DETERMINING ELEMENTARY, MIDDLE, AND JUNIOR HIGH SCHOOL ORCHESTRA DIRECTORS' PRESENTATION SEQUENCE OF TECHNICAL SKILLS TO BEGINNING AND INTERMEDIATE STRING STUDENTS

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The purpose of this study was to determine elementary, middle, and junior high school orchestra directors’ presentation sequence of technical skills to beginning and intermediate string students. Surveys were distributed to 209 public school orchestra directors from Illinois (n = 57), Texas (n = 53), California (n = 51), and North Carolina (n = 48). A total of 60 teachers from Illinois, North Carolina, and Texas responded to the survey. Since only three teachers responded from California, data from this state were removed from analysis in order to allow for a more reasonable comparison among the other three states. The survey consisted of four sections: director profile, school profile, skills, and method books. Results of the director profile indicated that 76.7% of respondents were female, 55% have a masters degree, 50.85% play the violin, and 18.6% have taught for more than 25 years. School profile indicated that 51.72% of respondents teach at a middle school, 84.4% teach in a suburban setting, and 50% start their students on a string instrument in the sixth grade. The skills section of the survey asked respondents to supply data pertaining to nine technical skills for the developing string player: (a) placing the bow on the string for the first time, (b) note reading, (c) low second finger, (d) low first finger, (e) students tune their own instruments, (f) vibrato, (g) shifting (violin/viola), (h) shifting (cello), and (i) shifting (bass). Seven of these nine skills are currently introduced by 48.2% of directors in the sixth grade. The method books section of the survey indicated that Essential Elements was used by 86.67% of directors. Implications for music education included encouraging orchestra directors to introduce vibrato before high school. Suggestions for further research included compiling a handbook describing the effective teaching techniques orchestra directors use to teach the nine technical skills to their developing string players.
This thesis is dedicated to my parents, William and Sally Bell, who have supported me in my musical and educational endeavors, helped me to believe that all things are achievable, and always encouraged me to strive for excellence; to all my family members for their genuine interest in my studies and support as I returned to graduate school; to my exceptional music teachers, Dr. Larry Griffin, Mrs. Joanne Hopper, Dr. Vincent J. Kantorski, and Dr. Penny Kruse who served as models of outstanding educators, professionals in the field, and lifelong learners; and to my fiancé, Eric Lewis, for his patience and encouragement during the journey.
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“It takes a village to write a thesis.” – Adaptation of an African Proverb

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CHAPTER I: INTRODUCTION

Since 1980, the number of students enrolled in school orchestras (approximately 15%) has stayed essentially the same (Smith, 1997). It is possible to speculate a number of reasons for this stagnation. One such speculation is the fact that high school orchestra programs are at-risk due to factors such as scheduling and competition with college preparatory curriculums (Stewart, 1991).

In 1989, a national study was conducted to evaluate the status of orchestra programs in the public schools (Leonhard, 1991 as cited in Gillespie & Hamann, 1998). The National Arts Education Research Center surveyed 1,326 schools in the United States that were divided into six categories: large elementary schools, small elementary schools, large middle schools, small middle schools, and large secondary schools, and small secondary schools. Researchers at the University of Illinois surveyed principals at selected schools in each of the six categories. When Leonhard compared the results of his 1989 survey to a similar survey in 1962 conducted by the National Education Association (NEA, 1962 as cited in Gillespie & Hamann, 1998), he found a large decrease in the percent of schools offering orchestra programs.

Results of Leonhard’s study indicated that 35% of all elementary schools, 42% of large middle schools, and 37% of all secondary schools offered string instruction. In the elementary schools, results indicated that most first year orchestra classes occurred in grades four, five, or six and used a Suzuki-blend (Suzuki and other unspecified methods) approach to teaching. Leonhard also found that elementary school orchestra programs gave an average of two concerts annually, while middle school orchestra programs gave an average of five concerts annually. In a survey of Ohio string teachers, Horvath (1993) reported that most orchestra directors taught for an average of 13 years and taught at more than one school. Horvath also reported that these same
directors indicated a string instrument as their primary instrument. Jenkins (1993, as cited in Gillespie & Hamann, 1998) found 30% of the orchestra directors he surveyed to be non string players.

