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The Perceptions of Participation in a Mentored Title I Elementary String Instrumental Music Program

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The Perceptions of Participation in a Mentored Title I

Elementary String Instrumental Music Program

By

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The Perceptions of Participation in a Mentored Title I

Elementary String Instrumental Program

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ABSTRACT

MANUEL C. CAPOTE:

The Perceptions of Participation in a Mentored Title I

Elementary String Instrumental Program

When elementary school-aged students want to learn to play a string instrument, they have the option to rent or purchase one, take private lessons, practice at home, and participate in their school orchestra program. In order for students to accomplish this, parental economic support and involvement is essential. Underserved Title I elementary school students without this socioeconomic support are at a distinct disadvantage: They do not have the parental socioeconomic support necessary to acquire an instrument and pay for private lessons. A string instrumental mentoring program aims to provide private instruction with mentors, free of charge, to those Title I elementary school string players that otherwise could not afford it. There is a need for string instrumental programs in Title 1 elementary schools because it is the "optimal time" to learn to play an instrument (Cutietta, 2012).

This study conducted an online focus group with string instrument mentors that visited two Title I elementary schools with string programs. The purpose of this focus group was to document the teachers', administrators', and parents' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program. The focus group results provided significant validation for having free string mentoring programs in Title I elementary schools.

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THE PERCEPTIONS OF PARTICIPATION IN A MENTORED TITLE I

ELEMENTARY STRING INSTRUMENTAL MUSIC PROGRAM

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Undertaking a doctorate in educational leadership has been an evolving process encouraged and influenced by many people that deserve recognition and thanks.

When I started working at Lynn University, Dr. Jon Robertson, Dean of the Conservatory of Music, asked me to establish a mentoring program with Conservatory students mentoring underserved youth. The seed was planted and the rest is history. Thank you Jon!

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A special thanks to Donald and Helen Ross for recognizing and supporting the mission of bringing music to underserved students as well as my efforts to bring pedagogical legitimacy and validity to it through this doctorate.

Last but not least, thank you to my wonderful Cohort 13, my ever-inspiring college of education professors, as well as all of my dear colleagues and friends. They have had to endure my *ad nauseam* persistence and passion for mentoring. I got news for you all…I am just getting started!

May God bless all of you!

DEDICATION

I dedicate this dissertation to my parents, Manuel and Catalina, to my late wife Christine Nield-Capote, and to my son Nicholas Capote. Without my parents and their unconditional love and support, I would not be who I am. Christine was a warm, compassionate, and loving human being. To quote one of her teachers, she was also *"an achieved artist, with a beautiful tone, and excellent technique – a wonderful flutist, a fine musician."* She was dedicated to her art and to sharing it with her students. She is the role model of artist teacher that I always aspire to be. Nicholas, is an honest, strong, loyal and multi-talented visual artist that has an unwavering sense and of right and wrong. He is my moral compass on a regular basis.

May God bless them all!

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CHAPTER I: INTRODUCTION

"Starting from a young age, music has always played a vital role in my life. I was fortunate enough to keep this vital source a prominent part of my life, because of free private lessons that I have been offered all throughout my elementary, middle, and high school years. Receiving private lessons in elementary school was especially important, because the one-on-one support and attention is very much needed among young music students. With a private mentor available, I was able to advance at levels that more so suited my needs, rather than moving at the same pace as the other students in my class. Having a private teacher at a young age also meant having a role model to look up to, which inspired me to continue my studies as a cellist throughout middle school and high school. I am now entering my senior year at a high school of the arts, and I am forever grateful for the opportunities offered to me." - Anonymous

Background

When elementary school-aged students want to learn to play a string instrument, they have the option to rent or purchase one, take private lessons, practice at home, and participate in their school orchestra program. In order for students to accomplish this, parental economic support and involvement is essential. Underserved Title I elementary school students without this socioeconomic support are at a distinct disadvantage: They do not have the parental socioeconomic support necessary to acquire an instrument and pay for private lessons. Title I schools, however, provide instruments for those students who cannot afford to rent or purchase one. Funds for instruments come from their school district or private sources. The purpose of a string instrumental mentoring program is to provide private instruction, free of charge, to those Title I elementary school string players that otherwise could not afford it.

Significance of the Study

There is a need for more instrumental string programs in elementary schools because it is the optimal time to learn to play an instrument (Cutietta, 2012). "An optimal period is used to refer to the idea that those periods in which development will be faster or easier" (Flohr & Hodges, 2006, p. 20). An example of optimal development refers to it being "easier to sing in tune between the ages of 3 to 6 years" (Flohr & Hodges, 2006, p. 20). One South Florida school district has only eight elementary schools with Choice Arts Programs. Only four of those eight schools have instrumental string programs. Choice and In-House Programs exist at the elementary, middle, and high school levels that provide an opportunity for students to engage in intensive study in specific areas (Magnet School, 2018).

Musical experiences, at an early age, are essential to a child's developmental process (Flohr & Hodges, 2006). Musical training and experience, early in a child's life, can compare to riding a bike or learning a language because both provide children the opportunity to learn to play an instrument in their early years allows them to do so during the optimal time for learning and development (Cutietta, 2012). This is of particular importance in Title I elementary schools, because if the school does not have a string program with instruments for those that need them, and provide free and quality mentored instruction, those students will not be able to take advantage of this optimal formative time.

Rationale of the Study

There are two Title I elementary art schools in a South Florida school district with string programs that are excellent candidates for a music partnership-mentoring program with a local conservatory of music by placing conservatory graduate student mentors at each of these schools. Eventually expanding this type of mentoring program to other Title I elementary schools in the

county depends on available funding and the eventual creation of additional Title I Choice elementary string instrumental school programs by the school district. Funding for mentoring programs comes from the state or private grants and varies from year to year (Lara, 2017). State budgets and private foundation resources also vary from year to year, consequently creating an issue for maintaining annual consistency or increasing the number of string instrumental mentors at an existing school or a new school (Doyle, 2014).

In this particular South Florida school district, the Florida Standards Assessments (FSA) are scheduled in the Spring semester of the academic year. FSA refers to Florida's K-12 assessment system, which "measures students' achievement of Florida's education standards, which were developed and implemented to ensure that all students graduate from high school ready for success in college, career, and life. Assessment supports instruction and student learning, and test results help Florida's educational leadership and stakeholders determine whether the goals of the education system are being met" (Florida Standards Assessment, 2019, para. 2).

In a study conducted by the National Endowment for the Arts (2011), art and music classes are often suspended for several weeks so that teachers can focus solely on preparing students for standardized tests. Arts and music programs are often thought of as being less important in meeting standardized testing benchmarks. "Since the passing of the No Child Left Behind Act, a 2008 survey of school district officials found that, since 2002, 16 percent of the nation's school districts had decreased instructional time in subjects other than reading and math programs" (Rabkin & Hedberg, 2011, p. 21). Subsequently, these initiatives "reduced instructional time in art and music by an average of nearly an hour a week," as the arts are viewed as a distraction and dilution of the students' time (Rabkin & Hedberg, 2011, p. 21).

Alongside the musical and social benefits consequent from participation in music programs, studies have found that the academic benefits derived from music and arts programs are often misunderstood and underappreciated (Rabkin & Hedberg, 2011). According to Guhn, Emerson, & Gouzouasis (2019), "music participation has been shown to relate to positive outcomes across different academic domains such as in reading and math assessments" (p. 14). Chapman, Morrison, and Lipsey's (2016) study focuses on the positive effects of music instruction on every aspect of a child's life, suggesting that "making, or learning music positively contributes to a growing and developing youth's improved cognitive function, socio-emotional capacity, and academic achievement" (p. 6).

Jensen (2001) believes that the musical arts deserve to be one of the three independent, major, stand-alone arts disciplines with no "downside risk," and that they all involve the whole brain with both short- and long-term benefits (p. 93). Jensen's (2001) findings that participation in the arts results in positive academic, cognitive, emotional, social, perceptual, motor, attention, memory, creative, and self-discipline benefits. Jensen (2001) cites studies that find that participation in the arts helps in achieving higher cognition and academic success, advocating for their inclusion at an early age to maximize their long-term artistic as well as "socio-academic-neurological benefits" (p. 102). Jensen's (2001) beliefs are commensurate with the need for more instrumental string programs in elementary school because it is the optimal time to learn to play an instrument (Cutietta, 2012).

According to Rose, Bartoli, and Heaton (2017), "individual musical lessons during the first year of learning provide an advantage not only to cognition in terms of problem-solving but also with regard to proprioception (the awareness of the movement of the body, muscles, joints, etc.)" (p. 298). Additional benefits to exteroception (pertaining to the mouth, skin and eyes), and

interoception (concerning the internal organs, such as the inner ear for balance) were also cited

by Rose, Bartoli, and Heaton (2017, p. 298). Starting at an early age with proper instruction and

guidance is very important for success in instrumental music (Cutietta, 2012). A Title I

elementary school instrumental string program provides quality instruments and quality

mentoring at no cost to those students that cannot afford them. Title I string instrumental

programs provide the necessary instruction that allows the Title I elementary string student to

learn to play the instrument properly at the optimal time (Cutietta, 2012).

This study plans to conduct an online focus group with the conservatory mentors that

visit two Title I elementary schools with string programs during the Fall and Spring semesters in

2019-2020. The purpose of this online focus group is to document the mentor perceptions of the

potential musical, academic, and social benefits derived from participation in a mentored Title 1

elementary string instrumental music program. Mentors have established relationships with the

students, administration, teachers, and parents. That is the rationale for their selection as subjects

as well as the online focus group format.

Research Questions

The following questions will guide this study:

- What are the mentors' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- What are the mentors' perceptions of the teachers', administrators', and parents' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

Definition of Terms

Title I, Part A (Title I) of the Elementary and Secondary Education Act, as amended by

the Every Student Succeeds Act (ESEA), provides financial assistance to local education

agencies (LEA) and schools with high numbers or high percentages of children from low-income

families to help ensure that all children meet challenging state academic standards" (U.S. Department of Education, 2018, para. 1). Schools with large concentrations of low-income students receive supplemental funds to assist in meeting their student's educational goals. This is determined by the number of low-income students enrolled in the free and reduced lunch program. Title I funds can be used to improve the curriculum, instructional activities, counseling, nutrition, parental involvement, and can increase staff and program improvement (U.S. Department of Education, 2018). The types of students served by Title I funds are populations that include migrant students, students with limited English proficiency, homeless students, students with disabilities, neglected students, delinquent students, at-risk students, or any student in need. Schools must make adequate yearly progress on state testing and focus on best teaching practices to continue receiving funds (Yell, 2014).

Mentoring is an activity or relationship that occurs between two or more persons interested in advancing their knowledge, skills, or position via a helping relationship. A mentoring relationship is one in which a more skilled or knowledgeable person assists another who possesses less knowledge and skill in a particular area. These relationships typically last beyond a single encounter and can be either formal, informal, or some combination of the two. Mentoring begins as a hierarchical relationship in which the mentor and protégé engage in a variety of roles and functions to support the protégé's learning and development. Most mentoring relationships follow a predictable path and over time develop into a more collégial relationship that allows for reciprocity and mutuality between the mentor and protégé. Although the concept of mentoring can be traced back to Greek mythology, no systematic studies of mentoring were conducted until the early 1970s" (Black & Zullo, 2008, p. 1).

