Liberty University

Adapting a Suzuki and Bornoff method curriculum in a beginning public school strings class with a class of mixed string instruments

A Thesis Submitted to
the Faculty of the Division of Music
In Candidacy for the Degree of
Music Education

Department of Music Education

by
Monica Jane Holy

Lynchburg, Virginia
April 2022

ACKNOWLEDGMENTS

I would like to thank my thesis chair and reader, Dr. Jerry Newman and Dr. Monica Taylor, for their expertise, guidance, and support. This is not only a thank you for your lead on this research project, but also a big thank you for all the inspirational classes that you have taught through the years at Liberty University. A special thank you to the Dean of School of Music, Sean Beavers. You lead a graduate music program with high expectations and classes that elevate teachers to be the best they can be. I want to thank my classmates at Liberty University, especially Brian Berlin and Brendan Holly. It has been a wonderful journey to work alongside you and learn from one another. I know your school districts are lucky to have you as teachers.

I would not have been where I am today if I didn't cross paths with the many inspiring music teachers that were a part of my life growing up. First, I need to thank Diane Lewis. Thank you for planting the seed of music and introducing me to my love for the violin as a young nine-year-old. Now as an orchestra teacher, I understand the endless hours you gave and the dedication you had for all your students, especially for me. I want to thank the Ariana String Quartet, especially John McGrosso. I want to thank you for those Sunday morning lessons where you pushed me to be the best musician I could be. You are one of the most unique people I know in that you are, in my eyes and always will be, the most talented violinist and an amazing teacher. That is a rare quality. Thank you to Jan Davis, you taught me that with hard work and precision, young musicians can reach for the stars. Those short four years I felt like I was running every day to keep up with you and those were my most favorite days of teaching out of all these years. I would never be half the teacher I am today, and I hope that I have made you proud. Thank you to Mariana Wood. I am here today because of you. Thank you for inspiriting me and always going with my big ideas. We have many more years of exceptional concerts ahead of us. Special thank you to all the teachers along the way that always made me feel like we were a teaching family: Julie Ross, Eric Meurer, Jessica Arnold, John Mazar, and Phyllis Fairman.

I want to acknowledge my family and friends for their support and cheering me a long the way. Thank you, Kristen Stensby and Joanne Cronan. From day one you both told me, "You got this!" I'm lucky to have friends that I can call family. Thank you, mom! Thank you for signing me up for orchestra many years ago. Thank you for driving me to all my lessons, paying for the lessons, attending my concerts, buying me all those expensive violins when you could not afford them and telling me how proud you are of me each day. You have always been my biggest supporter and continue your compassionate love for your grandchildren's musical passions. I want to thank my husband. Thank you for listening with compassion, supporting me with time, sharing a love for music, and believing in me. Your face in the crowd at my concerts is the one that reminds me that I am lucky to have such a great husband. I promise one day, I will slow down! Lastly, thank you to my little supporters in my life, Sofia and Lucas. You make me want to be a better person. You teach me every day to be a little kinder, more loving, and take time to create memories. I hope I have made you proud.

ABSTRACT

Perspectives on the combination of the Suzuki Method and the Bornoff Method, and the struggles a string teacher has starting a beginning orchestra program, have emerged as themes through exploration of a small body of existing literature. This study aims to support struggling or first-year string teachers starting a beginning orchestra program in a public-school setting by combining the Suzuki and Bornoff method. Despite a plethora of research that has been written over the Suzuki method and the Bornoff method separately, there is a lack of research on combining the two approaches, particularly within a beginning string class setting. The examination of how the two methods could complement each other is essential because one method supports the other in different technical areas. Also, both methods create a strong curriculum in a public-school orchestra setting. This qualitative research study identifies the strong points of both methods and how each can supplement the other. Views on the combination of the Suzuki Method and the Bornoff Method, as well as the struggles a string teacher has starting a beginning orchestra program, have emerged as themes through exploration of a small body of existing literature. Further, this study and the artifact of two methods could encourage further research by teachers or researchers outside the music field who want to research best practices within a classroom. Such researchers could examine the benefits of memorization and repetitions within a classroom curriculum and teach with what the results should be by the end of the school year. These three concepts are among many strong points of the two teaching methods. The study revealed that the step-by-step process supplied through the Suzuki method establishes a strong foundation for young beginning musicians. Analyzing each step and how it affects beginning musicians creates confidence for a first-year teacher or a novice teacher.

CONTENTS

List of Tables……vii

CHAPTER ONE: INTRODUCTION……1

Background of Topic……...2

Problem Statement……...6

Purpose Statement……8

Significance of the Study……8

Research Question……...9

Hypothesis……..10

Core Concepts……11

Definition of Terms……14

Chapter Summary……..16

CHAPTER TWO: LITERARY REVIEW……18

Introduction……18

Section I: The State of Orchestra Education in the United States……18

Section II: Supporting Novice String Music Educators……27

Section III: Importance of Orchestra Education……33

Section IV: Pedagogy for Beginning String Orchestras……45

Section V: The Suzuki Method……....50

Section VI: The Bornoff Method ……....51

Conclusion……52

CHAPTER THREE: METHODS……..53

Introduction……53

Research Design…….53

Questions and Hypotheses…….54

Texts for Analysis……..55

Procedure……...55

CHAPTER FOUR: RESEARCH FINDINGS……...57

Introduction……57

The Suzuki and Bornoff Method……...58

The Beginning Steps of Holding a String Instrument……58

The Beginning Steps of Holding the Bow of a String Instrument…….61

Teaching Double Bass Students with a French or German Bow……...63

The Beginning Steps of the Left-Hand Position for a String Instrument……..65

The Beginning Steps of the Bow Motion for a String Instrument…….68

Teaching the First Suzuki Piece: “Mississippi River”……...71

Teaching the Rhythmic Variations for “Twinkle Twinkle”……..74

Teaching French Folk Song to Allegretto…….….77

CHAPTER FIVE: CONCLUSION……...81

Summary of Study…….81

Significance of Study…….81

Limitations…….82

Recommendations of Future Study……83

Summary……84

BIBLIOGRAPHY……..86

APPENDICES…….……..93

Appendix A: “A/E Tune”……...93

Appendix B: “Mississippi River”……..94

Appendix C: “Down Pony Up Pony”……98

Appendix D: “Little Frog Little Frog”…….102

Appendix E: “Down Bow and Up Bow and”……..106

Appendix F: “Wish I had a Motorcycle”…….110

Appendix G: “Twinkle Twinkle”…….114

Appendix H: Detache: “Combo Bows”-Combination of Whole and Half Bows……118

Appendix I: Detache: “Combo Bows”-Combination of Whole and Half Bows……..…119

Appendix J: Open String Cycle: Spiccato Note Reading Example…….120

Appendix K: Open String Cycle: Staccato Note Reading Example……..……..122

Appendix L: Bornoff Finger Pattern Exercises……...124

Appendix M: “French Folk Song”……...127

Appendix N: “Allegro”……131

Appendix O: “Song of the Wind”……132

Appendix P: “Perpetual Motion”…….133

LIST OF TABLES

Table 1: Holding a String Instrument……..……..58

Table 2: Holding the Bow a String Instrument……...…...……61

Table 3: The Beginning Steps of the Left-Hand Position for a String Instrument……65

Table 4: The Bow Motion, Placement and Contact of the Bow for a String Instrument……..68

Table 5: Teaching the Rhythmic Variations of "Twinkle Twinkle"…….75

Table 6: Suzuki and Bornoff Teaching Points for "Lightly Row" and "Allegretto"……78

CHAPTER ONE: INTRODUCTION

Violin pedagogue Shinichi Suzuki once said, "I just want to make a good citizen. If a child hears good music from the day of his birth and learns to play it himself, he develops sensitivity, discipline, and endurance; that child gets a beautiful heart."[1] The Suzuki methodology stretches beyond the classroom by building a student's character for adulthood, but this methodology was not the only one that had the student's character as the center of learning; the George Bornoff method did as well. Violin pedagogue George Bornoff once said, "The greatest thing you can do for a person is to help him be right." [2] Both the Suzuki and Bornoff method supports the growth of developing a fine musician and developing a fine human being.

Music is a uniquely human quality inherent to all individuals regardless of society, culture, or generation. Students must have opportunities to study music in the way that serves them best. Experiencing different vocal and instrumental music propels lifelong learning, develops character, engages human emotion, and promotes critical and creative thinking within the individual, the community, and the world. It is crucial that music educators that are new to the field or struggling in their careers are supported and equipped to bring the best curriculum forward within their classroom. This point is significant for string educators and their curriculum choice.

---

[1] Christine Goodner, *Beyond the Music Lesson: Habits of Successful Suzuki Families,* (Hillsboro, Oregon: Brookside Suzuki Strings, LLC, 2017), 8.

[2] Debbie Lyle, "Violinist, Pedagogue, and Visionary," The Federation for Advancement of String Education, https://fase.org/about-bornoff/.

Background of Topic

The Suzuki method was created primarily as violin pedagogy and designed by Shinichi Suzuki. Shinichi Suzuki was born in 1898 and died in 1998. Suzuki helped his father run a workshop that created traditional Japanese stringed instruments. Though his family owned a violin shop, not one of the family members knew how to play the instrument. Suzuki was the exception and became in love with the violin's tone after hearing a performance of "Ava Maria." At that time, he decided to teach himself how to play the violin. In 1921, Shinichi Suzuki received his first formal training on the violin in Berlin from violin instructor Karl Klingler. In the late 1920s, Suzuki returned to Japan to begin his teaching career in violin pedagogy.[3] Suzuki always had a passion for teaching students to play the violin. Still, as he advanced through his teaching career, he became passionate about how students learned and best teaching practices.

In 1946, Suzuki went to Matsumoto to help start a music school. The school was eventually named the Talent Education Research Institute. During his teaching years at the Talent Education Research Institute Suzuki based his method, from researching the language acquisition process, on what he labeled the "mother-tongue method." In the mother-tongue approach, Suzuki believed that children could learn to play an instrument at a young age just as they learn to speak their native language. Suzuki thought that musical talent was inborn, and any student could learn to play an instrument. The learning process depends on extensive parent involvement as well as peer involvement of younger students watching advanced older students perform. Suzuki believed that positive reinforcement was more beneficial than negative criticism. His students and parents were expected to practice every day by repeating new skills

[3] Kara Eubanks, "Essays in the Theory and Practice of The Suzuki Method" (doctoral thesis, Musical Arts City University of New York, 2014), 5-8.

and only taking small steps to advance to new skills to make sure the old skills were mastered and fluent.[4] Suzuki believed that every child could learn to play the violin and develop a beautiful heart in the process.

The Bornoff method was also a violin pedagogy created by George Bornoff. George Bornoff was born in 1907 and died in 1998. Bornoff began studying the violin at the age of five, and by the age of fifteen, he was already teaching private lessons on the violin. When Bornoff was sixteen, he became a serious soloist performer in much of western Canada. Due to his extensive performance skills, other famous performers such as Fritz Kreisler and Jascha Heifetz, came to Canada to listen to him perform. Arranged by Bornoff's private violin instructor, such distinguished musicians would give him feedback on his performance abilities and perfect various techniques.[5] Years of such performance, exposure, and learning from other noted musicians, helped George Bornoff refine and develop the violin method taught worldwide today.

Bornoff was the founder of the Bornoff School of Music in Winnipeg. In 1944, he moved to New York to join Columbia University's Teachers College as the head of the String Development and Chamber Music Department. While at Columbia University, he finalized and published his violin method to begin sharing it with colleagues and students. In 1953, Bornoff changed positions to become the Professor of Music Education at Boston University. By the time of his acceptance at Boston University, his method was already established, and he was touring around the country to teach the benefits of utilizing his method within classrooms and private violin teaching studios. Bornoff's mission was always to give string teachers the skills, materials,

---

[4] Eubanks, "Essays in the Theory," 6.

[5] Lyle, "Violinist, Pedagogue, and Visionary," 1.

and support they needed to produce outstanding results in their work.[6] The Bornoff method was designed through research on Gestalt Phycology. He taught his technique by always presenting material with the end in mind. Bornoff created a series of open string and finger patterns for beginners with an awareness of how the brain processes at a young age. Bornoff continued his passion for violin pedagogy by training violin teachers well into his retirement years.[7] He believed that through a concurrent study of various finger, rhythmic, and bowing patterns, even the youngest children could learn the most challenging repertoire of violin music.

Both the Suzuki and Bornoff methods have been taught for over fifty years and are still today. Many private instrumental teachers use these methods as their preferred choice of teaching because of their proven success. Authors John Howell and Florence Currie Howell stated, "The Bornoff's philosophy of string teaching is neither hypothesis nor theory. Results from years of experimentation and successful application, in many different places and with many different teachers."[8] George Bornoff was also noted for his teaching method by colleagues during his years teaching at Boston University. Robert A. Choate, the dean of the College of Music at Boston University during George Bornoff's career stated, "Dr. Bornoff's accomplishments within a comparatively short time here at the college and in the cities where he has established instructional programs are genuinely unique and indicate a practical, musically sound approach to the complex problems of string instruction in schools and colleges."[9] Shinichi

---

[6] Lyle, "Violinist, Pedagogue, and Visionary," 1.

[7] Debbie Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Primer,* (Scottsville, VA: The Foundation for the Advancement of String Education, 2018), 33-34.

[8] John Raymond Howell and Florence Currie Howell, *Bornoff: Breakthrough for String Education* (Newton Highlands, Mass.: Foundation for the Advancement of String Education, 1989), 24.

[9] Howell, 17.

Suzuki and George Bornoff proved their success during their lives and many years after their death.

Shinichi Suzuki's violin method was just as admired as the Bornoff method. Author Erin Hotta stated, "By 1970 the Suzuki method had become a worldwide phenomenon and according to the Talent Education Research Institute, an educational organization founded by Mr. Suzuki, about 400,000 children in forty-six countries are now learning to play musical instruments the Suzuki way."[10] Author John Kendal tells the story of Suzuki in the year 1965 at the Music Education National Convention (MENC) a group of music educators crowed in a room to see a demonstration by the famous Shinichi Suzuki and ten of his Japanese violinists ranging from the age to five to thirteen. All the music educators left the demonstration impressed by what they witnessed. All of Suzuki's students performed intricate works with musicality and a beautiful tone. At this convention, Suzuki proved the success of his method, and many teachers around the world wanted to learn more.[11] The Suzuki and Bornoff methods are proven successful curriculums and taught by many instrumental instructors worldwide.

Considering the combination of both methods, especially where one method can support the other, it creates a curriculum for a beginning orchestra. In addition to adapting both approaches into a group setting rather than individual instruction with a private tutor. These two methods, in collaboration, bring confidence to any string teacher working with a beginning orchestra and keeping the integrity of the model of building an outstanding citizen.

---

[10] Erin Hotta," Tokyo's Soft Power Problem," *The New York Times* (2014): https://www.nytimes.com/2014/10/25/opinion/the-suzuki-method-japans-most-successful-cultural-export.html.

[11] John D Kendall, *The Suzuki Violin Method in American Music Education*, (New York, NY: Alfred Publishing, 1966), 9.

Problem Statement

According to the United States Department of Education, nearly fifty percent of teachers leave their profession within the first five years of teaching. The Music Education National Convention and the National Association of Schools of Music reported that more than 5,000 music teacher openings remain unfilled every year.[12] These findings suggest that music educators are not continuing with their career path as they originally planned, and they need to be supported to keep them in the classroom with confidence.

Author Vicki Baker listed the characteristics that impact the decision to continue as a music educator. Baker states that organization, knowledge of music, and communication were the top reasons. Classroom management, time management, and stress management were the least important reasons.[13] Such research findings allow for the support of music educators to help with organization in the classroom by using a reliable teaching method, specifically for those starting a beginning orchestra.

The specific job of starting a beginning orchestra can be an overwhelming task. Like any teacher, the string teacher may have the ordinary demands of teaching in an urban setting, budget perimeters, and parent communication.[14] Additionally, string teachers face the challenges of instrument sizes, accessories, and supplies needed for class, purchasing instruments for a

---

[12] "Facts About the Teaching Profession for a National Conversation About Teaching," United States Department of Education, accessed July 23, 2021, https://www2.ed.gov › teaching-profession-facts.

[13] Vicki D. Baker and Mary Ellen Cavitt, "Profile of a Career Music Educator," *Texas Music Education Research* (2011): 7, https://files.eric.ed.gov/fulltext/EJ1102259.pdf.

[14] Mary Rogelstad, "Overcoming Challenges as a New Music Teacher," *CudIn* (blog), August 28, 2019, https://blogs.jwpepper.com/overcoming-challenges-as-a-new-music-teacher.

classroom, care and maintenance of those instruments, and replacing strings.[15] String teachers also must ask questions such as the "numbers" (students and budgetary) that I would like to see in my program in one year, three years, and five years? What strategies am I going to use for recruiting? How am I going to publicize my program?[16] These are the basic demands of setting up and starting a beginning orchestra program. Once established, a string teacher needs to decide the class's chosen curriculum.

String teachers have the complicated task of building a foundation with students to demonstrate good posture from the beginning. Teachers must know correct positioning on all instruments such as violin, viola, cello, and bass. Other requirements that string teachers face are if the orchestra should start right away on note reading, teach using the bow or pizzicato, and what repertoire to lead from the very beginning stages. Many teaching methods are available for such teachers but knowing which form to use is challenging.

Overall, a beginning string teacher only has one chance to set students up for success. The chosen method must have proven success through technique development, posture and position development, and musical ability. When a public-school string teacher implements a curriculum and understands the process utilized in class, the teacher will build confidence in their teaching ability and in hopes of continuing in a career where jobs go unfilled.

---

[15] Donald Hamann, and Robert Gillespie, *Strategies for Teaching Strings*. (New York, NY: Oxford, 2004), 61.

[16] Mary Correia, Lucy Lewis, and Kira Omelchenko, "Embracing the New Music Educator," *Nafme* (May 2015): 2-7, https://nafme.org/from-zero-to-hero-strategies-for-building-a-string-program-from-scratch/.

Purpose Statement

The primary purpose of this study was to support first-year or struggling string teachers with starting a beginning orchestra. To support a first-year or struggling string teacher, the study has examined the steps for an instrumental setup used in both the Suzuki and Bornoff method for violin, viola, and cello. The study continues the steps with both methods through an entire year plan with a beginning orchestra. Finally, the study compiled an entire first year set of steps in a curriculum used in any public-school setting.

Significance of the Study

In 2002, the American String Teacher Association (ASTA) stated that the United States faces a severe shortage of string teachers in schools across the U.S. Within the last eight years, the deficit has decreased. Still, the percentage of school districts starting string programs has increased, creating even more of a demand.[17] Meaning that the United States needs 1,000 new teachers every year for the next three years. Not only does this mean that 3,000 jobs will go unfilled, but it means that thousands of students across the United States will be deprived of an opportunity to learn to play a string instrument. Currently, 29% of United States school districts offer a strings program in their community, but that leaves 71% of school districts in the U.S not offering such a curriculum.[18] These statistics give the upper hand to other school districts that provide a curriculum that supports the whole child. Not only do students lose the opportunity to

[17] "Wanted: 3,000 String Teachers! The Status of String and Orchestra Programs in United States Schools," American Strings Teacher Association, accessed July 23, 2021, https://www.astastrings.org/app_themes/public/uploads/pdf/whitepaper.pdf.

[18] Ibid., 1.

learn a string instrument but lose the chances of participation in many other events that an orchestra program offers to students.

The American String Teacher Association (ASTA) made a goal to ensure that no matter what a school district's economic status, geographic location, or skill levels, they can have the opportunity to learn to play a stringed instrument. To do this, ASTA believes they must find ways to prepare significant numbers of qualified string teachers, provide support/advocacy for innovative funding, and provide instrument accessibility. Also, consider curriculum revision, the continued development of audiences for orchestral music, and encourage musicians to enter the music education field as young students.[19] This curriculum design assists the ASTA's goals of qualifying string teachers with a method that has proven success and supports teachers with a strong caliber curriculum choice. The collaboration of both the Suzuki and Bornoff methods in this study, for a group setting, helps a teacher with a strong curriculum.

Research Questions

The most critical stages of a musician's life and training are those at the beginning moments, as these stages set students up for success. Music research expands understanding of the impact of music-making and music education, the importance of music at every stage of life, and relationships between music and physical and emotional wellness.[20] Having a supported curriculum that has been researched supports a classroom towards physical and emotional wellness for both the students and first-year or struggling teachers.

---

[19] "Wanted: 3,000 String Teachers!" 1.

[20] "Music Research," NAMM Foundation, accessed July 14, 2021, https://www.fosters.com/news/20190825/back-to-school-music-education-key-to-enhanced-skills-and-development.

This study researched two main topics that are essential for a successful beginning orchestra. The first part of the research involves how a modified Suzuki and Bornoff method can support a struggling or first-year string teacher working with a beginning orchestra. The second part involves adapting both methods in an orchestra setting in a public school. This adaption helps discover what beginning teaching techniques, from both approaches, will set students up for perfect positions from the beginning stages of teaching. The primary research questions for this study are as follows:

RQ #1: What teaching gaps can be addressed by implementing a modified Suzuki and Bornoff method to support a first-year or struggling string teacher starting a beginning orchestra?

RQ #2: How can the combination of the Suzuki and Bornoff method adapt to a group setting within a beginning public school string orchestra class?

Hypothesis

In a qualitative study, researchers state research questions, not objectives and hypotheses that involve variables and statistical tests. The Suzuki and Bornoff methods may be very different in their approach by evaluating the strong points of both ways and applying them to a beginning classroom that creates a robust curriculum. [21] It is essential to ask the following research questions and identify the similarities and differences that will support such a curriculum:

H #1: Teaching gaps that can be addressed with implementing a modified Suzuki and Bornoff method to support a first-year or struggling string teacher starting a beginning to include position work, bow usage, rote technique, and music literacy.

---

[21] John W. Creswell and J. David Creswell, *Research Design* (London: SAGE Publications, 2018), 4.

H #2: With the combination of both methods adapted into a beginning public-school setting, include a strict beginning sequence of position work and teaching through memorization and repetition.

Core Concepts

In 1991, the Music Educators National Conference (MENC) created a course study for a curriculum of a heterogeneous string class that describes a quality program. The curriculum divides expectations into six main categories. Those categories are tone quality, rhythm and bowing, finger patterns and scales, ear training, music reading and vocabulary, and music theory and history.[22] The American Strings Teacher Association (ASTA) added an addition to the study course by organizing an orchestra curriculum by content area, achievement standards, and learning tasks. ASTA organized it into three categories: executive, musicianship, and artistic skills. Each of the three categories are organized into specific content areas. The exact content areas are body format, left-hand skills and knowledge, right-hand skills and expertise, tonal aural skills and ear-training, aural rhythm skills and ear training, creative musicianship, music literacy, ensemble skills, expressive elements, historical and cultural elements, and evaluation of music and music performance.[23] First-year string teachers or struggling string teachers should consider each of these standards as they are a vital checklist for consideration when starting an orchestra. Comparing such measures to the diverse methods available for a beginning string orchestra, the Suzuki and Bornoff methods combined check off many of these standards.

---

[22] Amanda Hall, "A Review of Beginning Heterogeneous String Class Method Books for Compatibility with the Baseline Learning Task of the American String Teachers Association String Curriculum," (master's thesis, Bowling Green State University, 2013), 22.

[23] Ibid., 23.

