21 (SD=14.21) at T1 (group: week 1). At T2 (week 18), the median and standard deviation increased to 73.96 (Mdn=73.96) and 14.84 (SD=14.84). The control group's summary statistic line graph and histogram indicated a median of 66.67 (Mdn=66.67) and a standard deviation of 14.25 (SD=14.25) at T1 (group: week 1). At T2 (week 18), the median decreased to 64.58 (Mdn=64.58) but the standard deviation increased to 16.48 (SD=16.48).

The intervention and control group's scored data were not normally distributed for both groups as evidenced by the bimodal distribution in the histograms at T1 and T2. The line graphs indicated a substantial overlap of the error bars, significant variation, and no obvious differences in the visualizations between groups, similar to the self-esteem scores distribution at T1 and T2. The graphs and histograms were calculated with a 95% confidence interval (CI) and a +/-1 for standard deviation. (See Figures 3.7, 3.8, 3.9)

Table 3.3

Descriptive Statistics for the Quality-of-Life Survey at T1 and T2

	N	Range	Min	Max	Mean	Std. Deviation	Variance	% of Total Median	% of Total N	Kurtosis	Skewness
Quality of Life T1 Total	52	73.96	19.79	93.75	66.99	14.35	205.8	69.27	100	1.164	-0.812
Quality of Life T2 Total	52	72.92	25	97.92	66.13	16.21	262.74	66.67	100	-0.062	-0.278
Quality of Life T1-Intervention Group	29	54.17	39.58	93.75	69.36	14.21	202.02	72.92	55.2	-0.275	-0.568
Quality of Life T2-Intervention Group	29	53.13	43.75	96.88	70.51	14.84	220.12	73.96	55.2	-0.973	-0.183
Quality of Life-Control Group T1	23	68.75	19.79	88.54	63.99	14.25	203.19	66.67	44.8	3.182	-1.289
Quality of Life-Control Group T2	23	72.92	25	97.92	60.6	16.48	271.63	64.58	44.8	0.67	-0.255

Note: The descriptive statistics in the table above indicate minor significant changes in scores, mean, and standard deviation over time but with significant variation.

Figure 3.7

Distribution Frequency of the Quality-of-Life Survey at the Intervention and Control School at T1

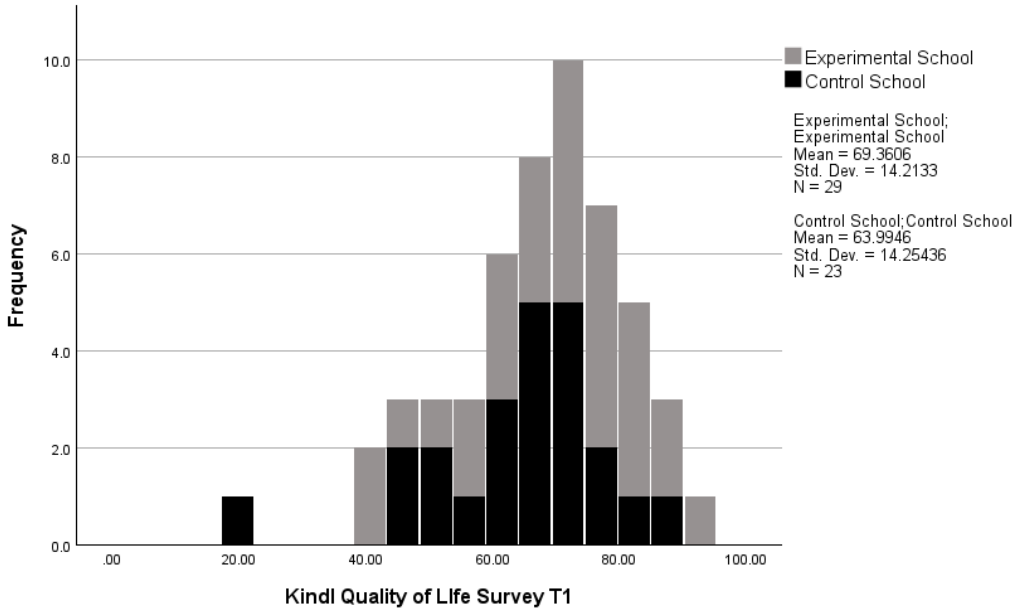
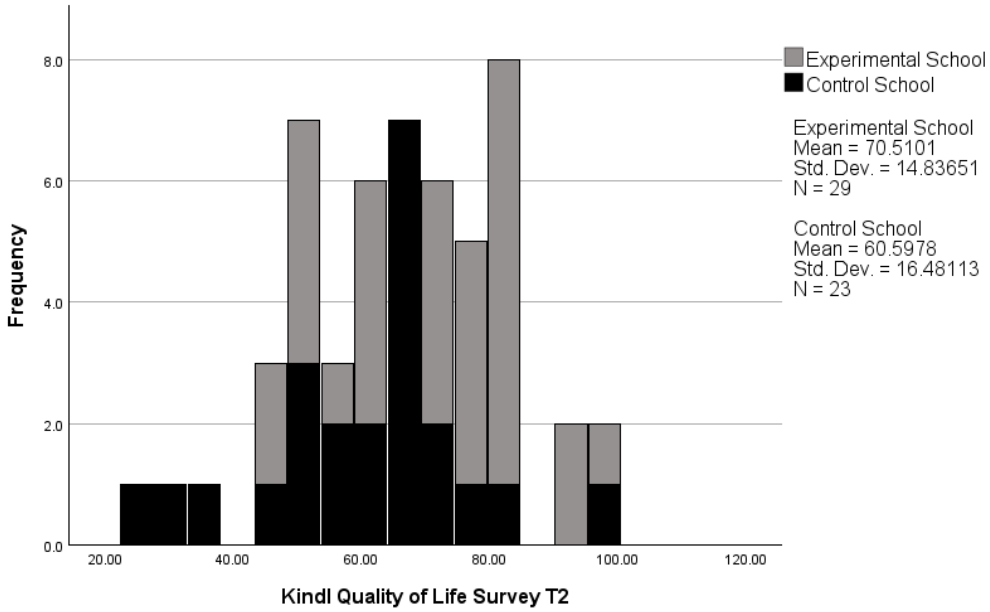


Figure 3.8

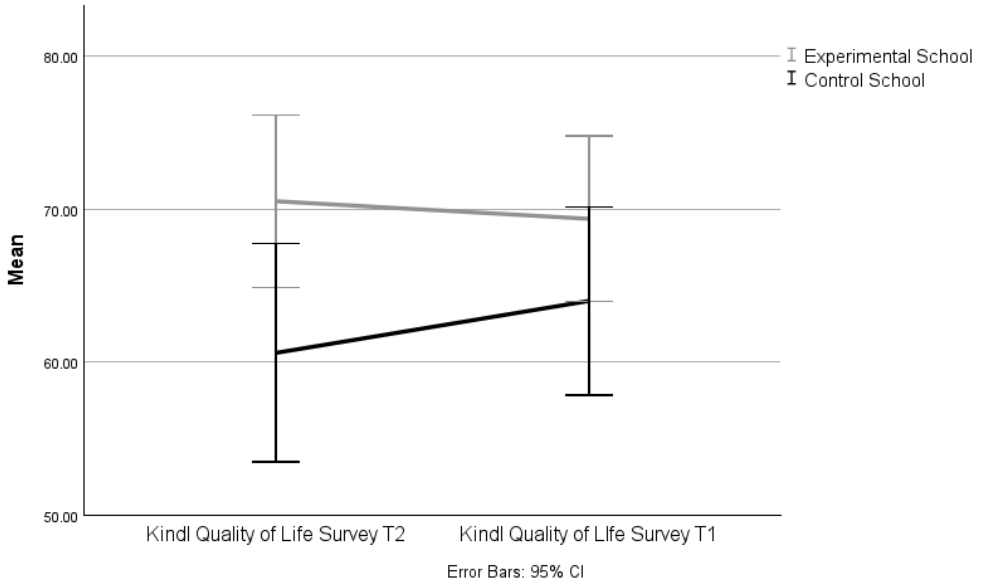
Distribution Frequency of the Quality-of-Life Survey at the Intervention and Control School at T2



Note: Figures 7 and 8 indicate the distribution of scores is bi-modal and this will have implications for next steps in the data analysis process as indicated in the Quality-of-Life Survey for T1 and T2.

Figure 3.9

Multiple Line - Mean Kindl Quality of Life Survey T2 - Mean Kindl Quality of Life Survey T1



Note: The Line Graphs are displayed for the purposes of visualization and seeing the differences by groups over timepoints and by group to display the overlap of scores.

Table 3.4

Tests of Normality for the Kindl Quality of Life Survey for the Intervention and Control School at T1 and T2

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Quality of Life T1	.097	52	.200*	.963	52	.103
Quality of Life T2	.070	52	.200*	.984	52	.712

Note: The data on this table indicates that the Assumption for Normality has been violated at T1 and T2. It supports the visualization observations in the histograms above.

Inferential Statistics

Inferential Statistics – Primary Analysis for the Self-Esteem Inventory

The Coopersmith self-esteem scores calculated from the Mann-Whitney U statistical test did not change significantly from T1 (Mdn = 68), U = 238.50, z = -.783, ns, r = -.114, p < .434 to T2 (Mdn = 68), U = 247.50, z = -.589, ns, r = -.086, p < .556.

Summary of Findings from the Self-Esteem Inventory

There were no statistically significant differences in self-esteem scores between the intervention and control groups across timepoints one and two. While a full omnibus two-way ANOVA was initially planned, data from the histograms, line graphs, boxplots, and tests for normality demonstrated that the data was not normally distributed and contained numerous outliers. Therefore, the non-parametric Mann-Whitney U test was conducted on the self-esteem data. It is likely that high attrition rates and a lack of

statistical power contributed to these nonsignificant findings. There was an attrition rate of 49% between initial recruitment (N = 93) and T2 for the self-esteem survey (n = 47) and 44% for the quality-of-life survey (n = 52). Students that completed the self-esteem and/or quality of life survey were included in the data analysis.

Inferential Statistics – Secondary Analysis for the Quality-of-Life Survey

The Kindl quality of life scores calculated from the Mann-Whitney U statistical test did not change significantly between T1 (Mdn = 69.27, U = 256, z = -1.429, ns, r = -.198, p < .153) and T2
(Mdn = 66.67, U = 218.50, z = -2.120, ns, r = -,294, p < .034).

Summary of Findings for the Quality-of-Life Survey

There were no statistically significant differences in quality-of-life scores between the intervention and control groups across timepoints one and two. As for the self-esteem survey, an omnibus two-way ANOVA was planned for statistical analysis, however, information from histograms, line graphs, boxplots and tests for normality showed that the data was not normally distributed and contained numerous outliers. Accordingly, the non-parametric Mann-Whitney U test was conducted for the quality-of-life survey instead of a full omnibus two-way ANOVA. As mentioned in the summary of findings for the self-esteem measure, again, it is likely that high attrition rates and lack of statistical power contributed to nonsignificant findings. There was an attrition rate of 49% between initial recruitment (N = 93) and T2 for the self-esteem survey (n = 47) and 44% for the quality-of-life survey (n = 52).

Discussion

Summary of Key Findings

The quantitative study for this thesis was designed to examine the impact of music education on emotional wellbeing as measured by the Coopersmith Self-Esteem Inventory and Kindl Quality of Life Survey. However, the study results yielded non-significant findings for an increase in self-esteem and quality of life within the context of emotional wellbeing in the intervention and control groups. My findings did not support my predictions; however, the follow-up with the Leuven Observation Scale may provide more insight (Lee et.al., 2017; Liddiard, 2021; Blasco-Magraner, 2021; Hallam 2010; Chin et. al. 2014; Maury & Rickard, 2016; Rickard et al., 2013; Rickard, Bambrick & Gill, 2012; Schellenberg, 2011).

Interpretation of Results

Even though the current study did not yield statistically significant findings, its contribution to the growing body of music education research centered on emotional wellbeing remains vital. The consistent theoretical and empirical interest in this area (Heyworth, 2013; Chin & Rickard, 2014; Croom, 2012, 2015; Maury & Rickard, 2016; Ilari & Cho, 2023; Blasco-Magraner et al., 2021; Sun, 2022) underscores the field's recognition of music education as a potentially transformative force for student wellbeing. Importantly, the absence of significant findings in this study does not equate to an absence of impact. Rather, it reflects the inherent complexity in measuring emotional and psychological constructs and highlights the critical need for refining intervention designs, assessment tools, and theoretical models.

Prior studies demonstrate the potential for music education to foster emotional development and psychological wellbeing, which in turn can enhance self-esteem and quality of life (Hallam, 2010; Blasco-Magraner et al., 2021; Maury & Rickard, 2016; Zheng & Bian, 2018; Sun, 2022; Ilari & Cho, 2023). At the same time, studies such as Rickard et al. (2012) and Maury & Rickard (2016) challenge this narrative, emphasizing that not all interventions produce measurable benefits, particularly across different age groups, school settings, or cultural contexts. Similarly, Schellenberg's body of work (2004, 2006, 2011) reinforces the importance of context, sample characteristics, and the definition of wellbeing outcomes.

These mixed findings illustrate a critical gap in our understanding of *how* and *why* music interventions succeed or fail. As Maury & Rickard (2016) suggest, a nuanced examination of the mechanisms underpinning music's influence on wellbeing is essential. This includes identifying variables such as program duration, participant engagement, and the socio-emotional climate of the school. Echoing Hallam & Himonides, (2022), the field must move toward establishing clearly defined models of intervention that distinguish specific active ingredients responsible for change. Yet others (Tang & Corrado, 2024; Crawford, 2020; & MacGlone et al., 2020) argue for a more holistic perspective, where the relational and contextual dimensions of music experiences are integral to their effectiveness.

The present study contributes to this ongoing dialogue by affirming the necessity of moving beyond binary outcomes (significant/non-significant) and toward deeper investigations of process, context, and subjective experience. Its findings underscore the urgency of iterative and interdisciplinary research that interrogates not only if music interventions work, but when, for whom, and under what conditions they are most effective. This shift in focus holds promise for designing more responsive and inclusive

music education programs that genuinely support students' emotional development and wellbeing across diverse educational settings.

Limitations of the Study

The current study had some practical limitations. Reasons for nonsignificant findings potentially include a smaller sample size due to attrition which resulted in a lack of statistical power and limited the ability to detect significant effects. Subtle effects may have been captured if the sample size had been larger, however, students that left one or more questions unanswered were eliminated from the study. A more detailed reason for this can be found in the Missing Data section of this chapter. Reasons for attrition in the study may have included an uncertainty to provide answers due to privacy or trust concerns, test fatigue, boredom, lack of engagement due to administering all three surveys at each timepoint. In hindsight, the third survey (music survey), to be discussed in a different chapter, could have been administered on a different day to reduce survey time. In sum, the survey completion time was 20-25 minutes.

In retrospect, controlling certain factors such as the time of day the survey is administered or a different day might have also yielded different results. The principals and classroom teachers at both schools decided that the students should complete the surveys during their assigned class times for their grade (music class: intervention school and computer class: control school) at timepoint one (T1) and timepoint two (T2). By following the recommended timeframe for completing the surveys, it kept stability in the school schedule and learning environment for the students' day-to-day activities.

Additionally, the relationship between music education and wellbeing might be more nuanced or indirect than initially assumed as referenced above regarding "understanding the mechanisms of music engagement" (Maury & Rickard, 2016). The duration of the intervention for a semester (18 weeks) might have been too long or too short to produce measurable changes in self-esteem and quality of life measures. Similarly, the music activities chosen for the intervention may have become tiresome. Children like a variety of activities and too much of one thing can lead to boredom and fatigue if they have lost interest. This is especially true towards the end of a school semester before a long break. Additionally, other confounding variables such as prior or lack of music experience or concurrent therapies that were not controlled for in the study may have influenced the outcomes. Lastly, as mentioned in a previous chapter, the

researcher was also the teacher in the music classroom. This may have impacted the results of the study due to underlying issues that were not readily apparent.

Another point to consider, music education has seldom been the singular focus of an intervention that targets improving student wellbeing. (Maury and Rikard, 2016). However, the tide has turned with more research pointing towards the connection between music education and wellbeing, but some of the findings in these studies have been inconsistent (Maury and Rickard, 2016; Zheng & Bian 2018; Blasco-Magraner et. al, 2021; Ilari & Cho, 2023). The conflicting results highlight the necessity and importance of understanding what "mechanisms" potentially increase wellbeing through music engagement (Maury & Rikard, 2016). As noted by Hallam (2010b), "E*ngagement with music can enhance self-perceptions," but only if the learning experiences are positive, rewarding and successful* (p. 282). Likewise, the "potential benefits" of using "the right kind of music" in [music] education shows "great promise" (Wilkinson, 2013).

Implications for Future Research

Music education and wellbeing research is a constantly evolving field that has many implications for future researchers. Moreover, the delivery (i.e., type of music and activities and/or multiple activities) of music education within schools is likely a key factor (Wilkinson, 2013; Maury & Rickard, 2016). First, future research within the framework of music education and wellbeing as measured by self-esteem and quality of life may be improved by larger sample sizes from multiple schools and a team of researchers potentially producing significant results. Second, music education research that focuses on levels of engagement rather than proficiency may be a critical factor in seeing an increase in wellbeing (Maury & Rickard, 2016). Third, a study in Britain found that students identified music as being more enjoyable outside of school while music engagement in school was connected to learning and less fun (Lamont et.al., 2003; Maury & Rickard, 2016). Fourth, exploring the social benefits of students co-creating music together to reduce social isolation can also impact self-esteem, wellbeing, and overall quality of life. Lastly, it would be beneficial to conduct longitudinal studies that track changes over time (Robb et. al., 2023; Maury & Rickard 2016). Finally, schools are an excellent place to build theories, systematically assess them, and build a robust body of knowledge for future research in music education and wellbeing (Maury & Rickard, 2016).

Conclusion

A final note: this study was conducted to examine the influence of music education on wellbeing as measured by a self-esteem and a quality-of-life survey. Even though the results were nonsignificant, such findings do not necessarily indicate a lack of impact on the participants. More research is needed during daytime music education classes to determine the potential impact of music education on students during daily school activities. As noted earlier in the discussion, music education has the potential to play a significant role as a positive psychology intervention and improve the wellbeing of students and develop resilient thinkers (Heyworth, 2013; Chin & Rickard, 2014; Lee, Krause, & Davidson, 2017, Ilari & Cho, 2023; Robb et. al., 2023). Lastly, the results of this quantitative study provide a foundation on which a qualitative analysis of parents, teachers, and administrative staff share their perceptions on the perceived impact of music education at the intervention school; and a mixed methods analysis of children's responses to a music survey are presented in subsequent chapters to potentially counter the nonsignificant findings of this chapter.

Chapter 4

4. Children's Perceptions of Music Education: A Mixed Methods Approach

"...providing students with a clear message that the intrinsic and aesthetic qualities of the arts make them a vital, irreplaceable component of the human experience should be the core of [our] arts instruction" (Kritzmire, 1993).

Abstract

Music education enhances emotional well-being through various interactive and expressive activities such as playing instruments, singing, movement, and group participation. These activities not only foster immediate emotional benefits but may also contribute to long-term psychological health. This mixed-methods chapter explores children's perceptions of a daytime music education program implemented at a rural public elementary school by administering a structured music education survey. In addition, this chapter also examines the teacher-researcher perspective on the music education's impact on fourth and fifth grade students, with a specific focus on student well-being and involvement during music classes. In this study, fifty-seven (n=57) fourth and fifth grade students participated in a music education survey comprising of closed and open-ended questions. Nonparametric statistical analyses, the Mann-Whitney U and Wilcoxon signed-rank tests, were employed to examine the data for potential differences in responses based on students' biological sex for the closed-ended items. Subsequently, a content analysis of the open-ended responses was conducted to gain insight into students' perceptions and experiences related to music class activities. Lastly, the teacher-researcher utilized the Leuven Wellbeing and Involvement Scale to assess student well-being and involvement during music classes. The overall findings revealed statistically significant outcomes regarding both student and teacher perceptions, as measured by the music education survey and the Leuven Wellbeing and Involvement Observation Scale indicating the positive impact of music education on emotional well-being and classroom engagement (involvement). However, no significant differences were found based on students' biological sex.

Key Words: *Music Education, Positive Psychology, Music Therapy, Music Intervention, Child Wellbeing, Positive Education, Self-esteem, Arts Education*

Perceptions of Music Education – A Mixed Methods Approach

Introduction

Music educators assert that the value of music, philosophically speaking, is a way of knowing, a means of humanizing society, and a symbol of our emotive and biological five senses as well as a resource for creativity, imagination, and personal expression (Kritzmire, 1993). It is believed that by "providing students with a clear message that the intrinsic and aesthetic qualities of the arts make them a vital, irreplaceable component of the human experience should be the core of [our] arts instruction" (Kritzmire, 1993). This mixed methods study provides evidence to better support such claims. Firstly, the results of this study highlight the beneficial effects of music education in the elementary school environment and the findings have broad national and international implications. Secondly, this research provides a platform for promoting music education as an essential component of the academic school curriculum and highlights the importance of participating in music education and the arts at a young age. In the preceding two chapters, the quantitative chapter highlights research related to the importance of music education as a vehicle for supporting emotional wellbeing through the construct of self-esteem and quality of life and the qualitative chapter focuses on the adult perceptions of parents, teachers, and adults regarding the significance of music education and its impact on child development and wellbeing. This chapter aims to focus on student perceptions of music education in a daytime music program at a rural public school. Additionally, as the teacher-researcher, I sought to understand and identify the perceived impact of a daytime music education program on children in the elementary classroom by assessing wellbeing and involvement at the intervention school. These aims led to the design and methodology of this mixed methods chapter. Therefore, the purpose of this chapter is to present findings relating to student perceptions of music education and teacher perceptions on the impact of music education on wellbeing and involvement in the classroom.

Impact of Music Education

An article by (Hallam & Himonides, 2022; Hallam, 2010b) revealed that concerns about children's health and wellbeing has led to a growth in research on the effect of music and the arts. Firstly, research suggests that active engagement with music in a group setting creates a positive learning environment that can enhance self-perception, creativity, self-expression, development of social skills, and contributes to health and wellbeing across the lifespan (Hallam & Himonides, 2022). Secondly, music education's contribution to self, family, school, and community cohesion can provide long-term

benefits to society (Hallam, 2010b; Heyworth, 2013). Thirdly, music education has been linked to improved mental health, especially in terms of reducing stress, anxiety, and depression in children (Wang, 2022). Moreover, learning and engaging with music can enhance mood, provide an emotional outlet, and promote a sense of achievement (Hallam, 2010b). Lastly, music education can promote emotional resilience by helping individuals manage their emotions and build self-esteem (Heyworth, 2013).

Wellbeing and Involvement

In this study, wellbeing indicates feeling at ease, being spontaneous, and free of emotional tensions; involvement refers to being deeply engaged in activities which is essential for mental health, self-confidence, and resilience (Kovac et al., 2023; Laevers & Declercq, 2018 & Declercq et al., 2011). Music education is a mechanism that fosters social connections and a sense of belonging, which are vital for wellbeing in children (Hallam, 2010b; Kovac et al., 2023). Moreover, wellbeing reflects a child's emotional state, encompassing feelings of safety, confidence, and overall contentment, while involvement pertains to degree of active engagement, concentration, and persistence a child exhibits in an activity (Laevers & Declercq, 2018). Furthermore, high levels of well-being and involvement are associated with increased opportunities for deeper and more meaningful learning experiences (Kovac et al., 2023; Laevers & Declercq, 2018 & Declercq et al., 2011).