Music partnership program refers to the mentoring program that a South Florida University Conservatory proposes to have with Title I elementary art schools with instrumental music programs.

Florida Standards Assessments (FSA) refers to Florida's K-12 assessment system, which "measures students' achievement of Florida's education standards, which were developed and implemented to ensure that all students graduate from high school ready for success in college, career, and life. Assessment supports instruction and student learning, and test results help Florida's educational leadership and stakeholders determine whether the goals of the education system are being met" (Florida Standards Assessment, 2019).

Conservatory mentor refers to a mentor provided by the South Florida university conservatory as part of the proposed Partnership Program (see Appendix A).

Choice and In-House Programs are the names given to magnet schools in a South Florida county. A choice school or magnet school is a "school that specializes in a particular area of the curriculum; for example, science, sport, or the arts…to become centers of excellence in their special field" (Magnet School, 2018).

An *optimal period* refers to those periods in a child's life in which development will be easier or faster.

Underserved students are students who do not receive equitable resources as other students in the academic pipeline. Typically, these groups of students include low-income, underrepresented racial/ethnic minorities, and first-generation students, as well as many others.

Mentoring

Mentoring could be comparable to peer-to-peer tutoring, cross-age tutoring, and peer-assisted learning (Fuchs, Fuchs, Mathes, & Simmons, 1996). *Peer tutoring* refers to students

working in pairs to help one another learn the material or practice an academic task. Peer

tutoring works best when students of different ability levels work together. (Kunsch, Jitendra, &

Sood, 2007). Some of the benefits of peer tutoring for students include academic success, social

skills with peers, and improved enthusiasm for learning (Topping, 2008). Studies (Fuchs et al.,

1996; Sheldon, 2001; Olson, 2016) recognize the benefits and usefulness of peer tutoring to

increase student success, sociability, and self-esteem. A string music mentor can function as an

older peer tutor that provides cross-age tutoring potentially deriving similar benefits.
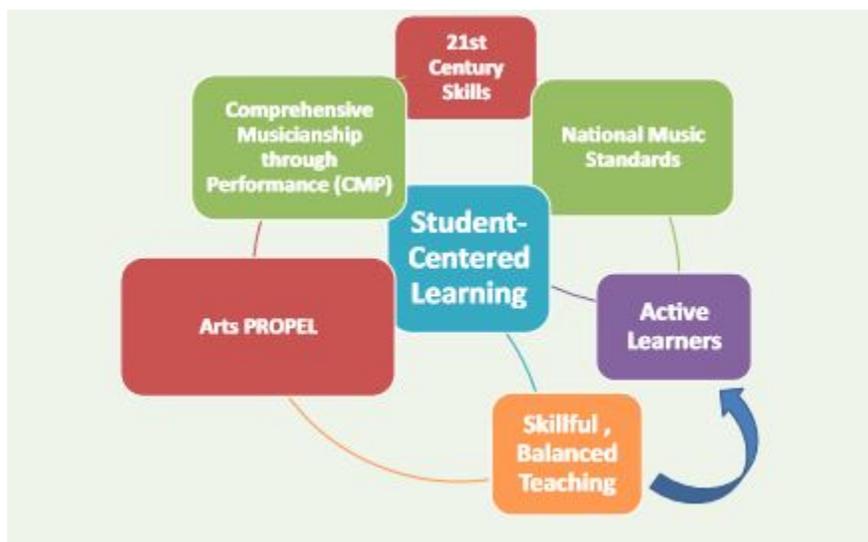
Figure 1. Student-centered learning influences and outcomes.
Adapted from Hansen, D., & Imse, L. A. (2016). Student-center
classrooms: Past initiatives, future practices. *Music Educators
Journal, 103*(2), p. 21. Copyright 2016 by Dee Hansen and
Leslie A. Imse.

Assumptions

Title I mentorship program participants will benefit from improved individual playing

skills, improved ensemble/group playing skills, overall improved musicianship and music

appreciation, the development of a practice/work ethic, increased social and cooperative skills

from large and small ensemble participation, and a general sense of good self-esteem. The mentors will provide the instruction at no cost.

Delimitations and Limitations

Providing mentors at a limited number of elementary art schools can be an identifiable limitation. Further, the number of mentors at each school can be a limitation if it restricts the number of string students that receive string instrumental mentoring. There are also independent variables (delimitations) that need to be noted. The efficacy and competence of each mentor and the school orchestra director will vary. The talent, diligence, and receptiveness of each student will vary. Student attendance will vary. The quality of the instruments provided to each student by the school will vary. In school and at home, practice and support will vary. Some of these independent variables (delimitations) can be mitigated by the adoption of specific criteria for the selection of mentors as well as the students (see Appendix B).

Summary

In instrumental music, starting at an early age with proper instruction and guidance is very important for success (Cutietta, 2012). Additional benefits in the areas of self-esteem, improved attendance, and academic performance have been cited in various research studies. A quality Title I elementary school instrumental string program supplemented by quality mentors will provide for improved individual playing skills, improved ensemble/group playing skills, overall improved musicianship, the development of an individual practice/work ethic, and increased socialization/cooperative skills from large and small ensemble participation. Studies recognize that the benefits and usefulness of peer tutoring, which similar to those received from a mentor, will increase student success, sociability, and self-esteem (Fuchs et al., 1996; Sheldon,

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2001; Olson, 2016). Participation in music can also serve as an enticement to attend school and

increase performance in other academic areas (Hardiman, 2016).

CHAPTER II: LITERATURE REVIEW

Purpose of Study

The existing research reviewed attempts to validate the musical, social, and academic benefits derived from participation in school music programs. Participation in piano instruction programs, playing in the school band, as well as other ensemble settings, are some of the musical activities cited that provided positive socio-academic benefits, such as improved self-esteem and improved academic achievement. Existing research also deals with the benefits of peer and cross-age tutoring (Sheldon, 2001), peer-assisted learning strategies (Fuchs et al., 1996), and other examples of student-centered learning. Positive results in the areas of self-esteem, psychosocial well-being, and academic achievement are also cited. All of these benefits can potentially be extrapolated to the elementary string instrumental classroom setting (Costa-Giomi, 2004; Zimmermann, 2000).

Mentoring Programs

Mentoring programs sometimes utilize graduate string students as teacher role models in one-on-one and small group teaching situations in Title I elementary school settings. The benefits derived by these mentors and their elementary string student mentees can be similar to those that use student-centered teaching strategies (Lara, 2017). Studies recognize that the benefits and usefulness of peer tutoring, which are similar to those received from a mentor, will increase student success, sociability, and self-esteem (Fuchs et al., 1996; Sheldon, 2001; Olson, 2016).

Instrumental music tutoring is a form of music mentoring. Similar results can be potentially obtained from both. A study by Mentoringohen, Kulik, & Kulik (1982) conducted a meta-analysis (statistical analysis and integration of results from a large collection of studies) of

a final group of 65 different studies. The final number of 65 studies was collected from an original pool of 500 studies. Several guidelines were used in the final selection. The studies took place in actual school classrooms and contained quantitatively measured outcomes (Mentoringohen, Kulik, & Kulik, 1982). They had a tutored group and a non-tutored control group. Finally, the studies did not have different aptitude levels in the comparison groups and unfair "teaching to the test" methods in any of the groups. The results illustrated that the effects of tutoring were positive and that they were stronger than those from other teaching methods.

Peer Tutoring

A list of proven instructional and administrative practices suggests some of the actions teachers and schools can take to enhance student learning and other outcomes. Peer tutoring, with its focus on monitoring, support, and corrective feedback, represents specific means of implementing these practices. Cotton (2002) and Kalkowski (1995) found that peer tutoring provided improvements and benefits in the areas of academics, social behavior, discipline, peer relations, self-esteem, subject attitudes, and school attendance. The study by Cohen, Kulik, and Kulik (1982) found that in many tutorial programs for children, they are now being tutored by peers or paraprofessionals rather than by traditional teachers or tutors. This use of peer and paraprofessional tutors has increased the availability of tutoring programs to many more children in ordinary classrooms throughout the country. Cohen, Kulik, and Kulik (1982) concluded that tutoring programs contribute to the academic growth of children who receive tutoring and to the growth of children who provide tutoring as well, while also concluding that these contributions are most effective with well-structured and cognitively-oriented programs.

Sheldon (2001) study recognizes the benefits and usefulness of peer tutoring to increase student success, sociability, and self-esteem. Peer and cross-age tutoring allow music students to

help each other and benefit both the music teacher and the students themselves (Zimmerman, 2000). He emphasizes the need to start small, expand gradually, as well as planning and organization to achieve success. Guidance and instruction for the tutors, goals and procedures, proper matching of tutors and tutees, assessment and monitoring, choice of materials, length of sessions, as well as having a proper space/location were some of the factors that need further consideration. Peer and cross-age tutoring are similar to mentor-to-mentee tutoring in instrumental music. It has been associated with increases in student achievement, problem-solving skills, independence, improved social skills, and self-initiative.

Douglas (1996) aimed to evaluate the effectiveness of Peer-Assisted Learning Strategies (PALS) in elementary and middle school classrooms. These strategies are a form of one-on-one peer tutoring. The subject matter being tutored was reading (in English). Twelve elementary and middle schools were selected for participation. Three different types of learners were targeted: "low achievers with disabilities," "low achievers without disabilities," and "learners of average achievement." A total of 40 teachers were involved for over 15 weeks. Twenty teachers utilized the peer tutoring model, and 20 were in a control group and did nothing. The findings showed that all three learner types showed a greater degree of reading progress than the control group (Douglas, 1996).

Musical Arts

According to Jensen (2001) *Arts with the Brain in Mind*, the musical arts deserve to be one of the three independent, major, stand-alone arts disciplines with "no downside risk", and that they all involve the whole brain with both short and long-term benefits (p. 93). Jensen (2001) cites research studies that find that participation in the arts results in "positive academic, cognitive, emotional, social," perceptual, motor, attention, memory, creativity, and self-

discipline, "neurological benefits" (p. 102). Jensen believes that participation in the arts helps achieve higher cognition and academic success, further arguing for their inclusion at an early age to maximize their long-term artistic as well as socio-academic-neurological benefits (Jensen, 2001). Jensen (2001) provides significant research-based arguments for the existence of string programs in all Title I elementary schools.

Legette (1993) focuses on the effects of music instruction on the self-concept and academic achievement of elementary public school students. One study involved self-concept and the other used district data (grades, attendance, test scores) in determining academic proficiency. Studies were conducted over eight months using pretests, post-tests, and a control group. Positive outcomes were reported in all areas for the students involved with music instruction.

Zimmerman (2001) explored the effect that playing in the school band had on the self-esteem and self-concept of elementary students in at-risk school environments. Four elementary schools in Santa Fe, New Mexico, were chosen, of which a significant part of the populations received free or reduced-price lunch. Band instruments were purchased through a charitable foundation and loaned to the students. An afterschool peer tutoring program was established with 45 minutes of weekly tutoring by area high school students. The Piers-Harris Children's Self-Concept Scale was used as a pre-test in September or October 1997, and again as a post-test in May 1998. Areas that were studied were self-esteem, self-perceptions of behavior, school status, self-perception of physical attributes, anxiety, popularity, and happiness (Zimmerman, 2001). An additional area of musical self-esteem was discovered; the author found that "self-esteem questionnaires or scales do not necessarily reveal accurately the effect that arts and music programs have on children's lives" (Zimmerman, 2001, p. 76).