Students walking into a string classroom for the first time will need to understand how to hold their instrument using the ASTA standard titled body format. The left and right-hand technique is also a beginning standard created by ASTA. The Suzuki method takes this approach slowly and accurately. In the Suzuki method, there is much practice in the beginning stages to work on the transitions, such as rest position to playing position, working on the bow hold without the bow, bowing short bow strokes on open strings in the middle of the bow, and lastly adding in the left hand.[24] The period it takes for this step is dependent on the student, and for this study, the group setting. The Bornoff method accelerates the beginning stages faster than the Suzuki method by combining everything right away and using larger bow strokes versus smaller bow strokes.

Like the Suzuki method, the Bornoff method teaches students how to hold the instrument and bow, but the Bornoff method begins with pizzicato versus bow strokes. The Bornoff method uses an open string cycle system with the pizzicato technique. The open string cycle is taught through repetition and memorization. The Bornoff philosophy emphasizes the building of approach first and the correlation of pieces later through repetition. With solid technique established, pieces become very exciting with only tempo and phrasing as the technical aspect.[25] The Suzuki method approaches the teaching the same through repetition and memorization through the first set of pieces in the first volume of his method books. Shinichi Suzuki stated,"

[24] Amanda Schubert, "Suzuki Violin Unit One Teacher Training Manual," The Suzuki Association of America, 2020, 50.

[25] Diane Float, "An Evaluation Study of the Bornoff and Suzuki String Method," (master's thesis, Florida Atlantic University,1970) 7.

Develop excellence through repetition."[26] Suzuki also said," Memory training is vital to talent education."[27]

Lastly, the Bornoff method teaches beginning bow strokes by demonstrating the different parts of the bow placement, such as the frog, the middle, and the tip of the bow.[28] The Bornoff method starts by teaching with full bow exercises during the first lessons. The Suzuki method is different in that Suzuki believed that bow strokes should be short and staccato. Students should only be utilizing the right elbow at a right angle.[29] Though both methods are very different in their approach to the beginning stages, combining the strengths of both ways supports a first-year and a struggling string teacher.

The body format left-hand placement and right-hand placement are the standards that need to be met in the first few classes taught by a string teacher. Both ways support the additional ASTA standards and are described through research for this study and through examples of complimenting a classroom setting rather than individualized instrumental instruction. As noted, the Suzuki and Bornoff methods support such measures from the very beginning.

---

[26] Shin'ichi Suzuki, *Nurtured by Love: The Classic Approach to Talent Education* (New York, NY: Alfred Music, 1993), 43.

[27] Ibid., 90.

[28] Lyle, "The Bornoff Approach," 4-5.

[29] William Starr, *The Suzuki Violinist* (Miami: Summy-Birchard, 2000), 71.

Definition of Terms

This studies definition of terms is to ensure that the reader will understand the components of the study in the way that the author presented them:

American String Teacher Association (ASTA). A string teacher association, founded in 1946, has the primary goal of supporting string and orchestra teachers and students. The association provides teaching resources for professional education, local and national events, a career center, insurance programs, and access to a collaborative string community.[30]

Bornoff Method. A violin string method starting from the beginning stages of learning that was created by George Bornoff.

Bow Usage. In reference to how much bow a student uses and the bow placement. For example: full bow, half bow, middle bow, tip of the bow, and at the frog.

Curriculum. A set of specific goals, contents, strategies, measurements and resources that are in place to set a standard for a specific learning subject.

National Association of Music Education (MENC or NAfME). A music teacher organization that addresses all aspects of music education. The association advocates at the local, state and national levels by providing resources for teachers, parents, and administrators through professional development events. The association was originally named the Music Supervisors'

[30] "About ASTA," American String Teachers Association, accessed on July 25, 2021, https://www.astastrings.org/Web/Membership/AboutASTA/Web/About_ASTA/About.aspx?hkey=674291e9-25f9-4b6a-9d2f-881c88cfb811.

National Conference, but in 2011 they shortened the name to simplify it to be titled the National Association for Music Education.[31]

Position. In reference to how a student holds their instrument and bow as well as how they sit or stand with their instrument.

Rote Technique. This is a form of learning taught without materials, through repetition, and through memorization.

String Instrument. The instruments examined for this study include the violin, viola and cello.

String Teacher. A teacher that teaches string instruments including the violin, viola and cello.

Struggling Teacher. A teacher that is seeking support and mentoring to improve their teaching and curriculum choice within their classroom.

Suzuki Method. A violin string method starting from the beginning stages of learning that was created by Shinichi Suzuki.

Whole Child. A whole child approach to education is defined by policies, practices, and relationships that ensure each child, in each school, in each community, is healthy, safe, engaged, supported, and challenged. It engages all stakeholders, such as educators, families, policymakers,

[31] "NAfME History and Leadership," National Association for Music Education, accessed July 26, 2021, https://nafme.org/about.

and community members, in defying the "percentage proficient" culture of too many school reform efforts, to focus on each child.[32]

Chapter Summary

This study aims to support any struggling or first-year string teacher seeking the guidance of a curriculum that works for a beginning orchestra. An excellent written curriculum for any subject requires both vision and practicality. Author Diane Senechal stated in her article, "The curriculum writers must know and care about the subject; they must envision the teaching of the topics and works," and "They must be willing to make and defend choices—to say "this is essential," "this is beautiful" or "this will go well with that."[33] Teachers, specifically string teachers for the sake of this study, need a strong curriculum choice to use within their classroom. A curriculum choice that involves supporting the whole child. When a student is taught to play an instrument from a robust curriculum, it propels lifelong learning, develops character, engages human emotion, and promotes critical and creative thinking within the individual, the community, and the world.

A strong string curriculum also uses a strict sequence for the beginning stages of holding an instrument, standing, or sitting with an instrument, and holding the bow correctly. The Suzuki and Bornoff curriculums utilize learning through memorization and repetition so that students can focus their attention on perfecting posture and position. The Suzuki and Bornoff methods support the whole child and develop a strong musician right from the start. Many private

---

[32] "A Whole Child Approach to Education and the Common Core State Standards Initiative," ASCD: Learn, Teach, Lead, accessed July 26, 2021, http://www.ascd.org/ASCD/pdf/siteASCD/policy/CCSS-and-Whole-Child-one-pager.pdf.

[33] Diane Senechal, "The Spark of Specifics: How a Strong Curriculum Enlivens Classroom and School Culture," *The American Educator* (2011): 25, https://www.aft.org/sites/default/files/periodicals/Senechal_2.pdf.

instrumental instructors utilize one of these two methods and, in combination, keep a strong classroom curriculum with multiple instruments. Combining both methods also helps the standards recommended by the American String Teacher Association.

ASTA is on a mission to support string teachers to keep them in a career field where many jobs go unfilled each year. The demands of a typical string teacher job are that of any other teacher, but added tasks creates more demand on such teachers. Strings teachers must consider how to build and support a string program, the sequencing and method books to use to start an orchestra, producing public concerts, recruitment and much more. [34]

[34] Senechal, "The Spark of Specifics," 25.

CHAPTER TWO: LITERATURE REVIEW

Introduction

The chapter begins with a historical perspective on music education in the United States, specifically to orchestra education. The review also examines the current state of orchestra education in the United States. Section two investigates how a novice string educator can be supported by reviewing what such challenges an orchestra educator faces, the struggles of building a new program, deciding what method to use in a beginning string classroom, the supporting organizations available to such educators, and the importance of furthering professional development. Section three explores the positive aspects of music education to a student's brain development, a student's positive sociological support, and psychological support. The concluding section of chapter two presents a brief description of the benefits of using the Suzuki and Bornoff method in a beginning orchestra program. Establishing a complete understanding of the development of an orchestra education in the United States, the struggles orchestra educators face in an orchestra program, and the positive benefits music education presents to a student's development will provide evidence as to how combining both the Suzuki Method and the Bornoff Method in a beginning string classroom cannot only support a student's academic success but support a novice string teacher.

The State of Orchestra Education in the United States

The history of music education in the United States dates to before the American Revolution. In 1698, the Pilgrims and the Puritans introduced a tradition of singing psalms and printed the first American publication containing music. Accompanying a book of psalms was a book entitled the *Tunebook*. The *Tunebook* was the first instructional textbook containing choral

music, and a total of 1,400 books were published in the United States.[35] With the rise in the popularity of participating in producing music, music education grew.

Music education was not a part of public education for the first 150 years in the United States. In early American schools, the subjects in school were reading, writing, and arithmetic. Music was only taught privately to students through the singing schools.[36] Lowell Mason was the first music education activist in the United States. Mason was the first music educator in America to take the *Tunebooks* and create an authentic music education system around the *Tunebooks*.[37] Mason based his teaching on the principles of Swiss educator Johann Pestalozzi. Teaching was believed to emphasize direct sense experience as the proper foundation of human instruction. Pestalozzi thought that educators must formulate and define basic instruction principles and highlight the science of music that should be a course of study in schools. Education should be more than book knowledge and viewed as the learning process as a vehicle through a child's powers and which talent could be developed.[38] Mason carried out these teaching principles established by Pestalozzi and pushed for implementing a quality music education in America. In 1837, Mason convinced a Boston School Committee to introduce music into the curriculum at the Hawes School District in Boston for one school year without pay. In 1838, Mason presented a successful performance of students who participated in his music education curriculum, permanently making music education a part of the curriculum.

---

[35] "History Of Music Education in the United States," Cambellsville University, last modified September 2, 2016, https://online.campbellsville.edu/education/history-of-music-education/.

[36] Daniel Rager, "The Role of Music in Society Past, Present and Future," *Cleveland State University Music Faculty Publications* (2008): 11.

[37] "History Of Music Education," 1.

[38] Rager, "The Role of Music in Society," 2.

Implementing this new curriculum also resulted in a landmark resolution known as the "Magna Carta of Music Education." [39] The implementation of quality music education by Lowell Mason perpetuated a push for expansion in music education.

Moving into the nineteenth century in the United States brought growth to different genres of music, but music education in school remained unchanged. Classroom teachers were still teaching music rather than music specialists. It was not until the end of the nineteenth century that public school music education started to change positively. The commissioner of the United States Bureau of Education, John Eaton, campaigned to divide teaching music between the classroom teacher to a music specialist. During the 1930-the 1940s, music education transitioned to its curriculum and was taught solely by a music specialist. During this time, the Music Education National Conference was becoming more supportive across the nation and bringing awareness to the importance of music education in the public school system. In 1947, the MENC published its first "Music Education Source Book," making music education more qualified and supporting music educators across the nation.[40] During this time, music education became a defined subject, and education and experience in band and orchestra were becoming an option for public school students across the country.

Although vocal music had been included as part of the school curriculum in American public schools since 1837, string instruction was not offered until much later in the nineteenth century. During the second half of the nineteenth century, an interest in string pedagogy grew, and interested American music educators wanted to adapt and develop methods that were

[39] Rager, "The Role of Music in Society," 3.

[40] Ibid.

working in Europe in the United States. In 1898, Indiana schools offered high school orchestras as part of the regular school curriculum. In 1911, the Boston Public schools became the first school district in America to provide group violin classes as part of their curriculum at the beginning level of string education.[41]

Albert Mitchell, who was the assistant director of music in the Boston Public Schools, took a leave of absence to study string curriculum in England. When he returned to the United States in 1911, he established the first public school violin class at Thomas K. Hart School in Boston. Mitchell based the instruction of the course on his observations in England. Mitchell had an average of 15 students per class. He used large visual charts for teaching, he accompanied the class on piano and used fingerboard markings to develop accurate intonation.

In 1912, Mitchell published the first two American string class methods book in public schools. The first book was the *Mitchell Class Method,* and the second book was the *Public-School Class Method for the Violin*. Mitchell's work in Boston advanced the number of string programs in the United States, and by 1918 several parts of the United States offered string instruction as part of their school curriculum.[42] Albert Mitchell's implementation of an orchestra curriculum created more string educators to introduce their methods as a quality string education.

During 1918-1928, string education was offered in school districts throughout the United States. While Mitchell's methods were still used in public schools across the United States, many other class method books were gaining the attention of string educators. The difference between these method books and Mitchell's method books was the arrangement of homogeneous

---

[41] Dilek Göktürk, "Historical Development of Public-School String Education in the United States and Connections with Turkey," *Eğitim Fakültesi Dergisi*, no. 2, (2009): 690.

[42] Ibid., 692-693.

methods. Educators could now teach multiple instruments simultaneously. During the 1920s, approximately 60 different string class method books were published. [43] During the 1930s through 1940s, American education was going through much change like the United States. The 1940s were in a significant transformation through reorganization, funding issues, and the need for standardization across the United States. The war brought a realization and reality into the American education system. During the war draft, five million recruits were rejected because of poor health and because many of the recruits could not read or write. Between 1939 and 1944, more than one hundred thousand teachers took jobs in the defense industries of the military, and in 1946 seventy-five thousand American children did not get an education due to the significant teacher shortage. Many preschools were built across the nation to help now working mothers.[44] This decline in education due to the war did not stop school systems from offering a quality orchestra education.

Despite a decline in education, due to the impacts of World War II in the United States, orchestra education was making many positive advancements. One positive advancement was the formation of the American Strings Teachers Association. Before the 1900s, most music education was specific to vocal training, and most Americans were not exposed to the orchestra until touring orchestras were formed. [45] It was not until 1938 that educators found importance in ensemble performance rather than individualized performance. Noted music educator Edward Birge stressed an emphasis on ensemble is essential.[46] Also, during this time, in February 1946,

---

[43] Göktürk, "Historical Development," 695-696.

[44] "The 1940S Education: Overview," Encyclopedia.Com, last modified 2020, https://www.encyclopedia.com/social-sciences/culture-magazines/1940s-education-overview.

[45] Hall, "A Review of Beginning," 3.

[46] Ibid., 5.

the National Music Education Association met in Detroit and started the beginning stages of organizing ASTA. Four objectives were established with the newly formed organization: to promote the broader performance of chamber music and string orchestra literature, to provide opportunities for children in our schools to hear good strings playing, to cooperate with college and university string departments in the development of their teacher training curriculum, and to modernize string materials.[47] Unfortunately, orchestra popularity started to drop during the middle of the 19th century due to the rise of the school band as military band retirees returned from World War I and found work as band directors.[48] Even with a decline in enrollment in orchestra education, many prominent string educators demonstrated how their methods were better than other methods currently being taught within the schools.

The history of school orchestras in the United States has one of the longest histories of orchestra education globally, and the growth of orchestra education was dramatic. By the 1900s in the United States, school systems began offering credits for orchestra participation and offering programs with instruments and rehearsal time. By 1994, national content standards were created by the Music Educators National Conference to provide a teachable framework for all music educators. Included in these standards were school orchestras and even such orchestras as strolling strings and fiddle groups. In 2015, the National Standards were revised and renamed the National Core Music Standards. These standards emphasized music education as an artistic

[47] Robert Ritsema, "A History of the American String Teachers Association: the First Twenty-Five Years," ASTA, last modified 2020, https://www.astastrings.org/Web/History/Web/About_ASTA/History.aspx?hkey=a3f82395-c9f6-43ae-8247-d6683632bc8f.

[48] Hall, "A Review of Beginning," 5.

process of creating, performing, and responding.[49] With the instruction of orchestra and the curriculum growing in a positive direction, student enrollment has increased, and the curriculum structure has changed.

A study completed by the American String Teachers Association examined the growth in orchestra education across the United States. [50] Since the 1980s in the United States, participation in orchestra education has steadily increased at all levels in elementary school through high school. Between 2003-2008, 55% of teachers reported that students playing a stringed instrument had increased or remained the same. Between 1997 to 2009, the number of school districts offering orchestra instruction went from 18% to 29%. The current database used for the American Strings Teacher Association report represented 4,269 school districts with orchestra programs out of 14,556 in the United States. Out of the teachers that participated in the study, 32.5% indicated their number of enrollments in orchestra increased, 24.2% indicated that their enrollments stayed about the same, and 35.3% did not respond. The majority of string class instruction was offered during the school day. Typically, the classes were homogeneous, meaning all instruments (violin, viola, cello, and bass) were taught simultaneously.[51] Due to such growth in enrollment in orchestra education across the country, the class structure started to adapt.

---

[49] Hyun Ju Chong and Soo Ji Kim, "Development of a School Orchestra Model in Korean Public Schools and Students' Perceptions of the Orchestra Experience," *International Journal of Education & The Arts,* 17, no. 35 (2021): 2.

[50] "Wanted: 3,000 String Teachers!" 1-18.

[51] Ibid.

The same study conducted by the American String Association also examined the current class structure of string education in the United States. The majority of beginning strings classes begin in fourth grade (34.5%), fifth grade (26.3%), and sixth grade (20.1%). 8.7% of orchestra teachers stated that these beginning orchestra classes are held outside the school day. 13% of orchestra teachers said their beginning classes were arranged homogeneously (by liked instruments), and 55% were set heterogeneously (by hybrid instruments). School districts across the country started offering more selected and smaller classes such as chamber ensemble and large ensemble class offerings. String educators provide 50% of these classes. Most string educators teach in a suburban school setting, and most teachers share a teaching space with another teacher. When it comes to having a curriculum or course of study, 53% of teachers have one in their school district, and 22% of orchestra teachers are evaluated through the orchestra curriculum. Unfortunately, 46.5% of orchestra educators have stated that funding for their program has decreased, and 17% have said that their budget for their program has dramatically reduced.[52] Not only should an examination be made regarding the structure of orchestra programs in the United States, but also the orchestra teachers that teach orchestra in the United States.

During 2007-2008 in the United States, 47.4% of orchestra positions filled were taught by certified teachers whose primary instrument was a string instrument, 2.55% were filled by non-certified teachers whose primary instrument was a stringed instrument, and 18.2% of orchestra positions were filled by certified teachers whose primary instrument was not a string instrument. In the American String Teacher Association's report, respondents reported a range of

[52] "Wanted: 3,000 String Teachers!" 1-18.

one to fifty years of teaching experience, and the average years of experience were 18.6 years. Between the years 2010 to 2013, 38.7% of orchestra teachers anticipated a new string position opening, and 58.5% indicated no new string position openings. 2.8% did not respond to that question of the report. In the report, ASTA also found that over five years, 47.6% of teachers reporting saw somewhat of an increase of full or part-time positions, and 29% said that full or part-time jobs somewhat decreased. Most orchestra teachers are female, and 60% of the current orchestra teachers hold masters or doctorate degrees. Between 2003 and 2008, 66% of orchestra programs saw a decrease in financial support in their school district.[53] With evidence of growth in orchestra programs across the United States, financial and professional support for string educators needs help to move in a positive direction.

In 2009, two string education researchers, Michael Alexander and Bret Smith conducted a study. [54] The study also looked at the demand for string educators in the future and the evidence for the potential of future string teacher shortage. If the growth of enrollment in orchestra education continues to increase across the nation, the United States will need 1,000 new teachers every year for the next three years. If these 3,000 jobs go unfilled, thousands of young people will be deprived of the opportunity to learn to play a string instrument along with the many other learning opportunities that come with participation in an orchestra curriculum. The goal for the American String Teacher Association is to ensure that all children across the country have the chance to learn to play a stringed instrument. Meaning that to provide a quality education for all children participating in an orchestra, the association needs to find ways to

[53] "Wanted: 3,000 String Teachers!" 1-18.

[54] Ibid.

prepare more qualified string teachers, provide advocacy for innovative funding, instrument accessibility, curriculum revision, and the continued development of audiences for orchestral music. It will also depend on the current orchestra teacher to encourage young people to enter college as a dual major and not only majoring in performance but music education as well.[55] With such an urgent need for quality string educators, the daily struggles need to be examined to know how to support them and encourage them to stay in the education realm.

Supporting Novice String Music Educators

Each year, teachers face several challenges walking into a classroom. Much of their training and their own educational experiences do not prepare them enough for the real challenges a school has each day. Many new teachers share classroom management concerns, isolation, physical exhaustion, challenging teaching assignments, and problems with administration.[56] This is especially true for string teachers, as they feel more pressure than other fellow new teachers that teach subjects other than music because of demands specific to a string teacher's job. The demands that are unique to string teachers are having to travel to multiple schools, teach large classes, mainstream all students in one class teach classes that are outside their expertise, and string teachers are sometimes presented with a lack of respect for their content area from administrators, staff, and community.[57] It is not uncommon for new string teachers to walk into positions where the program is very small or non-existent. It is the teacher's responsibility to build a program and face the challenges that any new teacher has. In the article

---

[55] "Wanted: 3,000 String Teachers!" 1-18.

[56] Margaret Schmidt, "Mentoring and Being Mentored: The Story of a Novice Music Teacher's Success," *Teaching and Teacher Education* 24, no. 3 (2008): 634.

[57] Ibid.," 634.

"Building a String Program from Scratch," author Margaret Schmidt guides novice teachers through the demands of recruitment, how to build a musical community around the school orchestra and explores the orchestra teacher's job of budgets or grant writing in a teacher's first years of teaching.[58]

Knowing where to begin is a challenging part to the string teacher's job. The teacher's first task is to identify the outcome that they want to see. The new teacher needs to have a vision for the end of the school year and create long-term and short-term goals to get there. Once these goals are considered, strings teachers need to explore more in-depth such as what kind of ensemble the teacher wants to cultivate or what strategies to use for recruitment. Author Collen Ferguson states that this list is by no means complete but is a good starting point for further inquiry as teachers are creating a vision for their programs. [59] New teachers should determine what number of students is appropriate for their orchestra and instrumentation by year one, three, and five years after implementation.[60] When new teachers are working on recruitment, the teacher must develop recruiting materials such as flyers, set up masterclasses or workshops that serve as a recruitment tool for their program be present at all your school's events, form relationships with colleagues, and have students recruit other students. [61]

When a classroom size is established, a new year teacher needs to examine all string teaching methods and include methods that are not string related. Techniques such as Orff,

---

[58] Colleen Ferguson, Lucy Lewis, and Kira Omelchenko, "From Zero to Hero: Building a String Program from Scratch," Nafme,last modified 2015, https://nafme.org/from-zero-to-hero-strategies-for-building-a-string-program-from-scratch/.

[59] Ibid.

[60] Ferguson, Lewis, and Omelchenko, "Building a String Program," 2.

[61] Ibid.

Dalcroze, and Kodaly, which are considered more appropriate for a general music classroom, can profoundly affect the outcomes of an orchestra classroom. For example, the Dalcroze method teaches Eurhythmics, the relationship between music, rhythm, and body rhythm.[62] The Dalcroze method promotes self-expression within an orchestra, which can also help students with rhythm and a sense of pitch. [63] An example of Dalcroze activity would be stomping the beat in a circle facing each other or jumping to the syncopated beat. At the same time, the teacher plays the beat and performs multiple meters by tapping one meter in one arm and a different meter in another arm.[64] Many of the beginning methods books are written for orchestra do not teach the importance of self-expression and promotion of body movement within the group. When a group of young musicians perform with such action and feeling, the music comes alive. As a new teacher, the job requirement is to find orchestra methods that work and that create a solid orchestra ensemble. It is also necessary to look at unconventional ways to promote a well-rounded group of musicians.

It is prevalent for string teachers to build a classroom foundation for years. Even after making a foundation, it is common to feel a need for guidance and reassurance still, even with the support of district administrators. Author Margaret Schmidt gives an example of a new teacher, by the name of Jelani, struggling with the demands of string teaching.[65] Jelani felt immense pressure from teaching in his district, and his principal evaluated him poorly on his

---

[62] Michael Mark and Patrice Madura, *Contemporary Music Education* (Boston: Schirmer Cengage Learning 4, 2014), 98.

[63] Ibid.

[64] Ibid., 101.