While the research from Jenkins (1993, as cited in Gillespie & Hamann, 1998), Gillespie and Hamann (1998), and Horvath (1993) is valuable, it is difficult to find current research in orchestra education. As Gillespie (1991) stated:

…after a review of the literature, it is apparent that little pedagogical research has been done to investigate the effectiveness of teaching curricula and specific technical exercises that are recommended by string experts. As a result, it is currently very difficult for string teachers to make wise, research-based decisions for the planning of their teaching. (p. 41)

Kantorski (1995) analyzed 252 string education dissertations written between the years of 1936-1992 and categorized them into nine topic areas. Of these nine topic areas, 27.18% of dissertations were concerned with skills/techniques, followed by the second topic area of performance practice, which comprised 21.42% of the dissertations. The four topic areas of methods (8.86%), curriculum designs/instructional strategies (7.68%), string class (5.17%), and string programs (3.10%) had a combined total of only 24.81%. With such low percentages for these four important areas of orchestra education (methods, curriculum designs/instructional strategies, string class, and string programs), it seems important that additional research be conducted and published in these areas in order to improve and expand orchestra programs.

Purpose of the Study

The purpose of this study was to determine elementary, middle, and junior high school orchestra directors’ presentation sequence of technical skills to beginning and intermediate string students. In order to acquire this information, as well as to identify the method books used by
selected orchestra directors, I surveyed 209 public school orchestra directors in the Eastern, Southern, Midwestern, and Western sections of the United States. I asked three Bowling Green State University applied string professors to recommend states with exemplary public school orchestra programs in each of these sections of the country. Upon their recommendations, I contacted the executive committee members of both the Music Educators National Conference (MENC) and the American String Teachers Association (ASTA) of California, Texas, North Carolina, and Illinois in order to determine metropolitan areas within their states that have distinguished orchestra programs. I then sent a cover letter to selected orchestra directors via e-mail and the US Post Office.

The survey consisted of four parts: director profile, school profile, skills, and method books. Director profile questions gathered information about recipients’ gender, years as a teacher, and degrees earned. School profile questions gathered data about the number of students enrolled in the school and in the orchestra program, and whether the school was classified as urban, suburban, or rural.

Through conversations with Bowling Green State University string professors and orchestra directors in the public schools, nine technical skills were identified as being important in the development of a string player: (a) placing the bow on the string for the first time (b) note reading (c) low second finger (d) low first finger (e) students tune their own instruments (f) vibrato, (g) shifting (violin/viola), (h) shifting (cello), and (i) shifting (bass). Questions in this section gathered data about the grade levels in which the nine skills are introduced by each director. The method books section of the survey gathered information about the method books respondents use in their respective schools.
CHAPTER II: REVIEW OF LITERATURE

History of Public School Orchestra Programs

America was founded primarily upon religious beliefs, and many people were opposed to the infiltration of secular music into their society (Keene, 1982). This made the formation of school orchestras a challenge because they often played non-liturgical pieces. It was a slow process, but opinions gradually changed as professional orchestras were formed and began performing with a high level of musicianship, style, and technique.

String instrument teaching started primarily in conservatory atmospheres that focused on private lessons and used teaching books prepared by Europeans. With the introduction of string lessons into the public school setting, the demands to reach a large number of students made the opportunity to provide individual lessons very difficult, and teachers began to teach students in large groups (from 16 to 30 students). These larger classes required the writing and publishing of new method books (Keene, 1982). Some teachers used adapted conservatory method books, but others recognized the need for a different approach and designed their own methods to better accommodate the larger class sizes.

Around 1850 instrumental teachers opened schools and academies of music, giving both private and group lessons. At this time, some teachers combined singing class techniques with instrumental instruction. The music they taught was dance or religious music. One of the earliest documented records of instrumental music in the public schools was in 1879 when an instrumental teacher was hired at the high school in Lancaster, Pennsylvania (Keene, 1982). As early as 1857, the first instrumental school ensemble was started in Boston at the Farm and Trades school on Thompson Island. This first ensemble has been referred to as a band, but its instrumentation was reported as “tissue covered combs, three violins, and a bass viol” (Ellyn,
1950, p. 25). Other cities that offered instrumental music before 1900 were Wichita, Kansas; Chelsea, Massachusetts; Edinburg, Pennsylvania; New Albany, Indiana; and Sullivan, Indiana.