The researcher also summarized that "individual lessons, with individual attention, or small-group ensemble sessions are far more effective than larger classroom settings…one private lesson each semester with a caring teacher could make a profound difference in student achievement" (Zimmerman, 2001, p. 76). Specifically, the areas of self-esteem that were studied included self-perceptions of behavior, school status, perception of students' physical attributes, anxiety, popularity, and happiness. The schools selected to participate had a high percentage of their student populations receiving free or reduced-price lunch, which provided similar socio-economic demographics as Title I schools. Similar benefits could be derived for string program participants.

Costa-Giomi (2004) measured the effects of three years of piano instruction to fourth-grade children in Montreal, Canada, involving a sample of 117 public school students. The students chosen had never received any formal music instruction and were all from families whose annual income was $40,000 or less. They were divided into two groups: the experimental group of 63 students were provided with an acoustic piano at home and received weekly piano lessons at home, all at no cost; the control group of 54 students did not receive either a piano or instruction. Over three years, all participants were given tests to evaluate and measure self-esteem, academic achievement, cognitive abilities, and motor proficiency. The results in the study by Costa-Giomi (2004) disclosed that piano instruction had a positive effect on self-esteem and school music grades. However, it did not affect academic achievement in math and language.

Hietolahti-Ansten and Kalliopuska (1991) studied 25 young musicians with an average age of 12 years old who played the piano or the violin for an average of six years with the purpose of evaluating empathy and self-esteem. A control group was used. Methods used to

measure self-esteem were the Mehrabian and Epstein Empathy Scale and the Battle Self-Esteem

Scale, Form B. The study found that the music group had high self-esteem, and the control group

only moderate self-esteem, further finding that involvement in music seemed to promote

empathy, self-expression, and the development of inner self-control. An active interest in music

seems to improve self-esteem and promote empathy. Self-expression through music encourages

students to take more responsibility, to concentrate, and as such, to improve their self-control.

At-Risk Students

The Curriculum Development and Renewal Project developed by the Center for Music

Research for the Florida Department of Education (1990) wanted to understand if participation in

an arts program could help keep at-risk high school students enrolled in school. Criteria for

identifying at-risk students was developed as well as the implications of the implementation of

arts programs (Florida State University Center for Music Research, 1990). Administrators,

teachers, and at-risk students were interviewed to determine what art courses would be most

desirable and effective in motivating students to stay in school (Florida State University Center

for Music Research, 1990). Field observations of at-risk high school students were conducted at

seven different Florida high schools (Florida State University Center for Music Research, 1990).

Two important questions posed by the Florida State University Center for Music

Research Study (1990) were:

- "What are the effects of arts activities on the retention of at-risk students?" (Florida State
  University Center for Music Research, 1990, p. 1).

- Are there "specific cases of at-risk students who succeeded directly as a function of their
  interest and progress in one or more of the areas of the arts?" (Florida State University
  Center for Music Research, 1990, p. 1).

The findings dealt with the effects of arts programs on student motivation as well as the

specific strategies and techniques used by the arts teachers (Florida State University Center for

Music Research, 1990). The results demonstrated that arts programs offered in Florida's high

schools helped students who border on dropping out of school (see Table 1). It may be possible

to transfer some of the learning environment and teaching concepts used in art classes to

elementary and middle schools with the intention of creating greater student enthusiasm and

participation at an early age that would transfer to middle and high school (Florida State

University Center for Music Research, 1990).

Table 1

Positive influence on at-risk students in art programs

Adopted from: Florida State University Center for Music Research. (1990). *The role of the fine and performing arts in high school dropout prevention* (p. 23). Copyright 1990 by Florida State University.

Aspect	Value
Student interest in subject matter of arts courses	7
The importance of creative activities	17
Self-confidence from performing	17
Feeling of success	17
Social camarederie	22
Importance of performance	23
Participation in arts course influenced students to stay in school	68

■ 76 Teachers responses on Which Aspects of their Arts Courses That Have a Positive influence on At-risk Students

Zimmerman (2000) explored the effect that playing in the school band had on the self-

esteem and self-concept of elementary students in at-risk school environments. The four

elementary schools chosen in Santa Fe, New Mexico, had a significant part of their populations

receive free or reduced-price lunch (Zimmerman, 2000). Band instruments were purchased

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through a charitable foundation, loaned to the students, and an after-school peer-tutoring program was established with 45 minutes of weekly tutoring provided by area high school students (Zimmerman, 2000). The Piers-Harris Children's Self-Concept Scale, an assessment tool used to measure self-concept in young children, was used. It was used as a pre-test in September and October 1997 and as a post-test in May 1998 (Zimmerman, 2000).

Self-concept areas studied in the four elementary schools in New Mexico were self-esteem, self-perceptions of behavior, school status, self-perception of physical attributes, anxiety, popularity, and happiness (Zimmerman, 2000). Schools selected to participate had a high percentage of their student population receiving free or reduced-price lunch and similar socio-economic demographics as Title I schools (Zimmerman, 2000). Positive benefits could potentially be derived for mentored Title I elementary school string program participants. Small group and one-on-one learning in a caring environment could potentially validate mentoring initiatives, and playing in ensembles (groups) is an integral part of instrumental music and group ensemble classes are at the core of instrumental string, band, and choral programs (Zimmerman, 2000). Ensembles, regardless of size, develop the cooperative skills necessary for the group and individual success (Sheldon, 2001; Zimmerman, 2000). Early participation in an elementary school instrumental ensemble is essential for future musical success (Sheldon, 2001).

Rosenthal (1994) dealt with 4-H programs and "cross-age teaching". It involved two schools in a rural district; one was a high school with a 4-H program, and the other an elementary school. According to the National 4-H Council (2019):

4-H programs are grounded in the belief that kids learn best by doing. Kids complete hands-on projects in areas like science, health, agriculture, and civic engagement, in a

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positive environment where they receive guidance from adult mentors and are

encouraged to take on proactive leadership roles. (p. 1)

The high school participating in the project was a non-traditional school with at-risk

students. The objective was for the high school students in the 4-H program to teach science

units to fourth-grade students. The high school provided a trainer for the high school teenagers to

teach various science units to the younger fourth graders in a non-school setting. It was similar to

an apprentice model of teaching and learning. There were only positive results and though

apprehensive at first, and the high school students owned up to their teaching responsibilities

(Rosenthal, 1994). Bonds of friendship developed between the fourth graders and their high

school mentors. The incentive to learn increased because they did not want to "disappoint their

buddies" (Rosenthal, 1994). These cross-age examples of teaching are transferrable to a musical

setting.

Peer-to-Peer Tutoring

Teachers encounter an ever-increasing diversity in their ranging from students with

learning disabilities, students from low-income families, students whose native languages are not

English, and students with varying levels of ability and achievement (Guhn et al. 2019). These

teachers are expected to adapt their teaching strategies to teach all of these students well. This is

an effective way of "decentering" the teaching process and thereby maximizing the learning. By

using peer-to-peer teaching strategies in their classroom, they can address the various learning

needs of their population by utilizing talent and resources from within their classrooms—a win-

win for all concerned. This peer-to-peer model can be transferred to a musical/ensemble setting

very easily. Peer-to-peer, as well as cross-age tutoring, can potentially be very effective in

musical settings.

Giesecke and Cartledge (1993) document the beneficial aspects of one-to-one and peer-to-peer tutoring. What makes this program unique is its use of low-achieving students as tutors with a chosen student population of third and fourth graders. The study found that low-achieving student tutors are just as effective as high-achieving ones (Giesecke & Cartledge, 1993). One-to-one tutoring yields the most positive results for both the tutors as well as the tutees and is a very helpful strategy in lower socio-economic demographics; furthermore, the program is cost-effective and easy to implement and it documented improvements in academic gains, social skills, self-concepts, and student attitudes (Giesecke & Cartledge, 1993). One-to-one peer tutoring is similar to one-to-one mentor-to-mentee tutoring in instrumental music (i.e., private lessons) and the joint benefits for the tutors and the tutees prove to be an additional beneficial tool in the string instrumental setting (Giesecke & Cartledge, 1993).

Peer and cross-age tutoring allow music students to help each other, benefits both the music teacher and the students themselves, and underscores the need to start small and expand gradually (Sheldon, 2001). Sheldon (2001) also identifies the benefits and usefulness of peer tutoring to increase student success, sociability, and self-esteem. The emphasis is on the importance of planning and organization to achieve success. Guidance and instruction for the tutors, goals and procedures, proper matching of tutors and tutees, assessment and monitoring, choice of materials, length of sessions, as well having the proper space/location are some of the factors that warrant further consideration. Not only are peer and cross-age tutoring similar to mentor-to-mentee tutoring in instrumental music, they have been associated with increases in student achievement, problem-solving skills, independence, improved social skills, and self-initiative.

Hansen and Imse (2016) discuss the evolution of teacher-centered/top-down music instruction in classrooms and to that of student-centered classrooms. In the student-centered classroom, teachers become facilitators and direct the students in various activities that encourage self-teaching and self-evaluation. Three initiatives that focused on student-centered learning were discussed: (1) Comprehensive Musicianship through Performance (1977) introduced students to the concept of authentic musical experiences that involved students selecting, analyzing, and assessing their own as well as their peers' musical experiences; (2) Arts PROPEL was founded by Howard Gardner, Denise Palmer Wolf, and Drew Gitomer in the late 1980s and early '90s as a model for student-centered instruction and assessment in music and the visual arts, and tracks the creation of portfolios or process folios to track their personal growth; and (3) Hansen and Imse (2016) explain that in 2002, the Partnership for 21st Century Learning was formed to reform the educational processes for the needs of the 21st century, encouraging critical thinking, problem-solving, communication, and collaboration. More importantly, it advocated that the arts and music were essential subjects for overall student success in the 21st century, and this initiative led to the creation of the 2014 National Music Standards, which influence student-centered learning in music classrooms (Hansen & Isme, 2016).

Participation in the Arts

According to Jensen (2001), the arts deserve to be three independent, major, stand-alone disciplines: the musical arts, the visual arts, and the kinesthetic (dance) arts. Jensen (2001) cites seven criteria that define a "major" discipline. Jensen (2001), discipline must be accessible, brain-based, be culturally necessary, have no downside risk, must be inclusive, must have survival value, and must be wide-ranging (pp. 4-6). See Figure 2.
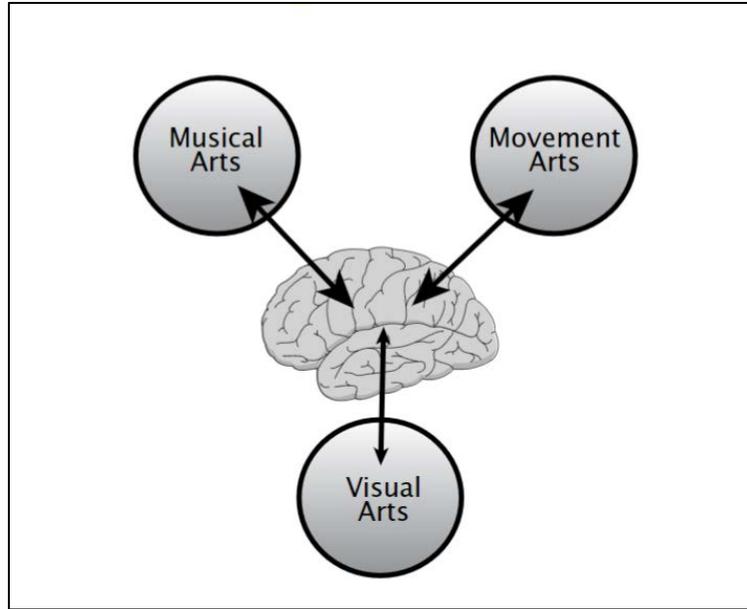
Figure 2. Strong evidence suggest that the arts meet all the criteria for a major discipline. Reprinted from: Jensen, E. (2001). *Arts with the Brain in Mind*. Alexandria, VA: Association for Supervision and Curriculum Development, p. 6. Copyright 2001 by Eric Jensen.