Similarly, research shows that music education and a positive mindset can impact wellbeing, foster enthusiasm, participation, confidence, and build healthy emotions, which is crucial for mental health and optimal functioning (Schmid 2024; Dweck, 2006; Blasco-Magraner, 2021). Similarly, Csikszentmihalyi's Flow Theory states that a person experiencing 'psychological flow' will encounter optimal learning, intense focus, engagement, and positive emotions (Csikszentmihalyi, 1990 & 2002). Children experience flow when they are engaged in an activity such as music education that is appropriately challenging with regard to skill level and the results are an increase in attention span, intense concentration, progress toward goals, and a sense of time passing quickly (Csikszentmihalyi, 1990 & 2002; Schmid 2024). Furthermore, when a person is in flow, he or she is in a place of flourishing, experiencing positive emotions, and wellbeing (Noble & McGrath, 2015). Music education provides scope for facilitating positive 'flow' in school and other settings.

Positive Psychology

Similarly, music education, through its deep impact on emotions, cognition, and social connections, aligns closely with the goals of positive psychology. For example, the field of positive psychology focuses on the factors that contribute to human flourishing, such as happiness, wellbeing, quality-of-life and fulfillment (Seligman, 2011). Likewise, music education also aligns with the principles of positive psychology by enhancing positive emotions, promoting flow, building resilience, fostering social connections, creating a sense of accomplishment, and offering meaning and purpose (Hallam & Himonides, 2022, Seligman, 2011). Additionally, positive psychology focuses on the optimal functioning of people and identifying character strengths, thought patterns, and experiences to improve day-to-day life (Gable & Haidt, 2005; Maury & Rickard, 2016). Music education can be the vehicle that provides the intervention to lower stress, improve wellbeing, everyday functioning, and quality of life (Maury & Rickard, 2016). Moreover, music education is not just an artistic pursuit but also a valuable tool for promoting human connection. Together, positive psychology and music education interconnect to promote flourishing, emotional well-being, character strength, resilience, and personal development (Zheng & Bian, 2018).

Music Education and Learning Differences

Similarly, music education can be a bridge to narrow the gap in learning differences between children through differentiated instruction (Stavrou, 2024, Hallam et al., 2020; Tomlinson & Murphy, 2015). Differentiated instruction meets the students where they are in the learning process because it is a flexible and proactive approach that tailors the learning environment to the individual needs of the student (Stavrou, 2024; Tomlinson & Murphy, 2015). Additionally, music education has been recognized as a powerful tool for addressing learning differences among children while serving as a bridge to inclusive and equitable education (Stavrou, 2024; Darrow & Adamek, 2018). Research shows that music engages multiple cognitive domains simultaneously by fostering development in areas such as language, memory, attention, and executive function (Darrow & Adamek, 2018; Draper, 2024; Blasco-Magraner, 2021). These capacities are often underdeveloped in children with learning difficulties (Darrow & Adamek, 2018; Draper, 2024). Differentiated instruction through music enables educators to accommodate diverse learner profiles, promoting individualized growth and participation (Stavrou, 2024). Systematic reviews further confirm that music-based interventions contribute significantly to the cognitive and social development of children with profound and multiple learning disabilities (Rushton et al., 2022), and that inclusive

music practices in both formal and informal settings promote engagement and reduce educational disparities (Juan-Morera et al., 2023; Ioannidi & Samara, 2019). These findings highlight the role of music education not only as a creative outlet but also as a structured, research-backed strategy for narrowing learning gaps and creative, inclusive learning environments.

However, the issue of learning differences between boys and girls in music education can also be influenced by a combination of biological, cognitive, and social factors (Iverson, 2011; Hallam et al., 2020). However, most of these differences are shaped more by cultural and social expectations than inherent learning abilities. Oftentimes, boys and girls tend to gravitate toward different instruments, influenced by societal norms and expectations (Hallam et al., 2020). This division often reflects gender stereotypes, as some instruments are perceived as more "masculine" or "feminine". Iverson, (2011) suggests four different strategies that may increase motivation in upper-elementary students by adding mainstream music that is current and popular into the curriculum, introducing role models for both genders, and more performance opportunities for continued participation in music education. In a research study by Hallam et al. (2020), regarding “Gender Differences in Musical Motivation” the authors discovered only one statistically significant gender difference which related to self-belief in which males consistently scored higher than females. In summary, while there are some differences in how boys and girls engage with music education, these are largely shaped by cultural norms, expectations, and pedagogical approaches, rather than intrinsic learning abilities (Hallam et al., 2020; Iverson, 2011). Addressing these biases can help ensure more equitable and effective music education for all students (Harrison, O’Neill, 2000; Abeles, 2009; Culp & Robison, 2022).

Biological Sex Differences within Music Education

For the purposes of this study, biological sex is classified using the binary categories of male and female (Ryan & Bauman, 2016). At the time of data collection in spring 2019, participating students aged 9 to 12 were presented with only these two options when reporting biological sex, reflecting the institutional practices and survey protocols in place during that period (Ryan & Bauman, 2016). Therefore, the research in this chapter will relate to the two binary categories of male and female. Research has explored gender-based differences and biases between males and females in music education across all educational levels (Roulston & Misawa, 2011; Gathen 2014; Culp & Robison, 2022; Boise, 2025). These differences influence various aspects of musical engagement, including participation, instrument selection, self-efficacy, and career

aspirations (Hallam et al., 2018; Bonastre & Nuevo, 2019; Culp & Robison, 2022; Boise, 2025). In music education, biological differences (male and female) are typically shaped by social expectations, cultural norms, potential teacher biases, peer pressure, and student preferences rather than innate ability (Roulston & Misawa, 2011; Szabó et al. 2024; Bonastre & Nuevo, 2019; Gathen, 2014). That being said, experiences and motivation in music class can differ by biological sex, but these differences can often be shaped by historical, cultural, and stereotypical factors rather than inherent biological differences (Bonastre & Nuevo, 2019; Hallam et al. 2018; Roulston & Misawa, 2011, Charles, 2004). For example, certain instruments have traditionally been associated with one gender over another. In one instance, girls might be more encouraged to play woodwinds or stringed instruments like the flute, violin, or piano, while boys may be guided towards brass instruments, percussion, or guitar (Hallam et al. 2016; Gathen, 2014 & Charles, 2004). Many times, these choices are based not solely on musical preferences but also societal expectations about what is considered appropriate for each gender (Hallam et al. 2016; Harrison & O'Neil, 2000). As a result, these early choices can influence future musical opportunities and career paths in music education (Hallam et al. 2016; Harrison & O'Neil, 2000; Abeles, 2009). Additionally, teachers may unconsciously reinforce gender stereotypes through their expectations and teaching strategies (Charles, 2004; Culp & Robison, 2022). Some music educators, for example, may expect boys to be more interested in composing or improvising, while they may assume girls will excel at singing or more traditional forms of music. These biases can shape how students perceive their own musical abilities and interests (Hallam et al. 2018; Hallam et al. 2016; Gathen, 2014). Overall, while biological sex doesn't dictate musical aptitude or involvement, the educational environment, including potential teacher biases, cultural stereotypes, peer interactions, and available role models, can significantly impact how children experience music education in elementary school (Szabó et al., 2024; Hallam et al. 2018; Iverson, 2011). Therefore, it is of utmost importance for teachers to be mindful of these factors to provide an inclusive and an encouraging environment for all students.

Music, Gender, and Achievement

Consequently, within the scope of gender (biological sex) research, it shows that males demonstrate under-achievement in the day-to-day curriculum more than girls in the area of linguistic based subjects (Boise, 2025; Wright, 2001, You & Sharkey, 2012). According to Wright, (2001) music education was rarely, if ever, considered a factor in academic assessments between males and females during the last forty years of the twentieth century. Additionally, Wright further shares that gender inequality shifted

several times from the 1960s to the 1990s in the last forty years of the twentieth century (2001). For example, in the 60s and 70's gender inequality was blamed on social class, in the 80s it was attributed to male domination in the classroom with females scoring lower than their male counterparts on academic assessments (Wright, 2001). However, in the 1990s females began to outperform males in all areas of the academic curriculum with this pattern continuing well into the 21st century (Wright, 2001; Wrigley-Asante et al., 2023; You & Sharkey, 2012). While it is not the purpose of this study to focus on academic disparity between males and females, it is important to highlight the differences as it pertains to the impact of music education and the participation of students and their responses in the music classroom as determined by the music survey and the Leuven Observation Scale.

Mixed Methods

This chapter seeks to substantiate the importance of a mixed methods study in relation to music education and childhood wellbeing. Studies like the one presented in this chapter regarding child wellbeing present an opportunity for "mixing methods" due to its cross-disciplinary nature (Jones & Sumner 2009; Creswell & Clark, 2017). Additionally, mixed methods research is particularly valuable in the context of music education and wellbeing, as it provides a comprehensive framework for understanding the multifaceted nature of musical engagement and its emotional, social, and cognitive impacts on students (Jones & Sumner, 2009; Fitzpatrick, 2014; Liddiard & Rose, 2018). The authors, Jones and Sumner (2009) argue that researchers of childhood wellbeing should consider mixed method approaches to capture this multi-dimensional field of research. By pursuing a cross disciplinary approach, it implies acceptance and openness to examine and utilize all available insights to gain better insight and understanding of the phenomena (Jones & Sumner 2009, Fitzpatrick, 2014, Creswell & Clark, 2017; Liddiard & Rose, 2018).

Aims, Research Questions and Predictions

This chapter addresses two key objectives. The first objective examines students' perceptions of music education and the variety of activities that take place during daily music classes. The second objective explores my perspectives on the impact of music education on student well-being and involvement during music class activities. The research question for the mixed methods chapter is as follows: What is the perceived impact of music education, and does it differ by biological sex?

Research studies suggest that the impact and perception of music education may differ by biological sex (Cocina & Gesuato, 2025; Cooper & Burns, 2019). Investigating

sex-based differences is important for promoting equity in the classroom, enhancing participation, and informing policy and curriculum development. These differences may affect engagement levels, perceived benefits, and long-term participation in music activities. Understanding these differences is important because gendered experiences in education can contribute to disparities in emotional development, self-esteem, and educational outcomes (Cocina & Gesuato, 2025; Li, Sun, & Li, 2023). Music education offers numerous benefits, including enhanced cognitive abilities, emotional expression, and social skills. However, these benefits are not always uniformly experienced across sexes due to gender norms and stereotypes (Li, Sun, & Li, 2023; Cooper & Burns, 2019). By investigating these differences, educators and policymakers can work towards a more equitable and inclusive music education system that recognizes and addresses the unique experiences of all students.

Methods

Ethical Considerations

This study was approved by the University of Central Oklahoma's Office of Research Integrity and Compliance's Institutional Review Board (IRB) on November 26th, 2018 – IRB Application #: 2018-142. Parent/guardian and student letters and consent forms regarding the music survey and the Leuven Observation were sent home with all 4th and 5th grade students at the intervention school to sign and return prior to the commencement of the study.

Design

This study adopted a mixed methods design, involving the collection of qualitative and quantitative data during an eighteen-week semester at timepoint one (week 1) and timepoint two (week 18). The research study was an eighteen-week intervention with a pre- and post-test characterized by a mixed experimental design with within- (time: music intervention: T1 at week 1, T2 at week 18; and condition: intervention-only) design using a mixed methods approach involving the collection of quantitative and qualitative data from naturally occurring groups (See research design/participant flow chart for details). However, the open-ended questions were only administered at timepoint two (week eighteen) after the music intervention. Content analysis was then used to code, analyze, interpret, and report the results of the qualitative data. Equal weight was given to each method; however, the data were analyzed separately before presenting the collective findings (Jones & Sumner 2009; Creswell & Clark 2017). Presented below is a Research Design and Participant Flow Chart for Assessment and Intervention for the study.

Figure 4.1

Research Design and Participant Flow Chart for Assessments and Interventions

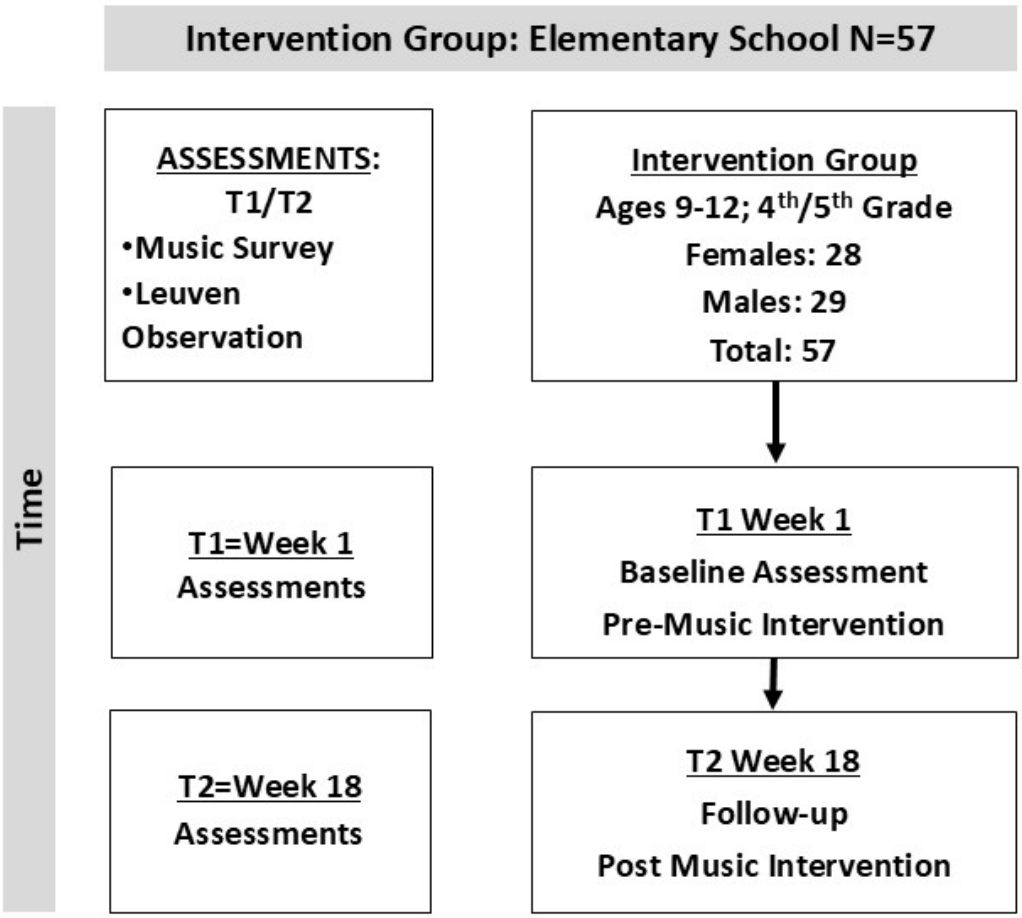


Figure: Research Design: A counterbalanced study with cross-over design that will include within and between subject design using qualitative and quantitative data collected from naturally occurring groups. Participants in study: Intervention Group n=57

Study 1: Children's Perceptions of Music Education

Participant Characteristics – Quantitative

As stated in the quantitative chapter, fourth and fifth grade participants were recruited across two elementary public schools from small rural communities in Oklahoma. All students in both grades were encouraged to participate regardless of gender, race, and/or disability (physical, emotional, mental, etc.). Both participant groups were considered naturally occurring groups. Written consent was obtained from parents and/or legal guardians and the students participating in the study.

As mentioned, only fourth and fifth grade students at the intervention school answered the music survey questions. A total of fifty-four (N=54) responses were collected at two timepoints (T1 and T2) for the music survey. Twenty-seven females (n=27) and twenty-seven males (n=27) in the 4^{th} and 5^{th} grade, participated in the study, reflecting 50% females and 50.0% males. The total number of participants included eighteen (n=18) 4^{th} grade students and thirty-six (n=36) 5^{th} grade students. A detailed overview of participant characteristics is depicted in the research design and participant flow chart. The student participants from the control school were not given the music survey questions, as their school did not offer a music education program.

Survey Measure – Quantitative and Qualitative

A music survey with four closed-ended questions and five open-ended questions designed by me in collaboration with the supervisory team was administered to the students online through Google Classroom during music class. A copy of the music survey can be found in appendix C. Scores were ranked on a likert scale of one to four with 1 no, hardly ever, 2 sometimes, 3 most of the time, and 4 yes, almost always. Individual scores were summed and totaled. Higher scores indicated positive results and low scores indicated negative results regarding students' perceptions of music education.

Music Survey Procedure

The music survey was administered to the students (intervention school only) at baseline and follow-up (week one and week eighteen). A Qualtrics software link (https://www.qualtrics.com) was delivered electronically by email to the classroom teachers at the abovementioned timepoints. Students then completed the music survey on their Chromebooks during their assigned music class time after the classroom teachers uploaded the link using Google Classroom. As stated in the quantitative chapter, the music intervention for the study was carefully selected to encourage active participation.

Learning to play ukuleles, group singing, and group movement activities were chosen for the music intervention.

Data Collection – Quantitative and Qualitative

As previously stated, the music survey data were collected and stored online using Qualtrics Software (https://www.qualtrics.com). Once the intervention had concluded, the raw data from the open-ended questions were then imported into Atlas.ti.9 to organize, review, and code the information. Completion time for the music survey was estimated to be 20-25 minutes. Additional demographic information was collected (i.e., age, grade level, race, gender and physical diagnosis, mental health diagnosis, and/or learning disorder) from the students at the intervention school. For organization purposes, student participants were assigned an identification number to be entered at the beginning of the survey for data point week one & week eighteen. A numbered master code sheet was created to link the survey with additional background information (i.e., potential mental health diagnosis, an individualized education plan (IEP) for learning disorders, and/or a physical diagnosis) listed in the signed parental consent forms.

Data Management

All survey data completed by the students were stored on a password protected laptop in accordance to the University of Central Oklahoma's Office of Research Integrity and Compliance's Institutional Review Board (IRB) on November 26th, 2018 – IRB Application #: 2018-142.

Statistical Analysis – Music Survey Closed-Ended Questions

The following section outlines the analytical framework for the quantitative portion of the music survey. All statistical analysis was conducted using IBM SPSS Statistics Version 26. Prior to inspecting the data, the planned statistical analysis was a full two-way omnibus mixed ANOVA including two groups (*males and females between-subjects factor*) by two timepoints (*T1 and T2 within-subjects factor*) design. However, due to not normally distributed data, the nonparametric Mann-Whitney U & Wilcoxon statistical tests were conducted to examine the main effect of group, time, and the interaction between males and females within the intervention school instead of the two-way omnibus mixed ANOVA. Two planned comparisons were used to analyze the data for significant differences between males and females. The two analyses compared the experimental school's pre/post-music intervention scores within and between groups at

T1 and T2 to determine whether there would be any significant, quantitative statistical differences of change over time by sex.

Content Analysis – Music Survey Open-Ended Questions

This section outlines the framework for the qualitative part of the music survey. After careful consideration, content analysis was chosen for exploring the data responses to the open-ended questions of the music survey. Qualitative content analysis is epistemologically versatile, accommodating paradigms in which knowledge is considered innate, experientially acquired, or socially constructed (Graneheim et al., 2017; Erlingsson & Brysiewicz, 2017; Lincoln & Guba, 1985)This form of analysis was prudent as children's responses tend to be shorter and lack the depth required for reflexive thematic analysis. Firstly, content analysis is a systematic method of analyzing data by categorizing and interpreting certain words, themes or concepts within various types of data sets such as language used in surveys (Graneheim et al. 2017; Saldana, 2021; Columbia University Mailman School of Public Health, 2024; Krippendorff, 2019). Secondly, this type of research allows researchers to analyze meanings or relationships of particular themes or concepts (Graneheim et al. 2017; Hsieh & Shannon, 2005; Saldana, 2021). Lastly, inferences can be made by the researcher regarding the culture, message, and author of the text (Krippendorff, 2019; Graneheim et al. 2017; Columbia University Mailman School of Public Health, 2024).

Content analysis is a widely used research technique that provides a robust methodology for systematically examining patterns and themes, making it invaluable across many disciplines and various fields such as education, psychology, and sociology, to quantify patterns, themes, or meanings in text, speech, or other forms of media that has more than one approach (Krippendorff, 2019; Columbia University Mailman School of Public Health, 2024; Neuendorf, 2017; Saldana, 2021). In this study, content analysis, which can also be classified as conceptual content analysis, was utilized to analyze the open-ended questions (Saldana, 2021; Columbia University Mailman School of Public Health, 2024). A good, working definition of content analysis is "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Graneheim et al. 2017; Krippendorff, 2019). This form of analysis is a systematic method of analyzing various forms of data by categorizing and interpreting the information where content from the data is interpreted directly from the text (Saldana, 2021; Krippendorff, 2019; Erlingsson & Brysiewicz, 2017). Furthermore, this content analysis followed standardized guidelines as outlined by Columbia University

Mailman School of Public Health (2024), Johnny Saldana (2021), Erlingsson and Brysiewicz (2017), and Krippendorff, 2019).

1. Decide on the level of analysis: word, phrase, sentence, and themes
2. Decide if or how many concepts to code for:
    A. Allows for the introduction and analysis of new and important material that could have significant implications to one's research question.
    B. Allows the researcher to stay focused and examine the data for specific concepts.
3. Decide whether to code for existence or frequency of a concept. The decision changes
    the coding process.
4. Decide on how you will distinguish among concepts.
    A. Should text be coded exactly as they appear or coded as the same when they appear in different forms?
    B. What level of implication is to be allowed?
5. Develop rules for coding your texts.
6. Decide what to do with irrelevant information.
7. Code the text.
    "After decisions of steps 1-4 are complete, a researcher can begin developing rules for translation of text into codes. This will keep the coding process organized and consistent. The researcher can code for exactly what he/she wants to code. Validity of the coding process is ensured when the researcher is consistent and coherent in their codes, meaning that they follow their translation rules. In content analysis, obeying the translation rules is equivalent to validity."
8. Analyze the results. Draw conclusions and generalizations where possible.

(Palmquist, M. Columbia University Mailman School of Public Health, 2024)

These guidelines and the step-by-step process of analyzing the data are key in enhancing the teacher-researcher's ability to identify and conduct a methodologically sound content analysis. In adherence with Columbia University Mailman School of Public Health's guidelines (2024), I, the teacher-researcher, was the only coder in this study.