[65] Schmidt, "Mentoring and Being Mentored," 632.

performance and gave little to no guidance. [66] Part of the issue was the principal did not know how to guide Jelani since he was not familiar with the demands and teachings of an orchestra classroom. That is when Jelani decided to reach out to the String Project program. The String Project program identified that the first years of teaching are a transition for a beginning teacher. Successful management of these transitions may be crucial in whether new teachers choose to remain in the teaching profession. [67] This is especially true with string teachers as they feel more pressure than fellow new teachers due to their demands of the job because many string teachers travel to multiple schools, classes are extensive, mainstreaming students with special needs, teaching classes that are outside their expertise, and a lack of respect for their content area from administrators, staff and community. By year three, with the support of the String Project working with Jelani's principal, Jelani was honored tenured status in his district and felt much more comfortable in his classroom. After reflecting on the success of the program, three factors that proved most successful were the program's mentoring style, the process of integrating multiple resources and models, and the gradual alignment of Jelani's expressed verbal knowledge and his teaching practices.[68] Many new string teachers can identify with Jelani in knowing that support beyond the district is valuable.

The Music Educators National Association (MENC) is also an excellent example of where to inquire for assistance through the first few years of teaching and beyond. For example, the Oklahoma Music Educators Association provides a mentorship program for music educators. The Oklahoma state music educator's division believes that their mentorship program should

---

[66] Schmidt, "Mentoring and Being Mentored," 632.

[67] Ibid., 634.

[68] Ibid.

provide sustained professional learning to become an effective teacher while empowering new teachers to make their own decisions.[69] They also believe that effective mentoring fosters beginning teacher growth, supporting the transition into the profession, psychological development, confidence, reflective practice, and instructional support. [70] Another example is from the state level, such as the Connecticut Music Educators Association. The CMEA mentorship program provides safe and effective ways to help young teachers reach their full potential.[71] Over time, the CMEA has found that more teachers remain in the profession for many years after participating in the mentoring program. [72] National and statewide professional associations must prioritize their organizations by creating formalized mentorship programs and publicizing them to administrators to be aware of such successful programs to guide their new teachers.

Establishing a classroom, supportive guidance, and researching methods that help develop a structure for an orchestra classroom lays the foundation for a strong teaching future but knowing that learning never stops are the keys to indefinite success. “Give instruction to a wise man, and he will be still wiser; teach a righteous man, and he will increase in learning.” (Proverbs 9:9)[73] An exceptional public-school music educator believed that an educator should never stop learning from other music educators and seeking opportunities to learn from other

---

[69] Christopher Baumgartner, "Supporting Beginning Music Teachers: The Development of the Oklahoma Music Educators Association Mentorship Program," *Journal of Music Teacher Education* 29, 3 (2019): 11.

[70] Ibid.

[71] Michael Stone, “Mentoring New Music Teachers for Lifelong Success in the Profession,” Nafme, last modified 2016, https://nafme.org/mentoring-new-music-teachers-lifelong-success-profession/.

[72] Ibid.

[73] Unless otherwise noted, all biblical passages referenced employ the *New International Version*.

programs. She was facing retirement that year, and even after thirty-six years of teaching, she was still seeking learning opportunities. That statement alone identified why she was an excellent and award-winning teacher for so many years.

Whether a teacher is new or facing retirement, making connections with other orchestras is the most valuable insight a teacher can have. Connecting with other string programs worldwide and understanding what works for them is key to continued success. Wing Man Fu described in his journal beginning teachers and novice teachers need to study high functioning and award-winning programs to see why they are so successful.[74] Wing Man Fu examined the Upper Arlington School District in Columbus, Ohio. His study found that much of the success of their orchestra program was from the teachers implementing early recruitment, understanding the need for all string teachers to co-teach together at all grade levels, and developing a particular teaching plan starting at the elementary string level. Studying their program structure, retention rate, materials used, and teachers' involvement at all levels to help model their program and advocate what is needed in their district.[75]

String teachers and district administrators need to understand the learning needs for professional development that are specific and supportive to the string classroom. In the journal "Research On Professional Development for Experienced Music Teachers," the researcher surveyed 1,541 music educators and asked what they felt were important in terms of the needs for professional development.[76] Sixty-six percent of those surveyed said professional

---

[74] Wing Man Fu, "A Case Study of an Award-Winning Public-School String Orchestra Program," (master's thesis, Bowling Green State University, 2009), 41, https://etd.ohiolink.edu/!Etd.send_file?accession=bgsu1242663220&disposition=inline.

[75] Ibid., 25.

[76] William L. Bauer, "Research on Professional Development for Experienced Music Teachers," *Journal of Music Teacher Education* 17, no. 1 (2007): 13.

development in technology was needed, fifty-seven percent said more assessment, fifty-three percent said new instrumental/choral literature, forty-five percent said high standards, and thirty-eight percent said grant writing. [77] According to these teachers, the top four professional growth activities rated effective and valuable were hosting a guest clinician or teacher, observing other rehearsals, attending music conferences, and attending concerts. [78]

Novice teachers, especially string teachers, need support and guidance when entering the teaching profession. Many resources are available for such teachers, and awareness of those resources can be the most valuable assets towards an orchestra teacher's success for years to come. District administrators should invest time and resources and have a deeper understanding of the demands string teachers face in years one, two, and beyond.

Importance of Orchestra Education

Music is one of the universal ways of expression and communication for all humans and is present in all cultures and amongst all ages of people in their everyday lives. Participation in music can be in many forms, such as listening to music, singing, playing an instrument, and creating. Thanks to empirical and experimental studies concerning the benefits of music activity, researchers have found that music profoundly affects physical, social, psychological, and educational development.[79] Those individuals who participate in music activities daily receive the most benefit for brain development than those who do not, especially young students.

---

[77] Bauer, "Research on Professional Development,"13.

[78] Ibid.

[79] Graham F. Welch, Michele Biasutti, Jennifer MacRitchie, Gary E. McPherson and Evangelos Himonides, "The Impact of Music on Human Development and Well-Being," *Frontiers in Psychology*, no. 11 (2020): 1-2.

Thanks to research advancements, neuroscientists have found a connection between music study and cognitive development. Such technology as Magnetic Resonance Imaging (fMRI) and electroencephalography (EEG) has provided researchers with a better understanding of what is happening inside the brain when it processes music and how the musical activity contributes to better learning and function. Such technology is finding overall that an education in instrumental music leads to changes in a child's brain that support reaching their full cognitive and academic potential. Specifically, the advancement in technology is finding that students who are participants in music have stronger neural connections, more gray matter, better information processing, better memory and attention, and better motor coordination.[80] Student's involvement in music participation allows for an endless contribution of brain development.

Researchers in the article, "Music Matter," have found that students that participate in music activities improve recall and retention of verbal information. [81] When students participate in musical training, it develops the brain region responsible for verbal memory. Studies have shown that music students who were tested for verbal memory showed a strong recall for words compared to non-music students. Researchers also found that students that participate in music activities score higher in math. Students who study music outperform non-music peers in math assessments, and the advantage that music provides increases over time, and students involved in instrumental music do better in algebra. Studies in student music participation also found that students who participate in music activities boost reading and English language arts skills scores. Students who participate in music learning score higher than students that do not participate in

[80] The Royal Conservatory, "The Benefits of Music Education," *An Overview of Current Neuroscience Research* (2014): 1-2.

[81] "Music Matters," Arts Education Partnership, last modified 2011, https://www.ecs.org/music-matters/.

music learning. They score higher in writing assessments, using information resources, reading, and responding, and proofreading.[82]

Music participation supports students' coordination skills. One specific 24-week study proved that education using the Orff-based music education significantly improved the manual dexterity and bimanual coordination in those students that participated in the music program compared to their active control and passive control peers. This study also supported those students who played one or more musical instruments for at least a half-hour per week had high verbal and intellectual performance scores. [83] Research has also proven that musical training is most likely to enhance encoding in nine- to fifteen-year-old students, relating to positive reading skills. [84]

Music is an essential educational component in students' academic lives. Over twenty years, many studies inquiring in school achievement have found correlations between learning to play an instrument and academic success. One decade-long study found that students who participated in at least nine hours of arts education were four times more likely to win recognition for academic achievement and three times more likely to win an award for school attendance than those who did not participate in arts education.[85]

Students that participate in music support brain development through sensory activation. For example, when the brain responds to sound, it responds with a neural response to sound and

---

[82] "Music Matters," Arts Education Partnership, last modified 2011, https://www.ecs.org/music-matters.

[83] Welch, Biasutti, MacRitchie, McPherson and Himonidea, 2.

[84] Ibid.

[85] The Royal Conservatory, "The Benefits of Music Education," 2.

isomorphic to the sound itself. Researchers were to study both the waveform of a piece of music and the waveform of the brain. They found that the waveforms were identical.[86] A study was completed to observe students who participated in a music curriculum at their school compared to students that did not have a music curriculum at their school. One group of student students received two additional instruction hours per week in an ensemble setting and one extra hour per week in a private lesson setting. The other grouping of students was not participants in the music curriculum. The results were that out of the four different testing groups, the two groups of students from the music curriculum had scored higher in tests that involved general cognitive abilities, visuospatial skills, and accuracy in reading and memory tests.[87]

The Bornoff and Suzuki method supports visuospatial skills by teaching the method from the beginning by rote memorization. In the Bornoff method, students are taught the Open String Cycle by rote memorization and in the Suzuki method students are taught by rote memorization through short pieces. Teaching through rote memorization allows students to develop strong listening skills for intonation and visual skills for watching a model of posture perfection.

Students that participate in music support brain development with motor action planning.[88] The Pre-supplementary motor area of the brain teaches the brain new motor sequences. For example, when students are engaging in the beat of a musical sequence, it engages the pre-supplementary motor area of the brain and the supplementary motor area. It is

---

[86] The Royal Conservatory, “The Benefits of Music Education,” 2.

[87] Desire, Carioti, Laura Danelli, Maria T. Guasti, Marcello Gallucci, Marco Perugini, Patrizia Steca, and Natale Adolfo Stucchi, "Music Education at School: Too Little and Too Late? Evidence From a Longitudinal Study on Music Training in Preadolescents," *Frontiers in Psychology,* no. 10 (2019): 1-14.

[88] Daniel J. Levitin, "Neural Correlates of Musical Behaviors: A Brief Overview," *Music Therapy Perspectives* 31, no. 1 (2013): 15, http://ezproxy.liberty.edu/login?qurl=https%3A%2F%2Fsearch.proquest.com%2Fdocview%2F1497044704%3Faccountid%3D12085.

the same for other brain parts such as the dorsal premotor cortex, the dorsolateral prefrontal cortex, the inferior parietal lobule, and lobule VI of the cerebellum. The supplementary motor area is the part of the brain that plans out complex movements.[89]

Using both the Bornoff and the Suzuki method together finely dissects the steps in the beginning, to put everything together in just a short couple of weeks. The approaches of both methods are very different. A student learning the Bornoff method is working the pre-supplementary motor area of the brain and building muscle memory by training a student's arm to use big bowing motions. A student learning the Suzuki method is working the pre-supplementary motor area of the brain and building muscle memory by training a student's arm to use small bowing motions. One of the most challenging parts of learning an instrument is finger placement and ear training. Finger placement and ear training engage the supplementary part of the brain by teaching complex movements. Once a student can hold their instrument and bow correctly, one of the most complicated steps is finger placement with the correct intonation. The approaches of both methods are very different. A student learning the Bornoff method is working the supplementary motor area of the brain and building muscle memory by training a student to learn the whole step and half step placements on their instrument. A student learning the Suzuki method is working the supplementary motor area of the brain and building muscle memory by training them to place their fingers on the finger placement tapes provided on their instrument.

Sociological impacts on music influence music education through the contributions of general music curriculums such as the Kodály Method, the versatility of the George Boroff and Shinichi Suzuki to teach in any location, and examining the effects ensemble groupings have on

[89] Levitin, "Neural Correlates of Musical Behaviors," 15.

student learning. Musical meaning is dependent on the setting for an event or idea, such that musical events are expressed through sociological and cultural concepts. They can only be understood when a musician understands the sociological ramifications. Music must be studied at different levels of sociological perspectives.[90] Music's impact on a sociologist's view is that all people, regardless of age, gender, and race, can have a meaningful experience with music. [91] Zoltán Kodály was the founder of the Kodály Method in the early 1900s. The Kodály Method was built on the foundation students need to participate in and enjoy their musical heritage.[92] Kodály believed that all students capable of linguistic literacy were also talented in musical literacy. He thought that teaching must begin with young children, music is the highest artistic value, folk pieces and composition are an integral part of the method of teaching, and music should be at the center of the curriculum.[93] Learning methods about general music can support string methods. Like the Kodály method, George Bornoff and Suzuki believed that students should learn to play at a young age. Both use many simple folk tunes, in the beginning, to help teach students the basics of the instrument, but both methods (Bornoff and Suzuki) do not support their musical heritage. Suzuki was from Japan, and after World War II (the same time the Suzuki Method was written), the Course of Study (COS) was written as a curriculum guide of how teachers are to teach in schools, and for the first time, music education was a part of the

---

[90] Patrice Madura Ward-Steinman, *Advances in Social-Psychology and Music Education Research,* (London: Taylor & Francis Group, 2011), 72-74.

[91] Donald A. Hodges, "Music Psychology and Music Education: What's the Connection?" *Research Studies in Music Education,* 21, no. 1 (2003): 31-44.

[92] Mary Elizabeth Barba, “Philosophy of Music Education," *University Of New Hampshire Scholars' Repository* (2017): 7, https://scholars.unh.edu/cgi/viewcontent.cgi?article=1326&context=honors.

[93] Ibid., 8.

guide.[94] The weakness of the (COS) was there was not enough teaching of Japanese heritage music. Fumio Koizumi, a pioneer ethnomusicologist, and theoretician of Japanese traditional music wrote a book criticizing the (COS). His book was titled, *Otamajakushi Muyoron*.[95] Koizumi believed that because the national curriculum was forcing students to study notations and songs they could not relate with made students disliked music. Koizumi thought that the curriculum was inflexible, and the entire curriculum should be reconstructed so that students would "gain a sense of their identity through musical study and would come to understand various music in an unbiased way." [96] It is essential to include a student's music heritage into music education. It is also something to consider in music lessons when writing a plan for teaching strings using the Bornoff and Suzuki method.

The George Bornoff and Suzuki methods can positively support healthy sociological effects on musicians by being versatile and adaptable. Both methods take no bias on age, gender, race, and all can have a meaningful experience with music. For example, the Suzuki method was initially created in Japan and has been implemented as far as Atteridgeville, South Africa. The string teachers in Atteridgeville, South Africa, started a modified Suzuki program in 2000 and taught using the Suzuki method. The two teachers applied Suzuki characteristics, socio-economic context, teacher as a parent, student as parents, making provision for many students, and challenges of introducing note reading.[97]

---

[94] Wayne D. Bowman and Ana Lucía Frega, *The Oxford Handbook of Philosophy in Music Education*, (New York, NY: Oxford University Press, 2014), 149.

[95] Masafumi Ogawa, "Japanese Traditional Music and School Music Education," *Philosophy of Music Education Review* 2, no. 1 (1994): 32, http://www.jstor.com/stable/40327067.

[96] Ibid., 32.

[97] Joy Meyer, and Liesl Van Der Merwem, "Adapting the Suzuki Method for two Community Music Programs in Atteridgeville, South Africa," *Muziki* 14, no. 1 (2017): 78, https://www.tandfonline.com/doi/abs/10.1080/18125980.2016.1245461.

Like Suzuki, the Bornoff method was created to adapt to any world location with the proper teacher training. Dr. Bornoff piloted string programs throughout Australia, Canada, and the United States. The most noted school was the Preparatory Division of Miami Dade Junior College, Miami, Florida, under Aileen DiNino. The school was established in the fall of 1965 with students ranging from two to sixteen. DiNino incorporated aspects of the Suzuki method. Students' mothers attended the lessons, assisted in-home practice, and learned the techniques and skills of the instrument themselves. Classes took place every Saturday morning.[98] Both methods are adaptable for any music classroom, but ensemble group performance is essential.

Music sociological impacts can support different ensemble learning environments through the methods of Bornoff and Suzuki. The impact music has on students depends on the ensemble's social grouping. The researchers of the article "Measuring Social Interaction in Music Ensembles" were interested in how music-making can shape somatosensory, motor, and auditory representations, as well as multimodal integration brain networks.[99] The authors focused on a smaller ensemble versus a large orchestra setting. Students taught in a smaller setting, such as a quartet ensemble, can have a dramatically different learning experience than in a large ensemble setting. Quartets developed long-term collaborations, established effective non-verbal communication during rehearsals, were more democratic when managing internal conflict, reported more positive feelings before a concert, and were less worried about reviews. Most string ensembles establish that the first violinist is the group's leader, with room for all to

---

[98] Float, "An Evaluation Study," 8.

[99] Gualtiero Volpe, Alessandro D'Ausilio, Leonardo Badino, Antonio Camurri, and Luciano Fadiga, "Measuring Social Interaction in Music Ensembles," (*The Royal Society of Publishing*, 2016), 2. http://rstb.royalsocietypublishing.org.

collaborate. The difference between the string quartet and the orchestra is that the conductor is the leader. The conductor's job is to select musicians, lead rehearsals, and decide nuanced interpretations within the music based on personal taste and experience. Overall, there was more connection between the conductor and musician in the orchestra versus the musician-to-musician connection within a smaller ensemble.[100] Knowing what skills are developed through different ensemble structures, such as a quartet or a large ensemble, helps develop a more robust approach to music education.

Bornoff believed that students did not necessarily have to take private lessons and often did not have access to such a luxury. An intimate setting was not necessary through his method. Bornoff stressed the importance of large ensemble work. For example, the Barnstable Youth Orchestra (an orchestra that George Bornoff taught) has three to seven hours of daily work with private or group lessons. The purpose of the group lessons is to witness other students' performances and technical issues that need to be addressed.[101] Suzuki believed in group settings like Bornoff, but Suzuki was a big advocate of private individual lessons. More emphasis in the beginning stage is placed on private lessons with the parent (Mother or Father) attending each lecture. The parent learns along with the student. As students' progress, group lessons are mandatory where older students help the younger students. Regardless of level, all students play and perform together.[102] The evidence has shown that music education has a positive effect on

---

[100] Volpe, D'Ausilio, Badino, Camurri, and Fadiga, "Measuring Social Interaction," 3-8.

[101] Melinda Conlon-Hoffman, "The Bornoff School of Music—The Path to String Regeneration," *Design For Arts in Education* 80, no. 1 (1978): 26.

[102] Float, "An Evaluation Study," 52-53.

both the academic and social development of a student. Still, it also has a positive impact on psychological development.

There are four areas of the brain that react to music: sensory activation, motor action planning, and cognitive and emotional reactions.[103] Music, particularly music participation, can profoundly affect a student's emotional development. Music can affect a student's emotional development through a sense of belonging in a group setting, mental imagery, belonging to one's heritage, and role models. Anthony Starr believed that "music is collective and communal and is the one form that brings and binds people together."[104] Leonard Slatkin thought that students look up to public figures, and as educators, we need to show how music was an integral part of their lives.[105] The importance of music between ethnic music, art, and folk music are the distinctions that different cultures and social groups make between music and nonmusical.[106] Music represents historical shifts and development concerning community, culture, history, and politics. For example, African American music (such as blues) represents cultures and historical struggles with perception and oppression. It is a manifestation of freedom.[107]

Research, particularly in the United States, has shown that 95% of parents believe that participation in band-provided education benefits is not found in other classrooms.[108] When

---

[103] Levitin, "Neural Correlates," 15.

[104] Oliver Sacks, "The Power of Music," *Brain-Oxford Academics* 129, no. 10, (2006): 2528, https://doi-org.ezproxy.liberty.edu/10.1093/brain/awl234.

[105] Leonard Slatkin, "The Importance of Music," (TED Talk, 2011). https://www.youtube.com/watch?v=QJ92bP2nUyY

[106] John Blacking, "How Musical is Man?" (Washington: University of Washington Press, 1974), Ch. 1. https://learn.liberty.edu/webapps/blackboard/content/listContent.jsp?course_id=_682385_1&content_id=_41217979_1

[107] Bowman and Frega, 172.

[108] Susan Hallam, "The Power of Music: Its Impact on the Intellectual, Social and Personal Development of Children and Young People," *International Journal of Music Education* 28, no. 3 (2010): 2.

students play an instrument, it can lead to a sense of achievement and increase self-esteem. To play an instrument takes dedication and self-discipline. Learning to play an instrument and practice teaches students persistence in overcoming frustration when learning is complex. When students are engaged in music participation, they engage in self-expression, which may increase motivation for learning in general. Music participation has also been shown to increase emotional sensitivity. When students recognize and are taught the emotions that are an interictal part of the composition of music, they relate to emotional intelligence. [109] Music participation's positive psychological effects can only happen with a quality music program. The program must contain quality teaching, an extent of success by students, and must be an enjoyable and rewarding experience for students.[110]

Like many of these significant music contributors to music education advocacy, Dr. Suzuki believed that "humanity in the sense that tone, beauty, and living soul act as the influential, intimate, and rewarding vehicle for personal development making music much more meaningful." [111] Music education is essential to supporting young people emotional development and needs.

Music education has been proven to positively support both academically and brain development in young students and support students' sociological and psychological well-being. Authors Clara E. James, Sascha Zuber, Elise Dupuis-Lozeron, Laura Abdili, Diane Gervaise, and

---

[109] Susan Hallam, "The Power of Music: Its Impact on the Intellectual, Social and Personal Development of Children and Young People," 2-3.

[110] Ibid.

[111] Merlin Thompson, "Authenticity, Shinichi Suzuki, and Beautiful Tone with Living Soul." Please," *Philosophy of Music Education Review* 24, no. 2 (2016): 170, https://www.researchgate.net/publication/309091099_Authenticity_Shinichi_Suzuki_and_Beautiful_Tone_with_Living_Soul_Please.

Matthias Kliegel studied how formal string instrument training in a class setting enhances cognitive and sensorimotor development in primary school-aged students. The study lasted two years and included primary school-aged students (10-12 years old). Out of the students that participated, 69 of the children received group string instruction by professional musicians twice a week as a part of their regular school curriculum. The intervention group learned how to play a string instrument, and the control group was taught music through listening, theory, and some practice. When the study was completed, those students that were a part of the intervention group gained such skills as working memory, attention, processing speed, cognitive flexibility, matrix reasoning, sensorimotor hand function, and bimanual coordination compared to those in the control group.[112]

Additional studies have shown that participation in any form of string instruction supports students' academic performance. [113] Author Chris Boyd Brewer discusses different effects learning a string instrument has on students' performance. Research from the Rotman Research Institute in Toronto has proven that movements made to create sound, unlike simile typing on a computer keyboard, create an audio-induced brain wave that improves connections between auditory and sensorimotor areas of the brain. Music stabilizes students' mental, physical, and emotional rhythms when they participate in an orchestra education. This stabilization causes students to be in a deep state of concentration.[114] When students actively participate in active music production, a multisensory learning experience is happening, meaning that students are

---

[112] Clara E. James, Sascha Zuber, Elise Dupuis-Lozeron, Laura Abdili2, Diane Gervaise and Matthias Kliegel, "Formal String Instrument Training in a Class Setting Enhances Cognitive and Sensorimotor Development of Primary School Children," *Frontiers in neuroscience 14*, no. 567 (2020): https://doi.org/10.3389/fnins.2020.00567.

[113] Chris Boyd Brewer, "The Benefits to Children who Learn String Instruments," Bennin Violins (2021): https://www.benningviolins.com/the-benefits-to-children-who-learn-string-instruments.html.