Orchestra programs began at the high school level with the teacher selecting students who already possessed reasonable playing ability, and then having them play together as an ensemble (Birge, 1988). These first orchestras had orchestrations similar to those of theater orchestras and consisted of both students and their private teachers. School orchestras in the late 1800s and early 1900s had the following instrumentation: first violins, second violins, occasional cellos and basses, cornets, trombones, clarinets, flutes, drums, and piano (Birge, 1988). These orchestras usually performed at school assemblies and graduations, as well as public concerts.

The Howell brothers were very important in the development of an early orchestra program in Arkansas. From 1849-1861, James and Joseph Howell taught music and sold instruments in Cotton Plant, Arkansas (Keene, 1982). The Howells taught violin in group classes, and used a pentatonic scale approach that employed the first and third fingers for violin and viola in addition to open strings for the beginning students. Joseph Howell also wrote his own method book titled the *New Class Book* around 1859 (Keene, 1982).

Another pioneer educator in orchestra education was Lewis A. Benjamin, Sr. (Hopkins, 2006, ¶2). Benjamin was a performer and teacher in Brooklyn, New York from 1847-1891. He primarily taught the violin and preferred teaching classes as opposed to individual lessons. In 1851, Benjamin published a method book titled *The Musical Academy* for his instrumental classes. This book was approximately 25 pages long and had 18 popular tunes of the day, mostly dance tunes, arranged in three parts, two treble and one bass (Keene, 1982).

A pivotal event for orchestra programs in the public schools was the Maidstone movement in England. In 1889 the Murdock Company, musical instrument dealers, introduced
violin classes at a school in Maidstone, England (Keene, 1982). The purpose of this program was to develop a love for orchestral music in young musicians. The Murdock Company organized the program and supplied the instruments, music, equipment, and teachers for the school. Students in this program had to pay for private lessons, but the company made the cost very low so that all children could afford it. After seeing the success of the program in one school, the Murdock Company expanded this idea to other schools and annually presented a mass concert. In 1905, the mass concert was comprised of 700 students. In 1914, the mass concerts had grown to include 6,800 students (Keene, 1982). These masses of violinists played to the accompaniment of a single brass band. World War I put an end to these musical endeavors, but three Americans (Albert Mitchell, Charles Farnsworth, and Paul Stoeving) brought these ideas to the United States.

In 1910, Dr. Albert Mitchell, a music supervisor in the Boston public schools went to England for a year to study their method for teaching large numbers of students in the Maidenstone movement (Mark & Gary, 1992). After his year abroad, Dr. Mitchell returned to the United States and immediately started five violin classes in Boston that met after the school day (16 – 20 students per class) (Keene, 1982). Dr. Mitchell did not ask for any fees for his classes. Students brought their own instruments to the classes. Some of their instruments had no bridges, many had no strings, and the bows in many cases had a “Robin Hood” shape to them (Birge, 1988). After three years, his impressive results allowed him to offer his classes during the school day (Keene, 1982). Dr. Mitchell found that the European books did not meet his pedagogical philosophies, so he wrote *A Class Method for the Violin* (1911). He also adapted and developed many mechanical aids to help in his teaching of class violin: non-slip pegs, metal strings, paper finger-board charts, and chin and shoulder rests. After Dr. Mitchell’s innovations in teaching
large groups, class teaching methods were applied to all band and orchestra programs (Birge, 1988).

Charles Farnsworth and Paul Stoewing also went to England and influenced the success of Dr. Mitchell’s program. Charles Farnsworth wrote publicity for Mitchell’s programs, and Paul Stoewing, who was a concert violinist, wrote books and taught classes. He later spoke to the Music Teachers National Association about the events in England in 1914 (Keene, 1982).