Results

Figure 4.2 Children's Perceptions of Music Education

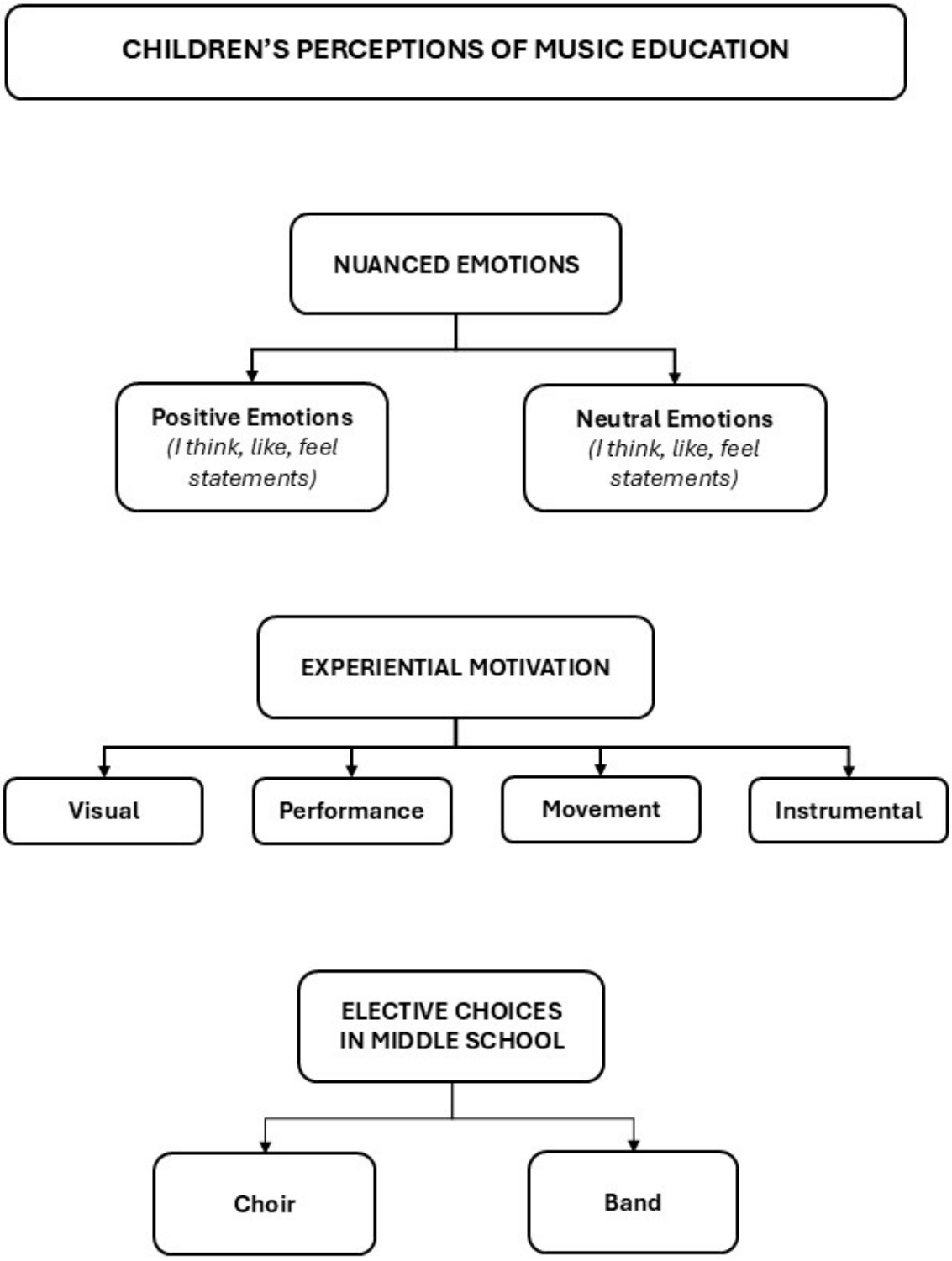


Table 4.1

Domains, Categories, and Participant Quotes

Domain	Category	Frequency	Quote
Nuanced Emotions	**Positive Emotions** *"I think, I like, I feel statements"*	17 (31.5%) 9 (16.7%) Female 8 (14.8%) Male	*"I feel like I can concentrate more"* *"I feel better than I do before music"* *"I feel mad about having to leave music class"* *"I think music is fun because we get to play instruments"* *"I like to go outside and play music games and be active"*
	Neutral Emotions *"I think, I like, I feel statements"*	36 (66.7%) 18 (33.3%) Female 18 (33.3%) Male	*I feel "fine" "normal" "same" "okay" "it varies" "not sure" "good" "randomized"*
Experiential Motivation	**Visual**	12 (22.2%) 6 (11.1%) Female 6 (11.1%) Male	*I like "watching* *"Quaver Music Videos and Musicals"* *"Playing music games on our Chromebooks"*
	Performance	26 (48.1%) 14 (25.9%) Female 12 (22.2%) Male	*I like performing in* *"musicals,* *"plays"* *"concerts"*
	Movement	39 (72.2%) 18 (33.3%) Female 21 (38.9%) Male	*I like "movement"* *"singing songs"* *"music activities"* *"playing music games"*
	Instrumental	44 (81.5%) 23 (42.6%) Female 21 (38.9%) Male	*I like playing* *"instruments"* *"ukuleles"* *"drums"*

Domain	Category	Frequency	Quote
Elective Choices in Middle School	**Choir**	9 (16.6%) 8 (14.8%) Female 1 (1.9%) Male	*"Choir. I like to sing but I'm a little shy"* *"Choir because I love to sing"* *"Choir because I want to have a role in the music plays"* *"Choir because I want to be just like Dolly Parton"*
	Band	24 (44.4%) 12 (22.2%) Female 12 (22.2%) Male	*"Band seems fun"* *"I get to play instruments in band"* *"Band because I love instruments"* *"I would choose to be in band"*

Content Analysis: Children's Perceptions of Music Education

The process of content analysis identified three main domains from the music survey data. The four themes include: 1) Nuanced Emotions, 2) Experiential Motivation, and 3) Elective Choices in Middle School. A discussion of the three domains and the subsequent categories will be examined within the context of the wider literature while reflecting on the potential implications of positive outcomes for student participation in a music education program and its impact on wellbeing. A summary of how the domains are potential mechanisms to create positive outcomes from participation in a music education program at a public school is provided in Table 4.1. Domains from the data analysis are presented in detail within the context of the wider literature while reflecting on students' perceived impact of music education.

Domain One: Nuanced Emotions

The first domain, nuanced emotions, refers to the ability to express subtle differences in emotion, feeling, or meaning. Music education has been shown to play a powerful role in the development of nuanced emotional understanding by helping individuals not only recognize emotions but also express and regulate them (Hallam, 2010b; Hallam, 2020). Research in this area bridges the fields of psychology, musicology,

and music education, with a focus on how engaging with music fosters emotional awareness and social-emotional learning (Hallam; 2010b, Hallam, 2020). Two categories emerged from this domain: positive emotions and neutral emotions.

Positive Emotions

The first category, positive emotions, is what students may experience during a favorite activity in music class. Seventeen students (n=17, 31.5%), nine females (n=9, 16.7%), and eight males (n=8, 14.8%) said they left music class feeling positive emotions. These comments include *"I feel better than I do before music," "I feel mad about having to leave music class,"* and *"I think music is fun because we get to play instruments."*

Neutral Emotions

The second category, neutral emotions, applies to feeling indifferent or a lack of preferences about experiences. Thirty-six students (n=36, 66.7%), eighteen females (n=18, 33.3%) and eighteen males (n=18, 33.3%) stated that they experienced neutral emotions after leaving music class. Some general comments include *"I feel "fine," "normal," "same," "okay,"* and *"it varies."*

Domain Two: Experiential Motivation

The second domain, experiential motivation, refers to the motivation that comes from participating in activities that are active and dynamic (Kong, 2021). In music education, experiential motivation and learning in a positive classroom environment can help students become more motivated, engaged, and develop high level critical thinking skills (Kong, 2021). This results from students being engaged in learning or participating in their favorite music class activities such as playing instruments, singing songs, or playing music games. Four categories emerged from this domain: visual, performance, movement, and instrumental.

Visual

The first category, visual, is related to what students like to "see" in music class. For example, student stated they enjoyed watching *"Quaver music videos," "musicals,"* and *"playing music games on their Chromebooks."* Twelve students (n=12, 22.2%), six females (n=6, 11.1%), and six males (n=6, 11.1%) enjoyed doing visual activities in music class.

Performance

The second category, performance, speaks to what students like to do and actively participate in during music class. Twenty-six students (n=26, 48.1%), fourteen females (n=14, 25.9%), and twelve males (n=12, 22.2%) said they liked, "*performing in musicals," "plays,"* and *"concerts"* as part of the music class experience.

Movement

The third category, movement, demonstrates what students do kinesthetically as a "whole body" during music class. Thirty-nine students (72.2%), eighteen females (33.3%), and twenty-one males (38.9%) said they enjoyed *"movement," "singing songs," "music activities,"* and *"playing [active] music games"* during music class.

Instrumental

The third category, instrumental, is also kinesthetic but focuses more on the fine motor skills. Forty-four students (81.5%), twenty-three females (42.6%), and twenty-one males (38.9%) said they like playing *"instruments," "ukuleles,"* and *"drums"* as a favorite activity in music class.

Domain Three: Elective Choices in Middle School

The third domain, elective choices in middle school, is highly important as it speaks to autonomy, choices, and goals relating to music education as students move from elementary school into middle school after 5th grade. Two categories emerged from this domain: choir and band. Firstly, music education promotes social connections and fosters positive relationships, which are fundamental to well-being according to positive psychology (Hallam, 2010b). Secondly, group music-making, such as in choirs, bands, or orchestras, builds community and encourages teamwork (Green, 2008). Thirdly, music ensembles provide a sense of belonging and shared purpose, which also enhances emotional wellbeing (Maury & Rickard, 2016). Lastly, choices like band and choir speak towards the development of music across the lifespan as students move through adolescence into adulthood (Lamont, Hargreaves, Marshall, & Tarrant, 2003).

Choir

The first category, choir, focuses on the vocal aspect of music education through group music making, collaboration, and teamwork. Nine students (n=9, 16.6%), eight females (n=8, 14.8%), and one male (n=1, 1.9%) said they would likely choose choir when entering middle school. Some student comments are as follows: *I like to sing but I'm a little shy," "choir because I love to sing," "choir because I want to have a role in the music plays,"* and *"choir because I want to be just like Dolly Parton."*

Band

The second category, band, focuses on the instrumental aspect of music education regarding group collaboration, music making, and performing. Twenty-four students (n=24, 44.4%), twelve females (n=12, 22.2%), twelve males (n=12, 22.2%) said they would likely choose band in middle school. Some student comments are as follows: *"Band seems fun," "I get to play instruments in band," "band because I love instruments,"* and *"I would choose to be in band."*

Summary Findings – Music Survey Open-Ended Questions

In domain one, nuanced emotions, there are two categories: positive emotions and neutral emotions.

Positive Emotions

Out of the seventeen students (n = 17, 31.5%) who reported experiencing positive emotions following music class, females (n = 9, 16.7%) represented a slightly higher proportion than males (n = 8, 14.8%).

Neutral Emotions

Out of thirty-six students (n = 36), 66.7% reported experiencing neutral emotions after leaving music class. This response was equally distributed between males and females, with eighteen females (n = 18, 33.3%) and eighteen males (n = 18, 33.3%) indicating the same emotional state.

Data Analysis: Descriptive Statistics – Music Survey Closed-Ended Questions

As stated, the music survey, designed by the teacher-researcher, contained four closed-ended and six open-ended questions. The Cronbach's Alpha reliability scale rated the four closed-ended questions with a .75 at timepoint one and a .61 at timepoint two. The descriptive statistics in Table 4.2 includes mean, median, standard deviation, and a

few other descriptors that describe the distribution of the data. The graphs and histograms were calculated with a 95% confidence interval with a +/-1 for standard deviation. The music survey data were not normally distributed as evidenced by the bimodal distribution in the histograms at T1 and T2. At T1, the histograms indicated a median of 2.25 (Mdn=2.25) and a standard deviation of .52 (SD=.52). At T2, the histogram indicated a median of 3.00 and a standard deviation of .36 (SD=.36).

Table 4.2

Descriptives Timepoint 1

			Statistic	Std. Error
TP1AVG	Mean		2.2963	.07120
	95% Confidence Interval for Mean	Lower Bound	2.1535	
		Upper Bound	2.4391	
	5% Trimmed Mean		2.3045	
	Median		2.2500	
	Variance		.274	
	Std. Deviation		.52322	
	Minimum		1.00	
	Maximum		3.25	
	Range		2.25	
	Interquartile Range		.75	
	Skewness		-.075	.325
	Kurtosis		-.036	.639

Note: Table 4.2 contains the descriptive statistics for the music survey at T1 and T2 which illustrate measures of frequency, central tendency, and dispersion or variation.

Table 4.3

Descriptives Timepoint 2

			Statistic	Std. Error
TP2AVG	Mean		3.0417	.05022
	95% Confidence Interval for Mean	Lower Bound	2.9409	
		Upper Bound	3.1424	
	5% Trimmed Mean		3.0463	
	Median		3.0000	
	Variance		.136	
	Std. Deviation		.36906	
	Minimum		2.25	
	Maximum		3.75	
	Range		1.50	
	Interquartile Range		.56	
	Skewness		-.006	.325
	Kurtosis		-.711	.639

Table 4.3 contains the descriptive statistics for the music survey at T1 and T2 which illustrate measures of frequency, central tendency, and dispersion or variation.

Figure 4.3

Distribution Frequency of the Music Survey questions at T1

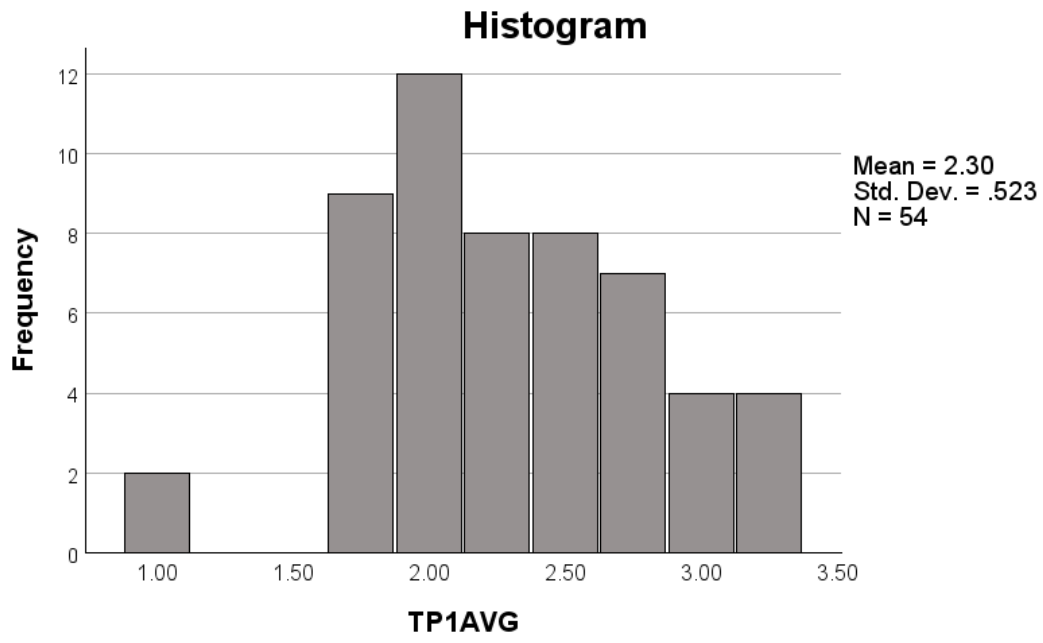


Table 4.4

Tests of Normality for the Music Survey at T1

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TP1AVG	.140	54	.010	.950	54	.024

Note: The data on this table indicates that the Assumption for Normality has been violated at T1. It supports the visualization observations in the histograms above.

Figure 4.4

Distribution Frequency of the Music Survey questions at T2

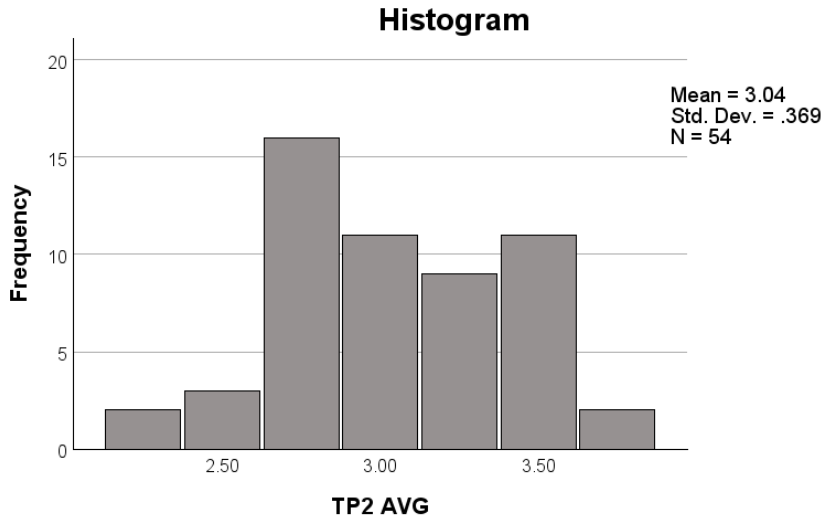


Table 4.5

Tests of Normality TP2

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TP2AVG	.174	54	<.001	.934	54	.005

Note: The data on this table indicates that the Assumption for Normality has been violated at T2. It supports the visualization observations in the histograms above.

Inferential Statistics

Inferential Statistics – Music Survey

The music survey scores were calculated using the Mann-Whitney U statistical test for males and females. The scores increased for males between T1 (Mdn = 2.0), U = 230.50, z = -2.348, ns, r = -.45, $p < .05$ and T2 (Mdn = 3), U = 358.00, z = -.115, ns, r = -.02, $p < .05$.

Likewise, the scores also increased for females between T1 (Mdn = 2.5), U = 230.50, z = -2.348, ns, r = -.45, p < .05 and T2 (Mdn = 2.5), U = 358.00, z = -.115, ns, r = -.02, p < .05.

There was a statistically significant increase in median test scores for females and males between timepoint one and timepoint two (p < .05), reflecting a positive change in the music survey scores over time.

However, the music survey scores calculated utilizing the Wilcoxon Signed Ranks did not significantly differ between males (Mdn = 2.0) and females (Mdn = 2.5) at T1, W = 608.50, z = -2.348, ns, r = .45. Likewise, there was no significant difference in the music scores between males (Mdn = 3.0) and females (Mdn = 3.0) at T2, 736.00, z = -.115, p < .05, r = .45.

Summary of Findings: Music Survey – Quantitative

A total of 54 (n=54) out of 57 students participated in the music survey for both timepoints (T1 and T2). While a full omnibus two-way ANOVA was initially planned, data from the histograms, line graphs, boxplots, and tests for normality demonstrated that the data was not normally distributed. Therefore, the non-parametric Mann-Whitney U test was conducted on the music survey data to test determine whether there were positive changes for males and females between T1 and T2. Moreover, the non-parametric Wilcoxon Signed Ranks was conducted to assess for significant differences between males and females at T1 and T2. Both males and females showed statistically significant positive changes in the music survey scores between timepoint one and timepoint two; however, there was no statistically significant difference between males and females at timepoint two (p < .05).

Study 2: Teacher Perceptions of Wellbeing and Involvement

Participant Characteristics – The Leuven Wellbeing and Involvement Scale

During the intervention phase of the study, the teacher-researcher observed the fourth and fifth grade students (n=54) participating in the study during their assigned music class times using the Leuven Wellbeing and Involvement Scale.

Measure – The Leuven Wellbeing and Involvement Scale

The Leuven Well-Being and Involvement Scale is a 5-point rating observational tool developed by Dr. Ferre Laevers at the University of Leuven in Belgium (Laevers 2011; Laevers & Declercq, 2018). The Leuven has two scales, one for involvement and another one for wellbeing. A copy of this scale and the accompanying descriptions can be

found below and in appendix D. A level one indicates extremely low levels of wellbeing and involvement demonstrated by signs of discomfort, withdrawn, no activity, low energy, mentally absent, and avoiding eye contact signaling a cause for concern (Laevers & Declercq, 2018).

A level five indicates high levels of wellbeing and involvement demonstrated by continuous and intense activity, very energetic, very expressive, high levels of confidence, vitality in facial expressions, and spontaneity (Laevers & Declercq, 2018).

Involvement Scale:

1. No involvement – No activity (e.g., no energy, distracted, passive)
2. Low involvement – Interrupted Activity (e.g., easily distracted, minimal interest or engagement)
3. Moderate involvement – Activity without intensity (e.g., continuous activity, occasional focus, distracted some of the time)
4. High involvement – Activity with intense moments (e.g., engaged most of the time, not easily distracted, more energy)
5. Extremely high involvement – Continuous intense activity (e.g., completely absorbed and focused, deeply engaged, energetic)

Wellbeing Scale:

1. Extremely low wellbeing – Outspoken signs of distress (e.g., sad, withdrawn, or anxious, may exhibit aggressiveness)
2. Low wellbeing – Signs of distress predominate (e.g., unhappy, unconfident, signs of emotional discomfort)
3. Moderate wellbeing - A mixed picture, no outspoken signs (e.g., neutral posture and facial expressions, neutral emotions)
4. High wellbeing – Signs of enjoyment predominate (e.g., happy, content, cheerful, displays confidence)
5. Extremely high wellbeing – Outspoken signs of enjoyment (e.g., very expressive, full of energy, joyful, relaxed, no signs of tension or stress)

(Laevers & Declercq, 2018; Declercq et al., 2011)

While this scale is widely used in early childhood education settings to assess children's emotional well-being and involvement in activities, the Leuven scale is useful for any educational classroom setting i.e., babies, toddlers, preschool, elementary, secondary, adult education (Laevers & Declercq, 2018). Not only is the Leuven Scale an important tool for understanding children's emotional needs and developmental processes, it also assists educators in creating environments that are conducive for optimal learning,

development, and wellbeing (Declercq et al., 2011; Laevers & Declercq, 2018). The Leuven scale is based on the idea that children's learning and development are closely linked to how they feel (well-being) and how engaged they are in what they are doing (involvement) (Laevers, 2005; Laevers & Declercq, 2018). In the Leuven Scale, the term wellbeing indicates that a child's basic needs are met and the child's emotional state of feeling at ease and confident (Laevers, 2005; Laevers & Declercq, 2018). For example, a child with high levels well-being feels safe, confident, and relaxed, which indicates that they are comfortable in their environment and able to develop positive relationships with others (Declercq et al., 2011; Laevers & Declercq, 2018). The term involvement refers to the level of engagement, focus, or deep concentration and level of learning that a child exhibits in an activity (Laevers, 2005). A highly involved child is considered fully focused, very energetic, and displays a sense of high satisfaction in what he or she is doing.

Leuven Scale Observation Procedure

Student observations were completed during the 43-minute music class time each week. Was this included in the ethics? Groups of students in the intervention group, ten to twelve at a time, were observed throughout music class and notes were made afterwards to document findings on an Excel spreadsheet. As the teacher-researcher, I observed half of the class for 20-22 minutes and then focused on the other half of the class for 20-22 minutes. Students attended music classes 2-3 times a week which allowed time to observe students who may have been absent during the observation.

Data Collection – Leuven Scale Observation

Data collection commenced during weekly music class times. Observation ratings regarding wellbeing and involvement along with weekly field notes were documented on an excel sheet. All recorded information was saved on a laptop computer per IRB ethics guidelines stated earlier in the chapter. A copy of these documents can be found in appendix D.

Data Management

All observational data and field notes were stored on a password protected laptop in accordance to the University of Central Oklahoma's Office of Research Integrity and Compliance's Institutional Review Board (IRB) on November 26th, 2018 – IRB Application #: 2018-142.

Statistical Analysis – Leuven Wellbeing and Involvement Scale Observations

The following section outlines the analytical framework for the Leuven Wellbeing and Involvement Scale observations. All statistical analysis was conducted using IBM SPSS Statistics Version 26. Prior to inspecting the data, the planned statistical analysis was a full two-way omnibus mixed ANOVA including two groups (*males and females between-subjects factor*) by two timepoints (*T1 and T18 within-subjects factor*) design. However, due to not normally distributed data, nonparametric tests were used to determine teacher perceptions of wellbeing and involvement. The nonparametric Mann-Whitney U & Wilcoxon statistical test was conducted to examine the main effect of group, time, and the interaction between males and females within the intervention school instead of the two-way omnibus mixed ANOVA. Two planned comparisons were used to analyze the data for significant differences between males and females. The two analyses compared the experimental school's pre/post-music intervention scores within and between groups at T1 and T18 to determine whether there would be any significant, quantitative statistical differences of change over time by sex.