[114] Chris Boyd Brewer, "The Benefits to Children who Learn String Instruments."

experiencing a "whole brain" learning experience. Lastly, students that are involved in an orchestra ensemble are community building, they share similar goals that require cooperation and create a sound that an individual cannot make independently. [115]

The Brain and Creativity Institute at University of Southern California started a five-year study to examine the impact of music instruction on a child's social, emotional, and cognitive development. The neuroscientist who completed the study monitored brain development and behavior in 37 students from an underserved community of Los Angeles. Thirteen of the students, six to seven years old, began music instruction through the Youth Orchestra Los Angeles program, inspired by the El Sistema method. The students learned to play a string instrument and practiced up to seven hours a week. Within the two-year study, the neuroscientist found the auditory system of the students that participated in the music program were maturing at a much faster rate than the students that were not a part of the program. Such development supports those students in their development of language and reading. Children with the music training had smaller P1 potential amplitude than the other children, which indicated a faster rate of maturation than those students who were not a part of learning to play a string instrument.[116]

Pedagogy for Beginning String Orchestras

Choosing a particular method for a beginning orchestra, especially for a first-year orchestra teacher, can be an overwhelming task. The National Association for Music Education (NAME) explains that three considerations must be made when selecting a particular method to use in a beginning orchestra class. An orchestra teacher should consider the use of piano

[115] Brewer, "The Benefits to Children."

[116] Emily Gersema, "Children's Brains Develop Faster with Musical Training," *USC News* (2016): https://news.usc.edu/102681/childrens-brains-develop-faster-with-music-training/.

accompaniment. Beginners must have a consistent, reliable intonation to build their ear training. Studies have shown that using a piano accompaniment in a beginning orchestra effectively improves individual intonation. [117] An orchestra teacher should also consider intonation in general. Playing in tune within a beginning orchestra is problematic for the beginning string student. Studies have shown that students who learn to reproduce pitches accurately will find it easier to play in tune, especially when singing accurate pitches is a part of the curriculum.[118]

Building a consistent practice centered around accurate intonation is a vital consideration when selecting an orchestra method for a beginning orchestra. The focus of a beginning orchestra should be teaching the essentials that apply to good ensemble performance. Orchestra teachers of a beginning orchestra should consider methods that start with unison performance and enforce solid position work from the early stages.[119] The most popular method books that orchestra teachers use in a beginning orchestra are the Essential Elements Method, Sound Innovation, Artistry in Strings, Orchestra Expressions, String Basics, String Explorer, and the Suzuki and the Bornoff Method.

In the *Essential Elements Method Book One,* students are reading music from the beginning. The authors of the method book are Robert Gillespie, Michael Allen, and Pamela Tellejohn Hayes. The first two pages of the book are dedicated to perfecting position work. Essential Elements book one uses note-to-note sequence with easy-to-read notation. The book begins with the note names written inside the note heads, and the names are then gradually

---

[117] The National Association for Music Education, "Aspects of the Beginning Orchestra, Part One," NAfMe (2009): https://nafme.org/aspects-of-the-beginning-orchestra-part-1/.

[118] Ibid.

[119] Ibid.

eliminated. Students are using pizzicato in the beginning while learning note reading. The use of the bow is not instructed until later in the method book. Any new material presented in the book is carefully paced through sequential steps and immediate reinforcement. New notes are first introduced by stepping up or down, and then a gradual introduction of wider skips is introduced in later pages. The following sequence is teaching students new notes through string crossings. When rhythms are introduced, they are first approached as a "Rhythm Rap," which is first shadowed bow, then played on an open string and finally placed in a melodic notation. There is a play along CD that a teacher can use in class.[120]

The Sound Innovation for String Orchestra Book One is written by Bob Phillips, Peter Boonshaft, and Robert Sheldon. The comprehensive method combines time-tested educational concepts, input from thousands of teachers, and advances through modern technology. The first page of the method book explains the needed positions to play a string instrument. The book starts right away with note reading and begins with open strings. Rhythmic counting is taught using quarter notes and the counting written under the notes. Students are using pizzicato in the beginning while learning note reading. The use of the bow is not instructed until later in the method book. Fingered notes are slowly introduced page by page. Students are playing in unison during the entire book using short melodic passages. The book is accompanied by a play-along track for every line or music and has video lessons from expert musicians and teachers. The book also comes with supplemental content such as history and theory.[121]

---

[120] Robert Gillespie, Michael Allen, and Pamela Tellejohn Hayes, *Essential Elements Method Book One* (Wisconsin: Hal Lenoard, 2002).

[121] Bob Phillips, Peter Boonshaft, and Robert Sheldon, *Sound Innovations-Book One* (Los Angeles: Alfred Music, 2010).

The Artistry in Strings for String Orchestra Book One is written by Gerald Fischbach, Robert S. Frost, and Wendy Barden. The method book begins with an introduction and jumps right into the bow's note-reading of open strings. Music notation is explained and emphasized. Fingered notes are introduced slowly in a stepping sequence with colorful pictures of finger placements on the fingerboard. As a student and teacher progress through the book, notes jump in an arpeggio sequence in unison and with complex rhythms, including eighth notes. Students are also introduced to advanced bowing techniques such as slurs of two notes, slurs of four notes, and staccato notes.[122]

The Orchestra Expressions Book One is written by Kathleen DeBerry Brungard, Michael Alexander, Gerald Anderson, and Sandra Dackow. The method book begins with rest position, seated position, and instrument position with colorful pictures. Students are taught note-reading of open strings through the pizzicato position. Bow introduction comes later in the method by using half of the bow with quarter notes and half note rhythms on open strings. The open strings are notated with the names of the notes in the note heads. Each unit has a detailed explanation and a historical description of each song selection to come in the unit. Each unit contains small examples of recognizable pieces that are written in unison. Examples include fingered notes and more complex rhythms, such as eighth notes. The method is accompanied by a CD for each of the notated examples.[123]

---

[122] Gerald Fischbach, Robert S. Frost, and Wendy Barden, *Artistry in Strings-Book One* (San Diego: Neil A Kjos Music, 2002).

[123] Kathleen DeBerry Brungard, Michael Alexander, Gerald Anderson, and Sandra Dackow, *Orchestra Expressions-Book One* (Los Angeles: Alfred Music, 2004).

The String Basics Method is written by Terry Shade, and Jeremy Woolstenhulme. The method is a comprehensive method for beginning string classes that utilize technical exercises, music from around the world, classical themes by the masters, and original compositions. Students will learn to play their string instruments in an orchestra. The sequencing is step-by-step by teaching students how to hold their instrument and bow, fingering new notes using the pizzicato technique, counting different rhythms, and note-reading new music from the beginning stages of learning. Each page has a detailed picture of the new note being taught and gradually applies the note through notation. Students are taught to play in an ensemble right away through duets. The book is accompanied by downloadable resources that explain historical contexts of the music, culture, photos, maps, audio samples, and video lessons taught in a middle school classroom setting by the authors.[124]

The String Explorer Method is written by Andrew Dabczynski, Richard Meyer, and Bob Phillips. The method starts with position work in the guitar position. Students are taught how fingers are placed on the fingerboard before learning playing position through colorful pictures. The open strings are introduced with the orchestra teacher's call and response technique through the pizzicato technique. In unit two, students are taught how to how and play with the instrument's bow. Students are taught primary rhythms using quarter, eighth notes, and open strings not written on a staff. Fingered notes are slowly introduced, like the open strings using the bow. Notation on a staff is introduced and becomes more complex as the book progresses. The method is accompanied by a CD that is a play along with all the examples in the book. The book also supplies the teacher with 19 worksheets on composers and music history, 50 music

[124] Terry Shade and Jeremy Woolstenhulme, *String Basics-Book One* (San Diego: Neil A Kjos Music, 2011).

theory pages, parts of the instrument quiz, fingering charts for each instrument, five assessment tests, sample letters to parents and eighty rhythmic flashcards.[125]

Additional methods that should be considered for a beginning orchestra, but do not teach note-reading from the beginning are the Suzuki Method and Bornoff Method. Both methods are taught with a beginning teaching emphasis on solid position work without using a book for demonstration, but rather the teacher modeling for the class. Position work is a slow process that stresses importance on each step and perfecting the position before moving on to the next step. Holding the bow is taught from the beginning and is used for performance right away. Music examples are taught through teacher demonstrations and memorization. Piano accompaniment is a must in a classroom using these methods. Both methods are primarily considered in a private teaching setting, but through consideration can be applied in a group, heterogeneous instrument setting.

The Suzuki Method

Shinichi Suzuki is one of the most notable contributors to violin education advancement. During the 1930s is when Suzuki developed his noted Suzuki Method. The method is a series of eighty-nine pieces gradually becoming more challenging throughout ten different method books. The first book starts with variations of "Twinkle Twinkle Little Star" and follows with intricate pieces from Mozart, Bach, Corelli, and many other composers.[126] Suzuki had three main teaching themes in his method: beauty, tone, and living soul.[127] Tone refers to an instrument's

---

[125] Andrew Dabczynski, Richard Meyer, and Bob Phillips, *String Explorer-Book One* (Los Angeles: Alfred Music, 2002).

[126] Rob Arcand, "What was the Suzuki Violin Method?" The Awl (2017): 1, https://www.theawl.com/2017/02/what-was-the-suzuki-violin-method.

[127] Thompson, "Authenticity, Shinichi Suzuki," 170.

sound quality, resonance, or timbre. Dr. Suzuki thought teaching tone quality was just as much of a foundational skill as holding the instrument.[128] Dr. Suzuki believed that discussing humanity in the sense that tone, beauty, and living soul act as the influential, intimate, and rewarding vehicle for personal development. Dr. Suzuki hoped that at the end of a student's musical journey they would see that making music much more meaning that just notes on a page. [129] It was not until three decades later that Suzuki's violin method was widely appreciated. The appreciation for his method came after John Blacking's book, *How Musical is Man*. The book defended Suzuki's firm belief that talent was built, not bred.[130]

The Bornoff Method

George Bornoff influenced American string classes with his finger pattern method during the 1940s. Bornoff believed that contemporary string classes could teach efficiently and quickly through the drills and repetition at the beginning stages of learning an instrument. [131] In 1948, Bornoff wrote his book *Bornoff's Finger Patterns: A Basic Method for Strings,* which consisted of five basic patterns of whole and half steps between consecutive fingers in the left hand. The book also included a finger pattern chart that indicated which finger pattern to use on each string in every major key. Students only need to consult the chart to determine the finger positions for any given piece. [132] The Suzuki and Bornoff methods, in combination, can provide a structural and quality education for beginning orchestras across the world.

---

[128] Thompson, "Authenticity, Shinichi Suzuki," 170.

[129] Ibid., 173.

[130] Arcand, "What Was the Suzuki," 1.

[131] Hall, "A Review of Beginning Heterogeneous," 6.

[132] Ibid., 7.

Conclusion

Music education has thrived throughout education in the United States. Orchestra education has become an integral part of music education in schools and has proven to be essential for students' development within the educational system. Many orchestra educators find themselves teaching a beginning orchestra at one point in their career and feel unprepared for such a challenge. These teachers need support with a method of teaching that develops the beginning students with a solid foundation. The combination of the Suzuki and Bornoff method in a beginning orchestra setting provides teachers with a support system that prepares string students for many years.

CHAPTER THREE: METHODS

Introduction

The study examined the teaching gaps that are in existence within a beginning orchestra program. When blending both the Suzuki and Bornoff methods to create a beginning orchestra curriculum, it will support a first-year or novice string teacher. Previous research has demonstrated an extreme teacher shortage across the United States, even with increased orchestra programs.[133] If teachers feel unsupported, they need a teaching method that works. Specifically, the study's main objective was the investigation how both the Suzuki and Bornoff methods are adapted into a group setting within a public-school beginning orchestra class.

Research Design

This study uses a qualitative approach with content analysis research methodology. In 2002, the American String Teacher Association (ASTA) stated that the United States faces a severe shortage of string teachers in schools across the United States. The need has decreased within the last eight years, but the percentage of school districts starting string programs has increased, creating even more of a demand.[134] Teachers must have a trusted method that will help build a beginning orchestra program. This study used a qualitative approach with content analysis research methodology. This study examined how to blend both the Suzuki and Bornoff method that would create a strong curriculum for a beginner orchestra will need an extensive examination of both methods literature materials. A qualitative study was conducted to examine such materials. A qualitative study is defined as an iterative process that improves the

[133] "Wanted: 3,000 String Teachers," 1-18.

[134] Ibid., 1.

understanding in the scientific community and is achieved by making new significant distinctions that get closer to the phenomenon studied. [135] In addition, a qualitative method can facilitate teaching communication between researchers, diminish the gap between qualitative and quantitative researchers, help to address critiques of qualitative methods and be used as a standard of evaluation of qualitative research.[136] The data collected in this study examined the best practices presented between the Suzuki and Bornoff method for a beginning orchestra that will also support a first-year orchestra teacher.

Questions and Hypotheses

Research Question #1: What teaching gaps can be addressed with the implementation of a modified Suzuki and Bornoff method to support a first-year or struggling string teacher starting a beginning orchestra?

Research Question #2: How can the combination of the Suzuki and Bornoff method adapt to a group setting within a beginning public school string orchestra class?

Hypothesis #1: Teaching gaps that can be addressed with the implementation of a modified Suzuki and Bornoff method to support a first-year or struggling string teacher starting a beginning orchestra include position work and bow usage, rote technique, and music literacy.

H #2: With the combination of both methods adapted into a beginning public-school setting, include a strict beginning sequence of position work and teaching through memorization and repetition.

---

[135] Patrick Aspers and Ugo Corte, "What is Qualitative in Qualitative Research," *Qual Sociol* 42, no. 2 (2019): 139.

[136] Ibid.

Texts for Analysis

Today's world has an abundant amount of literature that is being produced at an accelerated speed. It is more important than ever that literature reviews are conducted as a research method. A literature review can be described as a systematic way of collecting and synthesizing previous research.[137] The literature that was reviewed for this study was *Suzuki Volume One for Violin, Viola, Cello and Bass, International Edition*. Also, the *Bornoff Method Primer Book for Violin, Viola, Cello, and Bass* were used for this study. Additional reading materials also examined: *Teaching Suzuki Cello: A Manual for Teachers and Parents, The Suzuki Violinist, and Bornoff Method Primer Book for the Conductor.* Also, the journal article "German or French Bass Bows" will be used as a supplement to support the study. This article was used to help decide to use a German or French bow with a beginning double bass student.

Procedure

The researcher began the study by examining the beginning steps of holding the violin, viola, cello, and double bass by blending the Suzuki and Bornoff techniques. The researcher reviewed how to hold the violin and viola bow, the cello bow, and the double bass bow by combining the Suzuki and Bornoff techniques. A further step was taken to investigate the differences between the German and French bow for the double bass and which is best for beginning double bass students. The researcher explored the beginning procedures using the Suzuki and Bornoff method of positioning the left and right hand for the violin, viola, cello, and double bass. Once the beginning steps were established by blending both methods, the researcher

[137] Hannah Snyder, "Literature review as a research methodology: An overview and guidelines*," Journal of Business Research*, no. 104 (2019): 333.

examined how both methods put everything together and introduce the beginning stages of bowing on the violin, viola, cello, and double bass. A further examination was made by blending both methods to understand pitch introduction through the unison of all instruments, the use of the piano as an accompaniment in a classroom, and which string to begin with on each instrument. The conclude study examined which Suzuki pieces are best to teach in a homogeneous, beginning string orchestra and how to support each piece by blending instruction using the Bornoff method.

CHAPTER FOUR: RESEARCH FINDINGS

Introduction

The purpose of this study was to examine blending the techniques from both the Suzuki and Bornoff methods to create a curriculum for a homogeneous beginning orchestra and to support a first-year or novice, orchestra teacher. The study analyzed the beginning method books for both the Suzuki and Bornoff methods. Additional literature about both methods was analyzed for further support of a blended curriculum and supporting a first-year or novice orchestra teacher.

The research questions for this study are as follows:

Research Question #1: What teaching gaps can be addressed with the implementation of a modified Suzuki and Bornoff method to support a first-year or struggling string teacher starting a beginning orchestra?

Research Question #2: How can the combination of the Suzuki and Bornoff method adapt to a group setting within a beginning public school string orchestra class?

The following are the hypotheses questions that helped guide the study:

Hypothesis #1: Teaching gaps that can be addressed with the implementation of a modified Suzuki and Bornoff method to support a first-year or struggling string teacher starting a beginning orchestra include position work and bow usage, rote technique, and music literacy.

H #2: With the combination of both methods adapted into a beginning public-school setting, include a strict beginning sequence of position work and teaching through memorization and repetition.

The Beginning Steps of Holding a String Instrument Using Both the Suzuki and Bornoff Methods

The first data collection that was completed was to determine how the Suzuki and Bornoff method facilitates to string teachers how students hold their instruments during the beginning stages. In the books, Suzuki *Method Volume One for Violin and Viola,* the violin and viola books were the only books with a picture and description of how the instrument is supposed to be held. In the books *Bornoff Primer Method for Violin, Viola, Cello, and Double Bass,* each book shows a picture and a short description of how the instrument should be held. The double bass book gives the option of either standing or sitting with the instrument. Table 1 is a detailed description of the expectation from both methods for instrument playing position.

Table 1: Holding a String Instrument Using the Suzuki and Bornoff Method

Instruments	Suzuki Method	Bornoff Method
Violin/Viola	In the book *Suzuki Method Volume One for Violin*, students start in a rest position, meaning the instrument is tucked under the right arm, left hand on the bottom shoulder of the instrument, feet together, and the bow is pointed towards the ground. When students are transitioning into playing position, their feet should be placed shoulder-width apart with the right foot slightly behind the left foot.[138] In the playing position described in the viola book, while holding the shoulder of their instrument with the right hand, students place their instrument on their left shoulder, chin rest under their jawline, and their heads are straight. Students check their instrument balance by	In the book *Bornoff Primer Method for Violin and Viola*, students start in a playing position without the bow. Students are standing tall in a pizzicato position. In the playing position, while holding the shoulder of their instrument with the right hand, students place their instrument on their left shoulder, chin rest under their jawline, and their head is straight. [140]

[138] Shin'ichi Suzuki, *The Suzuki Violin School Volume One International Editio*n (Van Nuys, CA: Alfred Music Publishing Co, 2019) 16.

[140] Debbie Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Violin and Viola* (Scottsville, VA: The Foundation for the Advancement of String Education, 2018) iii.

	placing their left hand on their right shoulder. Pointing their nose towards the scroll.[139]	
Cello	In the book *Suzuki Method Volume One for Cello*, instrument position is not noted.[141]	In the book *Bornoff Primer Method for Cello*, students start playing at the edge of their seats while holding the bow. The endpin is positioned far enough, so the cello's top hits the student at chest level, and the c-string peg is level with the student's ear. The bottom c-bout is placed between the knees of the student. The student's feet are perpendicular to the knee. The student is sitting tall and in a pizzicato position.[142]
Double Bass	In the book *Suzuki Method Volume One for Double Bass*, instrument position is not noted.[143]	In the book *Bornoff Primer Method for Double Bass*, Students start in a playing position by either standing or sitting while holding the bow. In standing position, the students are to have their feet apart with their left foot turned slightly to the left, placed behind the bass. The bass is tiled into the student's body, resting on the student's mid-section, and touching the back of the bass. The student is standing up straight in a pizzicato position.[144]

[139] Shin'ichi Suzuki, *The Suzuki Viola School Volume One International Editio*n (Van Nuys, CA: Alfred Music Publishing Co, 2019) 5.

[141] Shin'ichi Suzuki, *The Suzuki Cello School Volume One Revised Editio*n (Van Nuys, CA: Alfred Music Publishing Co, 2019).

[142] Debbie Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Cello* (Scottsville, VA: The Foundation for the Advancement of String Education, 2018) iii.

[143] Shin'ichi Suzuki, *The Suzuki Bass School Volume One International Editio*n (Van Nuys, CA: Alfred Music Publishing Co, 2019).

[144] Debbie Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Bass* (Scottsville, VA: The Foundation for the Advancement of String Education, 2018) iii.

More research was collected to expand on student's instrument playing positions using the book *Teaching Suzuki Cello: A Manual for Teachers and Parents.* Students should hold the cello in a sequence of steps. For step one, the student stands in front of their chair holding their instrument forward, step two, the students move their feet to feel the legs of the chair with the heels, step three, students sit on the edge of the chair with a straight back and step four students pull the cello back between the knees slightly leaning forward and their feet on either side of the cello. [145]

More research was collected to expand on instrument playing positions using the *Suzuki Violinist.* The teacher guided the student through all the steps to the playing position, starting with the rest position with the instrument in hand. In the rest position, the teacher placed the student's feet in the correct positions and moved the student's head to the left. The student's feet, head, and left arm were brought into the proper position, and then the teacher placed the instrument into the student's body. The teacher tested the students to see if they balanced their instruments securely by pulling the violin from the chin. Students were directed to turn in circles or shake hands with other students to check the instrument balance consistently. The students were then asked to follow the same steps but independently.[146]

[145] Charlene Wilson, *Teaching Suzuki Cello: A Manual for Teachers and Parents* (Berkley, California: Diablo Press, 1984) 17-25.

[146] Starr, 52-60.

The Beginning Steps of Holding the Bow of a String Instrument Using Both the Suzuki and Bornoff Methods

A second data collection was completed to determine how the Suzuki and Bornoff method facilitates to string teachers how students are to hold their bow during the beginning stages. In the books *Suzuki Method Volume One for Violin and Viola*, the violin book describes the bow hold with four pictures, and the viola book describes the bow hold with one image. In the books *Bornoff Primer Method for Violin, Viola, Cello, and Bass,* each book has a series of four pictures that demonstrate how to hold the bow. In the double bass book, the Bornoff method either teaches the bass students with a German bow or a French bow. Table 2 is a detailed description of the expectation from both methods for bow hold position.