Jensen (2001) believes that the arts provide multiple benefits in all of these areas with no "downside risk," and that they all involve the whole brain with both short- and long-term benefits, citing multiple research studies that find that participation in the arts results in positive academic, cognitive, emotional, social, perceptual, motor, attention, memory, creative, and self-discipline benefits. Jensen (2001) debunks the myth that participation in the arts detracts from academic success, namely in the areas of reading and math. He goes further by citing studies that find that participation in the arts helps in achieving higher cognition and academic success, arguing for their inclusion at an early age to maximize their long-term artistic as well as "socio-academic-neurological benefits" (Jensen, 2001). His work provides significant research-based arguments for the existence of string programs in all Title 1 elementary schools.

According to Miringoff and Opdycke (2005), Vassar's Institute for Innovation in Social Policy (IISP) states that involvement in artistic and cultural activities "enriches our experiences,

expands our sensibilities, and enhances our understanding" (p. 13), further reinforcing the positive association between participation in arts programs and positive academic and social outcomes, such as school grades, test scores, and college enrollment. Miringoff and Opdycke (2005) found that those benefits were even more favorable for students who were socio-economically disadvantaged.

Miringoff and Opdycke (2005), in the "Arts, culture, and the social health of the nation 2005" report for the Institute for Innovation in Social Policy at Vassar College found that students involved in the arts had increased school participation, attendance, self-esteem, motivation, music instruction, and was in particular attributed with improving cognitive skills across all disciplines. Students that said that they were planning to go to college for four years were more likely to participate in performing arts activities (Miringoff & Opdycke, 2005).

Fuchs et al. (1996) study evaluated the effectiveness of "Peer-Assisted Learning Strategies" (PALS) in elementary and middle school classrooms. These strategies are a form of one-on-one peer-to-peer tutoring; the subject matter being tutored was reading (in English). Twelve elementary and middle schools were selected for participation. Three different types of learners were targeted: "low achievers with disabilities," "low achievers without disabilities," and "learners of average achievement." 40 teachers were involved for over 15 weeks. 20 utilized the peer-tutoring model, and twenty were in a control group and did nothing. The findings showed that all three-learner types showed a higher degree of reading progress than the control group.

Hietolahti-Ansten and Kalliopuska's (1991) research project involved two groups of students: one group of 25 music students who had been playing the piano, violin, or both for six years with an average age of 12; the other was a control group of 30 students of a similar average age that were involved in music. The study's purpose was to measure empathy and self-esteem in

both groups to see if there was a difference between the groups. Scales used were the modified Mehrabian and Epstein Empathy Scale as well as the Battle Self-Esteem Scale, Form B. The results demonstrated that music students had higher self-esteem and an increased sense of empathy than non-music students, with girls found to be more empathetic than the boys. The study found that participation in musical groups promoted concentration, concern for others, and a sense of "well-being." Studies like this further validate the importance of music programs in schools.

A study by Gooding (2011) involved 45 children aged six through 17 in three different locations. They all had specific deficits in the social skills areas of peer relations and self-management. Groups were age-based, and each received five sessions of specifically designed activities. The importance of social skills was cited and defined as a "complex set of skills that include communication, problem-solving, and decision-making, assertion, peer and group interaction, and self-management" (Kolb & Hanley-Maxwell, 2003, p.163). The relationship between music and social skills was discussed at length. The importance of music participation as an excellent medium for teaching social skills like cooperation, verbal and non-verbal communication, positive peer interactions, peer collaboration, and dependability was emphasized.

Participation in musical activities cannot only be used in therapeutic settings but can and should be used to develop the social skills of children in a non-threatening, non-verbal way. Hargreaves, Marshall, and North (2003) stated that "most musical activity is carried out with and for other people—it is fundamentally social—and so can play an important part in promoting interpersonal skills, teamwork, and cooperation" (p.160).

Kuban (2015) discusses the use of visual art as a therapeutic medium for healing in troubled children and youth, as well as those that have suffered traumatic experiences. In the 1950s, art was utilized with troubled children as a means to release emotions and feelings. Kuban (2015) talks about trauma not as a mental disorder but as a painful experience that is difficult to cope with. A traditional therapeutic intervention involving dialogue (words) often does not work because of where in the brain the trauma resides. It states that trauma is experienced in the midbrain and lower brain. Art activities allow the traumatized child to access and externalize the sensations and imagery of their trauma more readily and in a less stressful non-threatening way.

Additionally, art allows the troubled child to express and explore their feelings in ways that provide resilience and strength. Music is also a great vehicle for accessing emotions and feelings without the use of words. Like art, music is a wonderful medium for self-expression and release in a stress-reducing manner. According to Kuban (2015), the combination of art and music is a combined way for the traumatized adolescent to express himself or herself in a non-threatening, non-stressful way. Music, like art, can reduce heart rate, respiration, and blood pressure. More often than not, the finished product is a source of individual pride and accomplishment.

All of the various initiatives cited encourage and empower students to be proactive in their music learning experiences. This act frees the traditional teacher to facilitate, oversee, and allow students to create, collaborate, and evaluate their music-making on a daily basis. These skills are vitally essential in small and large ensemble rehearsal and performance. Peer-to-peer tutoring and mentoring require students and mentors to be able to self-teach and self-evaluate. These processes allow students to become independent learners.

Reynolds' (1993) review of existing literature related to student self-concept and its relationship to music education and the subsequent development of a musical self-concept starts with the premise that low self-esteem due to a poor self-concept contributes to problems such as academic underachievement, violent behavior, drug addiction, and a myriad of other negative paths. It states that there is little research involving music education and self-concept and discusses various definitions of self-concept, the self-concept of music ability, and the relationship between self-concept and music education.

Reynolds (1993), states that when students perceive success (or failure) to effort, they will be more likely to pursue and persist a similar activity in the future. Reynolds' research is of particular significance due to its conclusion that students' self-concept will influence classroom behavior and their motivation to participate in music activities. Furthermore, it states that since young children are more malleable and believe that effort increases ability, they are more likely to participate and persist with musical activities. This provides an additional reason/argument for the introduction of string instrumental music in the early grades.

According to Zatorre (2005), the inner ear turns sound waves into neural impulses, which eventually reach the auditory cortex, which contains distinct sub-regions that are important for understanding and processing the various aspects of sound. Information from the auditory cortex interacts with many other brain areas, especially the frontal lobe, for memory formation and interpretation. This orbitofrontal region is one of many involved in the emotional evaluation. The motor cortex is involved in controlling movements needed to produce music using an instrument. Sometimes, certain types of lesions result in an unusual phenomenon called *amusia*. People with these lesions have no problem speaking or understanding speech, but they cannot notice wrong

notes or recognize a familiar melody. Individuals that are born with this inability to recognize

tunes are thought to have inherited this deficit (genetics).

According to Zatorre (2005), speech mostly takes place in the left half of the brain, and

the right half is thought of for music. There are case reports of individuals who have lost their

speech functions after extensive damage to speech regions in the left hemisphere, yet continue to

show high-level musical function. Absolute pitch cannot develop without musical training.

However, the exposure must happen during childhood and not past the ages of 12 to 15. Beyond

these ages, it is virtually impossible to learn. Studying music in early childhood shows the most

extensive brain response: those who wait until after puberty show much less. One interesting

emotional response is the 'chills down the spine' effect. The brain areas recruited include regions

thought to be involved in mechanisms of reward and motivation.

Laffert and Alford (2010) deal with advances in the field of functional magnetic

resonance imaging (fMRI) and the new information it reveals as to how the brain functions and

its implications in the field of Neuro Leadership. Four "core" domains are identified; (1)

decision-making, (2) emotion regulation, (3) collaboration and influence, and (4) change.

Functional magnetic resonance imaging is capable of mapping brain activity as it happens.

Changes in blood flow, electrical discharges, and magnetic fields can now be mapped and show

us where and when specific brain activity is happening. Neuro Leadership was developed by

David Rock. It focuses on how individuals in a social environment make decisions, solve

problems, regulate emotions, collaborate with and influence others, and facilitate change (Rock

& Ringleb, 2008). With decision-making and problem solving, we know that the brain changes

as a function of where an individual places his or her focus. An individual that practices a

specialty thinks differently than those that do not. Different specialties with different functions

possess physiological differences unique to their specialty. Activity in the prefrontal cortex (PFC) can be affected by catecholamine hormones ("fight or flight hormones"), which are released by the adrenal glands due to stress. Under stress, activity shifts to the amygdala as the PFC's functions are constrained (Ronzio, 2017).

A positive mood before and insight before the solving of a problem showed a different brain activity than when solutions were achieved through "deliberate analysis" (Rock & Ringleb, 2008). Emotional regulation, as a form of emotional intelligence, was cited as an essential component of leadership (Rock & Ringleb, 2008). Techniques cited were strategy selection, situation modification, attention deployment, reappraisal, and response modulation. All involve "psyching" the brain out into thinking that issues confronted are manageable and surmountable. Finally, about collaboration and influence, rejection and exclusion were experienced in the same brain area as physical pain. People with a higher tolerance for one had a similar tolerance for the other.

Musical Intervention

Osborne (2012) documents the different forms of musical intervention used to support children in zones of conflict throughout the world. These children have posttraumatic stress disorder (PTSD), with the most common psychiatric diagnostic criteria among these children being exposed to trauma, traumatic recall, avoidance, and hyper-arousal. One situation involved children in East Africa that had faced murder, rape, abduction, ethnic cleansing, and as well as forced recruitment into child militias and prostitution. A nongovernmental organization (NGO) was formed that hosted music workshops at a community center. Peter, the organizer, felt that a visceral, physical engagement with music-making was essential to the welfare of these children. This took the form of dances-first ones with gentle rhythms and then ones with faster, more

vigorous rhythms. The children were encouraged to move, clap, and sing. The children were both energized and relaxed. Trauma can affect heart rate, breathing, and blood pressure. The anecdotal evidence from these activities found that music can and helps regulate the autonomic nervous system and related behaviors of the heart. The article cited that PTSD dysregulated the hypothalamic-pituitary-adrenal systems that dealt with stress and suggested that music may help modulate and regulate these systems.

Finally, in a Palestinian refugee camp in the West Bank, circles with "gentle" instruments (metal chimes, shakers) as well as "angry" instruments (djembes, bongos, cowbells) were formed. A volunteer in the middle went back and forth between the various instruments providing a safe way to explore and express with "caressing" as well as "aggressive" sounds. Blindfolded journeys through musical forests, imaginary animals, along with person-to-person exchanges, were some of the techniques used. These psychological and psychobiological methods lead us to the theory of communicative musicality. This theory has its roots in mother-infant vocal communication. The richness and importance of infants' responses to the utterances of mothers "may be linked to the activation of a variety of cortical and subcortical neural and neuroendocrine systems" (Osborne, 2012, p. 72). These types of interactions by PTSD children may help them find a "measure of physical and mental release in joyful shared experiences of musical expression" (Osborne, 2012, p. 72).