Results

Analysis – Descriptives – Leuven Wellbeing and Involvement Scale

The descriptive statistics are located in Table 4.6 for the intervention school. This table includes mean, median, standard deviation and a few other key descriptors. The graphs and histograms were calculated with a 95% confidence interval and a +/-1 for standard deviation. The intervention school's scored data from the Leuven Wellbeing and Involvement Scale were not normally distributed as evidenced by the bimodal distribution in the histograms at T1 and T18. The line graphs indicated a substantial overlap of the error bars and variation between T1 and T18 for wellbeing and involvement. Moreover, there were significant differences in the visualizations between males and females at T1 for wellbeing and involvement but no significant differences between males and females at T18. (See Figures 4.7 & 4.10)

Table 4.6

Descriptive Statistics for the Leuven WB Scale at T1 and T18

			Statistic	Std. Error
LS WB 1	Mean		3.50	.111
	95% Confidence Interval for Mean	Lower Bound	3.28	
		Upper Bound	3.72	
	5% Trimmed Mean		3.50	
	Median		4.00	
	Variance		.670	
	Std. Deviation		.818	
	Minimum		2	
	Maximum		5	
	Range		3	
	Interquartile Range		1	
	Skewness		-.322	.325
	Kurtosis		-.428	.639
LS WB 18	Mean		4.70	.068
	95% Confidence Interval for Mean	Lower Bound	4.57	
		Upper Bound	4.84	
	5% Trimmed Mean		4.75	
	Median		5.00	
	Variance		.250	
	Std. Deviation		.500	
	Minimum		3	
	Maximum		5	
	Range		2	
	Interquartile Range		1	
	Skewness		-1.379	.325
	Kurtosis		.927	.639

Note: The descriptive statistics in the table above indicate nonsignificant changes in scores, mean, and standard deviation over time but with significant variation.

Figure 4.5

Distribution Frequency of the Leuven Wellbeing Scale at T1

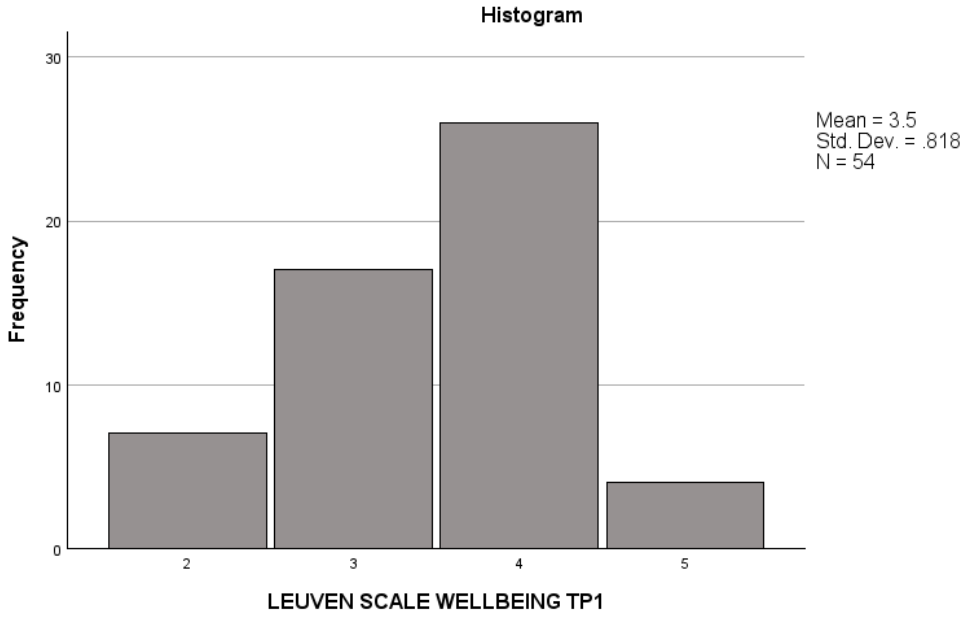
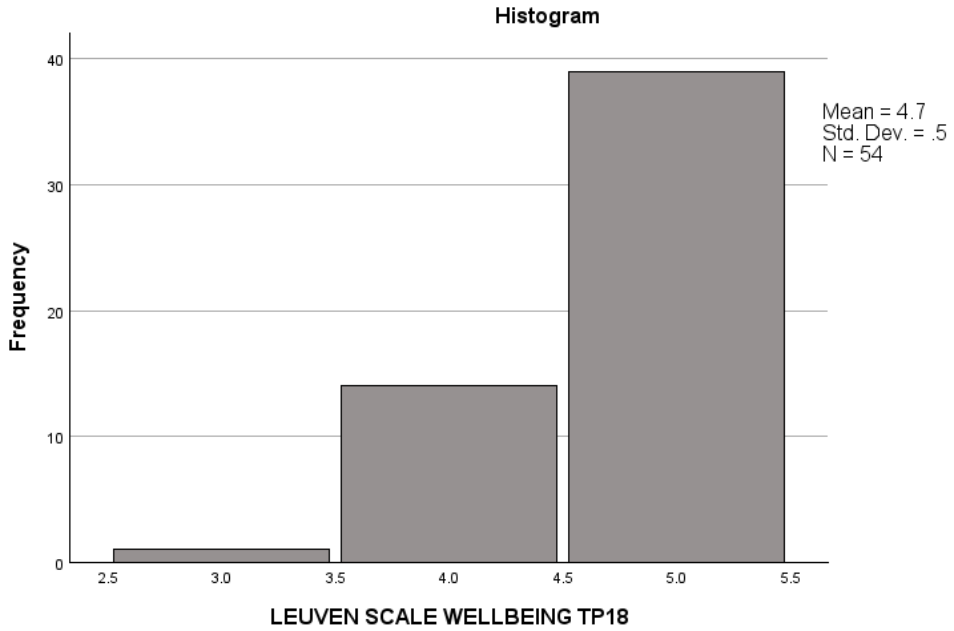


Figure 4.6

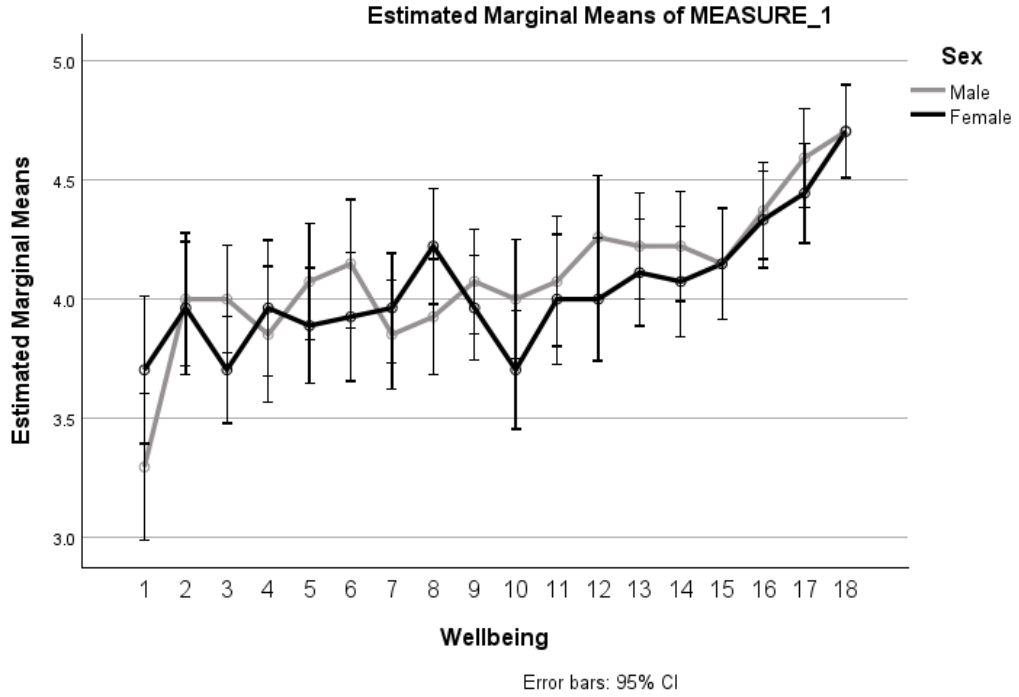
Distribution Frequency of the Leuven Wellbeing Scale at T18



Note: Figures 4.5 and 4.6 above for the Leuven Wellbeing Scale at T1 and T18 indicate the distribution of scores is bi-modal and this will have implications for next steps in the data analysis process.

Figure 4.7

Multiple Line Mean of the Leuven Wellbeing Observation at T1, Mean of the Leuven Wellbeing Scale Observation at T18 INDEX at the Intervention School



Note: The Line Graph is displaying the visualization of 4th and 5th grade males and females of differences in groups over two timepoints (T1 and T18) to display the overlap of scores.

Table 4.8

Tests of Normality for the Leuven Wellbeing Scale for the Intervention School at T1 and T18

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LS WB 1	.285	54	<.001	.849	54	<.001
LS WB 18	.445	54	<.001	.594	54	<.001

Note: The data on this table indicates that the Assumption for Normality has been violated at T1 and T18 for the Leven Wellbeing Scale. It supports the visualization observations in the histograms above.

Table 4.9

Descriptive Statistics for the Leuven Involvement Scale at T1 and T18

			Statistic	Std. Error
LS INV 1	Mean		3.63	.116
	95% Confidence Interval for Mean	Lower Bound	3.40	
		Upper Bound	3.86	
	5% Trimmed Mean		3.64	
	Median		4.00	
	Variance		.728	
	Std. Deviation		.853	
	Minimum		2	
	Maximum		5	
	Range		3	
	Interquartile Range		1	
	Skewness		-.327	.325
	Kurtosis		-.394	.639
LS INV 18	Mean		4.72	.067
	95% Confidence Interval for Mean	Lower Bound	4.59	
		Upper Bound	4.86	
	5% Trimmed Mean		4.77	
	Median		5.00	
	Variance		.242	
	Std. Deviation		.492	
	Minimum		3	
	Maximum		5	
	Range		2	
	Interquartile Range		1	
	Skewness		-1.504	.325
	Kurtosis		1.353	.639

Note: The descriptive statistics in the table above indicate nonsignificant changes in scores, mean, and standard deviation over time but with significant variation.

Figure 4.8

Distribution Frequency of the Leuven Involvement Scale at T1

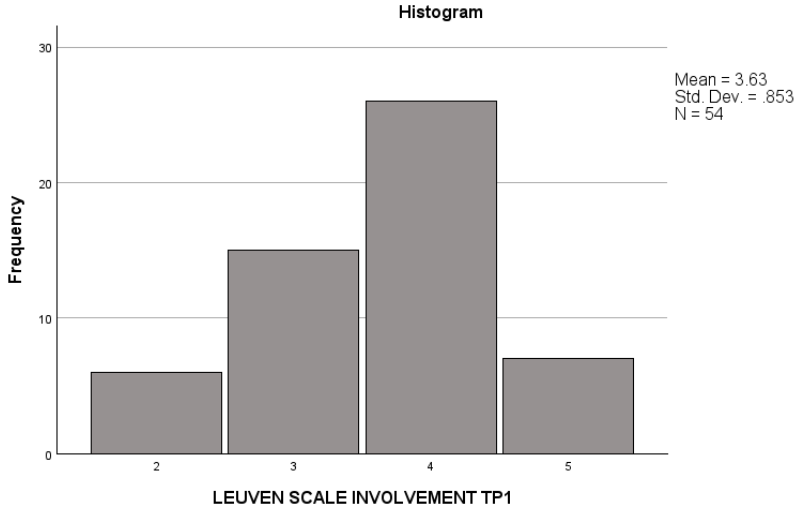
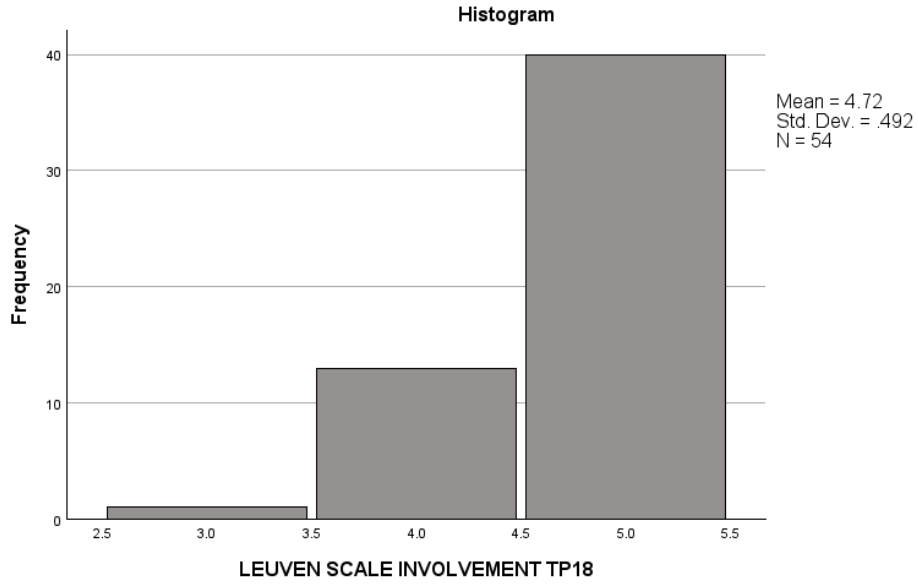


Figure 4.9

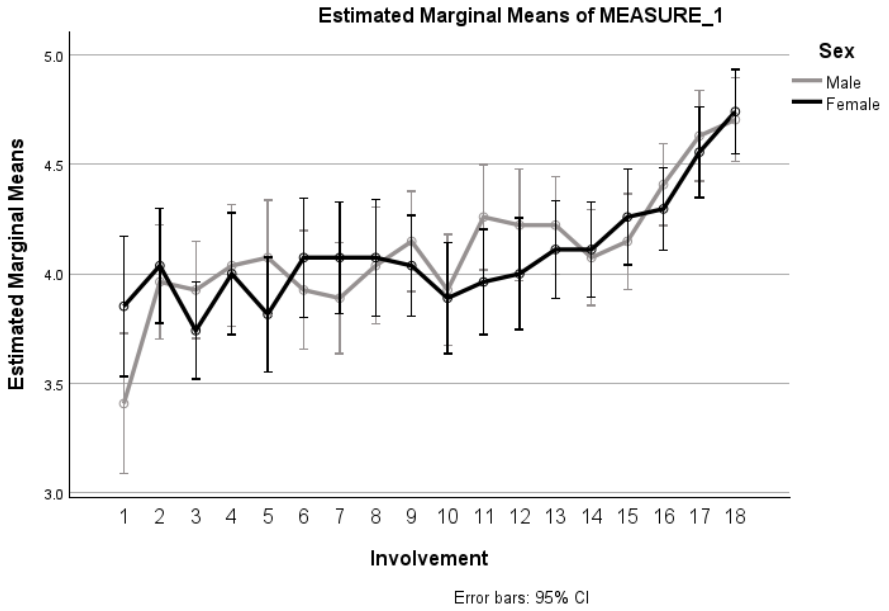
Distribution Frequency of the Leuven Involvement Scale at T18



Note: Figures 4.7 and 4.8 above for the Leuven Involvement Scale at T1 and T18 indicate the distribution of scores is bi-modal and this will have implications for next steps in the data analysis process.

Figure 4.10

Multiple Line Mean of the Leuven Involvement *Observation at T1, Mean of the Leuven Involvement Scale Observation at T18 INDEX at the Intervention School*



Note: The Line Graph is displaying the visualizations of 4th and 5th grade males and females of differences in groups over two timepoints (T1 and T18) to display the overlap of scores.

Table 4.10

Tests of Normality for the Leuven Involvement Scale for the Intervention School at T1 and T18

Tests of Normality Involvement

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LS INV 1	.279	54	<.001	.861	54	<.001
LS INV 18	.455	54	<.001	.577	54	<.001

Note: The data on this table indicates that the Assumption for Normality has been violated at T1 and T18 for the Leuven Involvement Scale. It supports the visualization observations in the histograms above.

Inferential Statistics – Leuven Scale

The Leuven Observation Scale – wellbeing scores were calculated using the Mann-Whitney U statistical test for males and females. The wellbeing scores increased for males between T1 (Mdn = 3.0), U = 273.50, z = -1.703, ns, r = -..23, p < .05 and T18 (Mdn = 5), U = -355, z = -.211, ns, r = -.02, p < .05.

Similarly, the wellbeing scores also increased for females between T1 (Mdn = 4), U = 273.50, z = -1.703, ns, r = -.1,703 p < .05 and T18 (Mdn = 5), U = 355.00, z = -.211, ns, r = -.02, p < .05.

The Leuven Observation Scale involvement scores were calculated using the Mann-Whitney U statistical test for males and females. The involvement scores increased for males between T1 (Mdn = 4.0), U = 271.50, z = -1.703, ns, r = -..23, $p < .05$ and T18 (Mdn = 5), U = 361, z = -.80, ns, r = -.23, $p < .05$.

Similarly, the involvement scores also increased for females between T1 (Mdn = 4), U = 271.50, z = -1.703, ns, r = -..23 $p < .05$ and T18 (Mdn = 5), U = 361.00, z = -.211, ns, r = -.02, $p < .05$.

There was a statistically significant increase in median test scores for females and males between timepoint one and timepoint eighteen ($p < .05$), reflecting a positive change in the Leuven Observation Scale scores over time.

However, analysis of the Leuven Wellbeing scores using the Wilcoxon Signed Ranks test revealed no statistically significant difference between male participants (Mdn = 4.0) and female participants (Mdn = 5.0) at Timepoint 1 (T1), W = 651.50, z = -1.703, ns, r = .23. Likewise, there were no statistically significant differences in the Leuven Observation Scale between males (Mdn = 3.0) and females (Mdn = 3.0) at T18, 736.00, z = -.211, $p < .05$, r = .02.

Summary of Findings

A total of 54 (n=54) students (n=3 missing data) were observed and documented by me, the teacher-researcher, using the Leuven Wellbeing and Involvement Scale. While a full omnibus two-way ANOVA was initially planned, data from the histograms, line graphs, boxplots, and tests for normality demonstrated that the data was not normally distributed. Therefore, the non-parametric Mann-Whitney U test was conducted on the results from the Leuven Scale data to determine whether there were positive changes for males and females between T1 and T18. Consequently, the non-parametric Wilcoxon Signed Ranks was conducted to assess significant differences between males and females at T1 and T18. Both males and females showed positive changes in the Leuven observation scale between timepoint one and timepoint eighteen. However, there were no significant differences between males and females ($p < .05$) at T18.

Discussion

Summary of Key Findings – Music Survey and Leuven Scale

This mixed methods chapter examined the perceptions of music education and its impact on wellbeing and involvement through the lens of 4th and 5th grade students and their teacher as measured by a music survey and the Leuven Wellbeing and Involvement Scale. While the study yielded positive results from the music survey at T2 and the Leuven Scale at T18 for both males and females; there were no statistically significant differences between males and females at T2 for either the music survey or T18 for the Leuven Observation scale.

Interpretation of the Results – Music Survey and Leuven Scale

This study explored the perceived impact of music education on males and females using a music survey and a Leuven observation scale. Both males and females scored higher for wellbeing and involvement at T18 and T2 for the music survey. However, there were no statistically significant differences between males and females at timepoint 2 for the music survey or timepoint 18 for the Leuven Scale regarding wellbeing or involvement. The research findings from the music survey and the Leuven Observation scale align with existing literature suggesting that music education positively impacts students' emotional development (wellbeing) and classroom engagement (involvement) (Blasco-Magraner et al., 2021; Hou, 2024). Moreover, the application of the Leuven Scale provided valuable observational data on student well-being and involvement, supporting its utility in educational research settings (Laevers & Declercq 2018; Blasco-Magraner et al., 2021; Hou, 2024). Likewise, employing mixed methods and scales like the Leuven Scale can enhance the depth and reliability of research in music education. The findings from this study continue to reinforce the growing body of evidence that music education positively influences students' emotional development, classroom involvement, school connectedness, feelings of hopefulness, and its effectiveness in promoting holistic development (Ilari & Cho, 2023; Blasco-Magraner et al., 2021). These implications emphasize the significance of music education in developing student wellbeing and engagement, support the design of inclusive programs, and validate robust research methodologies in the field. The lack of significant gender differences in the study aligns with research indicating that music education benefits students across genders (Szabó et al., 2024; Ilari & Cho, 2023). While gender disparities exist in music education at various levels, music education experiences can be designed to be more equitable, inclusive, and promote wellbeing for all students regardless of gender (Hou, 2024; Szabó et al., 2024; Ilari & Cho, 2023; Culp & Robison, 2022).

Limitations and Strengths of the Study

This mixed methods study had some practical limitations. The music survey was a self-report measure. Therefore, it is possible that students responses could be over or underestimated. Also, collecting data from the larger student body rather than students in the intervention group could have yielded broader results. Moreover, the 4th and 5th grade students answered open and closed-ended questions in which the open-ended questions were answered with a few words, phrases, and short sentences. Questions answered through one-to-one or small group semi-structured interviews may have resulted in richer text and dialogue with more in-depth information regarding student perceptions of the music education experience.

With regard to the Leuven Scale observations, I, the teacher-researcher, taught while observing students and with it brought opportunities and challenges. As a teacher, what I teach and how I teach makes a direct impact on students' lives. That being said, the role of teacher-researcher is a balancing act of dual roles especially during an intervention, and it can potentially create a conflict of interest (Xu & Zammit, 2020). However, through research, I can systematically examine their own teaching practices, identify areas for improvement, and implement changes that enhance student learning, wellbeing and involvement in the music classroom (Xu & Zammit, 2020). While teacher-researchers bring valuable insights and contextual knowledge to educational research, we must remain vigilant about potential biases. By addressing these biases through reflective practice, peer accountability, and ongoing professional development in research methodologies can enhance the credibility and impact of the work (Xu & Zammit, 2020).

Implications for Future Research

The aim of this study was to discover the perceived impact of music education by 4th and 5th grade students in the elementary classroom. The second part of the question focused on the possibility of differing perceptions based on biological sex. The current study's findings could initiate other researchers to build on this foundation of research and add to the wider literature by designing additional studies that explore children's perceptions of music education and their level of wellbeing and involvement inside the classroom and focus on differences related to biological sex. Moreover, future studies might gather information through semi-structured interviews rather than open and closed-ended questions for a richer, more in-depth analysis of children's perceptions. While the findings of this study showed positive results, future teacher-researchers may consider doing a short survey before research commences to discover favorite activities and plan accordingly for those particular interests. As stated, the delivery (i.e., type of music and

activities and/or multiple activities) of music education within schools is likely a key factor (Wilkinson, 2013; Maury & Rickard, 2016; Szabó et al., 2024).

Conclusion

This study aimed to explore the perceived impact of music education on children's wellbeing and to examine potential differences based on biological sex. The findings revealed significant outcomes, particularly in relation to teacher and student perceptions as measured by the music education survey and the Leuven Observation Scale for Wellbeing and Involvement. As discussed, music education demonstrates considerable potential as a positive psychology intervention, contributing to enhanced student wellbeing, greater classroom involvement, and the development of resilient, adaptive learners (Szűcs & Juhász, 2023; Heyworth, 2013; Hallam & Himonides, 2022).
These findings contribute to the growing body of literature and offer a foundation for future research on the impact of emotional wellbeing in the educational setting.

Chapter 5

5. Results and Discussion Chapter

"Music helps students understand themselves, relate to others, develop cultural understanding, and forging important links between…home, school, and the wider world"

(National Curriculum for England, 2007).