Table 2: Holding the Bow of a String Instrument Using the Suzuki and Bornoff Method

Instruments	**Suzuki Method**	**Bornoff Method**
Violin/Viola	In the book, *Suzuki Method Volume One for Violin*, students are required to practice the bow hold using a pen or chopstick. Students are to place their thumb opposite of the middle finger. The ring finger is bent around the bow, adding the index finger around the bow. Lastly, the pinky is bent on top of the stick. The thumb is initially placed outside of the frog, but once the teacher feels the students are ready, the thumb is placed on the stick.[147] This explanation is also described in the viola book.[148]	In the books, *Bornoff Primer Method for Violin and Viola*, the bow hold is shown in a series of four pictures. The first picture demonstrates the bow hold put together (thumb and middle finger touches, the ring finger is bent around to the right of the eye of the frog, the pinky is bent on top, and the thumb is bent under the hand). The second picture shows what the student's hand should look like when the bow hold is upside down. The third picture shows an angle of the pinky under the hand. The last picture shows inside the hand.[149]

[147] Suzuki, *The Suzuki Violin School, 17.*

[148] Suzuki, *The Suzuki Viola School, 9.*

[149] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Violin and Viola, iii.*

Cello	In the book, *Suzuki Method Volume One for Cello*, the bow hold position is not noted.[150]	In the book, *Bornoff Primer Method for Cello*, the bow hold is shown in one picture. The fingers are wrapped around the bow. The pinky is touching the bottom of the frog, and the ring and middle finger are wrapped around touching the horsehair. Each finger has space in between the other. The thumb sits relaxed on the bump of the frog. [151]
Double Bass	In the book, *Suzuki Method Volume One for Double Bass*, the bow hold position is not noted.[152]	In the book, *Bornoff Primer Method for Double Bass,* the book gives two options of how to hold the bow. The French bow and the German bow. The French bow hold has the fingers wrapped around the bow, much like the cello bow hold. The German bow hold has the student wrap their hand around the bow on the back of the frog. The thumb sits on top with the fingers cupped around the frog.[153]

More research was collected to expand on a cellist bow hold using the book *Teaching Suzuki Cello: A Manual for Teachers and Parents.* Author Charlene Wilson advises students to understand how the weight of the bow feels inside the hand. Beginning cellists turn up their palm with fingers relaxed and lay the bow at the balance point across the second segment of fingers. The frog should be placed at the left of the hand, and the students should tilt the hand to feel the bow's balance. Students can do exercises such as holding the bow correctly and moving the bow up and down, in a circular motion, and with their eyes closed. Students also play two games to

[150] Suzuki, *The Suzuki Cello School.*

[151] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Cello, iii.*

[152] Suzuki, *The Suzuki Bass School.*

[153] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Bass, iii.*

perfect their bow hold. The first game is called "Stop and Go." Students hold their bow vertically during this game and let it slowly fall into a horizontal position. The teacher directs "Stop" or "Go." The student responds by controlling them by raising and lowering from any position. The second game is entitled "Simon Says." Students simply follow the teacher's demands with a good bow hold and by holding the bow either horizontally or vertically. An example would be, "Simon says, Bows touch the floor!"[154]

More research was collected to expand on a violinist and violist bow hold using *Suzuki Violinist.* Author William Starr follows the directions of the bow hold descriptions explained in Suzuki's book One for violin and viola. Based on Shinichi Suzuki's teaching directions, Starr gives suggestions to strengthen muscles used in the bow hold. The first exercise is having the violinist and violist hold their bow vertically while they raise and lower the bow in the air, keeping the tip of the bow steady and pointing to the ceiling. Students can also do this exercise by drawing small circles in the air. The second exercise is bowing the different rhythmic variations in the air. The third exercise is having the student move the bow left and right, tip pointing up while keeping the hand, elbow, and end of the bow moving in the same direction. The last exercise is like the "Stop" and "Go" game advised for beginning cellists.[155]

Teaching Double Bass Students with a French or German Bow

Students who select learning the double bass can play with a German or French-style bow. The French bow is shorter and heavier than the cello bow. The French bow hold is much like the cello bow hold in that students will use an overhand bow hold. The German bow is

[154] Wilson, 27-35.

[155] Starr, 62-66.

shorter than the French bow, and the frog is taller. Having a taller frog allows for students to use an underhand bow grip.

In the journal article "German or French Bass Bows," many teachers were surveyed to advise other orchestra teachers on which bow is best to use when teaching the bass. [156] Lynn Peters, a professor of Double Bass at North Carolina's School of the Arts, teaches using both types of bows. Peters finds that the French bow is easier for string crossings and short articulations. The German bow is easier for legato passages. If a student struggles with positions on one bow type, she will switch them to another to see if that helps the technical issues. Berry Olson, the Principal Bassist of the Phoenix Symphony Orchestra, believes that the German bow hold is easier for beginning students unless they switch to the double bass from the violin or cello. If that is the case, it is easier to teach students using the French bow. Olson believes that sometimes students have a natural ability to hold the French bow, but the German bow hold is more comfortable. Olson has switched students from French to German, and technical issues were fixed immediately.[157]

Additional teachers were interviewed to give their opinion on teaching the French or German double bass bow hold. Bernard Lieberman, an orchestra teacher at Stuyvesant High School in New York City, personally plays with a German bass hold. Lieberman likes to teach both bow options to his students for a beginner double bass musician. Though, he finds most students find the French bow easier. Lieberman believes that when students are given options, they can decide what naturally will work best for them, and he has found that most students drift

---

[156] "Pre-Professional Perspectives," *American String Teacher* 51, no. 1 (2001): 29–34.

[157] Ibid.

naturally to the German bow hold.[158] Overall, teachers need to take the time to discover both bow options for their double bass students and consider teaching both possibilities.

The Beginning Steps of the Left-Hand Position for a String Instrument Using Both the Suzuki and Bornoff Methods

The third data collection was completed to determine how the Suzuki and Bornoff method demonstrates playing with the correct left-hand position. The books *Suzuki Method Volume One for Violin and Viola* are the only books with a picture of how the bow is supposed to be held. The viola book gives a short description of how the left hand should be placed. In the books *Bornoff Primer Method for Violin, Viola, Cello, and Bass,* each book has pictures showing how the left hand should be placed. The viola book is the only book with the student continually holding the shoulder of the instrument and not in a playing position. Table 3 is a detailed description of the expectation from both methods for a left-hand position.

Table 3: The Left-Hand Position of a String Instrument Using the Suzuki and Bornoff Method

Instruments	The Suzuki Method	The Bornoff Method
Violin/Viola	The book *Suzuki Method Volume One for Violin* shows a series of pictures that demonstrates the left elbow is dropped and relaxed under the instrument. The left thumb is lowered placed slightly in line with the first finger. The hand is relaxed, and the left knuckles are bent. The student approaches the string with the tips of their fingers. In the viola book, there is one photo demonstrating this position. The book notes that before the students use the bow, they should practice holding the viola without the support of the left hand to assure a	In the book *Bornoff Primer Method for Violin and Viola*, the left hand is demonstrated through four pictures with the same left-hand setup as shown in the Suzuki method. In the viola book, there are four pictures of the student holding the shoulder of the instrument and not in the left-hand position.[161]

[158] "Pre-Professional Perspectives," *American String Teacher* 51, no. 1 (2001): 29–34.

[161] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Violin and Viola, iii.*

	firm hold without gripping.[159] This explanation is also described in the viola book.[160]	
Cello	The left hand is not noted in the book *Suzuki Method Volume One for Cello*. [162]	In *Bornoff Primer Method for Cello*, the book shows in a series of pictures demonstrating the left elbow is slightly dropped by the top of the cello and is relaxed. The left thumb is placed on the neck of the cello behind the middle finger. The fingers are curved and slightly spaced. The student approaches the string with the tips of their fingers. [163]
Double Bass	The left-hand position is not noted in the book *Suzuki Method Volume One for Double Bass*.[164]	The book *Bornoff Primer Method for Double Bass* shows a series of pictures that demonstrates that the left elbow is slightly dropped, and the wrist is slightly bent downward. The left thumb is placed on the back of the neck of the instrument with fingers spaced. The left thumb is placed in the middle of the 1st and 4th finger.[165]

More research was collected to expand on the left-hand setup using the book *Teaching Suzuki Cello: A Manual for Teachers and Parents.* Author Charlene Wilson explains exercises and instructions on how to correctly shape a cellist's left-hand position. Wilson first has students extend their left arm out to the left at shoulder level, and the hand should be relaxed and rounded

[159] Suzuki, *The Suzuki Violin School, 23.*

[160] Suzuki, *The Suzuki Viola School, 5.*

[162] Suzuki, *The Suzuki Cello School.*

[163] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Cello, iii.*

[164] Suzuki, *The Suzuki Cello School.*

[165] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Bass, iii.*

with the palm facing down. The thumb is opposite the second finger. The teacher then places a pad on the neck of the instrument where the thumb should be placed. The left elbow will hinge to set the thumb correctly on the pad and align all four fingers with the instrument's tapes on the fingerboard. An exercise example to keep a student's hands from gripping the neck is to have the cellist place a small toy car on the fingerboard, holding it with all four fingers. The cellist then moves the car up and down the fingerboard. Another exercise is having the cellist place all four fingers on the string in the first position and lifting one finger at a time with a wiggle and then putting it back firmly on the string. Lastly, Wilson has the cellist do another exercise: hold the fingers curved above the string in the first position and tap each finger separately on the string in the correct spot.[166]

The study collected information to expand on the left-hand setup for violin and viola using the book *Suzuki Violinist.* Based on Shinichi Suzuki's teachings of left-hand position, to begin with, a solid left-hand position Suzuki has students hold their instrument in rest position without the bow. Students stay in a rest position and place their left hand on the neck of the violin at the base of the first joint, behind the first finger tape. The students curve their fingers over the fingerboard and place all three fingers down on the A string. The student raises their instrument into a playing position from this position, keeping their fingers placed on the fingerboard. Suzuki demonstrates to students already in playing position by bringing their left hand to the neck and placing their first, second, and third fingers down while the fourth finger is kept over in the air over the fingerboard.[167]

---

[166] Wilson, 37-42.

[167] Starr, 77-82.

The Beginning Steps of the Bow Motion for a String Instrument Using Both the Suzuki and Bornoff Methods

The fourth data collection was completed to determine how the Suzuki and Bornoff method demonstrates the correct bowing motion. In the book *Suzuki Method Volume One for Violin and Viola*, the books dedicate two pages to correct bow placements with pictures. There are only descriptions in the viola method book to explain bow motion and placement. In the books *Bornoff Primer Method for Violin, Viola, Cello, and Bass,* each book has a series of pictures that show how the bow placement is set at different parts of the bow. Table 4 is a detailed description of the expectation from both methods for bowing placement, motion, and contact.

Table 4: The Bow Motion, Placement, and Contact Point of the Bow for a String Instrument Using the Suzuki and Bornoff Method

Instruments	The Suzuki Method	The Bornoff Method
Violin/Viola	In the book *Suzuki Method Volume One for Violin*, the violin book displays a series of pictures of students in the correct position by placing their bow on the string at the middle of the bow, the tip of the bow, and the frog of the bow. An additional picture in the violin method book describes how the bow should always be parallel to the bridge. The viola book explains that first bow motions should be detache and staccato in the middle of the bow. The student should set the bow so that the arm forms two sides of a square and forearm motion is relaxed. Violists should develop a vertical approach to bowing on the E string before	The book, *Bornoff Primer Method for Violin and Viola*, demonstrates the left arm placement if the bow is at the frog, the middle, and the tip of the bow.[170]

[170] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime Violin and Viola, iii.*

	moving to other strings.[168] This explanation is also described in the viola book [169]	
Cello	In *Suzuki Method Volume One for Cello*, the bowing motion, contact point, and placement are not noted.[171]	In the book *Bornoff Primer Method for Cello*, there is one demonstration of the bow placement at the frog and middle of the bow, not at the tip of the bow.[172]
Double Bass	In *Suzuki Method Volume One for Double Bass*, the bowing motion, contact point, and placement are not noted.[173]	In the book *Bornoff Primer Method for Double Bass*, there is one demonstration of the bow placement at the frog and middle of the bow, not at the tip of the bow.[174]

[168] Suzuki, *The Suzuki Violin School,* 18-19.

[169] Suzuki, *The Suzuki Viola School,* 5.

[171] Suzuki, *The Suzuki Cello School.*

[172] Lyle, *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra- Prime Cello, iii.*

[173] Suzuki, *The Suzuki Bass School.*

[174] Lyle, *A Comprehensive Curriculum for String Orchestra- Prime Cello, iii.*

Research was collected to expand on a cellist's bow motion, bow placement, and bow contact using the book *Teaching Suzuki Cello: A Manual for Teachers and Parents.* Students begin by spending time moving their upper arm, lower arm, hand, and fingers up and down, sideways and in circles with their eyes closed to feel the motion of each part of their body. The teacher must be aware of how the bow arm hinges. The motion should start from the shoulder, then to the elbow, wrist, and lastly, the knuckles. To begin bowing on the string, students begin by holding the bow at the balance point in playing posture just above the string without making a sound. The student moved the bow horizontally and vertically, observing the reaction made from the wrist and arm. Another exercise to help feel the shape of the bow arm is to silently place the bow on the string at the middle of the bow, the tip, and the frog checking the shape of the hand and arm at each placement. The bow should be placed halfway between the bridge and the fingerboard. When students begin to make sounds with their bow, they should lean into the string, feeling both the bounce and tension of the string.[175]

The book, Suzuki Violinist, expanded on a violinist's bow motion, bow placement, and bow contact. Violinists must begin in E string position (A string position for the viola). The students should have a lower tape placed on the bow's stick to ensure students place their bow on the string to make their arms parallel to the strings. The second tape should be placed one and a half to two inches above the first tape, depending on the child's arm's length. Before the student bows independently, the teacher should bow for the student while holding the bow, saying the rhythm "Miss-iss-ipp-i Ri-ver." The teacher repeats this step several times, staying within the tapes of the bow. The student then tries to copy the same rhythmic movement starting on a down

[175] Wilson, 37-42.

bow. In the beginning, it should be noted that students are instructed to play with a heavy sound, and the weight of the bow comes from the weight of the arm resting on the strings.[176]

Teaching the First Suzuki Piece: "Mississippi River"

The fourth data collection was completed to determine how to put all the posture and position points together to begin the initial instructions for the first pieces of music. Using the Bornoff method as a warmup activity at the beginning of each class is an educational advantage for students to prepare them for the instruction of their required Suzuki pieces. The Bornoff method begins with the pizzicato position and teaches students the open string cycle. While the teacher travels around the class and places each student's hand in the pizzicato position, the teacher invites the students to experiment with the pizzicato position. Once students' positions have been correctly placed, the teacher instructs the cellist and violist student to pluck the C string four times at a metronome tempo of 66. The teacher continues instruction with all students on the G, D, A, and E strings at the same tempo. The second education set is to do the same progression but starting with the E string for bassist and violinist. Lastly, students go through the progression, starting from the C string to the E string and back to the C string. Once students understand the learning activity, the class will go through the last step by plucking each string three times, two times, and one time. The Bornoff method teaches music reading in the beginning stages. During this initial activity, students are instructed to play by demonstration rather than by music notation to focus on technique, listening, and ensemble skills. When progressing through the lowest to highest strings, special attention is also given to the right arm elbow level. Though, for the sake of this study, the method has been adapted to be taught all by

[176] Starr, 67-76.

rote to support Suzuki's foundation that all music is memorized to focus on good posture and position.

A continuation of data collecting was completed to determine how to put all the posture and position points together and instruct the first piece of music to students entitled, "Mississippi River" (see appendix B). Before the beginning orchestra starts placing fingers on the fingerboard, students should focus on correct open string rhythm bow strokes using the piece entitled "AE Tune" (see appendix A). Once the orchestra can successfully perform the "AE Tune" as an ensemble, the orchestra can then move to left-hand finger placement. To introduce the beginning steps to the piece "Mississippi River," data was collected using the *Suzuki Method Book One* for violin, viola, cello, and double bass. Violinists began instruction with the teacher demonstrating the rhythm of "Miss-iss-ipp-i Ri-ver" on an open A string and having the students repeat after the instructor. The teacher then does the same steps for 1A, 2A, 3A, 3A, 2A, 1A, 0A. The teacher instructs this step by step on the E string. The teacher guided the violist with the exact step-by-step procedure on the D and A string. The teacher teaches the cellist the step-by-step approach using 3A and 4A on the D and A strings. The teacher ended with the same instruction for the double bass students using the sequence OA, 1A, 4A, OD, 1D, 4D, and back down. Once students understand finger placement and performing with a good tone, the teacher begun instructing the notes and progression of the piece "Mississippi River." For the entire class to perform together and for students to begin instruction on their highest strings, the violinist learns the melody parts to "Mississippi River," and the violist, cellist, and bassist know the harmony part to "Mississippi River."

Additional data was collected referencing the book *Suzuki Violinist* to teach the first piece in smaller sections before playing the music in its entirety. Shinichi Suzuki suggests that teachers

teach the piece with stops between each note, allowing students to place each note with precision, good tone, and good posture. As the students master the piece, the wait time between each note is less to achieve the goal of playing without stops. Breaking down the piece into smaller steps allows students to achieve the piece with more success. Students in a group setting can air bow the rhythm. At the same time, the teacher performs the piece students can finger the notes on the fingerboard without the bow, students can sing the notes. In contrast, the teacher performs the piece, arm scrubs the rhythm without an instrument, claps the rhythm in circles using little circles for shorter notes and larger circles for more extended notes, and students can shadow bow the piece while the teacher performs the piece.

Shinichi Suzuki believed that it was essential for students to memorize each piece of music and practice each piece with a piano accompaniment. The piano must lead every group class. When a teacher uses the piano as an instruction, it reinforces correct intonation, helps with the expected tempo of the piece, and demonstrates a clear understanding of the rhythmic expectations of the piece. When students memorize a piece of music, it allows them to focus on correct posture and position without focusing on the notes of the music. According to the book, Suzuki Violinist, to assist students with memorization, the teacher should have the students spend time listening to the recordings, understand the structure of the piece, visualize the piece of music, and sing the piece song in their head while performing the music. To teach a group of beginning orchestra students, they must complete each piece of music through memorization. A class booklet was created with all the appropriate Suzuki pieces for a heterogeneous setting to show the notes of the music in “code” form rather than notation (see appendix B). The booklet allows the students to understand what notes are to be performed for each piece of music but still expects the students to memorize the music. Halfway through the school year, the teacher can

assess which students struggle with memorization but demonstrate solid posture and positions. Those students are allowed to master the songs without memorizing each piece.

Teaching the Rhythmic Variations of "Twinkle Twinkle"

The fifth data collection was completed to examine the importance of teaching the Suzuki rhythmic variations of "Twinkle Twinkle." In support of the "Twinkle Twinkle" rhythmic variation, the Bornoff method teaches the orchestra different parts of the bow. The instruction starts with the teacher demonstrating the open string cycle using double stops beginning with the lowest strings leading to higher strings and back down. Each double stop is played four times up and down, then three times, two times, and one time. Students will first do this open string cycle activity using a whole bow, only proceeding with the lower, upper, and middle bow with detache bowing style. The Bornoff method encourages teachers to experiment with their students on the bow weight and pressure during this activity. In the books *Bornoff Primer Method for Violin, Viola, Cello, and Bass,* the teacher is instructed to have students place their instruments and bows on the ground. The students are required to hold their left arm out in front of their bodies, palm facing down, and with their right hand, they place it on their left arm like they are bowing with the bow. The teacher then instructs the students to imagine petting a small animal and examine what weight feels like on their left arm as the touch is light. The instruction continues with imagining petting a medium-sized animal to a large size animal.[177] Using the Bornoff method to experiment with the different parts of the bow as well as bow weight and pressure can be divided out into many classes as a warmup before teaching each of the "Twinkle Twinkle" variations.

[177] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,*14.

Once each student has demonstrated mastery by fluidly performing “Mississippi River” with good posture and position, tone, correct rhythm, intonation and staying with the piano accompaniment those students can move on to the next pieces of the class handbook. All the following “Twinkle Twinkle” variations, including “Twinkle Twinkle,” has the violinist performing the melody while the violist, cellist and bass perform the harmony. Table 5 identifies all five rhythmic variations, including the piece, “Twinkle Twinkle, " and each of their teaching points to help students master the piece.

Table 5: Teaching the Rhythmic Variations of “Twinkle Twinkle”	
Name of the “Twinkle Twinkle” Variation	**Teaching Points to Consider**
“Down Pony Up Pony” (see appendix C)	In the book *Suzuki Violinist,* the author states that the piece “Down Pony Up Pony” encourages students to develop the ability to mix different bow strokes varying in length and speed, all in the middle of the bow. Students must play small bow strokes on the 16th note. The 8th note is stopped, and the two 16th notes are connected.[178]
“Little Frog Little Frog” (see appendix D)	In the book *Suzuki Method Book One for Violin,* Suzuki states that the piece “Little Frog Little Frog” should be played in the middle of the bow stopping after every 8th note without pressure into or lifting the bow.[179] Students should be taught to count “One-ta-ta, Two ta-ta.”
“Down Bow and Up Bow and” (see appendix E)	In the book *Suzuki Violinist,* the author states that the piece “Down Bow and Up Bow and” should be first practiced with a partner with the handshake exercise emphasizing the bow direction. The teacher should emphasize distinct rest in the piece to ensure clarity during the performance. [180]
“Wish I had a Motorcycle” (see appendix F)	In the book *Suzuki Violinist,* the author states that “Wish I had a Motorcycle” is played with short bow strokes. Students should be taught to count “One-ta-ta-ta, Two ta-ta-ta” No finger or wrist motion is taught, but the teacher demonstrates such movements.[181]

[178] Starr, 86-87.

[179] Suzuki, *The Suzuki Violin School,* 21-22.

[180] Starr, 86-87.

[181] Ibid.

"Twinkle Twinkle" (see appendix G)	In the book *Suzuki Violinist,* the author states that the piece "Twinkle Twinkle" is to be played with short bow strokes in the beginning. Longer bow strokes can be introduced gradually as the student's ability grows. Suzuki called this bow stroke "legato with stops." The teacher must observe that students perform with a straight bow parallel to the bridge, a solid tone with unvarying dynamics, into the string, and the proper use of the entire arm where the elbow is always slightly lower than the hand. The ending of the bow stroke is not crushed. [182]

Students that have not mastered a particular piece will not move on to the next piece of music until the student can demonstrate mastery of that piece. Every class, the teacher starts with "Mississippi River" and goes forward in the book stopping on the piece that the furthest student is on. This process is not only to allow students to demonstrate their abilities on a song they have mastered but to demonstrate that students have reviewed songs that they have already mastered. Students that believe they have learned a particular piece of music will step forward to demonstrate their abilities. Students who successfully demonstrate their mastery of the piece with good posture and position, tone, rhythmic accuracy, intonation accuracy, and play steadily with the piano accompaniment can move on to the next piece in the book. The teacher introduces and teaches a new piece in their class handbook each class, even if students are not on that piece of music.

[182] Starr, 86-87.

Teaching French Folk Song to Allegretto

The sixth data collection was completed to examine the following Suzuki pieces in the orchestra handbook. At this point of the instruction, all the students perform the melody, and all pieces are written in D major. The violinists are taught to transition from the E and A string to the A and D string by raising their bow elbow to adjust for higher-leveled strings. The piece "French Folk Song" (see appendix M) is added to the repertoire as a steppingstone from "Twinkle Twinkle" to "Lightly Row." This decision was made as to the piece "Lightly Row" can be challenging as notes skip rather than walk up one by one. All instruments will perform the melody part starting with "French Folk Song" to "Allegretto." "Long, Long Ago" was adapted to be completed by violinists in the class only. This piece can be a feature piece at an upcoming concert to demonstrate the sounds of the violin. The same application can be made for the viola students of the orchestra as they perform the piece "Bohemian Folk Song." Students performing "Bohemian Folk Song" will need to be introduced to the c natural of the piece. The same application can be made for the cello students of the orchestra as they perform the piece "Rigadoon." Students performing "Rigadoon" will need to be introduced to the c natural of the piece. The same application can be made for the double bass students of the orchestra to perform the piece "Song of the Wind." In pieces "Allegro" (see appendix N), "Song of the Wind" (see appendix O), and "Perpetual Motion" (see appendix P), notes were edited so bass students can avoid shifting as a beginner. The piece "Andantino" was excluded from the book as the piece is challenging to compose in a "student-friendly" key signature considering all four string instruments taught in class. The curriculum stops at the piece "Allegretto" because that is an appropriate standard for one academic school year as a beginner orchestra. Table 6 identifies the

remainder of the pieces in the classroom handbook and the Bornoff bowing warm-up that compliments each piece and each of their teaching points to help students master the piece.