Orchestra programs have undergone many changes in the public schools since the 1800s. These programs started as an extracurricular activity in the high school and by 1925 the orchestra had assumed a curricular role during the day in the high school schedule. One of the challenges in the 1800s was that having an ensemble only in high school meant that people were continually graduating, and therefore the orchestration of the ensemble was constantly changing (Birge, 1988). As a result, teachers saw a need and opportunity to introduce orchestra programs into the junior high and elementary grade schools. For example, in Cincinnati there were eight orchestras in the lower schools in 1913, three years after the official induction of a curricular orchestra program in the high school (Mark & Gary, 1992).

Five Influential Authors in the Development of Orchestra Method Books

The class method book developed out of a need to train students in both heterogeneous and homogeneous class settings. Teachers were finding that the conservatory method books, which were quite suitable for individual lessons, did not lend themselves well to class instruction. Pioneers of orchestra method books included string educators such as Dr. Albert Mitchell and Lewis Benjamin (see Appendix D for a complete list of published method books from 1914 to 2004). Five pioneers of orchestra method books are discussed below in the
chronological order of their birth: Shinichi Suzuki, Merle Isaac, Samuel Applebaum, George Bornoff, and Paul Rolland.

Shinichi Suzuki lived from 1898-1998. Suzuki was the son of a violin maker and taught himself to play the violin at the age of 17 after hearing a recording of Mischa Elman, a violin virtuoso (Suzuki, n.d. ¶1). He was a Japanese music educator who believed every child had the talent to learn to play the violin to some degree. His philosophy was that all students are born with musical ability, and that it is the teacher’s job to nurture it. He first came to the United States on May 11, 1958 when he visited Oberlin College, in Oberlin, Ohio. Both in Japan and in the United States, Suzuki was respected as a teacher who taught his students to play by rote, but also developed in them the ability to play musically, with good tone quality, good posture, and excellent technical skills.

The philosophy behind Suzuki’s method was what he referred to as the “mother tongue approach” (Suzuki, n.d. ¶1). He believed that children learn music as they learn language, by repetition and imitation (Speed, 1992). He required his students to listen to recordings of professional string players performing the excerpts assigned to them in their lessons. After students learned the notes by rote instruction and listening to professional recordings, Suzuki would then introduce the written music (Machover & Uszler, 1996).

The challenge of incorporating Suzuki’s original lesson setup into the public schools is the reliance on parental participation for success. In traditional Suzuki lessons, parents are required to learn all of Book 1 (of nine books) of the Suzuki method before the teacher will accept their child on the same instrument. In this way the teacher and parent together can co-teach the child. In the public school setting, using the traditional Suzuki method can be a
challenge without enough parent support. Some teachers have incorporated the Suzuki method in its original form, using individual and group lessons with parental involvement, starting at the Pre-K or Kindergarten level (Speed, 1992). Other public schools have successfully used the Suzuki books in the fourth or fifth grade in an adapted form with their beginning orchestra classes (Speed, 1992).

Merle Isaac

Merle Isaac started his music career taking piano lessons from a teacher for 25 cents a week (“Merle Isaac’s Comments to Students in 1976,” 1998), and eventually earned the title of “dean of school orchestra arrangers” (Harley, 1989, p.14). Born in the same year as Shinichi Suzuki (1898) and dying in 1996, Isaac had many accomplishments in his 97 years (“Merle J. Isaac,” 1996). He pursued his piano career until the end of the eighth grade, deciding to sing in the glee club for his first and second year of high school. In his third year of high school, Isaac joined the orchestra and purchased a wooden flute from the Sears and Roebuck catalogue. After teaching himself to play, he was the only flutist in his orchestra for his last two years of high school. Upon graduating from high school, Isaac worked nonmusical jobs but always found time to practice. Eventually he learned the organ and began playing for silent movies. When sound was added to films in 1927, Isaac realized his organ job would soon be obsolete, and he then started his career as a teacher in the Chicago Public Schools.

Isaac’s string method developed due to the variety of instruments and abilities he encountered at Marshall High School, his first teaching position. He realized that the music in his school’s orchestra library was either too easy or too difficult for his students. Only a few pieces were appropriate for his ensembles. Despite his busy teaching schedule, Isaac took instrumental lessons in the evenings, on the weekends, and classes in the summer in order to learn more about
arranging and theory. He also learned to play all of the orchestra instruments in order to be a better arranger/composer. With this knowledge and extensive performance time on the instruments, Isaac successfully edited and arranged many works for both string and full orchestra.