Abstract

The purpose of this chapter is to present a comprehensive analysis and discussion of the results derived from the three method chapters in this thesis and contextualize these findings within the broader body of existing literature. Although academic subjects remain a central focus in educational settings, music education continues to serve an essential role in cultivating emotional development and classroom engagement as well as developing well-rounded and creative individuals. Investigating and exploring the multifaceted benefits of music education is essential not only for music educators and administrators but also for policymakers who are committed to supporting holistic approaches to student development and well-being.

***Key Words**:* Music Education, Positive Education, Music Therapy, Self-Esteem, Wellbeing, Quality-of-Life, Music Intervention, Positive Psychology

Summary of Key Findings

This thesis examined the perceived impact of music education on children's emotional wellbeing, self-esteem, quality of life, and classroom involvement in rural public-school settings. Across three interconnected studies while exploring adult perceptions, student self-reports, and teacher observations, the findings revealed both affirming and complex outcomes. Adults (parents, teachers, and administrators) consistently valued music education as essential to holistic development, echoing findings by (Ilari & Cho, 2023) and Stavrou (2024), who argue that music fosters emotional and social growth. Observational data using the Leuven Scale supported this view, revealing higher wellbeing and engagement during music sessions, aligning with Blasco-Magraner et al. (2021) and Sun (2022). While children's self-reports on self-esteem and quality of life did not yield statistically significant changes, likely due to sample size limitations and potential measurement constraints, prior research (Hallam & Himonides, 2022) suggests that music's influence on psychological outcomes may be more nuanced and long-term. Overall, the study reinforces music education as a meaningful contributor to student wellbeing, especially in under-resourced rural contexts, and highlights the need for continued inquiry using mixed methods and larger samples to better capture subtle or evolving benefits over time. Lastly, this chapter focuses on identifying the findings from the previous studies and integrating them together. The main points are identified in the Dual Display Table below.

Table 5.1

Dual Display Table

Summary of Key Research Questions for the Thesis	**Quantitative Data that addresses Key Research Questions**	**Qualitative data that addresses Key Research Questions**	**General Conclusion Comments**
Adult Perceptions of Music Education		Integration of Music Ed into Curriculum Impact of Music Education Curriculum Music is a Mechanism of Learning Music Supports Children's Development	Parents, teachers, and administrators expressed highly positive attitudes toward the role of music education within the school setting.
Music Education's Impact on: Self-Esteem Quality of Life	Survey Results Non-significant Survey Results Non-significant		The lack of statistically significant survey results may be attributed to participant disengagement, a reluctance to provide thoughtful responses, distractions in the classroom environment, and/ or emotional states unrelated to the intervention.

Perceived Impact of Music Education by Males and Females	Positive Impact at Timepoint 2 for Males and Females	Both male and female participants recorded the highest total scores and percentages within the Experiential Motivation Domain for the instrumental category, compared to the visual, performance, or movement category.
Does it differ by Biological Sex?	No significant differences between males and females at T2	It may be inferred that music offers meaningful benefits to all individuals regardless of biological sex due to its inclusive and universal value.
Leuven Scale Wellbeing	Wellbeing scores significantly increased for Males and Females at T18	No statistically significant differences were observed between male and female participants at timepoint 18 for wellbeing. A statistically significant difference emerged when both groups were combined and compared at timepoint 18 vs. timepoint 1. This finding suggests that the overall impact of music may have been a contributing factor to the significant change in both groups at timepoint 18.
Does it differ by Biological Sex?	No significant differences between M and Females scores at T18	

Leuven Scale Involvement	Involvement scores significantly increased for Males and Females at T18	Same comment as above for Involvement
Does it differ by Biological Sex?	There were no significant differences between male and female scores at T18	

Summary of the Key Research Questions

As mentioned, this thesis is timely and relevant area of inquiry, as it explores the influence of music education on the emotional health and wellbeing of children in the classroom setting. As such, the overall purpose of this thesis is to examine the influence of active participation in music education on student wellbeing as measured by a self-esteem and quality-of-life survey; music survey to determine student perceptions; one-on-one semi-structured interviews of perceived impact by parents, teachers, and administrators; and teacher observations of wellbeing and involvement during classroom activities. Lastly, this final chapter provides an overall review of the results and discussion of the thesis. Consequently, the study findings from this thesis may be applicable to other school settings for replication in determining self-esteem, quality of life, wellbeing, and involvement.

This thesis is comprised of three different studies that aimed to explore three separate research questions in each of the three methodology chapters. The types of studies and research questions are as follows:

1. The research question for the qualitative chapter is as follows: What is the perceived impact of music education on children in a rural public school by parents, teachers, and administrators?

2. The primary qualitative research question is as follows: Does participation in a daytime music education curriculum and related music experiences increase wellbeing of children? It is predicted that there will be an increase in self-esteem and quality of life

after a music intervention in students from the intervention school relative to those students from the control school.

3. The research question for the mixed methods chapter is as follows: What is the perceived impact of music education, and does it differ by biological sex?

Discussion of Overall Findings

This section presents a discussion of the overall research findings of each methodology chapter in relation to the broader literature. In the qualitative study, participants consistently conveyed enthusiasm and appreciation for the music education program, highlighting its positive influence on students, educators, and the wider school community. Moreover, a participant who identified as both a teacher and a parent, remarked, “I love that our students are learning about rhythm, doing musicals and being creative in music class.” As the teacher-researcher, I found the experience of conducting interviews with parents, teachers, and administrators, and subsequently analyzing their responses through reflexive thematic analysis, both intellectually engaging and professionally rewarding.

In the quantitative study, the self-esteem, quality of life, and music surveys were administered to my students during music class. Interestingly, neither the intervention nor the control group demonstrated statistically significant differences on these measures overall. However, at Timepoint Two (T2), the intervention group showed statistically significant improvement on the music survey, with no notable differences between male and female participants. Similar patterns were observed in the Leuven Wellbeing and Involvement Scales, where some statistically significant gains emerged at T2 within the intervention group.

These findings may reflect the unique role of active music-making in fostering engagement and emotional wellbeing. Seligman (2011) emphasizes the concept of the “engaged life,” which he describes as achieving a state of flow and “being one with the music” (p. 114). This sense of flow may help explain why students reported more positive responses when reflecting on activities they found intrinsically enjoyable. In music education, such engagement aligns with the concept of praxis, defined by Elliott and Silverman (2015) as active, reflective, and participatory music-making. Praxis not only encourages involvement but may also contribute to deeper levels of student wellbeing and involvement.

The minimal variation in outcomes between male and female students further underscores the inclusive potential of music education. Recent research supports the idea that music participation benefits students across diverse demographics by promoting

emotional resilience, cognitive engagement, and social connection (Hallam & Himonides, 2022; Blasco-Magraner, 2021). The comparable scores between genders in this study suggest that music education offers meaningful opportunities for all students, regardless of biological sex, reinforcing its value as a universal contributor to emotional wellbeing and school engagement in the post-pandemic era.

Implications

The aims of this thesis were threefold: to explore both adult and children's perceptions of music education; to examine its impact on self-esteem and quality of life; and to assess student wellbeing and classroom involvement through teacher observations. While the findings revealed generally positive outcomes, particularly in regard to student engagement and emotional development, the implications for future research are considerable. Subsequent studies should consider employing alternative or complementary measurement tools to enhance validity and address limitations such as small sample size or missing data. Expanding the sample would also improve generalizability. In addition, replicating the current study in varied contexts is critical for testing the reliability and robustness of its results.

To deepen the understanding of children's experiences, future researchers might adopt semi-structured interviews in place of solely open- and closed-ended questionnaires. This approach would allow for richer, more nuanced insights into children's emotional and cognitive engagement with music. While the music survey results were favorable, future teacher-researchers might also conduct pre-intervention preference surveys to tailor content to students' interests, potentially increasing program effectiveness. As highlighted in previous research, the structure and delivery of music education, specifically the type of music, range of activities, and mode of engagement play a crucial role in its impact (Heyworth, 2013; Szűcs & Erika Juhász; Szabó, 2024).

Critically, these findings underscore music education's potential not only as a curricular subject but as a strategic tool for fostering student wellbeing, emotional resilience, and classroom involvement. As such, this research contributes meaningfully to the broader discourse on arts-based educational interventions and their capacity to support holistic child development.

Limitations of the Study

While the findings of this thesis offer valuable insights, several overarching limitations should be acknowledged. One notable constraint was the relatively small sample size, which may have limited the statistical power needed to detect more subtle

effects, particularly in the studies examining self-esteem and quality of life. Participant attrition further reduced the final sample, as incomplete responses were excluded from the analysis. Possible contributing factors included survey fatigue, limited attention spans, and potential concerns about privacy or trust. Administering all three surveys within a 20–25-minute session may have placed additional cognitive demands on participants, particularly younger students. In hindsight, separating the music survey into a different session may have improved focus and data quality. The mixed-format nature of the music survey, combining open- and closed-ended items, may also have posed challenges in terms of comprehension and response clarity. The use of the Leuven Wellbeing and Involvement Scale provided useful observational insights, but, as with any teacher-reported measure, it was subject to individual interpretation and potential bias. Similarly, adult perception responses may have been influenced by social desirability or varying levels of engagement. These limitations do not undermine the contributions of the study but should be considered when interpreting the findings and planning future research.

Critical Reflection

One final consideration remains to be explored before presenting the concluding recommendations. As discussed in chapter two, the COVID-19 pandemic significantly disrupted traditional music education, alongside broader societal and educational structures, during both the lockdown period and the subsequent transition back to in-person learning. This reflection aims to explore the impact of music education on students' emotional wellbeing within the context of a post-pandemic learning environment shaped by hybrid (online/in-person) models implemented during the COVID-19 pandemic. It considers how these models influenced student learning, engagement, and teaching practices upon the return to in-person instruction. Furthermore, it seeks to examine how these experiences may shed light on the similarities and differences that may have influenced the three research studies presented in this thesis, within the broader landscape of post-pandemic music education.

The COVID-19 pandemic in 2020 significantly affected the mental health of school-aged children and adolescents. Research studies reported elevated levels of anxiety, depression, and emotional dysregulation among students as a result of prolonged social isolation, educational disruptions, and uncertainty (Stelitano, 2020; Hash., 2021). These challenges have persisted beyond the pandemic, prompting increased attention to emotional wellbeing in educational recovery frameworks (Koner et al., 2022).

The incorporation of trauma-informed approaches into education has gained traction; however, specific applications within the music classroom remain under-

researched. Emerging work suggests that music, as a multisensory and emotionally expressive medium, is particularly well-suited to trauma-sensitive pedagogy, yet few studies have explicitly addressed how music educators have adapted their teaching in response to students' post-pandemic needs (Shaw & Mayo, 2021; Robb et al., 2023). This represents a significant area for future investigation, especially within the broader discourse on equity and emotional safety in the learning environment.

The broader question remains: would the findings of this study have differed if the research had been conducted in the post-pandemic context? The conclusion is affirmative but to what degree depends on the specific aspect of the research.

In relation to chapter two, the qualitative chapter which involved semi-structured interviews with teachers, administrators, and parents regarding the importance and impact of music education, it is likely that the responses would have remained consistent. It is reasonable to suggest that the participants may have expressed even stronger views, given the heightened appreciation for the role of music education following the disruptions caused by the pandemic.

As for Chapter Three, it is plausible that baseline levels of self-esteem and quality of life (T1) might have been notably lower had the study been conducted immediately following the pandemic or the return to in-person learning, due to the widespread social and emotional challenges experienced during that period. However, it is anticipated that the results might have demonstrated a measurable improvement in both self-esteem and quality of life at the intervention school following the eighteen-week, in-person music intervention compared to no significant improvement during the study before the pandemic.

In Chapter Four, which employed a mixed methods design combining survey data and observational measures, it is conceivable that post-pandemic outcomes may have further amplified the results documented in the current study. Given the heightened emotional and psychological challenges reported among school-aged children following the COVID-19 crisis, it is plausible that students' engagement with music education would have had an even more pronounced effect. Survey responses may have reflected greater appreciation for music as a form of emotional expression, coping, and connection, particularly in contrast to the social isolation of the pandemic period. Observational data gathered through tools such as the Leuven Scale for Wellbeing and Involvement might have also demonstrated stronger contrasts between music and non-music learning environments, as students re-engaged with collaborative, creative experiences. The structured reintroduction of music education in a trauma-sensitive, post-COVID framework could have contributed to higher levels of observed wellbeing and classroom

involvement. Therefore, while the findings of the original study remain valid and meaningful, it is likely that a replication conducted during or after the pandemic would yield even more robust indicators of music education's impact, particularly in terms of emotional resilience, student motivation, and a renewed sense of community within the classroom. This reflection highlights the growing imperative for post-pandemic research that continues to explore the role of music education in supporting student recovery and holistic development across diverse educational settings.

Recommendations

Music education has increasingly been linked to wellbeing, as both engagement with music and music learning can potentially offer emotional, psychological, and social benefits. Therefore, recommendations for future research include exploring how music education contributes to children's emotional regulation, stress reduction, and overall mood enhancement. Additionally, more research is needed to identify specific aspects of music education (i.e., individual vs. group learning, different genres) that are most effective in promoting emotional wellbeing. Lastly, there is a need for more research on the integration of music into school-wide well-being programs, particularly how it compares to other interventions such as mindfulness or physical education. In conclusion, this thesis aimed to produce positive outcomes consistent with educationally, philosophically, and psychologically based research. Furthermore, the scope and complexity of research in this area extends beyond the present thesis. The responsibility of researchers, particularly when working with vulnerable populations such as children, is critical and should not be underestimated (Robb, 2023). The findings of this thesis carry strong and significant implications for music education advocacy at various levels (Hallam & Himonides, 2022).

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APPENDIX A

Signed Declaration for Inclusion of Publication

Documentation Includes: One Published Paper

The Impact of a Music Education Program on the Emotional Wellbeing of Elementary Students in a Rural Community: A Mixed Methods Investigation

Declaration:

The following people and institutions contributed to the publication of work undertaken as part of this thesis:

Candidate:	**Angela S. Jones**	**Name and College:**	**School of Psychology**

Author 1 Dr. Andrew H. Kemp, School of Psychology, Swansea University

Author 2 Dr. Justine Howard, Department of Education, Swansea University

Author 3 Dr. Keith White, Department of Music Education, University of Central Oklahoma

Author 4 Dr. Darla Eshelman, Department of Music Education, University of Central Oklahoma

Author Details and their Roles:

Paper 1 The Impact of a Music Education Program on the Emotional Wellbeing of Elementary Students in a Rural Community: A Mixed Methods Investigation

Located in Appendix A

Candidate contributed 100%

Author 1 Dr. Darla Eshelman, Contributed: Advisor

Author 2 Dr. Keith White, Contributed: Advisor

Author 3 Dr. Andrew H. Kemp, Contributed: Supervisor

Author 4 Dr. Justine Howard, Contributed: Supervisor

We the undersigned agree with the above stated "proportion of work undertaken" for each of the above published peer-reviewed manuscripts contributing to this thesis:

Signed Candidate: Angela S. Jones [Electronic Signature]

Author 1 Dr. Andrew H. Kemp [Electronic Signature]

Author 2 Dr. Justine Howard [Electronic Signature]

Author 3 Dr. Keith White [Electronic Signature]

Author 4 Dr. Darla Eshelman [Electronic Signature]

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RESEARCH PAPER

The Impact of a Music Education Program on the Emotional Wellbeing of Elementary Students in a Rural Community: A Mixed Methods Investigation

Angela S. Jones[1,2], Dr. Darla Eshelman [2], Dr. Keith White [2], Dr. Andrew H. Kemp[1], and Dr. Justine Howard[1]

Abstract

Background: Current research points toward health benefits related to active participation in music. However, few, if any, studies have examined the impact of music on the emotional health and wellbeing of children in the classroom setting.

Objective: The purpose of this study is to examine the influence of music education on student wellbeing focusing on experiences during music class, engagement in music activities, relationships with others, finding value in the activities, and feelings of motivation and success.

Method: Study participants will include fourth and fifth grade elementary students participating in general music classes as part of their daytime music curriculum and students in the same grade that do not have music education or an arts program at their school. The study will occur at two elementary public schools in the United States. One elementary school will host an experimental and control group, and the other elementary school will host a control group only. An eighteen-week will be carried out, characterized by a mixed counter-balanced experimental design within- (time: pre-, mid-, and post-test) and between-subject (group) factors using a mixed methods approach involving qualitative and quantitative data collected from naturally occurring groups. Students at both schools will be administered a standardized self-esteem survey, a quality of life survey, and a music survey at baseline week one, mid-term week nine, and week eighteen. The Leuven Wellbeing and Involvement Scale will also be implemented at the experimental school to measure both wellbeing and involvement during

[redacted]

standard sur l'estime de soi, une enquête sur la qualité de vie et une enquête sur la musique à la première semaine de référence, à la semaine à mi-parcours de la semaine neuf et à la semaine dix-huit. L'échelle de bien-être et d'implication de Louvain sera également mise en œuvre dans l'école expérimentale pour mesurer à la fois le bien-être et la participation lors de l'intervention musicale.

Résultats / Conclusions: *Il est prévu que les participants connaîtront une augmentation du bien-être émotionnel et de l'estime de soi après la phase d'intervention musicale, comme en témoignent les données quantitatives et qualitatives. S'ils sont positifs, les résultats mettront en évidence l'importance des programmes d'éducation musicale dans les écoles publiques et leur impact sur le bien-être des élèves, ce qui, espérons-le, réduira le financement des écoles pour l'éducation musicale*

Mots-clés: *Bien-être, musicothérapie, éducation musicale, psychologie positive, éducation positive, estime de soi*

Corresponding

The author(s) declared no potential conflicts of interest in respect to their authorship or the publication of this paper.

Acknowledgments
None declared

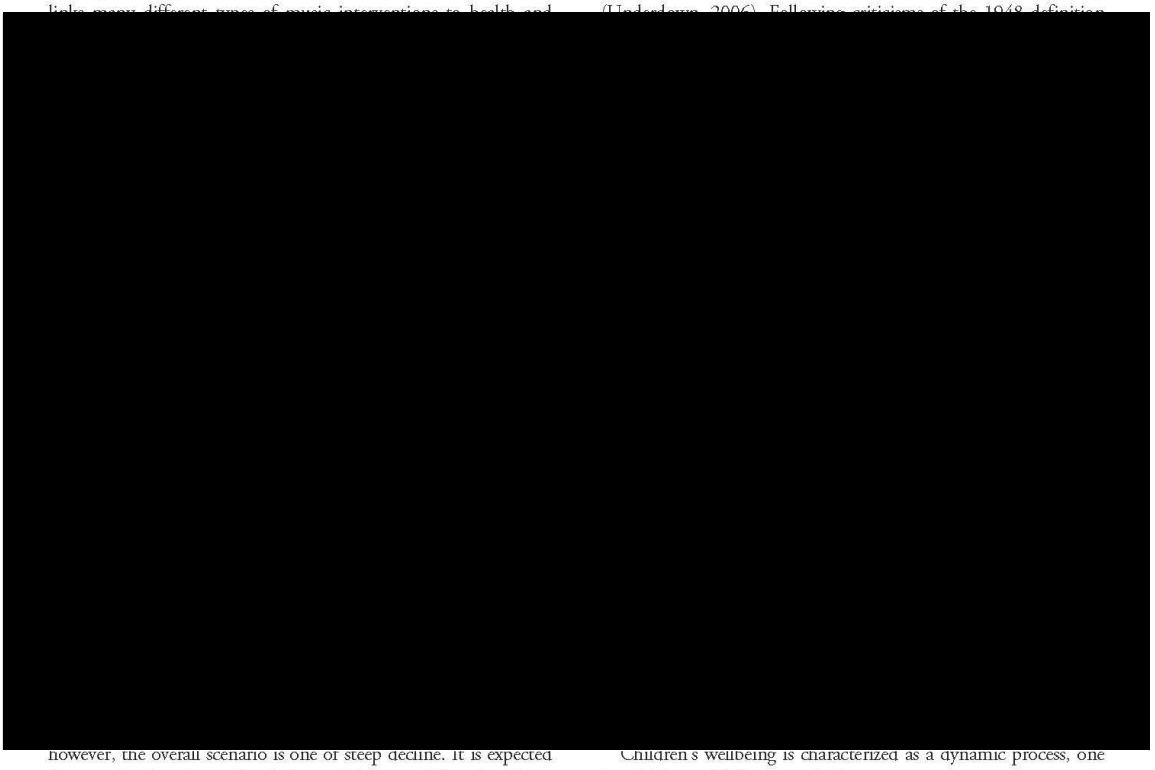
IMPACT OF MUSIC EDUCATION ON WELLBEING

Background

In a chapter title by MacDonald et al. (2012) he asks, *"What is music, health, and wellbeing; and why is it important? And why is it important to link these concepts together?"* (p. 3). Music is universal, emotional, engaging, physical, ambiguous, social, and a form of communication. It can also affect behavior and social identity. Within music research, there is a consistent thread that links many different types of music interventions to health and

of interest to international readers within or outside of the music education profession, looking to revitalize and support music education for ages 5-19 in free public schools, in particular.

In 1948, the World Health Organization (WHO) defined health as: *"a state of complete physical, mental and social wellbeing and not merely the absence of disease"* (Underdown, 2006, p. 3). This definition was well received at the time because it focused on all aspects of health – emotional, social, and physical wellbeing (Underdown, 2006). Following criticisms of the 1948 definition



however, the overall scenario is one of steep decline. It is expected that music education will only be available to privileged students in the next five to ten years and that the talent pipeline for the UK's world-renowned music industry will greatly suffer (Daubney, Spruce, & Annetts, 2019). However, an article by John Ross (2019) shares a glimmer of hope, predicting a resurgence in the importance of the humanities and liberal arts, and a focus on personal growth. Towards this end, the present study is therefore key, timely, and

Children's wellbeing is characterized as a dynamic process, one in which a child's external circumstances (e.g., socioeconomic background, family circumstances, and physical surroundings) interact with individual characteristics to satisfy needs to build psychological resources, competence, and promote positive social relationships (Thompson & Aked, 2009). Modern theories of wellbeing emphasize a deeper connection to oneself, others, and the surrounding environment (Mead et al., 2019). Wellbeing

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refers to "feeling at ease, being spontaneous and free of emotional tensions," (Laevers, 2011, "Well-being and Involvement", para. 1) which is essential for good mental health, self-confidence and resilience. When there are *"high levels of wellbeing and involvement…deep level learning is taking place"* (Laevers, 2011, "Well-being and Involvement", para. 2). Here 'involvement' refers to being "intensely engaged in activities" (Laevers, 2011,

An article by Hallam (2010b) reveals that concerns about children's health and wellbeing has led to a growth in research on the effect of the arts and music. Research suggests that active engagement with music in a group setting creates a positive learning environment that can enhance self-perceptions, creativity, self-expression, development of social skills, and contributes to health and wellbeing across the lifespan. This contribution to community cohesion can provide long-term benefits to society (Hallam, 2010; Heyworth, 2013).

Current research highlights the direct and indirect health benefits related to active participation in music. Some of those benefits include: the release of dopamine in the brain, increased secretory immunoglobulin A, reduction of cortisol levels, and temporary elevations in heart rate (Hallam, 2010; Rickard, 2014). However, very little research has been conducted on the impact of music and its emotional, social, and intellectual effects in a positive health

higher levels of wellbeing.