Flohr (2010) focuses on children's musical experiences on what the best brain research recommends for young children. Areas covered included common neuromyths, the effect of music on structural brain changes, the effect of music on general intelligence, plasticity, critical versus optimal periods in learning, at-risk student populations, and effective instructional strategies in the elementary school classroom (Flohr, 2010).

The brain and the central nervous system extend throughout the body. It is more malleable during the first 10 years of a child's life but continues to make connections throughout our adult life. Whereas "some connections are found to be predetermined genetically; other connections develop from environmental influences" (Flohr & Hodges, 2002, p. 997). "The word neuromyths is used to describe misinformation, oversimplification, or overinterpretations of findings in brain research" (Burton & Taggart, 2011, p. 7). It is important to avoid neuromyths so that accurate and relevant brain research results relevant to education are taken seriously (Burton & Taggart, 2011).

One area of confusion revolves around critical and optimal periods. According to Button and Taggart (2011):

> Critical period refers to the idea that there are time frames during which there will be no development or stunted development if certain stimulation is not present….An optimal period is used to refer to those periods in which development will be faster or easier.
> (p. 8)

The idea that musical activities can affect structural changes in the brain is supported by two cited studies. "Violin instruction before the age of seven changes physical development (morphology) of the brain" and "professional keyboard players were found to have significantly more gray matter than amateur musicians and non-musicians in several brain regions" (Burton & Taggart, 2011, p. 8).

The old-fashioned idea of left or right-brained individuals has been debunked by modern neuroimaging that suggests and supports that the entire brain is involved when engaging in musical activities. Module theory suggests that modules and sub-modules control specific activities or functions, and they are spread out throughout the brain (Burton & Taggart (2011).

"For a music task such as playing a C-major scale on the piano, the musical brain would integrate several submodules in the coordinated activity. There may be modules or supermodules or mechanisms that coordinate among different modules" (Flohr & Hodges, 2006, p. 25).

The concept of brain "plasticity" suggests that the brain is adaptable and that its structure changes as a result of experience (Burton & Taggart, 2011). Critical periods refer to there being an end to brain development or growth, usually for biological reasons (Burton & Taggart, 2011). Optimal periods are more common and refer to either a faster or a slower development (Burton & Taggart, 2011). One example of optimal development refers to it is easier to "sing in tune during the ages of one to six" than later on in one's late twenties (Burton & Taggart, 2011, p. 9).

With regards to general intelligence, "analyzed data found that music instruction showed gains in general intelligence with a stronger effect in visual-spatial skills than in verbal skills" (Burton & Taggart, 2011, p. 10). Visual and spatial skills are associated commonly with mathematics (Burton & Taggart, 2011). A study with middle school students in the program Health, Education in the Arts, Refining Talented Students (HEARTS) showed a reduced risk of violence, significant improvements in self-esteem, overall grade point average, and other forms of school achievement (Respress & Lutfi, 2006).

Kraus and White-Schwoch (2017) deal with the concept of sound as an essential part of communication in everyday life, and more specifically, music and its significance in communication and human culture. Kraus and White-Schwoch (2017) thought of music as "a powerful experimental model that addresses fundamental questions in the neurobiology of everyday communication, including the organization of sound processing in the brain" (p. 287). Other areas cited were "the contingency between perception and action the cognitive factors that

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shape perception, the structure and function of the limbic system (the neural basis of creativity and the effects of experience on the nervous system" (Kraus and White-Schwoch, 2017, p. 287).

Auditory training is a fundamental part of musical training and can help improve and understand communication among children (Kraus & White-Schwoch, 2017). There exists longitudinal research evidence that musicians have stronger brain responses to speech than their non-musician peers, and have faster brain responses to speech, especially with challenging speech cues such as those with "consonant-vowel transitions" (Kraus & White-Schwoch, 2016, p. 288). According to Kraus and White-Schwoch (2017), "musicians have a stronger neural encoding of speech harmonics, which convey *timbral* features in speech and contribute to the identification of p*honemes*" (i.e., unique sounds that allow us to differentiate one word from another such as bad/bat, pad/pat) (p. 288).

"Musicians' "neural" coding of speech" is less sensitive or discerning "to background noise" (Kraus & White-Schwoch, 2017, p. 288). Their ability to recognize speech amidst a noisy background has an increased frequency-following response (FFR) to those of a non-musician (Kraus & White-Schwoch, 2017). The repetition inherent in musical training and activities strengthens auditory circuits and neuro-plasticity. Even though the brain networks involved in speech and music are not identical, "the overlap in the activity patterns they elicit is nevertheless remarkable and is emphasized in studies of music training" (Kraus & White-Schwoch, 2017, p. 290). "Converging evidence supports the hypothesis that auditory function is a chief factor in reading development…many children and adults with dyslexia have an abnormal perception of sound, particularly acoustic events that convey phonemic cues in speech" (Kraus & White-Schwoch, 2017, p. 292).

Finally, "rhythm appears to be a key channel by which music crosses over to listening and language skills. Early evidence in young adults suggests that rhythmic awareness also strengthens the ability to understand sentences in noise" (Kraus & White-Schwoch, 2017, p. 294).

Kenney (2010) discusses two traditional ways of teaching songs: one based on the assumption that children learn best when information is provided in small pieces teach one phrase at a time, and the second and most desirable way is called the whole-song approach, wherein songs are taught by immersion in the total song. It assumes that children learn best when discovering the bits and pieces themselves from the whole experience teaching. Kenney (2010). Three Brain-Compatible Assumptions are cited: Brain-Compatible Assumption No. 1: We learn a song by listening to it many times; Brain-Compatible Assumption No. 2: To be effective, the repetition must be meaningful to the learner; Brain-Compatible Assumption No. 3: The most efficient way to learn a song is to experience the whole while discovering parts within the whole (Kenney, 2010).

Repetition is of extreme importance. Hodges (2009) explains, "The brain is designed to detect patterns and that it is pleasurable to find patterns embedded in seemingly unstructured sensory information" (p. 5). This lends support and credence to the whole song approach to learning a song. Peterson (2011) cites philosophy and advocacy articles written between 2005 and 2010 and how they were influenced by neuroscience. This was a period of neuroscientific curiosity. Scientific advances such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET) scans, gave us a real-time view into brain activity while engaged in various activities, including musical ones. However, the connection and relevance to the efficacy and advocacy of music education have not been as effective as one would think.

A qualitative method was used for its inherent ability to examine human behavior, and purposive sampling was used for data collection. Latent content (the underlying meaning) was used, and codes were developed and then analyzed for emergent themes. Most advocacy positions cited extrinsic reasons (spiritual/moral/brain/skill development), with the only intrinsic reason being arts for their own sake.

45 articles were included in this analysis, most from the *International Journal of Music Education.* One argument was made that there exists an advocacy crisis because music educators lack a philosophical and neuroscientific foundation for their efforts, relying too often on questionable research (Elpus, 2007). The need to stay away from neuromyths such as left brain/right brain, the theory of multiple intelligences, and the "Mozart Effect" was cited. The goal is to rely on accurate research-based findings that document what exactly happens in the brain when engaged in various activities, including music and their overlapping significance.

The Art of Changing the Brain by Zull (2002) documents what occurs in the brain while actively learning and how successful teachers should use this knowledge in their advocacy and teaching. Membership in professional organizations such as The Society for Music Perception and Cognition, whose objectives include furthering the scientific and scholarly understanding of music, was recommended along with the intrinsic value of advocating for music for its own sake.

Levitin and Tirovolas (2009) write about advances in neuroscience that have contributed to the field of music cognition, citing musical activities such as listening, remembering, performing, learning, composing, movement, and dance. The increased use of neuroimaging methods (e.g., fMRI scans, PET scans) are employed to see what areas of the brain are activated by various musical activities and stimuli.

Levitin and Tirovolas (2009) also discuss the connection between language and music and the similarities in how they are processed in the brain. Leonard Meyer defined music as a form of "emotional communication." Composer Edgar Varèse defined it as "organized sound."

Eight perceptual attributes of music were cited: pitch, rhythm, timbre, tempo, meter, contour, loudness, and spatial location (Levitin, 1999; Pierce, 1983). Even though music was thought to predominantly be a right-brain activity, it is now believed that listening, performing, and composing engage regions in the entire brain (Peretz & Zatorre, 2003; Platel et al., 1997; Sergeant, 1993; Tramo, 2001). A functional magnetic resonance imaging scan (fMRI) is similar to an MRI scan and it revealed that major and minor tonalities affect the bilateral inferior frontal gyri, medial thalamus, and the dorsal cingulate cortex (Mizuno & Sugishita, 2007). A separate study of mode melodies revealed activation in the left parahippocampal gyrus, the bilateral ventral anterior cingulate, and the left medial prefrontal cortex (Green et al. 2008). The perception and production of rhythm was believed to activate regions in the cerebellum and basal ganglia (Ivry & Keele, 1989; Janata & Grafton, 2003), along with motor areas such as the premotor cortex and supplemental motor area (Halsband et al., 1993).

Some other interesting theories were that infants are born with the ability to perceive complex non-Western meters and that by the end of their first year become sensitive to the music of their specific culture (Hannon & Trehub, 2005). According to Patel & Sacks (2007) humans are the only species that synchronize movement to sound. Since music is produced through vibrating molecules, then it could be said that music cannot exist without movement. The hippocampus, the parahippocampal gyrus, the amygdala, and the temporal poles have been found in positron emission tomography (PET) studies to activate in emotion processing. This network of structures is believed to be neurologically responsible for the emotional processing of music

(Koelsch et al., 2006). Finally, the similarities between language and music processing were discussed as well as the condition called *amusia,* which is applied to individuals who cannot comprehend or produce music. This is sometimes referred to as being *tone-deaf.*

Kuban (2015) discusses the use of visual art as a therapeutic medium for healing in troubled children and youth, as well as those that have suffered traumatic experiences. In the 1950s, art was utilized with troubled children as a means to release emotions and feelings. It talks about trauma, not as a mental disorder, but as a painful experience that is difficult to cope with. A traditional therapeutic intervention involving dialogue (words) often do not work because of where in the brain the trauma resides. It states that trauma is experienced in the midbrain and lower brain. Art activities allow the traumatized child to access and externalize the sensations and imagery of their trauma more readily and in a less stressful non-threatening way.

Additionally, art allows the troubled child to express and explore their feelings in ways that provide resilience and strength. Music is also a great vehicle for accessing emotions and feelings without the use of words. Like art, music is a wonderful medium for self-expression, and release in a stress-reducing manner. One of the examples cited involved the combination of art and music as a combined way for the traumatized adolescent to express herself in a non-threatening, non-stressful way. Music, like art, can reduce the heart rate, respiration, and blood pressure. More often than not, the finished product is a source of individual pride and accomplishment.