Table 6: Suzuki and Bornoff Teaching Points for "Lightly Row" to "Allegretto"		
Teaching Points	The Suzuki Method	The Bornoff Method
"Lightly Row"	In the book, *The Suzuki Violinist,* the students are directed to use the same bow length and character bow strokes as in "Twinkle Twinkle." Students will bow the "Mississippi River" rhythm to practice the jumping notes of the piece.[183] Students can be taught to sing the first line "Hello Dog" and the second line "Hello Doggie." Singing such phrases helps practice the rhythmic differences.	In the *Bornoff Method Conductor Volume One*, students will continue with the open string cycle but add different rhythms. The students play their open strings with the string cycle pattern using two eighth notes and a quarter note. Students are taught that the bowing design is "Half-Bow, Whole-Bow" or "Lower-Half, Full-Bow" "Upper-Half Bow, Full-Bow" with the rhythmic pattern (see appendix H).[184]
"Go Tell Aunt Rhody"	In the *Suzuki Violinist* book*,* the students use longer bow strokes with a slight space between the notes. Once students have mastered the song, the teacher can play the eighth notes legato and the quarter notes staccato. [185]	In the *Bornoff Method Conductor Book One*, students are directed to play the same string cycle using the bow lengths stated above, but with a mixed pattern of two eighth notes and three-quarter notes (see appendix I).[186]
"Oh, Come Little Children"	In the *Suzuki Violinist* book*,* the students are instructed to use small bows starting on an up bow. Tiny bows are used for the last note of the phrase so that the phrase is used in the same part of the bow.[187] In the beginning, students must be instructed to play the first four notes on open strings practicing the up bow at the start of the piece and the string changes. Students can also air bow the piece and place their left finger stationary on the	In the *Bornoff Method Conductor Book One*, students are taught spiccato bowings during the early learning stages. The students are instructed to play a brushed stroke at the frog placed directly below the hand and winding on the bow. The elbow should remain on the same plane as the wrist, and students are instructed to play with a horizontal motion with vertical weight. The teachers will start with sixteen bounces on one string and explain four sets of four sixteenth notes. As

[183] Starr, 94.

[184] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,*19.

[185] Starr, 94.

[186] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,*19.

[187] Starr, 95.

	bow to feel the bow's direction in their left hand.	students' progress, the teacher can change the bowings and the counting of the groups (see appendix J). [188]
"May Song"	In the book, *The Suzuki Violinist,* the students are instructed to play a longbow on the first dotted quarter note of the piece and a quick up bow on the eighth note of the second note of the piece. All bows are stopped and slightly disconnected. [189] The dotted quarter note is isolated using the air bow method and practiced by saying "1-2-3-4!" The next step is to practice the rhythm on open strings.	In the *Bornoff Method Conductor Book One*, students are introduced to a staccato bowing with stopped bows. The open string cycle is performed as a stopped detache with two stops per bow. The groups change as the instructions progress (see appendix K). [190]
"Allegro"	In the book, *The Suzuki Violinist,* the students are instructed to use small bow strokes with stops after each note. Students have a difficult time picking up two fingers at once. The teacher should isolate the faster parts of the song to effectively teach them to lift one finger as the other finger is placed.[191] "Allegro" has three bow lifts in the piece. Students should be taught that the quick bow lifts are the size of an apple or half-moon shape above the string whereas the longbow lift is the size of a moon above the string.	Students are now introduced to finger patterns in the *Bornoff Method Conductor Book One*. The students are instructed to use the same pattern of the open string cycle but perform open string and then add the first finger (see appendix L). Students are advised to use various bowing types such as detache (whole bow, lower half, upper half, or middle of bow), spiccato eight bounces, six, four, three, two, or one), and staccato (two stops per pitch, three or four).[192]
"Perpetual Motion"	The book, *The Suzuki Violinist,* suggests that students slowly practice the piece one phrase at a time with short bow strokes. Students are instructed to be aware that finger placements and lifts are rapid before the bow motion. The lifting action should be as quick as	In the *Bornoff Method Conductor Book One*, students are introduced to new finger patterns. The students are instructed to use the same pattern of the open string cycle but perform open string and then add the 2nd finger (violin and violin), 3rd finger (cello), and 4th finger

[188] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 23-24.

[189] Starr, 96.

[190] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 26-27.

[191] Starr, 97.

[192] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 34.

	the lifting action. The notes are supposed to be performed with staccato bowing. When students' progress to the double-note version of the piece, the teacher should encourage students to bow from a relaxed wrist rather than bowing from the forearm and visualizing dribbling a ball. Violinists and violists are encouraged to use the fourth finger rather than the open strings.[193]	(bass) (see appendix L). Students are instructed to use various bowing types such as detache (whole bow, lower half, upper half, or middle of bow), spiccato eight bounces, six, four, three, two, or one), and staccato (two stops per pitch, three or four).[194]
"Allegretto"	The book, *The Suzuki Violinist,* suggests reviewing the piece "Down Pony, Up Pony" to help coordinate the bowing and rhythms for this piece. The eight notes begin with staccato bowing but later transition to legato. It is suggested that that quarter note has a slight accent. The lessons should also focus on the elbow levels for the changing strings of the piece.[195]	In the *Bornoff Method Conductor Book One*, students are introduced to new finger patterns. The students are instructed to use the same pattern of the open string cycle but perform the warmup with naturals, shifts in the bass, sharps, and extensions in the cellos (see appendix L). Students are instructed to use various bowing types such as detache (whole bow, lower half, upper half, or middle of bow), spiccato eight bounces, six, four, three, two, or one), and staccato (two stops per pitch, three or four).[196]

[193] Starr, 98.

[194] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 43.

[195] Starr, 99.

[196] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 55.

CHAPTER FIVE: CONCLUSION

Summary of Study

This study examined how blending the Suzuki, and Bornoff method creates a curriculum pacing guide for a novice or first-year orchestra teacher teaching a beginning orchestra. Authors Julia Rollison, Larry Ludlow, and Todd Wallingford studied the concerns in education that create a lack of confidence in teachers. Their study revealed that such factors as a lack of professional development lower confidence levels in younger teachers.[197] The step-by-step process supplied through the Suzuki method establishes a strong foundation for young beginning musicians. Analyzing each step and how it affects beginning musicians creates confidence for a first-year teacher or a novice teacher. In addition to blending the concepts of the Bornoff method, teachers using this blended curriculum will have confidence in knowing that their orchestra is beginning their musical journey with a strong foundation.

Significance of Study

Since the 1980s in the United States, participation in orchestra education has steadily increased at all levels in elementary school through high school. Between 2003-2008, 55% of teachers reported that students playing a stringed instrument had increased or remained the same. Between 1997 to 2009, the number of school districts offering orchestra instruction went from 18% to 29%. The current database used for the American Strings Teacher Association report represented 4,269 school districts with orchestra programs out of 14,556 in the United States. Between 2010 to 2013, 38.7% of orchestra teachers anticipated a new string position opening. When it comes to having a curriculum or course of study, 53% of teachers have one in their

---

[197] Julia Rollison, Larry Ludlow, and Todd Wallingford, "Assessing Content Knowledge and Changes in Confidence and Anxiety Related to Economic Literacy in a Professional Development Program for History Teachers," *Journal of Educational Research and Practice* 2, no. 1 (2012): 16.

school district and 22% of orchestra teachers are evaluated using the orchestra curriculum.[198] With an increased number of orchestra programs across the United States and many positions available each year, orchestra teachers must have a supportive curriculum to provide confidence for teachers to stay in their current job or entice teachers into this specific music education career. Teacher retention is most crucial if teachers are being evaluated on their performance through the guides of the curriculum.

Limitations

The Bornoff method immediately has students note reading from the beginning stages of learning. The Suzuki method insists that students do not read until their positions and postures are established. For the sake of cohesion, in this blended curriculum, the Bornoff method is to be taught through memorization and not teaching students to note reading. The Bornoff exercises can easily be taught through demonstration and created as a warmup before each class. Most of the method books mentioned in chapter two begin with note-reading and are the "go-to" methods that beginning orchestra teachers use. Teachers use such method books as they were either introduced to these methods in their teaching preparation classes or from what they know in their orchestra education. The Suzuki method was initially designed for teaching one-on-one instruction with supplementing group performance. With creativity and thought, the method can be simulated in a group setting, and with the implementation of the Bornoff method, the two will enhance the learning experience. Some experts may state that teaching note-reading right away is an essential step in the learning process for a beginning orchestra and must be taught from the beginning.

---

[198] Wanted: 3,000 String Teachers!" 1-18.

In the book, *Suzuki Method Volume One for Double Bass*, the pieces "Song of the Wind," "Allegro," and "Perpetual Motion" introduce shifting to young beginning double bass musicians. For the sake of this curriculum, the shifting was eliminated and composed in the first position. When orchestra teachers have the task of teaching in a heterogeneous class structure, taking out the shifting allows for continuous instruction of all the instruments without teaching a new technique to bass students. Also, since the composed music was re-written in "code" form, notating shifting could be challenging. Some experts may state that waiting another year to teach shifting to double bass students is too late in the student's learning process.

Beginning orchestra students that participate in this curriculum will promote students to progress at their own pace. Though the blended curriculum does enable students to progress at their own pace, it is essential to set benchmarks and standards for students to know what they must achieve by a specific date. Most elementary students receive a report card at the elementary level for orchestra. Setting a standard of what song, a student should have mastered by a specific date allows the teacher to give feedback to parents and students. It is also essential to provide monthly goals of what songs students should have mastered to perform the fourth-grade handbook by concert dates.

Recommendations of Future Study

Future research on this topic should include investigating students' progress when implicating this blended curriculum. When conducting such research, the analysis should strictly consider the differences and similarities of each school district where the curriculum is being implemented. Such research should further compare this curriculum to a curriculum that implements note-reading in the beginning stages. The study should also examine the support of piano accompaniment used in the classroom, teaching advanced techniques such as shifting in

the double bass parts, and examining classes that are taught homogeneously versus lessons that are taught heterogeneously.

Additional future research on this topic should include investigating this curriculum's support to novice or first-year teachers. When using such a curriculum, it would be essential to examine if it brings confidence to such teachers to want to stay in this teaching field and if such a curriculum entices new teachers into this field of education. Additional consideration should include how the pandemic has changed the teaching parameters in a beginning orchestra classroom. The hope is that having such a strong curriculum available for a beginning orchestra will promote further internal motivation to learn more about teaching practices within a beginning orchestra classroom.

Summary

The National Education Association recently polled teachers to identify why teachers are recently leaving the education system. The poll discovered that lately, there had been a hike in exit rates of teachers from the profession with the start of the 2021-2022 school year. 90% of the teachers who participated in the survey stated that they feel burned out, which is a severe problem. 86% of teachers have seen more educators leaving the profession or retiring early since the start of the pandemic. 80% of teachers reported that unfilled job openings have led to more work obligations for those still teaching in the educational system.[199] This study sought to address such a crucial problem in the United States, and it is essential to support orchestra teachers starting a beginning orchestra program.

[199] Kamenetz, Anya, "More Than Half of Teachers are Looking for the Exit, A Poll Says," *National Public Radio* (2022): https://www.npr.org/2022/02/01/1076943883/teachers-quitting-burnout#:~:text=Among%20the%20NEA%20poll's%20other,work%20obligations%20for%20those%20left.

The supplementation of the Bornoff method supports the strengths of the Suzuki method and enhances the learning experience for young learners. Blending both modes allows students to experience different teaching concepts of the beginning steps for establishing consistent posture and position. The United States has a long history of music education, specifically orchestra education. The Suzuki and Bornoff methods have enriched the history of music education in the United States. Blending the two strings methods, which have proven successful over many years, supports starting students at a young age. This also supports the idea of starting a string instrument at the elementary level. The high standards in this blended curriculum strongly support the brain development, sociological development, and psychological development that music education brings to young learners.

When beginning orchestra students participate in this curriculum, students are encouraged to progress at their own pace. The achievement of pieces with high standards holds students accountable for their learning and gives continuous, real-time feedback for improvement. When students are taught by memory with the reinforcement of the piano accompaniment during every class, it provides them with a stable pitch and tempo. It also allows the student to focus on their posture and positions as they are not reading music from a book. Bringing awareness to such a strong curriculum is key to supporting first-year and novice teachers and keeping them in their careers for many years to come.

BIBLIOGRAPHY

"A Whole Child Approach to Education and the Common Core State Standards Initiative." ASCD: Learn, Teach, Lead. Accessed July 26, 2021. http://www.ascd.org/ASCD/pdf/siteASCD/policy/CCSS-and-Whole-Child-one-pager.pdf.

"About ASTA." American String Teachers Association. Accessed on July 25, 2021. https://www.astastrings.org/Web/Membership/AboutASTA/Web/About_ASTA/About.aspx?hkey=674291e9-25f9-4b6a-9d2f-881c88cfb811.

Arcand, Rob. "What was the Suzuki Violin Method?" The Awl (2017). https://www.theawl.com/2017/02/what-was-the-suzuki-violin-method.

Aspers Patrick, and Ugo Corte. "What is Qualitative in Qualitative Research." *Qual Sociol* 42, no. 2 (2019).

Baker, Vicki D., and Mary Ellen Cavitt. "Profile of a Career Music Educator." *Texas Music Education Research* (2011). https://files.eric.ed.gov/fulltext/EJ1102259.pdf.

Barba, Mary Elizabeth. "Philosophy of Music Education." *University Of New Hampshire Scholars' Repository* (2017). https://scholars.unh.edu/cgi/viewcontent.cgi?article=1326&context=honors.

Bauer, William L. "Research on Professional Development for Experienced Music Teachers." *Journal of Music Teacher Education* 17, no. 1 (2007).

Baumgartner, Christopher. "Supporting Beginning Music Teachers: The Development of the Oklahoma Music Educators Association Mentorship Program." *Journal of Music Teacher Education* 29, 3 (2019).

Blacking, John. "How Musical is Man?" Washington: University of Washington Press, 1974. https://learn.liberty.edu/webapps/blackboard/content/listContent.jsp?course_id=_682385_1&content_id=_41217979

Bowman, Wayne D., and Ana Lucía Frega. *The Oxford Handbook of Philosophy in Music Education*. New York, NY: Oxford University Press, 2014.

Brewer, Chris Boyd. "The Benefits to Children who Learn String Instruments." Bennin Violins (2021). https://www.benningviolins.com/the-benefits-to-children-who-learn-string-instruments.html.

Brungard, Kathleen DeBerry, Michael Alexander, Gerald Anderson, and Sandra Dackow. *Orchestra Expressions-Book One.* Los Angeles: Alfred Music, 2004.

Carioti, Desire, Laura Danelli, Maria T. Guasti, Marcello Gallucci, Marco Perugini, Patrizia Steca, and Natale Adolfo Stucchi. "Music Education at School: Too Little and Too Late? Evidence From a Longitudinal Study on Music Training in Preadolescents." *Frontiers in Psychology,* no. 10 (2019).

Chong, Hyun Ju and Soo Ji Kim. "Development of a School Orchestra Model in Korean Public Schools and Students' Perceptions of the Orchestra Experience." *International Journal of Education & The Arts,* 17, no. 35 (2021).

Conlon-Hoffman, Melinda. "The Bornoff School of Music—The Path to String Regeneration." *Design For Arts in Education* 80, no. 1 (1978).

Correia, Mary, Lucy Lewis, and Kira Omelchenko. "Embracing the New Music Educator." *Nafme* (May 2015). https://nafme.org/from-zero-to-hero-strategies-for-building-a-string-program-from-scratch/.

Creswell, John W. and J. David Creswell. *Research Design*. London: SAGE Publications, 2018.

Dabczynski, Andrew, Richard Meyer, and Bob Phillips. *String Explorer-Book One*. Los Angeles: Alfred Music, 2002.

Eubanks, Kara. "Essays in the Theory and Practice of The Suzuki Method." Doctoral thesis, Musical Arts City University of New York, 2014.

"Facts About the Teaching Profession for a National Conversation About Teaching." United States Department of Education. Accessed July 23, 2021. https://www2.ed.gov › teaching-profession-facts.

Ferguson, Colleen, Lucy Lewis, and Kira Omelchenko. "From Zero to Hero: Building a String Program from Scratch." Nafme. Last modified 2015. https://nafme.org/from-zero-to-hero-strategies-for-building-a-string-program-from-scratch/.

Fischbach, Gerald, Robert S. Frost, and Wendy Barden. *Artistry in Strings-Book One.* San Diego: Neil A Kjos Music, 2002.

Float, Diane. "An Evaluation Study of the Bornoff and Suzuki String Method." Master's thesis, Florida Atlantic University,1970.

Fu, Wing Man. "A Case Study of an Award-Winning Public-School String Orchestra Program." Master's thesis, Bowling Green State University, 2009. https://etd.ohiolink.edu/!Etd.send_file?accession=bgsu1242663220&disposition=inline.

Gersema, Emily. "Children's Brains Develop Faster with Musical Training." *USC News* (2016). https://news.usc.edu/102681/childrens-brains-develop-faster-with-music-training/.

Gillespie, Robert, Michael Allen, and Pamela Tellejohn Hayes. *Essential Elements Method Book One*. Wisconsin: Hal Lenoard, 2002.

Göktürk, Dilek."Historical Development of Public-School String Education in the United States and Connections with Turkey." *Eğitim Fakültesi Dergisi*, no. 2, (2009).

Goodner, Christine. *Beyond the Music Lesson: Habits of Successful Suzuki Families.* Hillsboro, Oregon: Brookside Suzuki Strings LLC, 2017.

Hall, Amanda. "A Review of Beginning Heterogeneous String Class Method Books for Compatibility with the Baseline Learning Task of the American String Teachers Association String Curriculum." Master's thesis, Bowling Green State University, 2013.

Hallam, Susan. "The Power of Music: Its Impact on the Intellectual, Social and Personal Development of Children and Young People." *International Journal of Music Education* 28, no. 3 (2010).

Hamann, Donald and Robert Gillespie, *Strategies for Teaching Strings*. New York, NY: Oxford, 2004.

"History Of Music Education in the United States." Cambellsville University. Last modified September 2, 2016. https://online.campbellsville.edu/education/history-of-music-education/.

Hodges, Donald A. "Music Psychology and Music Education: What's the Connection?" *Research Studies in Music Education,* 21, no. 1 (2003).

Hotta, Erin. "Tokyo's Soft Power Problem." *The New York Times* (2014). https://www.nytimes.com/2014/10/25/opinion/the-suzuki-method-japans-most-successful-cultural-export.html.

Howell, John Raymond and Florence Currie Howell. *Bornoff: Breakthrough for String Education*. Newton Highlands, Mass.: Foundation for the Advancement of String Education, 1989.

James, Clara E., Sascha Zuber, Elise Dupuis-Lozeron, Laura Abdili2, Diane Gervaise and Matthias Kliegel. "Formal String Instrument Training in a Class Setting Enhances Cognitive and Sensorimotor Development of Primary School Children." *Frontiers in neuroscience 14*, no. 567 (2020). https://doi.org/10.3389/fnins.2020.00567.

Kamenetz, Anya. "More Than Half of Teachers are Looking for the Exit, A Poll Says." *National Public Radio* (2022). https://www.npr.org/2022/02/01/1076943883/teachers-quitting-burnout#:~:text=Among%20the%20NEA%20poll's%20other,work%20obligations%20for%20those%20left.

Kendall, John D. *The Suzuki Violin Method in American Music Education*. New York, NY: Alfred Publishing, 1966.

Levitin, Daniel J. "Neural Correlates of Musical Behaviors: A Brief Overview." *Music Therapy Perspectives* 31, no. 1 (2013).

Lyle, Debbie. *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Primer.* Scottsville, VA: The Foundation for the Advancement of String Education, 2018.

Lyle, Debbie. *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Bass.* Scottsville, VA: The Foundation for the Advancement of String Education, 2018.

Lyle, Debbie. *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Cello.* Scottsville, VA: The Foundation for the Advancement of String Education, 2018.

Lyle, Debbie. *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Viola.* Scottsville, VA: The Foundation for the Advancement of String Education, 2018.

Lyle, Debbie. *The Bornoff Approach: A Comprehensive Curriculum for String Orchestra-Prime, Violin.* Scottsville, VA: The Foundation for the Advancement of String Education, 2018.

Lyle, Debbie. “Violinist, Pedagogue, and Visionary.” The Federation for Advancement of String Education. https://fase.org/about-bornoff/.

Mark, Michael, and Patrice Madura. *Contemporary Music Education*. Boston: Schirmer Cengage Learning 4, 2014.

Meyer, Joy, and Liesl Van Der Merwem. "Adapting the Suzuki Method for two Community Music Programs in Atteridgeville, South Africa.” *Muziki* 14, no. 1 (2017). https://www.tandfonline.com/doi/abs/10.1080/18125980.2016.1245461.

“Music Matters.” Arts Education Partnership. Last modified 2011. https://www.ecs.org/music-matters/.

"Music Research," NAMM Foundation. Accessed July 14, 2021. https://www.fosters.com/news/20190825/back-to-school-music-education-key-to-enhanced-skills-and-development.

"NAfME History and Leadership." National Association for Music Education. Accessed July 26, 2021. https://nafme.org/about.

Ogawa, Masafumi. "Japanese Traditional Music and School Music Education." *Philosophy of Music Education Review* 2, no. 1 (1994). http://www.jstor.com/stable/40327067.

Phillips, Bob, Peter Boonshaft, and Robert Sheldon. *Sound Innovations-Book One.* Los Angeles: Alfred Music, 2010.

"Pre-Professional Perspectives." *American String Teacher* 51, no. 1, 2001. https://doi.org/10.1177/000313130105100105.

Rager, Daniel. "The Role of Music in Society Past, Present and Future." *Cleveland State University Music Faculty Publications* (2008).

Ritsema, Robert. "A History of the American String Teachers Association: the First Twenty-Five Years." ASTA. Last modified 2020. https://www.astastrings.org/Web/History/Web/About_ASTA/History.aspx?hkey=a3f82395-c9f6-43ae-8247-d6683632bc8f.

Rogelstad, Mary. "Overcoming Challenges as a New Music Teacher." *CudIn* (blog), August 28, 2019. https://blogs.jwpepper.com/overcoming-challenges-as-a-new-music-teacher.

Rollison, Julia, Larry Ludlow, and Todd Wallingford. "Assessing Content Knowledge and Changes in Confidence and Anxiety Related to Economic Literacy in a Professional Development Program for History Teachers." *Journal of Educational Research and Practice* 2, no. 1 (2012).

Sacks, Oliver. "The Power of Music." *Brain-Oxford Academics* 129, no. 10, (2006). https://doi-org.ezproxy.liberty.edu/10.1093/brain/awl234.

Schmidt, Margaret."Mentoring and Being Mentored: The Story of a Novice Music Teacher's Success." *Teaching and Teacher Education* 24, no. 3 (2008).

Schubert, Amanda. "Suzuki Violin Unit One Teacher Training Manual." The Suzuki Association of America, 2020.

Senechal, Diane. "The Spark of Specifics: How a Strong Curriculum Enlivens Classroom and School Culture." *The American Educator* (2011). https://www.aft.org/sites/default/files/periodicals/Senechal_2.pdf.

Shade, Terry, and Jeremy Woolstenhulme. *String Basics-Book One*. San Diego: Neil A Kjos Music, 2011.

Slatkin, Leonard. "The Importance of Music." TED Talk, 2011. https://www.youtube.com/watch?v=QJ92bP2nUyY

Snyder, Hannah, "Literature review as a research methodology: An overview and guidelines." *Journal of Business Research*, no. 104 (2019).

Starr, William. *The Suzuki Violinist*. Miami: Summy-Birchard, 2000.

Stone, Michael. “Mentoring New Music Teachers for Lifelong Success in the Profession.” Nafme. Last modified 2016. https://nafme.org/mentoring-new-music-teachers-lifelong-success-profession/.