Science now demonstrates that strong connections between emotions, the brain, and wellbeing. In the noteworthy study "Music, Feeling, and the Human Brain," researchers Habibi and Damasio (2014) note that music-related affect – feelings and emotions – can be understood from a neurobiological perspective along with a psychological or sociocultural perspective. According to the researchers, music has the capacity to trigger emotions which induce feelings or mental experiences (Habibi & Damasio, 2014).

Music may change the state of the nervous system in the brain by fostering homeostasis and life regulation through positive feelings (Habibi & Damasio, 2014). Authors Habibi and Damasio (2014) state, *"there is unequivocal evidence that the emotive states induced by music and the feeling states that follow them, engage the homeostasis-related neural systems of the human brain and prompt physiological*

intervention phase. Active participation in music classes will also be reflected in higher scores on the Leuven Wellbeing and Involvement Scale during the music intervention phase.

METHOD

This research protocol has been written following the Standard Protocol Items: Recommendations for Interventional Trials (2013 SPIRIT-statement.org) guidelines.

Design

This is an eighteen-week counter-balanced study with a pre-, mid-, and post-test characterized by a mixed, counter-balanced, experimental design with within- (time) and between-subject (group: intervention and control) design using a mixed methods approach involving the collection of qualitative and quantitative

participation and nine weeks of inactive music participation for each group of students in the intervention condition. The control group school will receive no music instruction for the entire eighteen-week period.

A standardized self-esteem survey (Coopersmith, 1981; Hills, Francis, & Jennings, 2011), a quality of life survey (Bullinger, 1994), and a music survey designed by the author will be given to the students at the experimental school at baseline week one, mid-term week nine, and week eighteen (i.e., the end of the semester).

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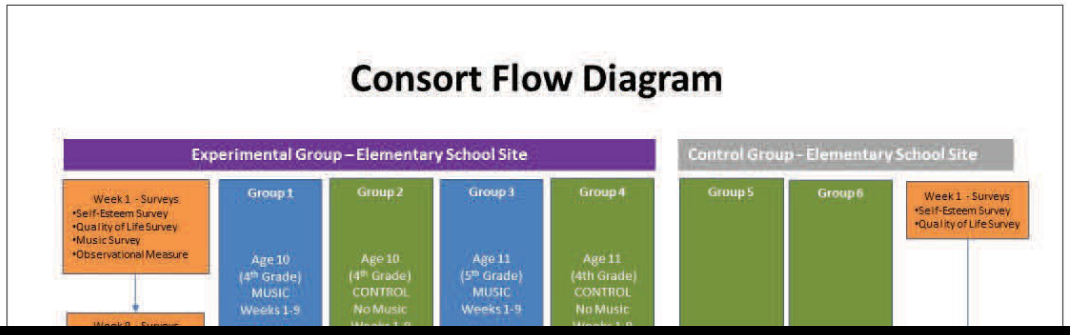
Figure 1: A CONSORT flow diagram – a counterbalanced study with cross-over design that will include within and between subject design using qualitative and quantitative data collected from naturally occurring groups



of involvement and wellbeing and five being the highest level of involvement and wellbeing. Data will be collected at the same three timepoints (i.e., week one, week nine, and week eighteen) that the students complete the surveys. Students will be observed by the researcher while they are participating in music activities during their regular music class time three different times in the semester (i.e., the same weeks that the surveys are completed).

In the same week that students at the experimental school complete the surveys, the control group school will be given the opportunity to participate in focus groups, be interviewed, or complete a survey at the end of the eighteen-week period. Teachers and administrative staff at the experimental/control group school will also be given the opportunity to be interviewed or fill out a survey at the end of the eighteen-week period.

Participant Recruitment

Recruitment will occur at two rural elementary public schools in fourth and fifth grade classrooms. The experimental/control

group elementary school has two teachers per grade at the elementary level with approximately 20-25 students per class. The control group elementary school has three to four teachers per grade at the elementary level with 20-25 students per class.

Approval will be obtained from the administrators at both schools to allow their fourth and fifth grade students to participate in the music education research project. Students and parents will be provided with information sheets about the study and

is a key component in creating positive musical experiences. As noted by Hallam (2010b), *"Engagement with music can enhance self-perceptions, but only if it provides positive learning experiences which are rewarding. This means that overall, the individual needs to experience success"* (p. 282). The music intervention for the study was carefully selected to encourage active participation. Learning to play a ukulele while singing was chosen for the music intervention. All students were taught three basic concepts, how to tune a ukulele, three basic chords, and a simple strumming pattern for accompaniment while singing during the music intervention phase. The students will learn how to play three songs (*He's Got the Whole World in His Hands, Yankee Doodle, and Over My Head*) using the same set of chords for each song.

Experimental Group

The first phase of the music intervention will begin during the first

for learning disorders, and/or a physical diagnosis is also being requested from parents/legal guardians.

Data Management

Audio recordings will be collected during the parent, teacher, and administrative staff interviews, and these will then be transcribed, anonymized and coded according to established qualitative research methods (Braun & Clark, 2006). All audio recordings

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and master code sheets will be kept in a locked storage cabinet and destroyed or deleted once the dissertation is completed. U.S. Federal Regulations requires all signed consent forms to be held for 3 years following study closure.

1993). They believe that by *"providing students with a clear message that the intrinsic and aesthetic qualities of the arts make them a vital, irreplaceable component of the human experience should be the core of [our] arts instruction"* (Kritzmire, 1993, Values and Arts Policy, para. 4). Our study will provide an evidence base to better support such claims.

It is anticipated that results will highlight the beneficial effects of music education in the general school environment and we hope that the findings will have broad, international implications. It is expected that our research will be able to provide a platform for promoting music education as an essential component for daytime school curriculum, and highlight the importance of music education and the arts at a young age. ■

Citation

Jones, A. S., Eshelman, D., White, K., Kemp, A. H., & Howard, J. (2020). The Impact of a Music Education Program on the Emotional Wellbeing of Elementary

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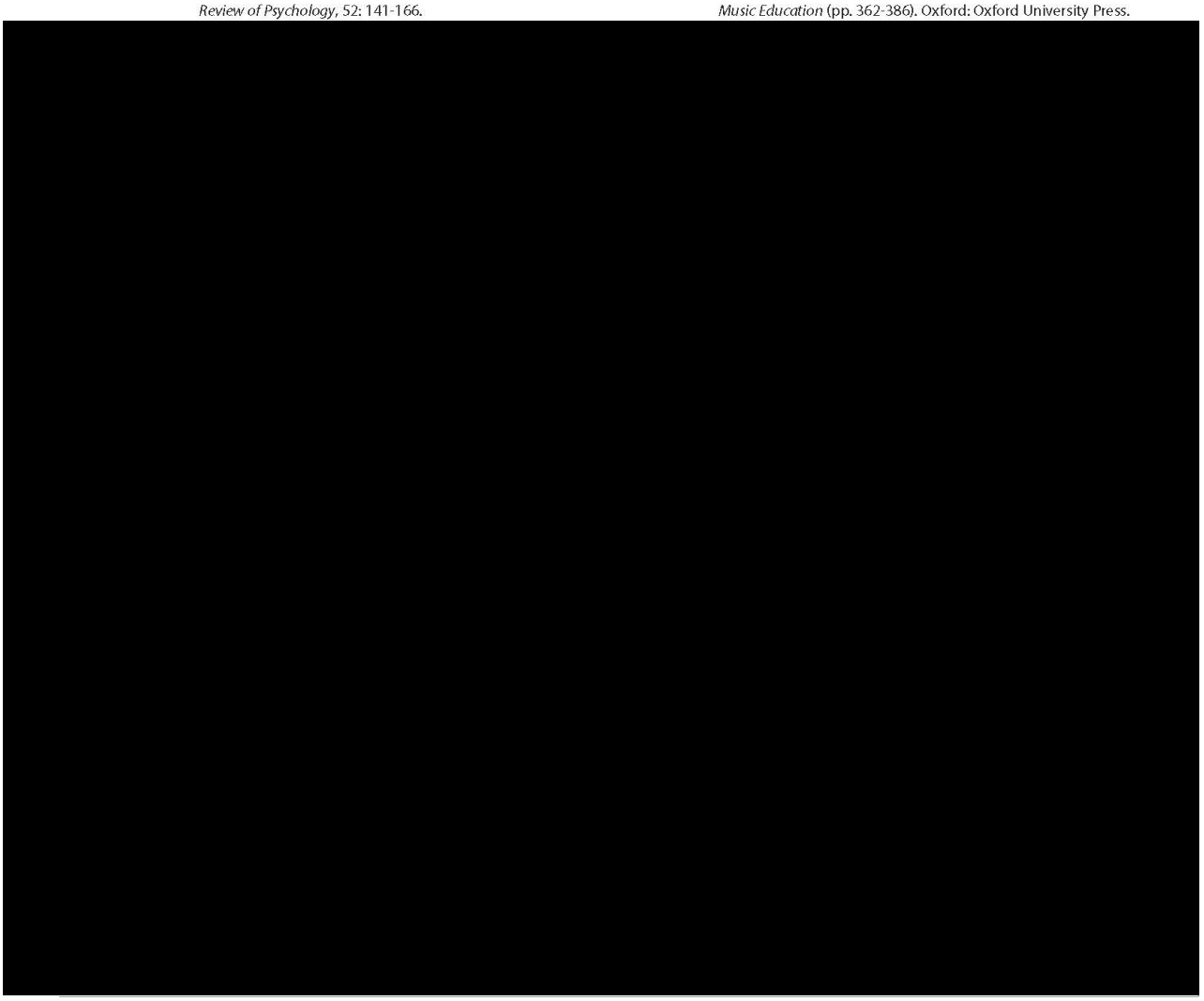

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Appendix B

Institutional Review Board Application

Documentation Includes:

Approval Letter

Informed Consent Letter for Parents, Teachers and Administrative Staff (Interviews)

Informed Consent Letter for Parent/Guardian (Child Consent)

Informed Consent Letter for Child

PHRP: Protection Human the Research Participants

Administrative Staff Interview Questions

Teacher Interview Questions

Parent Interview Questions

Approval Letter for Cashion Public Schools

Approval Letter for Jones Public School

Coopersmith Inventory - School Short Form

Music Survey

Kid-Kindl Children's Questionnaire

UNIVERSITY OF Central Oklahoma

View xForm - Initial Review Application (IRB)

New application for proposed

research effort. New Protocol Data

Entry

Type of Application

Has this study previously undergone exempt determination, was determined ineligible for exempt status, and now requires submission of this application?

No-First Application

Project Information

Submitter

Jones, Angela Suzette **Phone:**

What is the title of the project.

The Impact of a Music Education Program on the Emotional Well-Being of Elementary Students in a Rural Community: A Mixed Methods Investigation

If one of your study contacts is not currently available within the UCO IRBManager system, please use the following link to add the new contact.

Please click here to begin the New Contact Form

Please enter the UCO email address of the Principal Investigator (PI), if you are the PI please enter your own email.

Jones, Angela Suzette

Expirations: Human Subjects Training Certification - 07/30/2020

Please identify the role of the PI to UCO.

Student

Please enter the UCO email address of the Faculty/Staff Mentor.

Entered: 11/05/18 **By:** Jones, Angela Suzette

I am in the Swansea@UCO Ph.D. program. I also have two faculty staff mentors from Swansea University, Wales, UK.Justine Howard, Ph.D. [redacted] Andrew Kemp, Ph.D. [redacted]

Please click "add contact", and enter the UCO email address of each Co-PI involved in the study.

Eshelman, Darla Ph.D.

Please click "add contact", and enter the UCO email address of each Key Personnel involved in the study.

Jones, Angela Suzette

Please choose a funding source from the list provided.

Unfunded

Has any person serving as a key personnel received personal compensation from the sponsor of this study in the last 12 months? If this has occurred a disclosure of such needs to be made in the consent form.

No

Describe the purpose/hypothesis of the project or the research problem in enough detail that we can ascertain what the project is about. Describe why it is being done and the importance of the knowledge expected to result. Explain how the project/study fits with and extends current knowledge.

The purpose of this research study is to determine the impact of a music education program and its influence on emotional well-being through the construct of self-esteem with elementary students who are participating in general music classes as part of their daytime music curriculum. This mixed methods study will measure the influence of daily music instruction on the emotional well-being of children. In approaching this study, this question was proposed. Does participation in a daytime music education curriculum and its related experiences serve as a means to helping children develop or improve their self-esteem and social interaction with others?

The definition of children's well-being for the purpose of this study can be understood as a "dynamic process". One in which a child's external circumstances (socioeconomic background, family circumstances, physical surroundings) are interacting with their individual characteristics to satisfy their needs and build psychological resources, competence, and positive interactions with the world around them (Thompson & Aked, 2009).

Health and well-being are important resources for living. Research demonstrates that individuals who experience high levels of health and well-being are able to develop a strong self-esteem, feelings of worthiness, and make a positive contribution to the world around them. Individuals who experience high levels of emotional well-being and involvement are more receptive to learning, developing resiliency, and attempting new things. Emotionally healthy children are able to develop a strong foundation that allows them to realize goals and experience a sense of accomplishment (Underdown, 2006).

Current research indicates that there are direct and indirect health benefits related to active participation in music. It also demonstrates that the effects of music contributes to the emotional health and growth of the individual by facilitating a connection between emotions, the brain, and well-being. Few, if any, research studies have examined the impact of music on the emotional health and well-being of children in the classroom setting. Music is one key to unlocking inhibitions and creating a positive environment for active participation.

Positive music experiences have the potential to build connections between people, thereby enabling them to strengthen and enhance interpersonal and social relationships and emotional well-being. Furthermore, the research illustrates that the general music classroom is where the most significant work is accomplished. The results are a positive influence on a student's personal and social development, the development of value beliefs, sense of belonging, engagement, and behavioral self-management (Heyworth, 235). The potential findings from this research study could impact school districts and their decision to fund a music program for their schools.

Recruitment

Please choose all types of subjects.

Students in investigator(s) class Other

Please describe the other subjects to be included in your research.

The subjects needed for this study are 4th and 5th grade elementary students from two public schools. I am a music teacher at one of the public schools that will be participating in the study.

I will be recruiting 4th and 5th grade students at the public school where I teach music and from another local public school in the greater Oklahoma City area. I will also recruit the 4th and 5th grade parents/guardians, 4th and 5th grade teachers, the elementary principal, and the superintendent to participate in the study at the school where I teach music.

Please check the procedures you plan to recruit participants. You must attach a copy of your recruitment flyer, script for email or online posting, or in-person announcement at the end of this application form.

Entered: 07/22/18 **By:** Jones, Angela Suzette

I plan to use the same information in the the email for the in-class announcement and as a note to go home with students at the end of the school day.

Direct/Targeted Email In-

Please describe other recruitment procedures you plan to use in your research.

The recruitment of subjects will come from two public schools. I will call and/or email the superintendent or the elementary principal of each school to obtain permission for their 4th and 5th grade students to participate in the music research project. I anticipate making an in-class announcement, sending an email, and sending a letter home with each student to obtain parent/guardian and child assent.

Please describe all recruitment locations, including on campus or off campus, as well as specific identification of location. You must attached an email/letter of permission to conduct your research at each location at the end of this application form. Indicate steps to be taken to minimize undue influence or coercion when using a classroom.

The recruitment locations of subjects will be off campus from two public schools in Oklahoma. They are: Cashion Elementary and Jones Elementary.

I will recruit 4th and 5th grade students only from Cashion elementary public school where I teach elementary music full-time. I am aware of the potential of undue influence or coercion. However, I will reassure each child using the script in the child assent letter that they do not have to participate or answer any or all of the questions. I anticipate asking their classroom teacher to be in the room to reassure the students of their voluntary participation as I give instructions for the surveys. I do not anticipate there being any issues with undue influence or coercion. Any student who chooses not to participate in the study will still be able to attend class, but they will not participate in completing the surveys/questionnaires.

Examples such as instructor's classroom/campus facility or off campus business/organization location.

What is the maximum number of subjects you expect to recruit?

250

Provide justification for the number of subjects you expect to recruit.

Cashion Elementary currently has two teachers per grade at the elementary level with approximately, 20-25 students per class. Jones elementary currently has three to four teachers per grade at the elementary level with 20-25 students per class. I anticipate that approximately 80-90% of the students where I currently teach to participate in the study. I anticipate that approximately 50% of the students at the other school location will participate in the study. Additionally, I expect to interview the 4th and 5th grade teachers, the elementary principal, and the superintendent at Cashion. The parents at Cashion will also be given the opportunity to participate in focus groups or be interviewed.

Will you be specifically including or targeting any of the following groups for research subjects? Check all that apply.

Minors (<18 years old)

Please explain the additional safeguards used to protect the welfare of these vulnerable groups.

The nature of this research project involves the administration of a self-esteem survey, a quality of life survey, and a music questionnaire to 4th and 5th grade students. The subjects will not be referred to by name or school location. Any identifying information will be coded on a master sheet and be kept in a locked storage cabinet in the PI's home office. In addition, the subjects participating in the study who agree to participate will not have to respond to any question in which they do not want to answer.

Methodology / Procedures

Describe the methods to be used in this study, including study design, measurements or observations of subjects, and what subjects will experience. Provide the estimated total time to complete research participation.

The research study will occur at two elementary public schools. It is a counter-balanced study with a pre-, mid-, and post-test that will include within and between subject design using qualitative and quantitative data collected from naturally occurring groups.

I plan to recruit 90-100+ fourth and fifth grade students from each school. One elementary school will serve as the experimental/control group and the other elementary school will serve as the control group only. The study will occur over an eighteen-week period (one school semester).

At the experimental/control school (week 1-9) one class of fourth grade students and one class of fifth grade students will be given active music instruction (singing/playing instruments/group movement activities) for a total of nine weeks. The other class of fourth and fifth grade students will serve as the control group (no active music instruction/participation) during that same nine- week period (week 1-9). The control group will learn about music through paper and pencil activities. During week 10-18 (the second nine weeks of the semester), the students in the experimental group will become the control group and the students in the control group will now be the experimental group. In sum, there will be a total of eighteen weeks involved in the research project - nine weeks of active music participation and nine weeks of inactive music participation for each group of students. The control group school will receive no music instruction for the entire eighteen-week period.

A standardized self-esteem survey, a quality-of-life survey, and a music questionnaire will be given to the students at the experimental school at baseline week one, mid-term week nine, and week eighteen (the end of the semester). Additionally, an observational measure, the Leuven Well-being and Involvement Scale, will also be implemented by the researcher during the same week the students (at the experimental school) complete the questionnaires. This observational tool utilizes a five-point Likert Scale with one being the lowest level of involvement and well-being and five being the highest level of involvement and well-being. Data will be collected only one time per student with the Leuven Scale during the week that students complete the questionnaires.

The Leuven Well-being and Involvement Scale focuses on two central indicators of quality early years provision: children's 'well-being' and 'involvement'. Well-being refers to feeling at ease, being spontaneous and free of emotional tensions and is crucial to good 'mental health'. Well-being is linked to self-confidence, a good degree of self-esteem and resilience. Involvement refers to being intensely engaged in activities and is considered to be a necessary condition for deep level learning and development. When there are high levels of well-being and involvement, we know that deep level learning is taking place (Well-being and Involvement in Care Settings, 2011).

Students will be observed by me, the researcher, while they are participating in music activities during their regular music class time three different times in the semester (the same data point weeks that the questionnaires are completed). The control group school will not be observed utilizing the Leuven Well-being and Involvement Scale.

In the same week that students at the experimental school complete the questionnaires, the control group school will be given the standardized self-esteem survey, quality of life survey, and a modified music survey at the same data points as the experimental school. The estimated total time to complete the surveys at each school is 20-30 minutes per group session. Parents, teachers, and administrative staff at the experimental school will be interviewed and/or fill out surveys at the end of the 18-week period. Please see Consort Flow Diagram provided in the documentation portion of the application.

Do you plan to conduct any of your research via the internet?

Yes

Check which of the following you plan to use.

Qualtrics

Will you be using questionnaires, surveys, tests, or other written instruments? If yes, you will be required to attach copies of the scripts/documents at the end of this form.

Yes

Where will data be collected and stored? Identify where exactly data will be collected and stored (which would include blood draw location if blood being drawn), as well as what steps that will be taken to ensure that data is securely stored.

The data will be collected in the classroom by the PI at each of the school locations. All data & audio recordings will be secured on the PI's laptop and private home office. There is a password for the laptop and the data will be backed up periodically on an external hard drive that will be kept under lock and key at the PI's home office.

Who will have access to the data collected?

PI

Who will be responsible for the security of the data?

PI

What length of time will each type of data be maintained. Please identify whether electronic or paper. **Signed consent forms are required to be maintained for 3 years following the close of the study by Federal Regulations.**

All data Paper data documents: The data will be kept until the dissertation is completed. (Anticipate Spring 2021)

Electronic data documents: The data will be kept until the dissertation is completed. (Anticipate Spring 2021)

Audio Recordings: The data will be kept until the dissertation is completed. (Anticipate Spring 2021)

Signed Informed Consent Forms (Federal regulations require a minimum of 3 years): When the dissertation is completed

Please identify who will be responsible for destruction of data and how data will be destroyed,

given the type of data to be destroyed.

The PI will be responsible for the destruction of data. All paper data will be shredded except for the dissertation, which will be kept indefinitely. Electronic data and code sheets will be deleted from the PI's laptop and external hard drive. All paper copies will be shredded. Audio recordings will be deleted.

Will you be using existing data?

No

Will tissue or blood samples be collected for data?

No

Will medical clearance be necessary for subjects to participate because of tissue or blood sampling, administration of food or drugs, or physical exercise conditioning?

No

Please check all of the potential risks for the participants of this study.

Personal or sensitive information about subject or family

Please identify the level of risk for this study.

Research not involving more than minimal risk.

Please justify the rationale for subjecting the participants to the risks of this study, explain what will be done to minimize the risks for the study, and describe the benefits of participation for the subjects (if there are any, if not state that there are none).

The 4th and 5th grade subjects in the study will be asked to complete a self-esteem survey and a quality-of-life survey that measures global self-esteem, relationships with parents, and relationships with peers. They will also be asked to complete a music questionnaire. Before the surveys are given, subjects will be instructed that they will not have to answer any questions in which they feel uncomfortable answering or that they do not want to answer for any reason. I do not anticipate any risk or harm to the student should the subjects choose to answer any or all of the questions.

Regarding the benefits of participation: Research shows that self-esteem is a widely used construct in positive and formal psychology. Research also shows that the data can potentially reflect the importance of the home, peers, and school to the global self-esteem in pre-adolescents. Recent concerns about health and well-being in populations have led to an increase in research exploring the impact of the arts and music. Research suggests that active engagement with music in a group setting with a positive learning environment can enhance self-perceptions, creativity, self-expression, development of social skills, and contributes to health and well-being throughout a person's lifespan. This contribution to community cohesion provides long-term benefits to society as a whole. It is this particular statement that encompasses the basis of my research project.

Methodology / Procedures Continued

Will subjects be deceived or misled in any way?

No

Please check the inducements used for this study.

None

Will the participant be required to sign a consent form to participate in this study? If yes upload a copy of the consent form. To access UCO consent template click here.

Yes

Please attach all consent and assent forms, as well as information sheets.

Entered: 11/05/18 **By:** Jones, Angela Suzette

These documents contain the consent forms and the information sheets. Information regarding the Leuven Scale Observational Tool was updated in the Parent Consent Form Experimental Group and the Elem Child Consent Form Experimental Group.

The Leuven Scale will only be used to observe students in the Experimental School not in the Control Group School.