Summary

Research-based validation of positive musical and socio-academic benefits of participation in arts programs is abundant and raises the issue that early education and involvement in the arts will generate a larger pool of older arts participants in middle and high

school. All of the various initiatives cited encourage and empower the student to be proactive in their music learning experiences. It frees the traditional teacher to facilitate, oversee, and allows the students to create, collaborate, and evaluate their music making on a daily basis. These skills are vitally essential in small and large ensemble rehearsal and performance. Peer-to-peer tutoring and mentoring require students and mentors to be able to self-teach and self-evaluate. These processes allow students to become independent learners.

The summary of the research found validates the musical, social, and academic benefits of music programs at the elementary school level. A Title I string instrumental program is one of those valuable musical programs. The existing research also validates the musical, social, and academic benefits of peer-to-peer learning, cross-age, tutoring, and student-centered learning programs. Finally, teacher perceptions of the efficacy of mentoring partnerships are essential to the ultimate success, support, continuation, and replication of these partnerships.

CHAPTER III: METHODOLOGY

Introduction

When an elementary school-aged student wants to learn to play a musical instrument, parents help them choose, rent or purchase one, provide private lessons, and support at-home practice as well as participation in their in-school program. Parental support is critical to success in music and is important for all young instrumentalists, including the young string player (violin, viola, cello, and bass) (Barnes, DeFrietas, & Grego, 2016). Underserved students without parental socio-economic support are at a distinct disadvantage.

A quality instrumental music-mentoring component in a Title I elementary instrumental string music program, at no cost to the student, levels the playing field for the underserved student by providing musical instruction and support at a critical time in the student's musical development (Barnes et al., 2016). Additionally, research data may show improvement in other areas such as attendance, as well as improved grades and test scores. All of the above may support the existence and replication of these programs at Title I elementary schools.

Research Questions

The following questions will guide this study:

- What are the mentors' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- What are the mentors' perceptions of the teachers', administrators', and parents' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

Case Study Design

Özgan (2016) defines "the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not evident; and in which multiple sources of evidence

are used" (p. 147). Research methods (qualitative study/inductive research) in "a case study method often involves simply observing what happens to, or reconstructing 'the case history' of a single participant or group of individuals (such as a school class or a specific social group), i.e. the idiographic approach" (McLeod, 2014, p. 2). Unlike the other approaches discussed, case study research does not emerge from a particular social scientific tradition.

The study will conduct a focus group remotely, via a mutually acceptable online platform (i.e. Amazon Chime), with the mentors visiting the schools. The purpose of this focus group is to document the perceptions of the mentors regarding the benefits and effectiveness of having a mentored string instrument program at the school. The focus group results may provide additional validation for having free string mentoring programs in more Title I elementary schools.

Study Design, Methods, and Procedures

A focus group will be conducted remotely, via a mutually acceptable online platform (i.e. Amazon Chime), with the mentors visiting the schools. The purpose of this focus group is to document the perceptions of the mentors regarding the benefits and effectiveness of having a mentored string instrument program at the school. The focus group will include an informed consent form (See Appendix B). Procedure:

1. Email (Appendix A) to mentors requesting voluntary participation in a focus group remotely via a mutually acceptable online platform (i.e, Zoom, Amazon Chime).

2. The remote Focus group will be scheduled at a mutually agreeable time and place for all the participants.

3. The researcher (interviewer) will email participants informed consent forms prior to the scheduled focus group (Appendix B).

4. The interviewer will record the participants' responses to the semi-structured focus group questions (Appendix C). Only the participants that have signed and returned an informed consent form will be allowed to participate.

5. The researcher will transcribe the recorded responses and individually email each participant only with their OWN transcribed words for review, not the words of any other participant. They will have one week to review transcript. If the researcher does not receive a timely response, it will be deemed an accurate transcription.

Inclusion and Exclusion Criteria

Inclusion: All of the school mentors that have signed an informed consent form.

Exclusion: Administrators, teachers, parents, students as well as mentors not

interviewing.

Monitoring Subjects and Criteria for Withdrawal of Subject from the Study

There are minimal risks in participating in the focus group. Participation in the focus

group is strictly voluntary. If anyone feels uncomfortable they may ask to leave and their

transcription will be destroyed. This is stated in the Informed Consent Form. All identifying

information about people who are not participants will be redacted in the final transcript. No

penalty will be imposed for non-participation. There are no benefits for answering the focus

group questions.

Analysis of the Study

The mentor focus group transcribed responses will be analyzed and categorized

manually.

Rationale for Subject Selection

Participation by the mentors in the focus group is strictly voluntary. Participation in the

focus group may provide additional validation for having free string mentoring programs in

more Title I elementary schools. Mentors have established relationship with administration,

parents, students, and teachers. They have the perspectives of all of these stakeholders.

Potential Benefits and Risks

There are no benefits for answering the semi-structured focus group questions. Participation in this focus group may provide validation for having free string mentoring programs in more Title I elementary schools.

There are minimal risks in participating in the focus group. Participation in the focus group is strictly voluntary. If anyone feels uncomfortable they may ask to leave and their transcription will be destroyed. This is stated in the Informed Consent Form. No penalty will be imposed for non-participation

Adverse Event Reporting and Data Monitoring

If any adverse events occur, the researcher will report the adverse event to the Lynn University IRB Committee.

Consent and Assent Processes and Documents

There are no benefits to participating in the study and the risks are minimal at present as long as there exist informed consent forms on file for all the individuals involved. All data and consent forms will be stored by the researcher in separate locked file cabinets and will be permanently destroyed five years after the study is completed.

Limitations

The use of only two schools' populations could present a possible limitation. Replication of the mentorship program is dependent on the existence of string instrumental music programs at other Title I elementary schools. There exist other music programs at a Title I elementary schools (e.g., band, chorus, dance, keyboard) that can potentially yield similar results. However, string programs at the elementary level have the highest number of participants at present (e.g., availability and playability of smaller sized instruments), allowing for participation by a larger

number of students. String instrument classes can take place in the K-5 grades. Observations and data may show improvement in all areas throughout the years of participation.

Summary

In instrumental music, particularly string instruments, starting at an early age with proper instruction and guidance is indispensable for success. A quality elementary school string instrumental program supplemented by expert mentors in a Title I setting provide improved individual and ensemble playing skills, overall improved musicianship, development of an individual practice-work ethic, and increased socialization and cooperative skills derived from large and small ensemble participation. The researcher hopes that the collected focus group data will support and validate the existence of mentored string instrumental programs in Title I elementary schools and that such participation serves to not only achieve musical excellence but also serves as an enticement to attend school and improve academic performance.

CHAPTER IV: FINDINGS

Introduction

When elementary school-aged students want to learn to play a string instrument, they have the option to rent or purchase one, take private lessons, practice at home, and participate in their school orchestra program. In order for students to accomplish this, parental economic support and involvement are essential. Underserved Title I elementary school students without this socioeconomic support are at a distinct disadvantage: They do not have the parental socioeconomic support necessary to acquire an instrument and pay for private lessons. A string instrument mentoring program aims to provide private instruction, free of charge, to those Title I elementary school string players that otherwise could not afford it. There is a need for instrumental string programs in Title 1 elementary schools because it is the "optimal time" to learn to play an instrument (Cutietta, 2012). There are two Title I elementary art schools in a South Florida school district with string programs that are excellent candidates for a music partnership-mentoring program with a local conservatory of music by placing conservatory graduate student mentors at each of these schools. According to Rabkin & Hedberg (2011):

> Some studies have found that arts learning has a more significant effect on low-income student achievement than it does on the academic performance of more privileged students, and that arts education is an effective pathway to deeper engagement and success in school for students who are at the greatest risk of academic failure. (p. 21)

Also, according to Guhn, Emerson, & Gouzouasis (2019), "music participation has been shown to relate to positive outcomes across different academic domains such as in reading and math assessments" (p. 14). Chapman, Morrison, and Lipsey's (2016) study focus on the positive effects of music instruction on every aspect of a child's life suggesting that "making, or learning music

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positively contributes to a growing and developing youth's improved cognitive function, socio-emotional capacity, and academic achievement" (p. 6).

Participants

 This study conducted an online focus group, via Amazon Chime, with five of the six conservatory mentors that visited the schools ten times during the Fall and Spring semesters in 2019-2020. The purpose of this online focus group was to document the perceptions of the mentors of the string students in those two Title I elementary schools regarding the effectiveness of having a mentored string instrument program at the school. The focus group results aim to provide additional validation for having free string mentoring programs in more Title I elementary schools. The specific circumstances of the proposed research involved no more than minimal risk to human subjects.

Research Questions

 The following questions will guide this study:

- What are the mentors' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- What are the mentors' perceptions of the teachers', administrators', and parents' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

Study Design, Methods, and Procedures

 An online focus group was conducted remotely via Amazon Chime, with five of the six mentors that visited the two schools in the Fall and Spring semesters. The purpose of this online focus group was to document the perceptions of the mentors regarding the effectiveness of having a mentored string instrument program at the school. The online focus group included an informed consent form (See Appendix B).

An email (Appendix A) was sent to the six mentors on April 5, 2020, requesting voluntary participation in an online focus group remotely via a mutually acceptable online platform such as Amazon Chime. The email contained the IRB approval letter as an attachment.

Two remote Focus groups were scheduled on April 10, 2020, at 2 pm and on April 13, 2020, at 2 pm. These were mutually agreeable times for all the 5 participants. The researcher emailed the participants informed consent forms before the scheduled focus group (Appendix B).

The researcher (interviewer) recorded the participants' responses to the semi-structured focus group questions (Appendix C). Only the participants that signed and returned an informed consent form were allowed to participate. The researcher transcribed the recorded responses with the use of *Evernote@* https://evernote.com/ and individually emailed each participant only their own transcribed words for review, not the words of any other participant. They had one week to review the transcript. If the researcher did not receive a timely response, it would be deemed an accurate transcription. All five of the participants reviewed their transcripts and approved them. Two of the five participants provided small corrections to their transcripts, which were subsequently incorporated.

There were minimal risks in participating in the online focus group, and participation was strictly voluntary. If anyone felt uncomfortable, they were instructed to ask to leave, and their transcription would have been destroyed. This was stated in the Informed Consent Form. All identifying information about people who are not participants was redacted for anonymity in the final transcript. No penalty was imposed for non-participation, and there were no benefits for participation.

The informed consent forms are on file for all the individuals involved. All consent forms, data, transcripts, and recordings will be stored by the researcher in separate locked file

cabinets in the researchers' office. They will be permanently destroyed five years after the study is completed. If any adverse events occur, the researcher will report the adverse event to the university's IRB Committee.

Organization and Analysis of the Study

The participants (mentors) chosen have established relationships with the students, administration, teachers, and parents. That was the rationale for their selection as subjects as well as the online focus group format. The researcher was able to enlist five out of the six mentors for participation in the online focus group. That is a participation rate of 83.33%.

Participant (Mentor) Demographics

- Sophomore - BM Cello - USA/California - Female

- Junior - BM Violin - International - Colombia/USA - Male

- Graduate - PPC Violin - International - China - Female

- Graduate - PPC Violin - International - Uzbekistan - Male

- Graduate - MM Violin - International - Venezuela/USA - Male

Focus Group Questions

- What are your perceptions of the potential musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- What are your experiences in a mentored Title 1 elementary string instrumental music program?

  o What do you think are the perceptions of the parents of your students?

  o What do you think are the perceptions of the administrators in the school?

  o What do you think are the perceptions of the teachers in the school?