Suzuki, Shin’ichi. *Nurtured by Love: The Classic Approach to Talent Education*. New York, NY: Alfred Music, 1993.

Suzuki, Shin’ichi. *The Suzuki Bass School Volume One International Edition.* Van Nuys, CA: Alfred Music Publishing Co, 2019.

Suzuki, Shin’ichi. *The Suzuki Cello School Volume One Revised Edition.* Van Nuys, CA: Alfred Music Publishing Co, 1991.

Suzuki, Shin’ichi. *The Suzuki Viola School Volume One International Edition.* Van Nuys, CA: Alfred Music Publishing Co, 2019.

Suzuki, Shin’ichi. *The Suzuki Violin School Volume One International Edition.* Van Nuys, CA: Alfred Music Publishing Co, 2020.

"The 1940S Education: Overview." Encyclopedia.Com. Last modified 2020. https://www.encyclopedia.com/social-sciences/culture-magazines/1940s-education-overview.

The National Association for Music Education. “Aspects of the Beginning Orchestra, Part One.” NAfMe (2009). https://nafme.org/aspects-of-the-beginning-orchestra-part-1/.

The Royal Conservatory. “The Benefits of Music Education.” *An Overview of Current Neuroscience Research* (2014).

Thompson, Merlin. "Authenticity, Shinichi Suzuki, and Beautiful Tone with Living Soul, Please.” *Philosophy of Music Education Review* 24, no. 2 (2016). https://www.researchgate.net/publication/309091099_Authenticity_Shinichi_Suzuki_and_Beautiful_Tone_with_Living_Soul_Please.

Volpe, Gualtiero, Alessandro D’Ausilio, Leonardo Badino, Antonio Camurri, and Luciano Fadiga. "Measuring Social Interaction in Music Ensembles." *The Royal Society of Publishing*, 2016. http://rstb.royalsocietypublishing.org.

"Wanted: 3,000 String Teachers! The Status of String and Orchestra Programs in United States Schools." American Strings Teacher Association. Accessed July 23, 2021. https://www.astastrings.org/app_themes/public/uploads/pdf/whitepaper.pdf.

Ward-Steinman, Patrice Madura. *Advances in Social-Psychology and Music Education Research.* London: Taylor & Francis Group, 2011.

Welch, Graham F., Michele Biasutti, Jennifer MacRitchie, Gary E. McPherson and Evangelos Himonides. “The Impact of Music on Human Development and Well-Being.” *Frontiers in Psychology*, no. 11 (2020).

Wilson, Charlene. *Teaching Suzuki Cello: A Manual for Teachers and Parents*. Berkley, California: Diablo Press, 1984.

Appendix A

"A/E Tune"

A/E Tune

A/E Tune Introduction!

Violins 1st! (E string 8 times)

Freeze! Introduction!

Violins, Violas, Cellos (A string 8 times)

Freeze! Introduction!

Violins Rest Position!

Violas, Cellos, Bass (D string 8 times)

Freeze! Introduction!

Violas and Cellos Rest Position!

Bass (G string 8 times)

Rest position everyone and take a bow!

Created by: Monica Holy

Appendix B

"Mississippi River" for Violin

All songs must be memorized

#1 MISSISSIPPI RIVER

OA OE 1E OE 3A 2A 1A OA

OE 3A 2A 1A

OE 3A 2A 1A

OA OE 1E OE 3A 2A 1A OA

Practice Tips:
-Every letter (note) is bowed: MIS-SIS-SIP-PI RI-VER
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor) to start each new letter-note

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix B Continued)

"Mississippi River" for Viola

All songs must be memorized

#1 MISSISSIPPI RIVER

OA 2A 3A 2A 1A 0A 1D OA

2A 1A OA 1D

2A 1A OA 1D

OA 2A 3A 2A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: MIS-SIS-SIP-PI RI-VER
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor) to start each new letter-note

Bornoff Bow Warm Up:

(Appendix B Continued)

"Mississippi River" for Cello

All songs must be memorized

#1 MISSISSIPPI RIVER

OA 3A 4A 3A 1A 0A 1D OA

3A 1A OA 1D

3A 1A OA 1D

OA 3A 4A 3A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: MIS-SIS-SIP-PI RI-VER
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right) to start each new letter-note

Bornoff Bow Warm Up:

(Appendix B Continued)

"Mississippi River" for Double Bass

All songs must be memorized

#1 MISSISSIPPI RIVER

OA 4A 0D 4A 1A 0A 1D OA

4A 1A OA 1D

4A 1A OA 1D

OA 4A 0D 4A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: MIS-SIS-SIP-PI RI-VER
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right) to start each new letter-note

Bornoff Bow Warm Up:

Appendix C

"Down Pony Up Pony" for Violin

#2 DOWN PONY—UP PONY

OA OE 1E OE 3A 2A 1A OA

OE 3A 2A 1A

OE 3A 2A 1A

OA OE 1E OE 3A 2A 1A OA

Practice Tips:
-Every letter (note) is bowed: DOWN PONY UP PONY
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor) on the word: DOWN
-Move the bow UP (towards the sky) on the word: UP

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix C Continued)

"Down Pony Up Pony" for Viola

#2 DOWN PONY—UP PONY

OA 2A 3A 2A 1A 0A 1D OA

2A 1A OA 1D

2A 1A OA 1D

OA 2A 3A 2A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: DOWN PONY UP PONY
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor) on the word: DOWN
-Move the bow UP (towards the sky) on the word: UP

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix C Continued)

"Down Pony Up Pony" for Cello

#2 DOWN PONY—UP PONY

OA 3A 4A 3A 1A 0A 1D OA

3A 1A OA 1D

3A 1A OA 1D

OA 3A 4A 3A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: DOWN PONY UP PONY
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right) on the word: DOWN
-Move the bow UP (to your left) on the word: UP

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix C Continued)

"Down Pony Up Pony" for Double Bass

#2 DOWN PONY—UP PONY

OA 4A 0D 4A 1A 0A 1D OA

4A 1A OA 1D

4A 1A OA 1D

OA 4A 0D 4A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: DOWN PONY UP PONY
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right) on the word: DOWN
-Move the bow UP (to your left) on the word: UP

Bornoff Bow Warm Up:

Created by: Monica Holy

Appendix D

"Little Frog Little Frog" for Violin

#3 LITTLE FROG--LITTLE FROG

OA OE 1E OE 3A 2A 1A OA

OE 3A 2A 1A

OE 3A 2A 1A

OA OE 1E OE 3A 2A 1A OA

Practice Tips:
-Every letter (note) is bowed: LITTLE FROG LITTLE FROG
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor).
-Counting 1-2-3-4-5-6
-Counting 1-ta-ta 2-ta-ta
-Little Frog twice.

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix D Continued)

"Little Frog Little Frog" for Viola

#3 LITTLE FROG--LITTLE FROG

OA 2A 3A 2A 1A 0A 1D OA

2A 1A OA 1D

2A 1A OA 1D

OA 2A 3A 2A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: LITTLE FROG LITTLE FROG
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor).
-Counting 1-2-3-4-5-6
-Counting 1-ta-ta 2-ta-ta
-Little Frog twice.

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix D Continued)

"Little Frog Little Frog" for Cello

#3 LITTLE FROG--LITTLE FROG

OA 3A 4A 3A 1A 0A 1D OA

3A 1A OA 1D

3A 1A OA 1D

OA 3A 4A 3A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: LITTLE FROG LITTLE FROG
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right)
-Counting 1-2-3-4-5-6
-Counting 1-ta-ta 2-ta-ta
-Little Frog twice

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix D Continued)

"Little Frog Little Frog" for Double Bass

#3 LITTLE FROG--LITTLE FROG

OA 4A 0D 4A 1A 0A 1D OA

4A 1A OA 1D

4A 1A OA 1D

OA 4A 0D 4A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: LITTLE FROG LITTLE FROG
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right)
-Counting 1-2-3-4-5-6
-Counting 1-ta-ta 2-ta-ta
-Little Frog twice

Bornoff Bow Warm Up:

Created by: Monica Holy

Appendix E

"Down Bow and Up Bow" for Violin

#4 DOWN BOW and UP BOW and

OA OE 1E OE 3A 2A 1A OA

OE 3A 2A 1A

OE 3A 2A 1A

OA OE 1E OE 3A 2A 1A OA

Practice Tips:
-Every letter (note) is bowed: DOWN BOW AND UP BOW
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor) on the word: DOWN
-Move the bow UP (towards the sky) on the word: UP

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix E Continued)

"Down Bow and Up Bow" for Viola

#4 DOWN BOW and UP BOW and

OA 2A 3A 2A 1A 0A 1D OA

2A 1A OA 1D

2A 1A OA 1D

OA 2A 3A 2A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: DOWN BOW AND UP BOW
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (towards the floor) on the word: DOWN
-Move the bow UP (towards the sky) on the word: UP

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix E Continued)

"Down Bow and Up Bow" for Cello

#4 DOWN BOW and UP BOW and

OA 3A 4A 3A 1A 0A 1D OA

3A 1A OA 1D

3A 1A OA 1D

OA 3A 4A 3A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: DOWN BOW AND UP BOW AND
-Rest right before the word: AND
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right) on the word: DOWN
-Move the bow UP (to your left) on the word: UP

Bornoff Bow Warm Up:

(Appendix E Continued)

"Down Bow and Up Bow" for Double Bass

#4 DOWN BOW and UP BOW and

OA 4A 0D 4A 1A 0A 1D OA

4A 1A OA 1D

4A 1A OA 1D

OA 4A 0D 4A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: DOWN BOW AND UP BOW AND
-Rest right before the word: AND
-Start with the bow at the tape (middle of bow)
-Move the bow DOWN (to your right) on the word: DOWN
-Move the bow UP (to your left) on the word: UP

Bornoff Bow Warm Up:

Appendix F

"Wish I had a Motorcycle" for Violin

#5 WISH I HAD A MOTORCYCLE

OA OE 1E OE 3A 2A 1A OA

OE 3A 2A 1A

OE 3A 2A 1A

OA OE 1E OE 3A 2A 1A OA

Practice Tips:
-Every letter (note) is bowed: WISH I HAD A MOTORCYCLE
-Start with the bow at the tape (middle of bow)
-Right angle in bow arm--fast motion
-Counting 1-ta-ta-ta 2-ta-ta-ta

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix F Continued)

"Wish I had a Motorcycle" for Viola

#5 WISH I HAD A MOTORCYCLE

OA 2A 3A 2A 1A 0A 1D OA

2A 1A OA 1D

2A 1A OA 1D

OA 2A 3A 2A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: WISH I HAD A MOTORCYCLE
-Start with the bow at the tape (middle of bow)
-Right angle in bow arm--fast motion
-Counting 1-ta-ta-ta 2-ta-ta-ta

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix F Continued)

"Wish I had a Motorcycle" for Cello

#5 WISH I HAD A MOTORCYCLE

OA 3A 4A 3A 1A 0A 1D OA

3A 1A OA 1D

3A 1A OA 1D

OA 3A 4A 3A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: WISH I HAD A MOTORCYCLE
-Start with the bow at the tape (middle of bow)
-Right angle in bow arm--fast motion
-Counting 1-ta-ta-ta 2-ta-ta-ta

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix F Continued)

"Wish I had a Motorcycle" for Double Bass

#5 WISH I HAD A MOTORCYCLE

OA 4A 0D 4A 1A 0A 1D OA

4A 1A OA 1D

4A 1A OA 1D

OA 4A 0D 4A 1A 0A 1D OA

Practice Tips:
-Every letter (note) is bowed: WISH I HAD A MOTORCYCLE
-Start with the bow at the tape (middle of bow)
-Right angle in bow arm--fast motion
-Counting 1-ta-ta-ta 2-ta-ta-ta

Bornoff Bow Warm Up:

Created by: Monica Holy

Appendix G

"Twinkle Twinkle" for Violin

#6 TWINKLE

⊓ v ⊓ v ⊓ cont....

OA OA OE OE 1E 1E OE 3A 3A 2A 2A 1A 1A 0A

II - HOLD FOR 2 COUNTS II

OE OE 3A 3A 2A 2A 1A

II

OE OE 3A 3A 2A 2A 1A

II

OA OA OE OE 1E 1E OE 3A 3A 2A 2A 1A 1A 0A

II II

Practice Tips:

- (⊓) Is the symbol for down bow (pull to the ground)
- (v) Is the symbol for up bow (push to the sky)
- (II) Two lines under the letter means hold for 2 counts
- Cont. means to continue the bow direction

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix G Continued)

"Twinkle Twinkle" for Viola

#6 TWINKLE

⊓ v ⊓ v ⊓ cont....

OA OA 2A 2A 3A 3A 2A 1A 1A OA OA 1D 1D 0A

II - HOLD FOR 2 COUNTS II

2A 2A 1A 1A OA OA 1D

II

2A 2A 1A 1A OA OA 1D

II

OA OA 2A 2A 3A 3A 2A 1A 1A OA OA 1D 1D 0A

II - HOLD FOR 2 COUNTS II

Practice Tips:

- (⊓) Is the symbol for down bow (pull to the ground)
- (v) Is the symbol for up bow (push to the sky)
- (II) Two lines under the letter means hold for 2 counts
- Cont. means to continue the bow direction

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix G Continued)

"Twinkle Twinkle" for Cello

#6 TWINKLE

⊓ v ⊓ v ⊓ cont....

OA OA 3A 3A 4A 4A 3A 1A 1A OA OA 1D 1D 0A

II - HOLD FOR 2 COUNTS II

3A 3A 1A 1A OA OA 1D

II

3A 3A 1A 1A OA OA 1D

II

OA OA 3A 3A 4A 4A 3A 1A 1A OA OA 1D 1D 0A

II - HOLD FOR 2 COUNTS II

Practice Tips:

- (⊓) Is the symbol for down bow (to the right)
- (v) Is the symbol for up bow (to the left)
- (II) Two lines under the letter means hold for 2 counts
- Cont. means to continue the bow direction

-Start with staccato (short bows) and gradually start to do legato (long bows)

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix G Continued)

"Twinkle Twinkle" for Double Bass

#6 TWINKLE

⊓ v ⊓ v ⊓ cont....

OA OA 4A 4A 0D 0D 4A 1A 1A OA OA 1D 1D 0A

II - HOLD FOR 2 COUNTS II

4A 4A 1A 1A OA OA 1D

II

4A 4A 1A 1A OA OA 1D

II

OA OA 4A 4A 0D 0D 4A 1A 1A OA OA 1D 1D 0A

II - HOLD FOR 2 COUNTS II

Practice Tips:

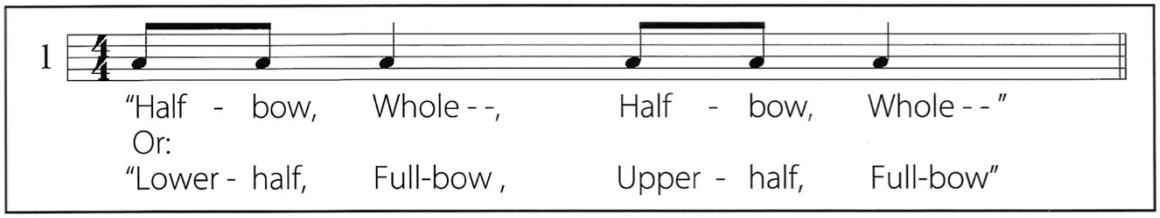
- (⊓) Is the symbol for down bow (to the right)
- (v) Is the symbol for up bow (to the left)
- (II) Two lines under the letter means hold for 2 counts
- Cont. means to continue the bow direction

-Start with staccato (short bows) and gradually start to do legato (long bows)

Bornoff Bow Warm Up:

Appendix H

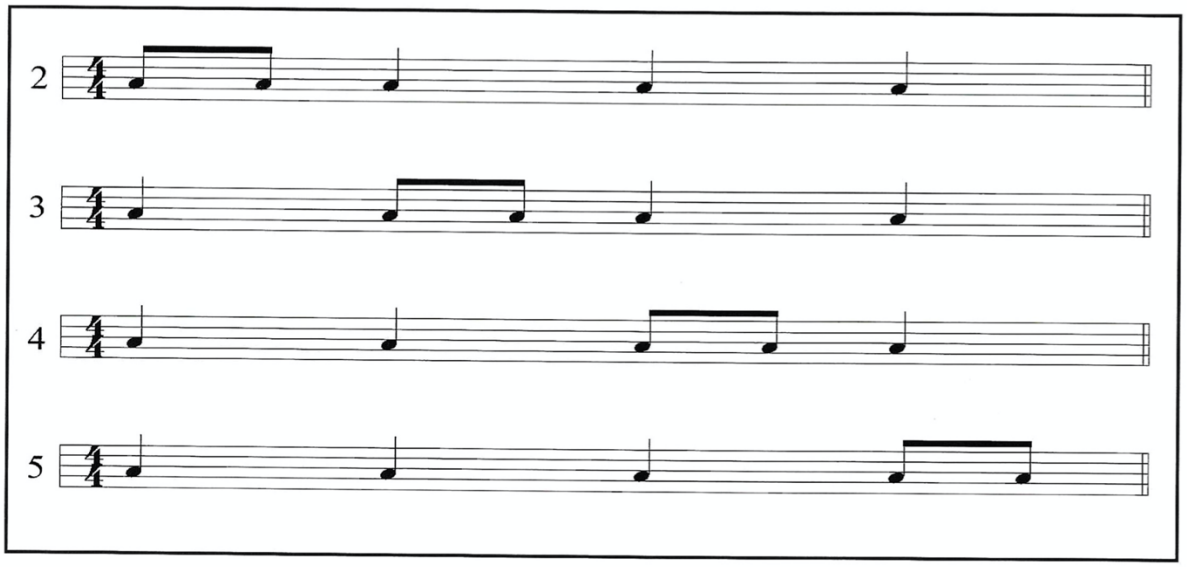
Detache: "Combo Bows"-Combination of Whole and Half Bows [200]



[200] Lyle, *The Bornoff Approach: A Comprehensive Curriculum,* 19.

Appendix I

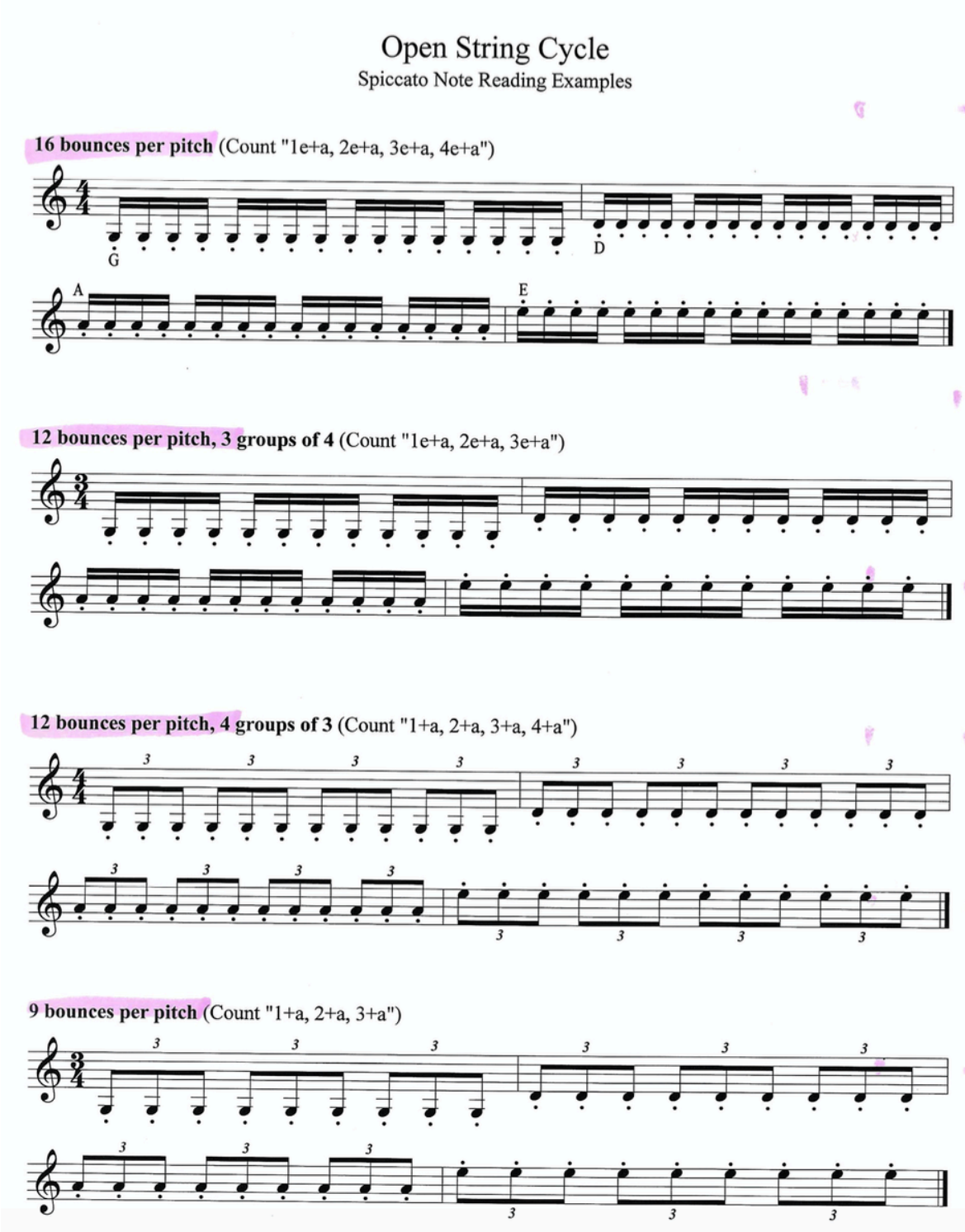
Detache: "Combo Bows"-Combination of Whole and Half Bows[201]



[201] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 19.