IRB Admin-Teacher-Consent Form-3U.docx Consent Form IRB
IRB Elem Child Consent Form Control Group-3U.docx Consent Form IRB Elem Child
Consent Form Intervention Group-3U.docx Consent Form IRB Parent Consent Form
Control Group-3U.docx Consent Form IRB Parent Consent Form Intervention
Group-3U.docx Consent Form IRB
Parent Focus Group Consent Form-3U.docx Consent Form IRB

Who will be consented, check all that apply?

Participant

Child (<18, assent form may need to be uploaded) Parent/Legal Guardian

Please identify where the consent process will occur.

Consent forms will be emailed and/or handed out in class a few weeks before the research is to begin. Parent/Guardians and subjects may sign the consent form and return it to the researcher or choose to sign the consent form in person the day the research is to begin.

Will you use a Certificate of Confidentiality for this study? If yes please upload a copy of obtained certificate at the end of this form.

No

Will any aspect of the data be made a part of a record that can be identified with the subject?

No

Will a master code sheet be kept for purposes of identity security?

Yes

Please explain where the Master Code Sheet will be stored, how it will be secured, and how it will be destroyed.

The master code sheet relating to the subjects identities will be kept in a locked filing cabinet in the PI's home office. Once the researcher's dissertation has been completed, the master code sheet will be destroyed.

Does this study involve?

Audio taping of the subjects

Please justify the use of recording/photoing the subjects. Describe the storage, disposition, and security provisions taken to protect the recordings/photos. Identify whether or not subjects will be identifiable in recording/photo. If identifiable justify the necessity of identification.

I anticipate recording audio during the parent, teacher, and administrative staff interviews to assist in the research process. Subjects may be identified from the recording on a master code sheet for the purpose of organizing the research. All audio recordings and the master code sheet will be deleted once the dissertation is complete.

Will this study use group or aggregate interventions? Group or aggregate here refers to how the data will be collected (from one individual or in a group setting such as a classroom).

Yes

Please explain why it is necessary to use group or aggregate intervention as well as describe the steps you will take to ensure as much confidentiality and privacy as possible.

I anticipate reporting the data from the study by presenting an overall synopsis of the results followed by an explanation of key findings between emotional well-being and active music participation. All interview, survey, and questionnaire answers as well as the location of the two public schools will be coded to ensure anonymity and confidentiality. A master code sheet will be kept in a locked storage cabinet in the PI's storage cabinet home office. The researcher's dissertation will be reviewed by her advisers at the University of Central Oklahoma and Swansea University. Research dissemination may include articles in peer-reviewed journals, research presentations etc.

Will the fact that a particular subject did or did not participate or complete a specific experiment or study be made a part of any record available to supervisor, teacher, or employer?

No

Please describe the benefits of your study to society.

I am hopeful that this research will bring immense benefit to all parties involved including educators, administrators, music educator associations, the Department of Education and society at large. This research will not only serve as a platform for promoting music education as necessary component for daytime school curriculum, but it will also highlight the importance of music and the arts across a person's lifetime.

Research shows that as children grow, the areas where they build relationships expand to their neighborhood and school. Once children reach the age to attend school, they begin to evaluate themselves on the basis of mutual relationships with teachers and friends from academic, social, emotional, and physical aspects. A healthy self-esteem supports psychological stability and positive social activity and also the essential ingredient for a child's psychological development.

Furthermore, there is little research to date that deals with this topic specifically. Few, if any, research studies have examined the impact of a music education program on the emotional health and well-being of children in the classroom setting. In conclusion, music educators throughout the United States have struggled to create consistent and viable music education programs that meet the needs of children and community members. Music educators believe that the arts maintain cultural and historical value. That value, philosophically speaking, is that, music is a way of knowing and a means

Necessary Attachments

Please attach training certificates.

CITI_CompletionReport_Darla Eshelman.pdf Human Subjects Research Training Certification PHRP

Please attach all recruitment material such as scripts, flyers, or emails.

Entered: 07/22/18 **By:** Jones, Angela Suzette

My recruitment email also includes the consent forms.

IRB Admin-Teacher-Consent Form-3U.docx Recruitment Email
IRB Elem Child Consent Form Control Group-3U.docx Recruitment Email IRB Elem Child Consent Form Intervention Group-3U.docx Recruitment Email IRB Parent Consent Form Control Group-3U.docx Recruitment Email IRB Parent Consent Form Interv Group-3U.docx Recruitment Email
IRB Parent Focus Group Consent Form-3U.docx Recruitment Email

Please attach protocol.

Please attach all audio / visual consent forms.

IRB Admin-Teacher-Consent Form-3U.docx Audio / Visual Release
IRB Parent Focus Group Consent Form-3U.docx Audio / Visual Release

Please attach your letter of support from off UCO campus study sites, as well as instructor's approval for classroom interruption on campus.

Entered: 11/05/18 **By:** Jones, Angela Suzette

Attached: A letter from the Control Group School and the Experimental School location

CG: Control Group

EG: Experimental Group

Please attach the survey or questionnaire to be used.

Entered: 11/05/18 **By:** Jones, Angela Suzette

CG: Control Group

IG: Intervention Group

Children Kid KINDL-7-13yr.docx	Questionnaire / Survey
Children Music Survey CG.docx	Questionnaire / Survey
Children Music Survey EG.docx	Questionnaire / Survey
Children Self-Esteem Survey.docx	Questionnaire / Survey
Parent Focus Group EG-U.docx	Questionnaire / Survey
Teacher-Admin Staff Interview Questions EG-U.docx	Questionnaire / Survey

Please attach the privacy form.

No answer provided.

Please attach the test battery you planned to use in this study.

No answer provided.

Please attach the research team agreement.

No answer provided.

Please attach any documentation you believe needs to be considered for your research effort that is not called out.

Entered: 11/05/18 **By:** Jones, Angela Suzette

The Leuven Scale is an observational measurement tool to be utilized by the PI. Background Information Sheet for Data Collection CG & IG

Investigator's Statement

Please confirm agreement to each statement by checking the statement.

This application represents an accurate and complete description of my proposed research project.

I agree to provide the proper surveillance of this project to ensure that rights and welfare of the human subjects are properly protected.

I agree to comply fully with any requirements made by the UCO IRB.

The Human contact portion of my research will not begin until the UCO IRB has given its written approval.

Any additions or changes after the project has been approved will be submitted to the IRB and approved prior to implementation.

Unless otherwise directed by the IRB, I will renew this application with the IRB no more than every 11 months as long as I intend to continue the research effort.

Everyone listed as Key Personnel, including myself, will comply with the SOP regarding staying current with human subjects research training completed every 2 years or be in good standing with his or her home institution.

I do not have an economic interest that could affect or appear to affect the design, conduct, or reporting of the research.

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November 26, 2018 IRB Application #: 2018-142

Proposal Title: The Impact of a Music Education Program on the Emotional Well-Being of Elementary Students in a Rural Community: A Mixed Methods Investigation

Type of Review: Initial Review-

Expedited Investigator(s):

Angela S Jones
Darla Eshelman, Ph.D.

Dear Ms. Jones and Dr. Eshelman:

Re: Application for IRB Review of Research Involving Human Subjects

We have received your materials for your application. The UCO IRB has determined that the above named application is APPROVED BY EXPEDITED REVIEW. The Board has provided expedited review under 45 CFR 46.110, for research involving no more that minimal risk and research Category 7.

Date of Approval: November 26, 2018

If applicable, informed consent (and HIPAA authorization) must be obtained from subjects or their legally authorized representatives and documented prior to research involvement. A stamped, approved copy of the informed consent form will be made available to you. The IRB-approved consent form and process must be used, where applicable. Any modification to the procedures and/or consent form must be approved prior to incorporation into the study. At the completion of the study, please submit a closure request form to close your file.

It is the responsibility of the investigators to promptly report to the IRB any serious or unexpected adverse events or unanticipated problems that may be a risk to the subjects.

Please let us know if the IRB or Office of Research Integrity and Compliance can be of any further assistance to your research efforts. Never hesitate to contact us.

Sincerely,

[redacted]

Melissa Powers, Ph.D.
Chair, Institutional Review Board
University of Central Oklahoma 100 N.
[redacted]

Office of Research Integrity and Compliance

100 North University Drive / Edmond,
OK 73034 Phone (405) 974-5497 Fax
(405) 974-3818

UNIVERSITY OF CENTRAL OKLAHOMA

Informed Consent Form

Dear Parents, Teachers, and Administrative Staff,

I am excited to share with you an opportunity to participate in a very special music research project during the 2019 spring semester of this school year. For the past two years, I have been pursuing a doctoral degree through a partnership program with the University of Central Oklahoma and Swansea University in Wales, UK. I am very interested in learning how music impacts children in a positive way. I believe music is an important component of the educational curriculum a child receives in school. Research has documented the many benefits of music and its connection to literacy, math, memory, and language skills. Research also suggests that music has a positive impact on a child's social and personal development, as well as physical and emotional well-being. The purpose of my study is to examine the relationship between music education and the emotional well-being of elementary students.

What is the purpose of the study? To determine the relationship that music has on the emotional well-being of students in the elementary classroom.

What procedures are involved? I am interested in your perspective on the benefits of music education at Cashion elementary. I would like to schedule a time to ask you some questions that will focus on the benefits, strengths, and challenges of a music education program and how it may or may not impact the attitudes and moods of students who participate in music classes. The interview will be 15-20 minutes long.

Are there any possible discomforts or risks? I do not anticipate any discomfort or risk for answering questions during the interview. You do not have to participate or answer any questions that cause you to feel uncomfortable.

What are the possible benefits? This study will acknowledge the vital role of music education as part of the daytime curriculum in school. Educators and administrators will have the unique opportunity to help their students discover the value of making music a part of their daily lives. Documenting this process will highlight the ability of music to impact the emotional health and growth of the individual student.

How will the privacy and confidentiality of your information be protected? Participation in this research study is voluntary and answers to the interview questions will remain confidential. If you choose to participate but feel uncomfortable answering some questions, you can choose not to answer them. Your name, school, and answers will not be identifiable. I will be the only person to have access to the documentation (written notes and audio recordings) relating to this research, and it will be kept private and under lock and key. I have included a consent form that must be signed by all parties participating in the research.

I hope you will consider being a part of this exciting study. I believe this research will highlight and promote the creative and excellent education offered here at Cashion. If you

have any questions, please contact me at [redacted] or the UCO Institutional Review Board at 974-5497; irb@uco.edu. This project has been approved by the University of Central Oklahoma Institutional Review Board (#2018-142). Thank you for your consideration. I look forward to receiving your response!

Sincerely,

Angie Jones

Statement of Consent

I voluntarily agree to participate in the music education research project that will be recorded via audio and conducted by Angie Jones. I understand that I am free to refuse my participation in the study at any time. I understand that all information obtained through the interview will be confidential, and the only person that will have access to the audio and written information will be Angie Jones. I understand that by agreeing to participate in this study and signing this form, I do not waive any of my legal rights.

Print Name: _____ Signature: _____

Signature: _____
Date:_____ (I knowingly consent to be recorded via audio during this interview.)

UNIVERSITY OF CENTRAL OKLAHOMA

Parent/Guardian Consent Form

Dear Parent/Guardian,

My name is Angie Jones. I am the music teacher in our/a local school district. I have been teaching music to students in the classroom and in my private studio for eighteen years. I am studying towards a doctoral degree through a partnership program with the University of Central Oklahoma and Swansea University in Wales, UK. I am excited to offer you and your child an opportunity to participate in a special music research project during the 2019 spring semester of this school year. I am very interested in learning how music impacts children in a positive way. Research has documented the many benefits of music and its connection to literacy, math, memory, and language skills. Research also suggests that music has a positive impact on a child's social and personal development, as well as physical and emotional well-being. My goal is to examine the relationship between music and the emotional well-being of elementary students. Listed below are some answers to a few questions that you may have.

What is the purpose of the study? To determine the impact of music on the emotional well-being of students in the elementary classroom.

What procedures are involved? During class, students will fill out three short questionnaires: a self-esteem survey, a quality-of-life survey, and a music survey. This will happen three times during the spring semester: the first week of school in January after the Christmas break, the week before spring break, and the last week of school. It will take approximately 20-25 minutes to complete all three surveys. I would also like to know if your child has an I.E.P., a physical diagnosis, and/or mental health diagnosis. This will help me interpret the data I collect.

What are the possible benefits? This study will acknowledge the vital role of music education as part of the daytime curriculum in school. Educators and administrators will have the unique opportunity to help their students discover the value of making music a part of their daily lives. Documenting this process will highlight the ability of music to impact the emotional health and growth of the individual student.

Are there any possible discomforts or risks to your child? I do not anticipate any harm or risk to your child for completing the surveys. Students will be instructed beforehand that they do not have to participate or answer questions that make them feel uncomfortable.

How will the privacy and confidentiality of your child's information be protected? Participation in this research study is voluntary and all answers to the surveys will remain

anonymous. This research is confidential, and your child's name, school, and survey answers will not be identifiable. I will be the only person to have access to the documentation relating to this research.

If you approve of your child participating in this study, please sign the consent form below. I also ask that you obtain the consent of your child with the attached form and complete the background information sheet. If you have any questions, please contact me at [redacted] or the UCO Institutional Review Board at 974-5497; irb@uco.edu. This project has been approved by the University of Central Oklahoma Institutional Review Board (#2018-142). **Please return the Parent Consent Form, the Child Consent Form and the Background Information sheet to your classroom teacher by Monday, January 4th to participate in the music study.** Thank you for your consideration; I look forward to receiving your response!

Sincerely,
Angie Jones

Statement of Parental Consent

I give permission for my child, _____, (*please print*) to participate in the music research project that will be conducted by Angie Jones. I also give my permission for Angie Jones to obtain information regarding an Individualized Education Plan (I.E.P.), a learning disorder diagnosis, physical diagnosis, or a mental health diagnosis from me, the parent/guardian, or the school. I understand that I am free to refuse my child's participation in the study at any time. I understand that all the information obtained will be confidential. The only person who will have access to the information will be Angie Jones, principal researcher. I understand that by agreeing to allow my child to participate in this study and signing this form, I do not waive any of my legal rights.

_____ _____

Printed name of Parent/ Guardian Contact Phone Number

_____ _____

Signature Date

University of Central Oklahoma

Child Consent Form

Hello! I want to tell you about a special activity we will be doing in music class three different times during the spring semester. I am going to school to learn how to be a better teacher. One of the things I am going to do is research a special topic for my class. The purpose of my project is to understand how kids your age feel about different topics like friends, family, school, music, and everyday life. I want you to be a part of my project!

Students who agree to participate in the project will answer questions on their Google Chromebook at school during music class. The questions will take only 20-30 minutes to complete. There are no right or wrong answers. You can skip the questions you do not like or do not understand. This will happen three different times during the spring semester to see if your answers change or stay the same. If you choose not to participate, you will still go to music class, but you will do another activity. I will also be observing how you participate and cooperate with your friends in music class during the same week you answer questions on your Google Chromebook.

When the project is done, I will write a report about what I learned from your answers and my observations in class. I will not use your name or anyone else's name. All your answers will be confidential, which means your answers will be private.

Your parents or guardians have given me permission to ask you if you want to be a part of this activity. No one will be mad at you if you decide not to participate. This project has been approved by the University of Central Oklahoma Institutional Review Board (#2018-142).

If yes: Print and sign your name or put an X and your initials on the line below.

Yes. I have decided to be in the activity.

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Angela Jones** successfully completed the NIH Web-based training course "Protecting Human Research Participants."

Date of Completion: 07/03/2018

Certification Number: 2856768

NIH National Institutes of Health
Office of Extramural Research

Child's Name

_____

Child's Signature

_____

Date _____

Administrative Staff Interview Questions

Demographic & Background Information

- Name
- Position
- Years
- Educational background
- What drew you to the teaching profession?
- What do you like about being at a rural school?

Music Questions

- Do you think having a music program in school is important? Why or why not?
- How often do you think music class should be offered to students during the school year? Why or why not?
- Do you think that student participation in music class is a positive experience?
- Do you think music affects a student's emotional well-being? Why or why not? If so, how?
- How do you see/observe students respond to participation in music classes? Attitude changes, positive or negative?
- Do you see changes in their behavior, choices, or mood after being in music class? If so, what kind of changes?
- What do you think is the most beneficial aspect of having a music program in the school?
- As an administrator, what do you see as the greatest strength of the music program at Cashion?
- As an administrator, what do you see as the greatest challenge in the music program at Cashion?
- Final thoughts? Anything else you would like to share?

Teacher Interview Questions

Demographic & Background Information

- What grade do you teach or what is your job position?
- How long have you taught or worked in this position?
- Educational background?
- What drew you to the teaching profession?
- What do you like about teaching in a rural school?

Music Questions

- Do you think having a music program in school is important? Why or why not?
- How often do you think music class at the elementary level should be offered to students? Why or why not?
- Do you think that student participation in music class is a positive experience?
- Do you think music or music education can affect a student's emotional well-being? Why or why not? If so, how?
- How do you see your students respond to music class? Attitude changes, positive, or negative? Any positive music musical experiences?
- Do you see changes in their behavior, choices, or mood after being in music class? If so, what kind of changes?
- Did you teach at Cashion before music was reinstated? If so, what was the school climate like without a music education program? How is it now that music is a regular part of the school curriculum?
- As a teacher, what do you see as the greatest strengths of the music program? What are some of the challenges?
- Final thoughts? Anything else you would like to share?

Parent Interview Questions

- Background Information
  - *Both Parents are in the home *Single Parent Family *Guardianship *Other
- Age Group
  - o
- What is your educational background?
  - o
- Age of student in music class?
  - o
- Does your child have an IEP, a 504, a physical diagnosis, or mental health diagnosis? If yes, please state the diagnosis.

Music Questions

- Do you think having a music program in school is important? Why or why not?
- How often do you think music should be offered? Why or why not?
- Do you think that music has a positive effect on children? If so, in what way?
- How do you see your child respond to music class in general?
- What are some of the positive musical experiences your child has experienced while being in music class?
- Do you see positive changes in your child's behavior, choices, or mood after being in music class at home? If so, what kind of changes?
- As a parent, what do you see as the greatest strength/challenge of the music program?
- Do you think music or music education affects the emotional well-being of the students?
- Did your child attend Cashion before the music program was reinstated? If so, what was the school climate like? How is it now that music is a regular part of the school curriculum?
- Final thoughts? Anything else you would like to share?

[redacted]

CASHION PUBLIC SCHOOLS

Home of -the Wildcats

7/3/2018

To Whom It May Concern:

I hereby give full consent to Angela Jones, a current graduate student at the University of Central Oklahoma, to recruit subjects from the Cashion Elementary School for her research project entitled "The Impact of a Music Education Program on the Emotional Well-Being of Students in a Rural Community" which will be conducted over the upcoming school year. It is my understanding that Angela will be documenting the impact of a music education program on children's emotional well-being through the use of questionnaires with 4th and 5th grade students.

If there isany additional documentation needed regarding my consent, please feel free to call me at [redacted],

[redacted]

Sammy Jackson

Superintendent

Cashion Public Schools

101 N, Euclid Avenue
Cashion, Oklahoma 73016
[redacted]
www.cashionps.org

Jones Elementary School

13145 Montana

Jones, Oklahoma 73049

[redacted]

Mrs. Cindy
Harrison
Principal

September 6, 2018

To Whom It May Concern:

I hereby give full consent to Angela Jones, a current graduate student at the University of Central Oklahoma, to recruit subjects from the Jones Elementary school for her research project entitled "The Impact of a Music Education Program on the Emotional Well-Being of Students in a Rural Community" which will be conducted over the upcoming school year. It is my understanding that Angela will be documenting the impact of a music education program on children's emotional well-being through the use of questionnaires with 4th and 5th grade students. If there is any additional documentation needed regarding my consent, please feel free to call me at [redacted]

Sincerely,

[redacted]

Mrs. Cindy Harrison, Principal

Coopersmith Inventory - School Short Form

Stanley Coopersmith, Ph.D.

If a statement describes how you usually feel, put on X in the column "Like Me." If the statement does not describe how you usually feel, put an X in the column "Unlike Me."

There are no right or wrong answers.

Like Me	Unlike Me		
❑	❑	1.	**Things usually don't bother me.**
❑	❑	2.	**I find it very hard to talk in front of the class.**
❑	❑	3.	**There are lots of things about myself I'd change if I could.**
❑	❑	4.	**I can make up my mind without too much trouble.**
❑	❑	5.	**I'm a lot of fun to be with.**
❑	❑	6.	**I get upset easily at home.**
❑	❑	7.	**It takes me a long time to get used to anything new.**
❑	❑	8.	**I'm popular with kids my own age.**
❑	❑	9.	**My parents usually consider my feelings.**
❑	❑	10.	**I give in very easily.**
❑	❑	11.	**My parents expect too much of me.**
❑	❑	12.	**It's pretty tough to be me.**
❑	❑	13.	**Things are all mixed up in my life.**
❑	❑	14.	**Kids usually follow my ideas.**
❑	❑	15.	**I have a low opinion of myself.**
❑	❑	16.	**There are many times when I'd like to leave home.**
❑	❑	17.	**I often feel upset in school.**
❑	❑	18.	**I'm not as nice looking as most people.**
❑	❑	19.	**If I have something to say, I usually say it.**
❑	❑	20.	**My parents understand me.**
❑	❑	21.	**Most people are better liked than lam.**
❑	❑	22.	**I usually feel as if my parents are pushing me.**
❑	❑	23.	**I often get discouraged at school.**
❑	❑	24.	**I often wish I were someone else.**
❑	❑	25.	**I can't be depended on.**

I am a ☐ girl ☐ boy

Age: _____ years old

How many siblings do you have? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ more than 5

Which type of school do you go to? _____

1. First of all, we would like to know something about your physical health...

During the past week...	never	seldom	sometimes	often	all the time
1. ... I felt ill	☐	☐	☐	☐	☐
2. ... I had a headache or tummy-ache	☐	☐	☐	☐	☐
3. ... I was tired and worn-out	☐	☐	☐	☐	☐
4. ... I felt strong and full of energy	☐	☐	☐	☐	☐

2. ... then something about how you've been feeling in general...

During the past week...	never	seldom	sometimes	often	all the time

1. ... I had fun and laughed a lot	☐	☐	☐	☐	☐
2. ... I was bored	☐	☐	☐	☐	☐
3. ... I felt alone	☐	☐	☐	☐	☐
4. ... I was scared	☐	☐	☐	☐	☐

3. ... and how you have been feeling about yourself.

During the past week...	never	seldom	sometimes	often	all the time
1. ... I was proud of myself	☐	☐	☐	☐	☐
2. ... I felt on top of the world	☐	☐	☐	☐	☐
3. ... I felt pleased with myself	☐	☐	☐	☐	☐
4. ... I had lots of good ideas	☐	☐	☐	☐	☐

4. The next questions are about your family ...

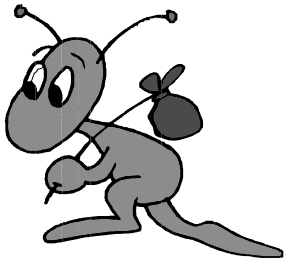
During the past week...	never	seldom	sometimes	often	all the time
1. ... I got on well with my parents	☐	☐	☐	☐	☐
2. ... I felt fine at home	☐	☐	☐	☐	☐
3. ... We argued at home	☐	☐	☐	☐	☐
4. ... My parents stopped me from doing certain things	☐	☐	☐	☐	☐

5. ... and then about friends.