- What are your perceptions of the academic benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- What are your perceptions of the social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

The mentor focus group transcribed responses were analyzed and categorized manually. Several revisions to the initial anonymous transcript took place. The initial focus group was revised for anonymity and included the researcher's semi-structured questions. It encompassed 15 pages and 3,372 words. The second revision removed the researcher's semi-structured questions and encompassed nine pages and 2,334 words.

The 'mentor only' transcribed text was then manually analyzed, and relevant words and phrases were highlighted. *Microsoft Word@* was used to extract the highlighted text. The extracted highlighted text yielded 1,063 words and short phrases. A second manual analysis took place, and relevant words and short phrases were highlighted. *Microsoft Word@* was used to extract the highlighted text. This extraction yielded 291 words and short phrases A third manual analysis took place, and only relevant single words were highlighted. *Microsoft Word@* was used to extract the highlighted text. This extraction yielded 78 single words without duplicates. The 'hands-on' process of manual analysis, extraction, and consolidation provided the researcher with a thorough familiarity with the mentor's responses.

The researcher used *WordArt.com@* to create a 78 word art cloud with the 78-word extraction (no word duplicates). The researcher also used *Word It Out@* to create a word cloud of 40 words from the 291-word extraction with a minimum word frequency of two. The two different word art cloud and word cloud figures below, in the researcher's opinion, displayed different yet relevant and significant content.

Figure 3. 78 Word art cloud

Figure 4. 40 Word cloud

The first word that pops out in the 40-word cloud above is the word "relationship," which is placed in the center. It is prominent, significant, central, and in keeping with the process of being a "mentor." Mentors develop unique relationships with their students that are different from the teachers. A good mentor-student relationship is fundamental for all positive influence and outcomes. They work one on one with the students versus their group string classes. This allows for individualized attention to their musical development. They are young adult conservatory students at the top of their game. They are ideally suited to be potentially excellent musical and social role models. Being that music is a listening skill, the listen/analyze/respond process involved in practicing and music-making develops critical skills in the students that can be transferred to other disciplines. All the words in the word cloud and the word art cloud are active and positive.

Mentor quotes were extracted from the original transcript and address specific focus group questions. The mentors' quotes are their direct perceptions after 200 combined hours of mentoring over ten visits during the 2019-2020 school year. The overarching focus group question was "what are your perceptions of the potential musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?" The mentor quotes below are some of the perceptions that address specific benefits.

Musical Results from Role Models

"What are your perceptions of the potential musical…benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- "Role [of mentor] is different from [the] teacher…[mentors] work with what they have reached with [the] teachers."

- "We spend more time with them creating that personal relationship, which then it goes to the social benefit, which is that they are more open to the mentors."

- "Musically, the students are given role models."

- "Inspiring kids and pointing out the potential result they might reach if they work hard."

- "Demonstration of good instrumental playing and it gives them a desire to reach that level too."

- "Observing a good example of being an educated young adult… it can be a model for young students."

- "Increasing their attention and interest in learning a musical instrument."

The mentors function as role models to the students they mentor. Personal relationships are formed that allow for increased musical as well as social growth and improvement.

Administrator Perceptions

"What do you think are the perceptions of the administrators in the school?"

- "Administrators positively react by observing how the kids are meeting new teachers and getting a general diversity of the learning process, which is changing their daily routine and helps to perceive the material better."

Academic and Social Benefits

"What are your perceptions of the potential…academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?"

- "Different the way of teaching because it is one to one instead of a group class."

- "Improve their approach to different classes because it makes them view everything differently."

- "They are listening and answering back."

- "In different classes, they can also apply that or get used to that aspect of listening and answering."

- "Music requires much critical thinking, so once you work on that skill in music that translates to all other subjects and all other areas of their life."

- "Music requires much critical thinking on how to improve and how to practice more efficiently and how to learn more quickly."

- "They have to learn how to learn together and help each other learn, and so it is very social."

The one on one mentor student approach develops the students' listening and answering skills as well as their collaborative skills. The critical thinking skills, which are developed through musical instruction, can be potentially transferred to other subject areas in the opinion of the mentors.

Parents

"What do you think are the perceptions of the parents of your students?"

- "Parents that have reached out to me, usually to say thank you, or to show how appreciative they are with the experience that their kids are because paying a private teacher for them is almost impossible because it can be costly."

- "Some of the students do not have the support of their parents to practice or make music, so it was something that the student decided to approach me and talk to me. She had the confidence to open up for that…we talked about options to practice in school and try to get more lessons with their teachers".

The mentors perceptions of the parents were acquired directly from the parents as well as from the students being mentored. The spectrum ranged from gratitude for the instruction they provided to no parental support. Students without the ability of support and practice at home posed the unexpected challenge of providing strategies for keeping the student engaged and improving only during school hours.

Recommendations

Further research could include the use of school data to support string program involvement. Additionally, the use of specifically tailored interviews along with surveys of administrators, parents, students, and teachers can potentially provide additional information as to the perceived and actual benefits of mentoring.

Summary

Listening to, reading, analyzing, and consolidating over 3,000 words of mentor perceptions yielded an unexpected wealth of positive results. The researcher was unexpectedly amazed at the richness and depth of the experiences that the five focus group participating mentors shared with the researcher. The 200 combined hours of mentoring throughout their visits in the 2019-2020 school year made a definitely positive musical, social, and intellectual impact on their students as well as themselves. The effect and benefits derived from participation in a mentored Title I elementary string instrumental music program was perceived by the mentors, teachers, administrators, and parents as indispensable and positive.

CHAPTER V: PRODUCT

Introduction

When an elementary school-aged student wants to learn to play a musical instrument, parents help them choose, rent or purchase one, provide private lessons, and support at-home practice as well as participation in their in-school program. Parental support is critical to success in music and is important for all young instrumentalists, including the young string player (violin, viola, cello, and bass) (Barnes et al., 2016). Underserved students without parental socio-economic support are at a distinct disadvantage.

Research Questions

The following questions guided this study:

- What are the mentors' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

- What are the mentors' perceptions of the teachers', administrators', and parents' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

The study conducted a focus group remotely, via Amazon Chime, with the mentors visiting the schools. The purpose of this focus group was to document the perceptions of the mentors regarding the benefits and effectiveness of having a mentored string instrument program at the school. The focus group results provided additional validation for having free string mentoring programs in more Title I elementary schools. The mentors have established relationship with administration, parents, students, and teachers. They have the perspectives of all of these stakeholders.

Discussion of Research Questions

The overarching research question was:

What are the teachers', administrators', and parents' perceptions of the musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program according to the program mentors?

A quality string instrumental music-mentoring component in a Title I elementary school program, provided at no cost to the student, levels the playing field for the underserved student by providing free musical instruction and support at a critical time in the student's musical development (Barnes et al., 2016). Research data derived from the mentor focus groups revealed musical improvement as well as improvement in other areas such as critical thinking and socialization.

The mentors function as role models to the students they mentor. They spend one on one time with them creating a unique personal relationship, which then goes to the social benefit. The personal relationships formed allow for increased musical as well as social growth and improvement. The one on one mentor student approach also develops the students' listening and answering skills as well as their collaborative skills. Music requires much critical thinking, so the mentors believe that when you work on those skills in music, it translates to all other subjects and all other areas of their life.

According to the mentors, the administrators react positively to the mentors' presence. They observe the students interacting with these new teachers (mentors) and benefitting from diversity in the learning process. It changes the students' daily routine and helps the students to perceive and learn the material in different and better ways.

The mentors' perceptions of the parents were a result of their direct contact with the parents as well as the students. The spectrum ranged from parental gratitude for the free instruction they provided to no parental support. Students without the ability of support and practice at home posed the unexpected challenge of having the mentors provide strategies for keeping the student engaged and improving only during school hours. In my opinion, the existing research agrees with and corroborates the mentor focus group results. Some corroborating examples are mentioned below.

Alongside the musical and social benefits consequent from participation in music programs, studies have found that the academic benefits derived from music and arts programs are often misunderstood and under-appreciated (Rabkin & Hedberg, 2011).

A 2019 Guhn, Emerson, and Gouzouasis study demonstrates that "music participation has been shown to relate to positive outcomes across different academic domains such as in reading and math assessments" (p. 14).

Chapman, Morrison, and Lipsey's (2016) study focused on the positive effects of music instruction on every aspect of a child's life, suggesting that "making, or learning music positively contributes to a growing and developing youth's improved cognitive function, socio-emotional capacity, and academic achievement" (p. 6).

According to Dr. Robert A. Cutietta (2012), Dean of the University of Southern California Thornton School of Music, there are three answers to the question "What age should children begin music lessons?" Informal activities with music should start soon after birth. More systematic classes should start around age three. Lessons with the goal of learning the instrument should start between six and nine.

Another optimal period and possible critical period was found in a study of violin training, where in a sample of 60 musicians and non-musicians. Those who started training before the age of 7 years exhibited increased corpus callosum size (Schlaug, Janke, Huang, Steiger, & Steinmetz, 1995).

Jensen, E. (2001) Arts with the Brain in Mind believes that participation in the arts results in positive academic, cognitive, emotional, social, perceptual, motor, attention, memory, creative, and self-discipline benefits."

A 2019 Guhn, Emerson, and Gouzouasis study demonstrates that "music participation has been shown to relate to positive outcomes across different academic domains such as in reading and math assessments" (p. 14).

Chapman, Morrison, and Lipsey's (2016) study focuses on the positive effects of music instruction on every aspect of a child's life…"making, or learning music positively contributes to a growing and developing youth's improved cognitive function, socio-emotional capacity, and academic achievement" (p. 6).

Limitations

The use of only two Title I schools' populations could present a possible limitation. Further research could include the use of school data to support string program involvement. Additionally, the use of specifically tailored interviews along with surveys of administrators, parents, students, and teachers can potentially provide additional information as to the perceived and actual benefits of mentoring.

The Music Education Partnership Program described below is a generic version of the successful mentoring program currently in existence as a partnership between a South Florida University Conservatory of Music and two Title I elementary art schools. All of the components

can be modified to fit other partnerships. It serves only as a successful model that can hopefully serve as a foundation for replication.

Music Education Partnership Program

The Music Partnership Program provides highly motivated and qualified University Conservatory string student mentors to Title I elementary schools with string programs during the school year. The University Conservatory will provide a monetary stipend each semester to each Conservatory student mentor. This program is funded by either grants from the State of Florida or private foundation grants. Each mentor is required to do a minimum of twelve visits of four hours each per academic year. Mentors will schedule their visits at the beginning of each semester in consultation with the schools' orchestra directors. The stipends provided are taxable and assist the mentors with school related expenses not covered by their financial aid and scholarships.

Summary of Program Parameters

Select student mentors from the Conservatory will visit each Title I school on their scheduled weeks and provide private and/or small group instruction to the string students selected by each school for participation. The mentors will be under the direct supervision of the school orchestra director at all times during each visit**.** The selected Title I string students as well as the selected student mentors must fall within certain criteria.

For the Title I schools, the criteria for each elementary aged string student will be:

- Students must not be currently studying privately. We do not want to compete with or take the place of the traditional private student / teacher relationship.

- Student's socio-economic situation prevents them from affording and /or accessing traditional private instruction and/or outside programs.

- Students must be highly motivated, talented, exhibit a positive and enthusiastic attitude with a healthy work ethic.

Conservatory student mentors must meet the following criteria:

- Mentors are chosen by the Partnership Program Director in consultation with the Dean as well as the Faculty of the University's Conservatory of Music.