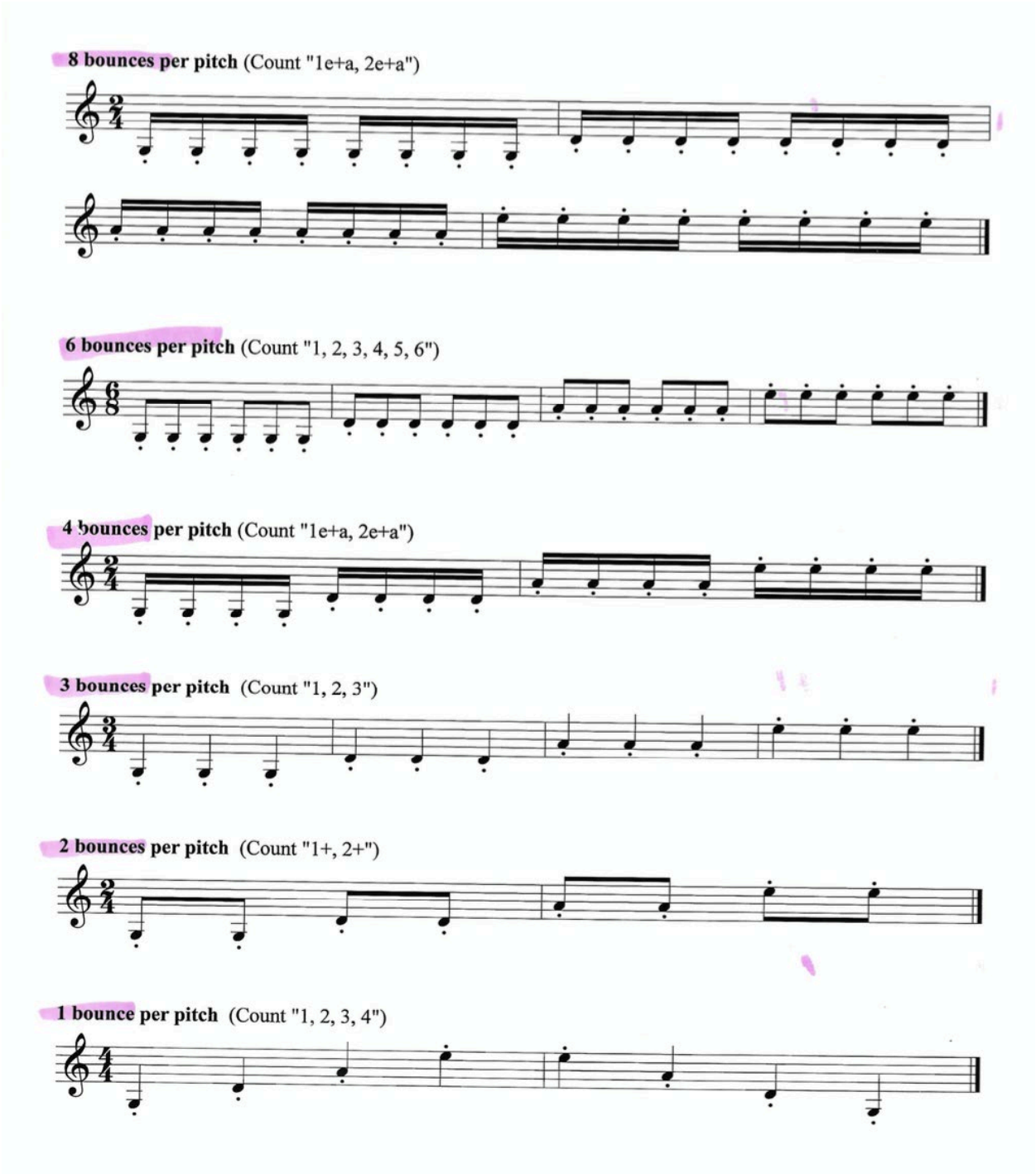
Appendix J

Open String Cycle: Spiccato Note Reading Examples[202]



[202] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 23-24.

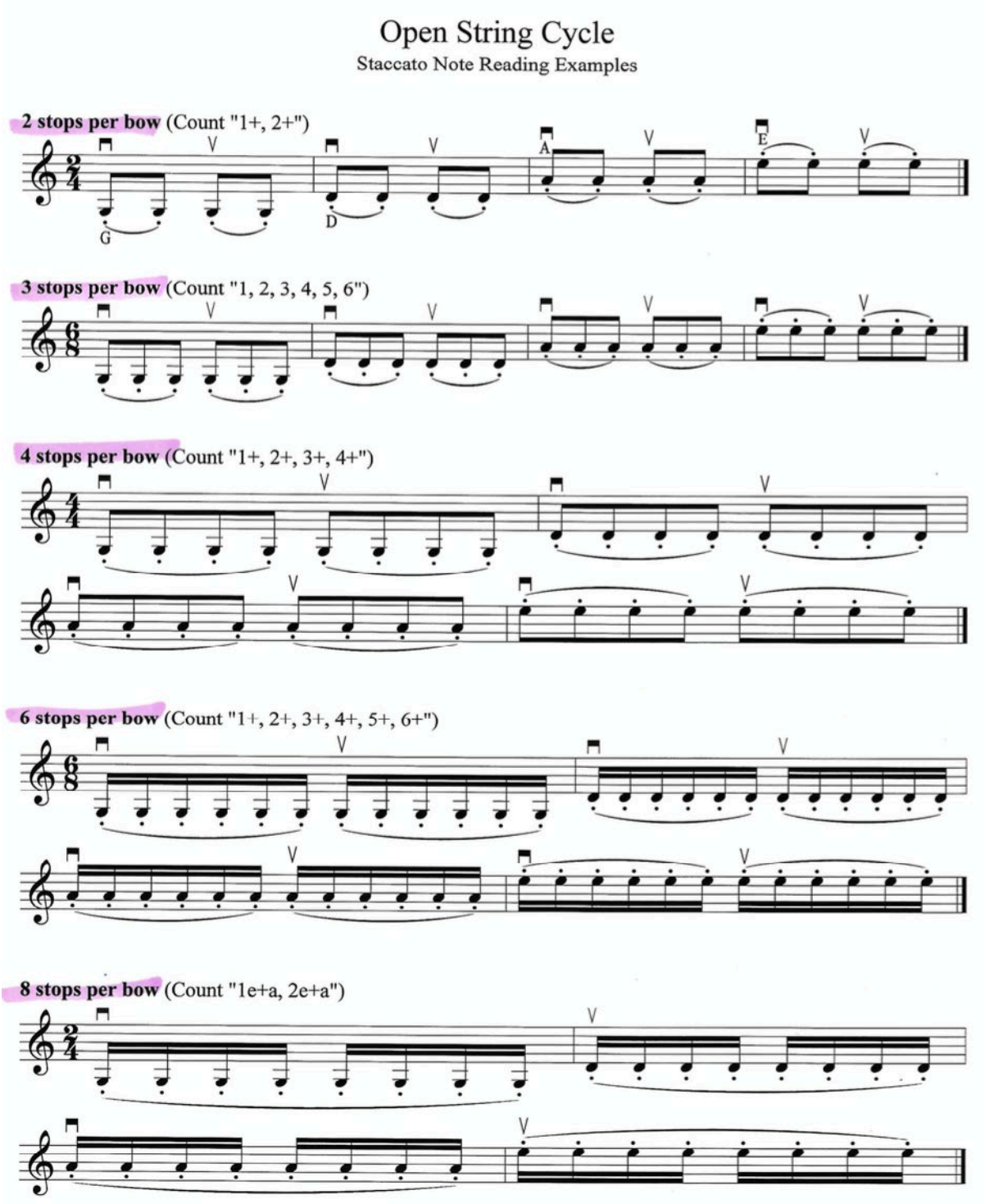
(Appendix J Continued)[203]



[203] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 23-24.

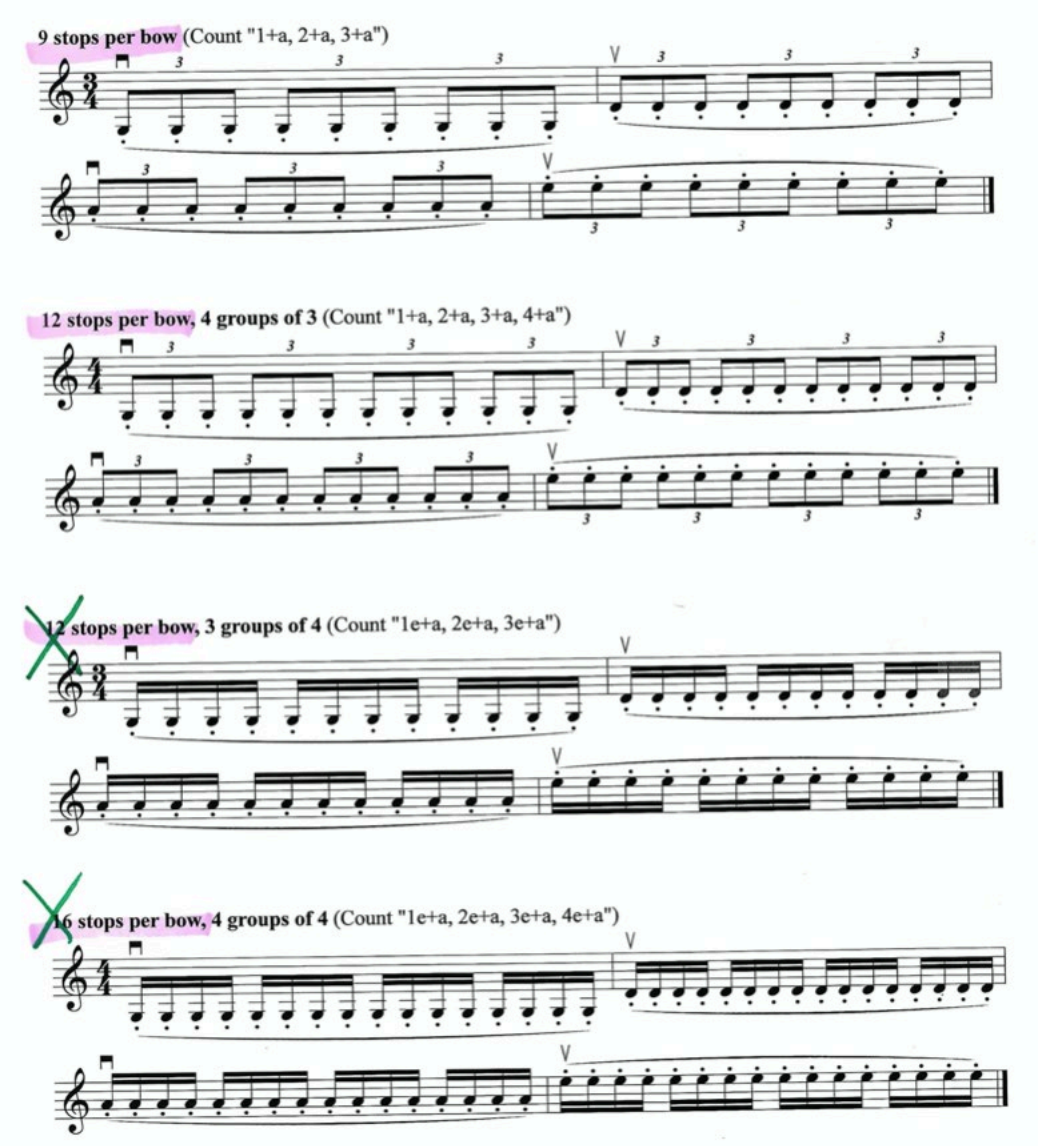
Appendix K

Open String Cycle: Staccato Note Reading Examples[204]



[204] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 26-27.

(Appendix K Continued)[205]



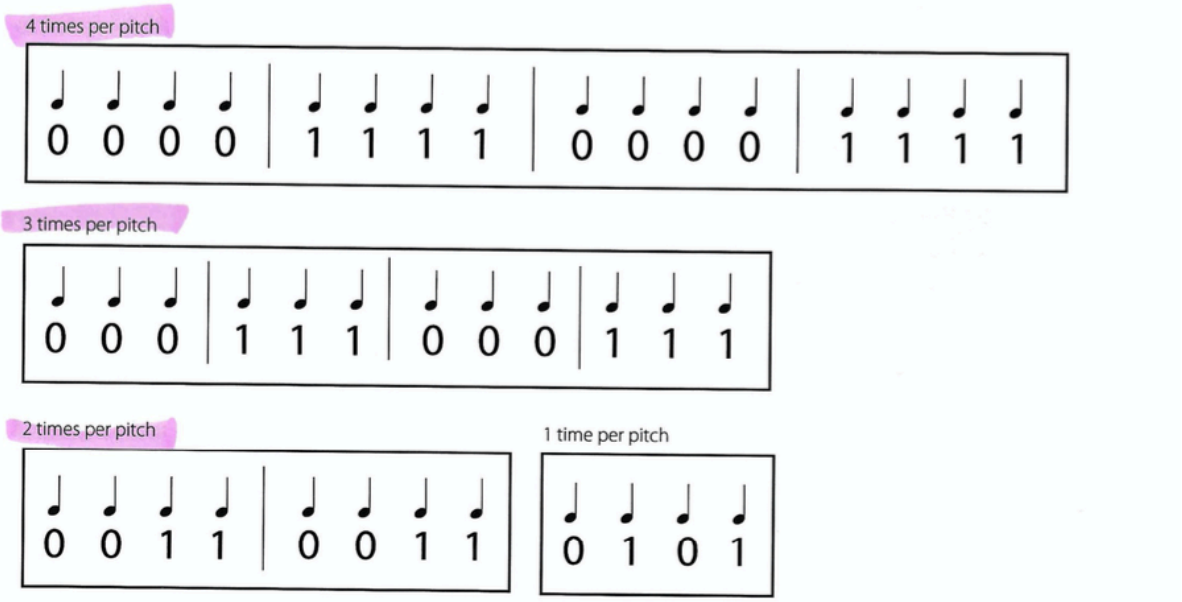
[205] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 26-27.

Appendix L

Bornoff Finger Patterns[206]

Two-Note Preparatory Finger Pattern Exercises

After introducing the exercises by rote (see ***Process, p. 35***), use the following graphics of fingerings and quarter note symbols to practice simultaneous reading and fingering. Delay traditional note reading until finger placement is secure and accurate.



[206] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 34.

(Appendix L Continued)[207]

Finger Pattern ♩ ♩♩

4 times per pitch

	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩
Vln/Vla (L2 = "Low" 2)	0	0	0	0	1	1	1	1	L2	2	2	2	1	1	1	1	0	0	0	0
Cello	0	0	0	0	1	1	1	1	2	2	2	2	1	1	1	1	0	0	0	0
Bass	0	0	0	0	1	1	1	1	2	2	2	2	1	1	1	1	0	0	0	0

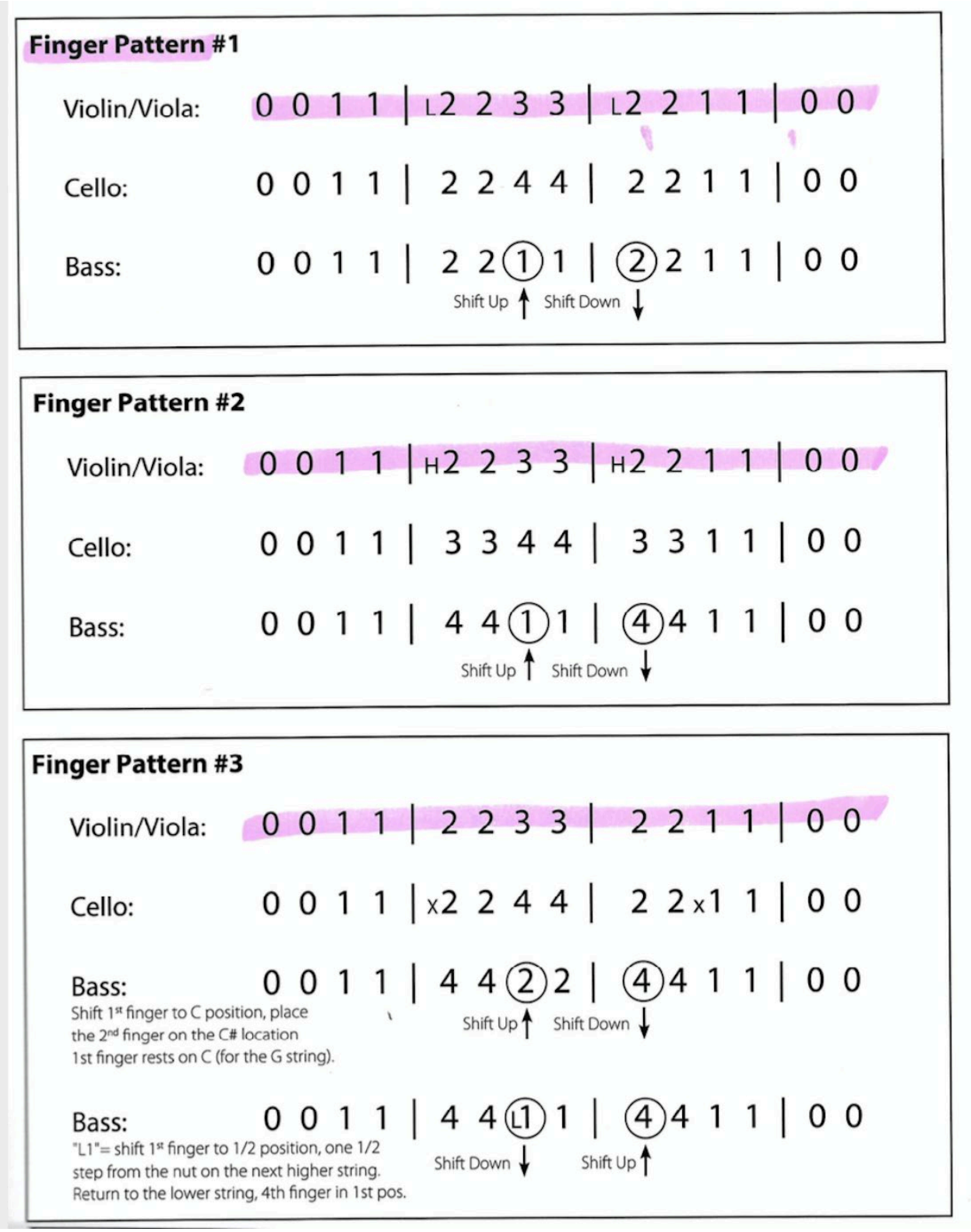
Finger Pattern #2: ♩ ♩ ♩

4 times per pitch

	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩	♩
Vln/Vla (H2 = "High" 2)	0	0	0	0	1	1	1	1	H2	2	2	2	1	1	1	1	0	0	0	0
Cello	0	0	0	0	1	1	1	1	3	3	3	3	1	1	1	1	0	0	0	0
Bass	0	0	0	0	1	1	1	1	4	4	4	4	1	1	1	1	0	0	0	0

[207] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 43.

(Appendix L Continued)[208]



[208] Lyle, *The Bornoff Approach:A Comprehensive Curriculum,* 55.

Appendix M

"French Folk Song" for Violin

#7 FRENCH FOLK SONG

⊓ v ⊓ v ⊓ v ⊓ v cont....

3a 3a 3a 2a 2a 2a 1a 2a 3a 0a

III – hold 3 counts

3d 3d 3d 2d 2d 2d 1d 1d 1d 0d

III

0d 1d 2d 0d 1d 2d 0d 1d 2d 3d

III

1d 2d 3d 1d 2d 3d 1d 2d 3d 0a

III

3a 2a 1a 0a 3d 2d 1d 0d 1d 0d

III

Practice Tips:

-(III) Three lines under the letter means hold the note for 3 counts (slow-long bow)
- Cont. means to continue the bow direction

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix M Continued)

"French Folk Song" for Viola

#7 FRENCH FOLK SONG

⊓ v ⊓ v ⊓ v ⊓ v cont....

3a 3a 3a 2a 2a 2a 1a 2a 3a 0a

III – hold 3 counts

3d 3d 3d 2d 2d 2d 1d 1d 1d 0d

III

0d 1d 2d 0d 1d 2d 0d 1d 2d 3d

III

1d 2d 3d 1d 2d 3d 1d 2d 3d 0a

III

3a 2a 1a 0a 3d 2d 1d 0d 1d 0d

III

Practice Tips:

-(III) Three lines under the letter means hold the note for 3 counts (slow-long bow)
- Cont. means to continue the bow direction

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix M Continued)

"French Folk Song" for Cello

#7 FRENCH FOLK SONG

⊓ v ⊓ v ⊓ v ⊓ v cont....

4a 4a 4a 3a 3a 3a 1a 3a 4a 0a

III – hold 3 counts

4d 4d 4d 3d 3d 3d 1d 1d 1d 0d

III

0d 1d 3d 0d 1d 3d 0d 1d 3d 4d

III

1d 3d 4d 1d 3d 4d 1d 3d 4d 0a

III

4a 3a 1a 0a 4d 3d 1d 0d 1d 0d

III

Practice Tips:

-(III) Three lines under the letter means hold the note for 3 counts (slow-long bow)
- Cont. means to continue the bow direction

Bornoff Bow Warm Up:

Created by: Monica Holy

(Appendix M Continued)

"French Folk Song" for Double Bass

#7 FRENCH FOLK SONG

⊓ v ⊓ v ⊓ v ⊓ v cont....

0d 0d 0d 4a 4a 4a 1a 4a 0d 0a

III – hold 3 counts

0g 0g 0g 4d 4d 4d 1d 1d 1d 0d

III

0d 1d 4d 0d 1d 4d 0d 1d 4d 0g

III

1d 4d 0g 1d 4d 0g 1d 4d 0g 1a

III

0d 4a 1a 0a 0g 4d 1d 0d 1d 0d

III

Practice Tips:

-(III) Three lines under the letter means hold the note for 3 counts (slow-long bow)

- Cont. means to continue the bow direction

Bornoff Bow Warm Up:

Created by: Monica Holy

Appendix N

"Allegro" for Double Bass

#12 Allegro

⊓ v cont...

0d 0d 0a 0a 1a 4a 0d 1a 0a 0a

. . . . X X X X . .

0g 0g 4d 4d 1d 0d 1d 4d 0d (quick bow lift)

. . . . X X X X II

⊓ v etc

0d 0d 0a 0a 1a 4a 0d 1a 0a 0a

. . . . X X X X . .

0g 0g 4d 4d 1d 0d 1d 4d 0d (quick bow lift)

. . . . X X X X II

⊓ v cont...

1a 1a 0a 0d 1a 1a 0a 0d 1a 4a 0d 1a 0a 4d 1d (long bow lift-watch!!)
(hold!!!)

⊓ v cont...

0d 0d 0a 0a 1a 4a 0d 1a 0a 0a

. . . . X X X X . .

0g 0g 4d 4d 1d 0d 1d 4d 0d (quick bow lift)

. . . . X X X X II

Practice Tips:

- Lifts always go back to middle bow
- LINE 5 is big, long, connected bows
- At the end of LINE 5-wait, freeze, look at conductor, lift
- (.) Dot means short-stoppy bows
- (X) means quick note (eighth note)

Bornoff Bow Warm Up:

Appendix O

"Song of the Wind" for Double Bass

#13 Song of the Wind (Bass Only)

⊓ v ⊓ v ⊓ v ⊓ v cont....

0d 1d 4d 0g 1g 1g 1g 1g

4g 0g 0d 4g 1g rest! lift!

4g 0g 0d 4g 1g rest! lift!

1g 0g 0g 0g 0g 4d 4d 4d 4d 1d 1d 1d

0d 4d 1g lift!

1g 0g 0g 0g 0g 4d 4d 4d 4d 1d 1d 1d

0d rest!

Bornoff Bow Warm Up:

Created by: Monica Holy

Appendix P

"Perpetual Motion" for Double Bass

#14 PERPETUAL MOTION

⊓ v cont...
OD 1D 4D 4D 1D 4D OG OG 4D OG 1G 4D OG 1D **1G 1G**
. . . . . cont....
OD 1D 4D 4D 1D 4D OG OG 4D OG 1G 4D OG 1D **OD OD**

OD 4A 1A 1A 4A 1A OA OA 1A OA 2E 2E 1E OE **OA OA**
OD 4A 1A 1A 4A 1A OA OA 1A OA 2E 2E 1E OE **OD OD**

4D OD 1D 1D OG 1D 4D 4D OA 1E 2E OA 1A 4A OD OD
4D OD 1D 1D OG 1D 4D 4D OA 1E 2E OA 1A 4A OD OD

OD 1D 4D 4D 1D 4D OG OG 4D OG 1G 4D OG 1D **1G 1G**
OD 1D 4D 4D 1D 4D OG OG 4D OG 1G 4D OG 1D **OD OD**

Practice Tips:
- No stops in between all lines, one entire song
- To help memorize, work at two lines at a time
- (.) Dot means short-stoppy bows

Passed singles...now play doubles!

Practice Tips for Doubles:
- Vocally say the notes " DD, 11, 33, 33…"
- Play doubles but stop in between each note
- Memorize two lines at a time

Bornoff Bow Warm Up:

Created by: Monica Holy