During the past week...	never	seldom	sometimes	often	all the time
1. ... I played with friends	☐	☐	☐	☐	☐
2. ... Other kids liked me	☐	☐	☐	☐	☐
3. ... I got along well with my friends	☐	☐	☐	☐	☐
4. ... I felt different from other children	☐	☐	☐	☐	☐

6. Last of all, we would like to know something about school.

	During the last week in which I was at school...	never	seldom	sometimes	often	all the time
1.	... doing my schoolwork was easy	☐	☐	☐	☐	☐
2.	... I enjoyed my music class	☐	☐	☐	☐	☐
3.	... I worried about my future	☐	☐	☐	☐	☐
4.	... I worried about bad marks or grades	☐	☐	☐	☐	☐



Thank you for helping us!

Music Survey

Closed-Ended Questions

Does coming to music class make you happier at school?

☐No, hardly ever ☐Sometimes ☐Most times ☐Yes, almost always

Does learning about music help you enjoy your other schoolwork more?

☐No, hardly ever ☐Sometimes ☐Most times ☐Yes, almost always

Do you think learning about music makes you a happier person?

☐No, hardly ever ☐Sometimes ☐Most times ☐Yes, almost always

Do you feel better after coming to music class?

☐No, hardly ever ☐Sometimes ☐Most times ☐Yes, almost always

Open-Ended Questions

1. What is your favorite part of music class?

2. How do you feel after coming to music class?

3. What kind of activities do you want to do more of in music class?

4. Do you think you will choose to sing in choir or play in the band in middle school? Why or why not?

APPENDIX C

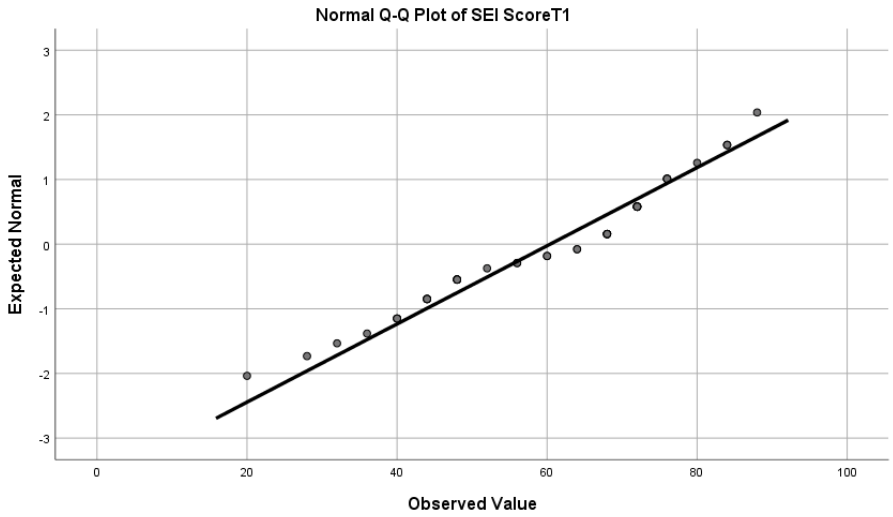
Documentation Includes:

Additional Statistical Information not included in the Quantitative Chapter

Appendix: Quantitative Chapter

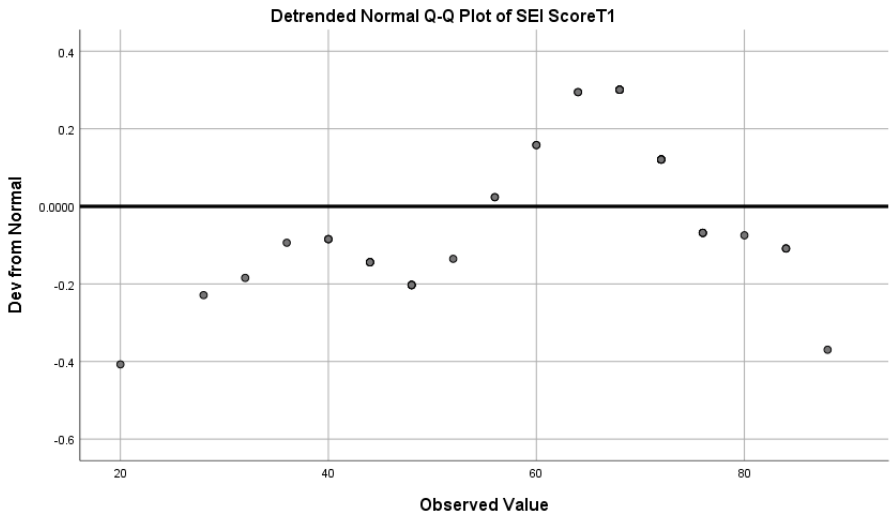
The figures below provide further details relating to Assumptions of Normality tests regarding the Self-Esteem Measure.

Figure 1



Note: The Normal Q-Q Plot indicates significant variation and violates the Assumption of Normality in T1.

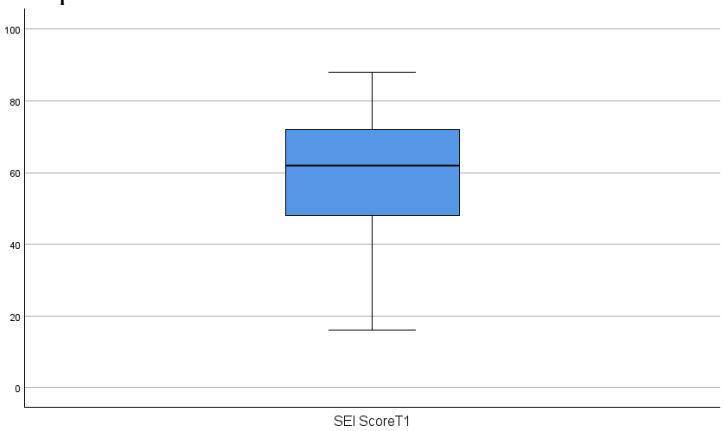
Figure 2



Note: The detrended Q-Q Plot indicates significant variation and violates the Assumption of Normality in T1.

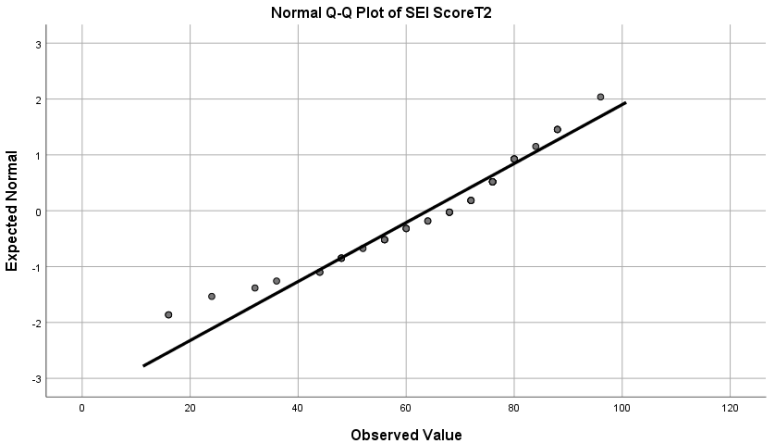
Figure 3

Boxplot: Self-Esteem Measure – 47 Participants - Combined Intervention and Control Groups



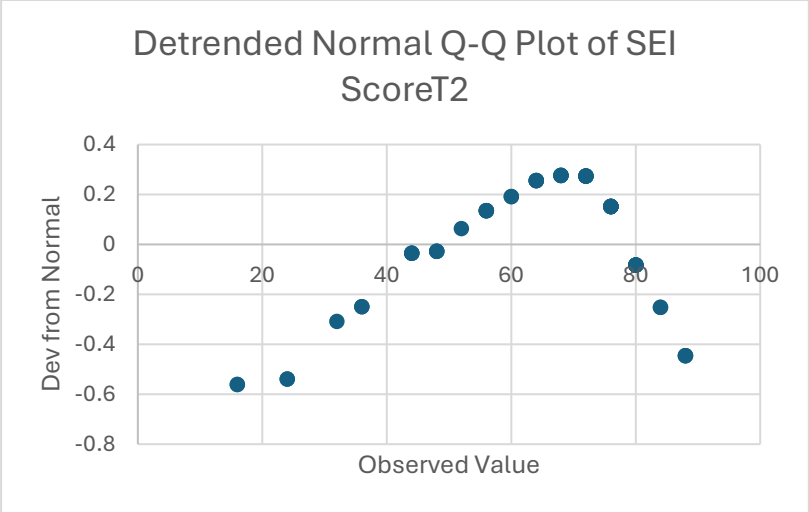
Note: The boxplot above does not display any obvious outliers in T1 of the Self-Esteem Measure with 47 Participants.

Figure 4



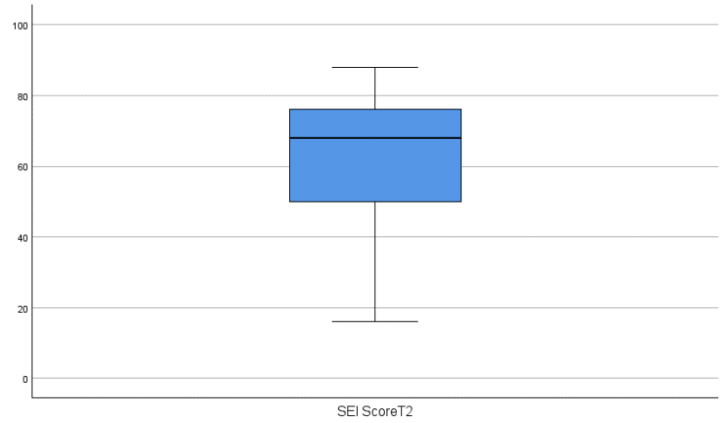
Note: The Q-Q Plot indicates significant variation and violates the Assumption of Normality in T1.

Figure 5



Note: The detrended Q-Q Plot indicates significant variation and violates the Assumption of Normality in T2.

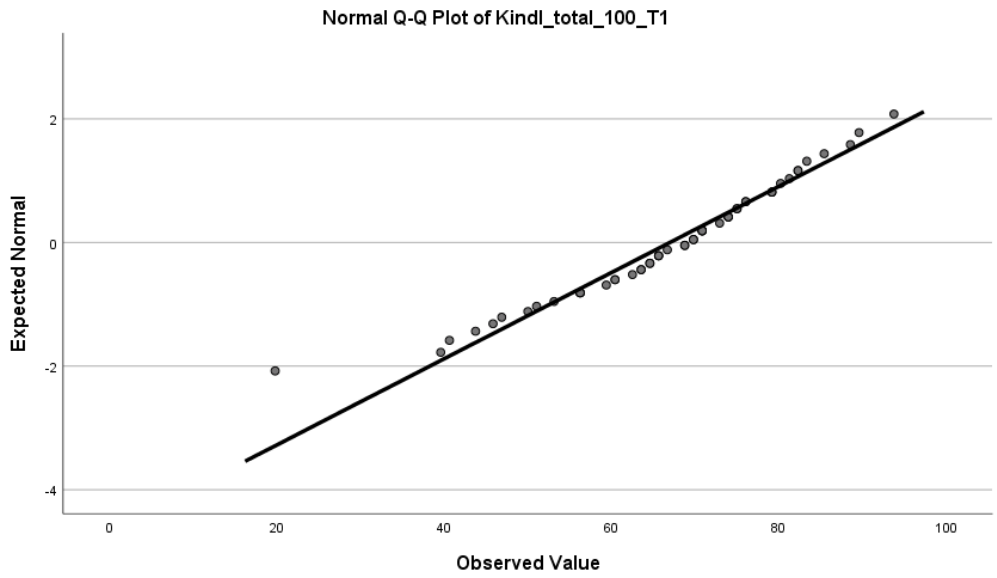
Figure 6



Note: The boxplot above does not display any obvious outliers in T2 of the Self-Esteem Measure with 47 participants.

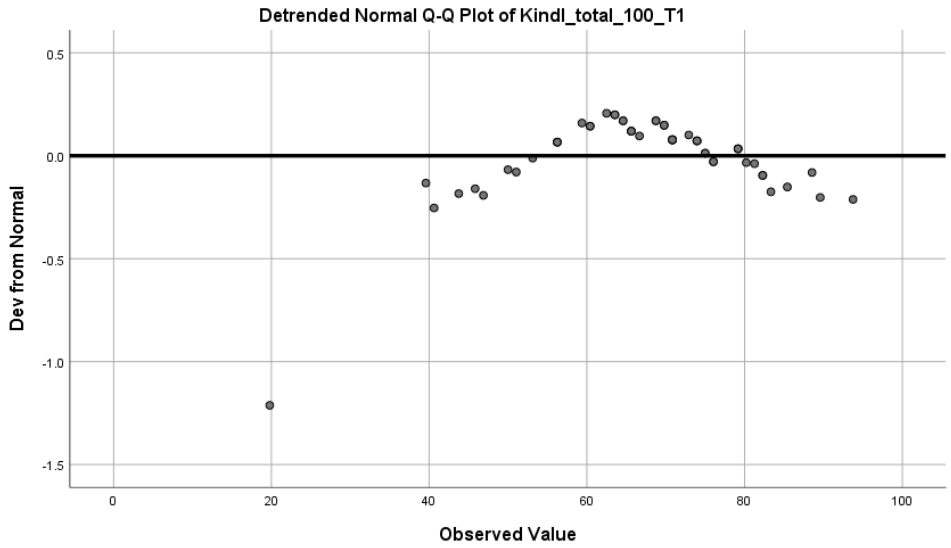
The figures below provide further detail relating to Assumptions of Normality regarding parametric tests for the Kindl Survey with 52 participants.

Figure 7



Note: The Q-Q Plot indicates significant variation and violates the Assumption of Normality in T1.

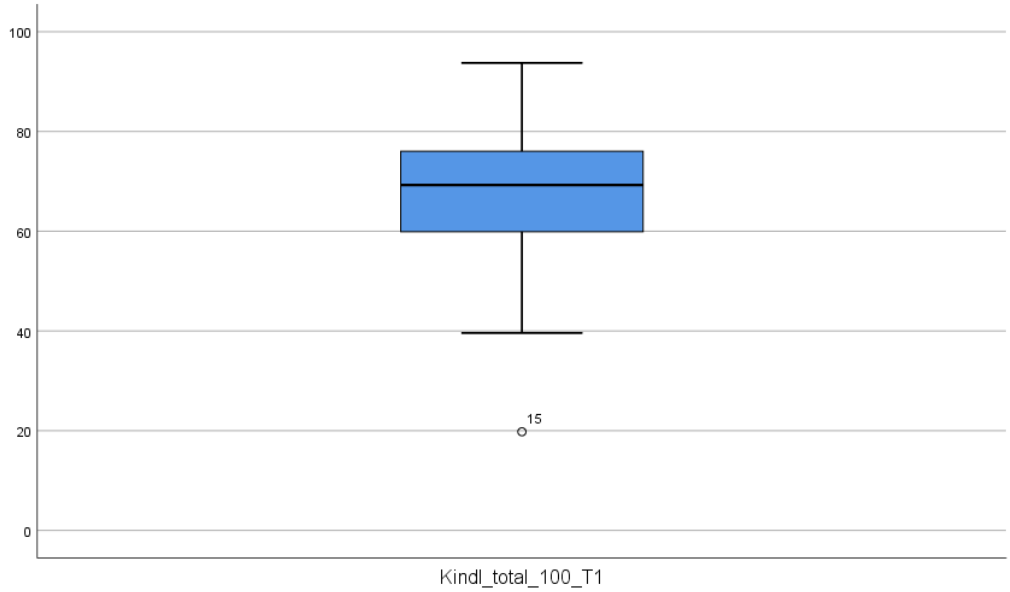
Figure 8



Note: The detrended Q-Q Plot indicates significant variation and violates the Assumption of Normality in T1.

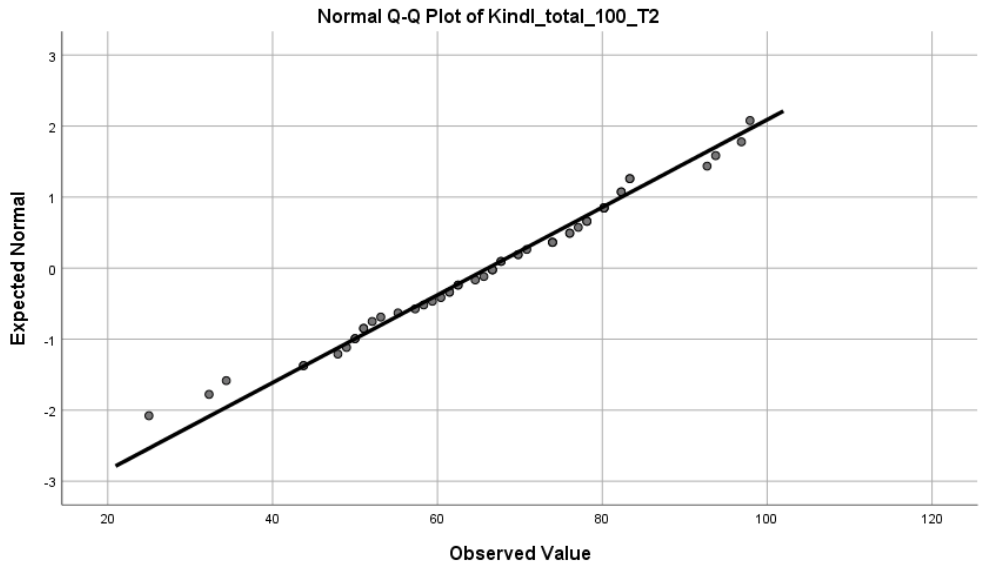
Figure 9

Boxplot for Kindl Survey with 52 participants at T1



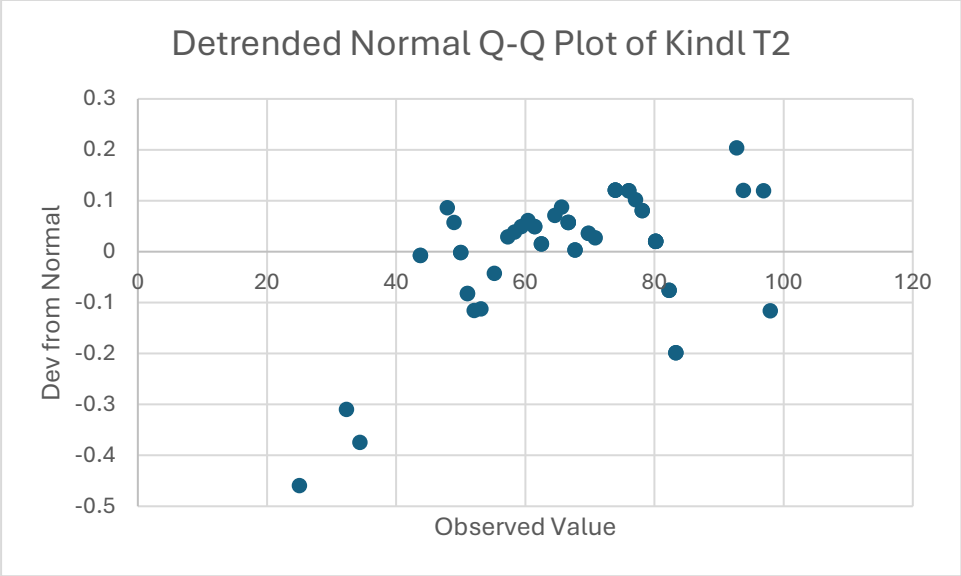
Note: The boxplot above does not display any obvious outliers in T1 of the Kindl Survey with 52 participants.

Figure 10



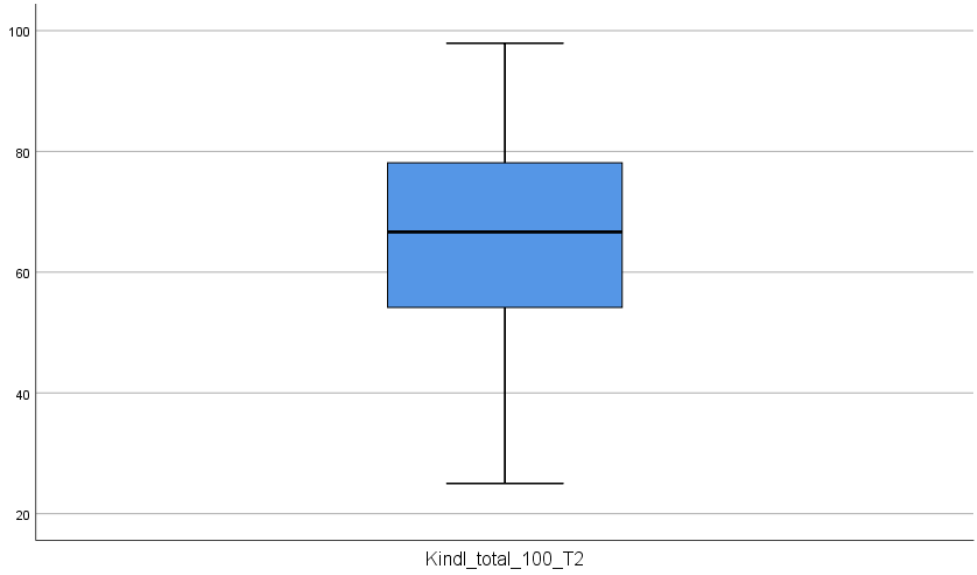
Note: The Q-Q Plot indicates significant variation and violates the Assumption of Normality in T2.

Figure 11



Note: The detrended Q-Q Plot indicates significant variation and violates the Assumption of Normality in T2.

Figure 12



Note: The boxplot above does not display any obvious outliers in T2 of the Kindl Survey with 52 participants.

Table 1

Mann Whitney U: 47 students completed the Coopersmith Self-Esteem Measure 100% at the Intervention and Control school

Test Statistics

	Self-Esteem T1	Self-Esteem T2
Mann-Whitney U	238.500	247.500
Wilcoxon W	491.500	500.500
Z	-.783	-.589
Asymp. Sig. (2-tailed)	.434	.556

a. Grouping Variable: Combined Groups

Ranks

	Combined Groups	N	Mean Rank	Sum of Ranks
Self-Esteem T1	Intervention	22	22.34	491.50
	Control	25	25.46	636.50
	Total	47		
Self-Esteem T2	Intervention	22	22.75	500.50
	Control	25	25.10	627.50
	Total	47		

Table 2

Mann Whitney U: 52 students completed the Kindl Quality of Life Survey 100% at the intervention and control school

Test Statistics

	Quality of Life T1	Quality of Life T2
Mann-Whitney U	256.000	218.500
Wilcoxon W	532.000	494.500
Z	-1.429	-2.120
Asymp. Sig. (2-tailed)	.153	.034

a. Grouping Variable: Combined Groups

Ranks

	Combined Groups	N	Mean Rank	Sum of Ranks
Quality of Life T1	Intervention	29	29.17	846.00
	Control	23	23.13	532.00
	Total	52		
Quality of Life T2	Intervention	29	30.47	883.50

	Control	23	21.50	494.50
	Total	52		

APPENDIX D

Documentation Includes:

Leuven Wellbeing and Involvement Scale

Leuven Data Sheet

Leuven Observation Schedule

Step 1: Observation schedule (scanning of well-being and involvement)

SiCs Form A

GROUP: NUMBER OF CHILDREN: NUMBER OF SUPERVISORS: DATE:.....TO.....
FROM.....TO.....

	Name child	Observation	Well-being Involvement		Name child	Observation	Well-being/ Involvement	
1			WB	BT	6		WB	BT
2			WB	BT	7		WB	BT
3			WB	BT	8		WB	BT
4			WB	BT	9		WB	BT
5			WB	BT	10		WB	BT

Kind & Gezin Kind is Kuning
Research Centre for Experiential Education Leuven University

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