- Mentors must be in good academic and conduct standing with the University.

- Mentors must pass a Level 2 Background Check and complete all University Title IX compliance courses related to working with minors yearly.

- Mentors must Mentors must exhibit the highest musical standards with their specific instrument.

- Mentors must exhibit a strong commitment and desire to work with Title I string students.

Conservatory student mentors provide:

- Private and/or small group lessons during or after school hours.

- Provide chamber music coaching.

- Provide audition preparation classes.

- Provide instruction in instrumental techniques as well as basic musicianship skills.

The Conservatory will select, at the beginning of each semester, the student mentors working with the individual Title I schools. At the beginning of each semester, the Program Director and the Orchestra directors, will create and provide each mentor a schedule of each school's available teaching weeks for the respective semester. Mentors will then schedule their semester visits and provide their schedule to their Orchestra director and the Partnership Program Director. Each mentor will be required to do a minimum of twelve visits of four hours each per academic year and must fulfill each semester's schedule of visits before they receive their semester stipend payments.

Mentors are required to fill out and email an assessment form after each teaching visit to the Partnership Program Director and to the Orchestra director at the conclusion of each visit.

They will keep a copy for their records. Mentors are also provided a list of applicable Florida

State Standards benchmarks to be used as reference during their visits throughout the semester.

Orchestra directors will select, at the beginning of each semester, the students that would

benefit the most from working with a Conservatory mentor as per the Partnership Program

criteria. Orchestra directors, at the beginning of each semester, will meet with all of their

respective mentors to introduce themselves, their programs, and to introduce the mentors to their

respective students. The Partnership Program Director will be available to meet regularly with

the mentors throughout each semester, supervise attendance, and monitor the weekly assessment

forms.

Orchestra directors will provide the mentors copies of any method books and/or teaching

materials used in their classes as needed to use as a reference. Orchestra directors are also asked

to furnish any specifically tailored goals for each student being mentored. For additional

information, please contact the University Conservatory's Partnership Program Director.

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APPENDIX A: EMAIL TO MENTORS

Subject: Mentoring the Title I Elementary School String Player

Dear mentors;

I plan to conduct a focus group regarding mentors' perceptions of having a string instrument mentoring program in a Title I elementary school. This focus group is part of my dissertation in practice. The focus group will be conducted remotely via a mutually acceptable online platform (i.e. Zoom, Amazon Chime). This study has been approved by the Lynn University Institutional Review Board (see IRB attachment). If you are interested, please let me know your available days/times. This focus group should last between 25-30 minutes.

Participation in this focus group is strictly voluntary. There are no benefits for participation in the focus group. If anyone feels uncomfortable, they may ask to leave at any time. Your perceptions may provide validation for having a string mentoring programs in Title I elementary schools. If you have any questions, you may contact me at the address below, or my dissertation chair, Dr. Kelly Burlison at kburlison@lynn.edu,

Sincerely,

Manny Capote

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APPENDIX B: FOCUS GROUP INFORMED CONSENT

Informed Consent –Mentors' Perceptions

Principal Investigator: Manuel Capote
Phone: 561-237-7156
Email: mcapote@lynn.edu

Purpose
This study investigates the mentors' perceptions of the musical, academic, and social benefits of participation in a mentored Title 1 elementary school string program. As part of this study, you will be asked to participate in a focus group remotely via a mutually acceptable online platform (i.e. Amazon Chime) and answer semi-structured questions. This interview will take approximately 25-30 minutes.

Participant's Rights
I understand that my responses will be kept in the strictest of confidence and will be available only to the researcher. No one will be able to identify me when the results are reported and my name will not appear anywhere in the written report. Pseudonyms will be used. Please do not share other people's identities or responses from the focus group with others to maintain the confidentiality of the participants outside of the focus group. I also understand that I may skip any questions or tasks that I do not wish to answer or complete. I understand that the consent form will be kept separate from the data records to ensure confidentiality. I may choose not to participate or withdraw at any time during the study without penalty. I agree to have my verbal responses tape-recorded and transcribed for further analysis with the understanding that my responses will not be linked to me personally in any way. After the transcription is completed, the tape recordings will be destroyed. After transcription, the participants will be provided with their OWN transcribed words for review for accuracy, not the words of any other participant.
If I do not hear from you in one week, I will assume you agree with the transcript. All identifying information about people who are not participants will be redacted in the final transcript.
I understand that upon completion, I will be given full explanation of the study. If I am uncomfortable with any part of this study, I may contact Dr. Patrick Cooper, Chair of the Lynn University Institutional Review Board for Protection of Human Subjects, at (561) 237-7407 or pcooper@lynn.edu. I understand that I am participating in a study of my own free will.

Consent to Participate
I acknowledge that I am at least eighteen years old, and that I understand my rights as a research participant as outlined above. I acknowledge that my participation is fully voluntary.

Print Name: _____

Signature: _____   Date: _____

APPENDIX C: FOCUS GROUP QUESTIONS

Mentor Participants - Focus Group Questions

1. What are your perceptions of the potential musical, academic, and social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

2. What are your experiences in a mentored Title 1 elementary string instrumental music program?

    a. What do you think are the perceptions of the parents of your students?

    b. What do you think are the perceptions of the administrators in the school?

    c. What do you think are the perceptions of the teachers in the school?

3. What are your perceptions of the academic benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

4. What are your perceptions of the social benefits derived from participation in a mentored Title 1 elementary string instrumental music program?

APPENDIX D: ASSESSMENT FORM

MENTOR/STUDENT

"PRE/WEEKLY/POST" SEMESTER ASSESSMENT FORM

Partnership Program Mentor Assessment Form

Date and time: _____

Location (School): _____

Conservatory mentor: _____**Instrument**: _____

Student(s) name and instrument: _____

Description and evaluation of student's playing level (grading optional):_____

_____

_____

_____

Goals for next lesson: _____

_____

_____

Florida State Standards Benchmarks:_____

_____

Grading Scale (optional):

3–*Excellent* **– Demonstrates a high level of achievement.**
2–*Good* **– Demonstrates an understanding of concepts, but is performing with some mistakes.**
1–*Needs Improvement* **– Understanding of the concepts and skills taught is not being demonstrated completely.**

Please print this form for your records and email it to the Partnership Program Director and to the corresponding Orchestra Director.

APPENDIX E: FLORIDA STATE STANDARDS BENCHMARKS

Development of critical listening skills

	MU.3.C.1.1	Describe listening skills and how they support appreciation of musical works.
		Remarks/Examples:
		e.g., focus: form, instrumentation, tempo, dynamics; organize: listening maps, active listening, checklists
	MU.3.C.1.3	Identify families of orchestral and band instruments.
		Remarks/Examples:
		e.g., strings, woodwinds, brass, percussion, keyboards
	MU.4.C.1.1	Develop effective listening strategies and describe how they can support appreciation of musical works.
		Remarks/Examples:
		e.g., listen for form, instrumentation, tempo, dynamics, melodic line, rhythm patterns; organize thoughts using listening maps, active listening, checklists
	MU.4.C.1.2	Describe, using correct music vocabulary, what is heard in a specific musical work.
		Remarks/Examples:
		e.g., movement of melodic line, tempo, repeated and contrasting patterns
	MU.5.C.1.1	Discuss and apply listening strategies to support appreciation of musical works.
		Remarks/Examples:
		e.g., focus: structure, instrumentation, tempo, dynamics, melodic line, rhythm patterns, style/genre; organize: listening maps, active listening, checklists
	MU.5.C.1.2	Hypothesize and discuss, using correct music vocabulary, the composer's intent for a specific musical work.
		Remarks/Examples:
		e.g., title, historical notes, quality recordings, instrumentation, expressive elements
	MU.5.C.1.3	Identify, aurally, selected instruments of the band and orchestra.
		Remarks/Examples:
		e.g., violin, cello, string bass, flute, clarinet, oboe, bassoon, trumpet, trombone, tuba, French horn, bass drum, snare drum, xylophone, chimes, piano, harpsichord
2	MU.68.C.1.	Compare, using correct music vocabulary, the aesthetic impact of a performance to one's own hypothesis of the composer's intent.
		Remarks/Examples:
		e.g., quality recordings, peer group and individual performances, composer notes, instrumentation, expressive elements, title
3	MU.68.C.1.	Identify, aurally, instrumental styles and a variety of instrumental ensembles.
		Remarks/Examples:
		e.g., Classical, Baroque, Romantic, contemporary, jazz, pop, solo, duet, trio, quartet, small ensemble
	MU.5.C.2.1	Define criteria, using correct music vocabulary, to critique one's own and others' performance.
		Remarks/Examples:
		e.g., intonation, balance, blend, timbre
	MU.5.C.2.2	Describe changes, using correct music vocabulary, in one's own and/or others' performance over time.

Development of individual instrumental performance skills

MU.5.S.2.1		Use expressive elements and knowledge of musical structure to aid in sequencing and memorization and to internalize details of rehearsals and performance.
MU.5.S.2.2		Apply performance techniques to familiar music.
MU.5.S.2.3		Perform simple diatonic melodies at sight. *Remarks/Examples*: e.g., vocal and/or instrumental
MU.5.S.3.2		Play melodies and accompaniments, using proper instrumental technique, on pitched and unpitched instruments.
MU.5.S.3.4		Play melodies and accompaniments, by ear, using classroom instruments.
MU.5.S.3.5		Notate rhythmic phrases and simple diatonic melodies using traditional notation. *Remarks/Examples*: e.g., rhythmic: quarter notes, beamed eighth notes, half notes, whole notes; corresponding rests; dotted half note; sixteenth notes; syncopation
MU.68.S.2.1		Perform music from memory to demonstrate knowledge of the musical structure. *Remarks/Examples*: e.g., basic patterns, tonality, melody, harmony themes,
MU.68.S.2.2		Transfer performance techniques from familiar to unfamiliar pieces.
MU.68.S.3.1		Sing and/or play age-appropriate repertoire expressively. *Remarks/Examples*: e.g., technique, phrasing, dynamics, tone quality, blend, balance, intonation, kinesthetic support/response
MU.68.S.3.2		Demonstrate proper vocal or instrumental technique. *Remarks/Examples*: e.g., posture, breathing, fingering, embouchure, bow technique, tuning, strumming
MU.68.S.3.3		Sight-read standard exercises and simple repertoire. *Remarks/Examples*: e.g., note and rest values, key signatures, time signatures, expressive markings, special harmonic and/or notation symbols
MU.68.S.3.4		Compare written notation to aural examples and analyze for accuracy of rhythm and pitch. *Remarks/Examples*: e.g., error detection, interval reinforcement
MU.68.S.3.5		Notate rhythmic phrases and/or melodies, in varying simple meters, performed by someone else.
MU.68.S.3.6		Develop and demonstrate efficient rehearsal strategies to apply skills and techniques. *Remarks/Examples*: e.g., independently, collaboratively
MU.68.O.3. 1		Describe how the combination of instrumentation and expressive elements in a musical work can convey a specific thought, idea, mood, and/or image. *Remarks/Examples*: e.g., tempo markings, expression markings, articulation markings, phrasing, scales, modes, harmonic structure, timbre, rhythm, orchestration
MU.68.O.3. 2		Perform the expressive elements of a musical work indicated by the musical score and/or conductor, and transfer new knowledge and experiences to other musical works.