*Samuel Applebaum*

Samuel Applebaum lived from 1904 until 1986. He was born in New Jersey and later graduated from Juilliard ("Samuel Applebaum," 1986). He then taught at the Manhattan School of Music for 35 years. He published more than 400 method books, chamber music, and orchestra arrangements including *String Builder* (three volumes, 1960), and *With the Artists* (also known as *The Way They Play*, from 1955-1986) (Mischakoff, 1995). In 1967, he was named American String Teacher Association teacher of the year.

Applebaum’s contribution of mass amounts of material for string orchestra solidified his role as an important contributor in the development of string methods. He was instrumental in defining music pedagogy and in making classroom methods more effective in the string classroom. As a string educator, he believed that students should start playing in unison and gradually expand to playing in rounds, then two-part arrangements, and finally on to music with multiple parts (Applebaum, Kapuscinski, Karr, et al., 1979). Applebaum placed high importance on the development of the student’s musical ear. He also valued the quality of class lessons and wanted to ensure that a lesson to a large number of students would be equally as high in quality as an individual lesson. Applebaum desired to see talented students be challenged within the ensemble setting so that no child felt bored or overwhelmed. He was eager to challenge each student at their individual levels. When asked about method books, Applebaum believed that a string method series should develop skills first by rote, then by applying the skill to the
instrument, and finally by teaching the student how to read music, memorize it, and sight-read. He also thought that a method book should engage the students’ interest, improve tuning, teach them how to practice, and develop patience.

George Bornoff lived from 1907-1998. He was born in Winnipeg, Manitoba, Canada. As a young boy, Bornoff often went to concerts and, through friends, was able to take lessons with violinists when they performed in local concert halls. Bornoff was a natural teacher even as a teenager; his friends would go to him for help with difficult passages in preparation for their lessons. From 1945 to 1953, Bornoff was a professor at Columbia University and became professor of music education at Boston University in 1953. Bornoff is remembered as having an incredible memory for violin fingerings and an ability to remember the individual sounds of different violinists (Chan, 1998). As a violinist, he was most influenced by Fritz Kreisler and Jascha Heifetz.

In his role as teacher, Bornoff was always looking for ways to improve his teaching. The Bornoff Method focused on five finger patterns (using a combination of whole and half steps) and four types of bowings for teaching the violin. Bornoff believed that if the student were successful in mastering these bowings and finger patterns, they would be able to build upon this foundation to succeed in any key (Chan, 1998). He also developed a seven-step system for teaching his students vibrato. This process starts with slow and large movements that gradually becomes faster and more refined.

Bornoff was very concerned that teachers be creative in their teaching styles and that they meet the individual needs of each student. With this in mind, it is important to note that Bornoff intended for his method books to serve as teaching references. In a class setting, the Bornoff
materials encouraged the teacher to have slower students play an easy passage, while having the more advanced students play the same passage in octaves, harmonics, or perhaps in a higher position. Bornoff, similar to Suzuki, believed that every child has musical abilities which can be developed (Chan, 1998).

Paul Rolland

Paul Rolland was born in Hungary on November 21, 1911 and lived until 1978 (Smith, 1987). He began violin lessons at age 11. From 1935-1938 he was at the height of his performing career as principal violist with the Budapest Symphony Orchestra. In 1940, Rolland went to Simpson College where he became the head of the string department. It was in this capacity that he was able to develop his teaching skills and methodology.

Rolland’s method of teaching string classes is a synthesis of ideas. Bales (1982, p. 4) best described Rolland’s methodology when she stated “he combines the Hungarian musicality with the American team-sports approach, and the Japanese influence of game-like drills and in the unison playing of solos” (Bales, 1982, p.42). Rolland is best known for his commitment to young string players and to his idea that students need to be actively involved in learning at every string lesson. In 1959, Rolland began a project that later became known as the Illinois String Research Project, and in 1964 he prepared a documentary video of the Senior String Camp (grades seven through nine) performing his remedial exercises.

Teaching Developmental Skills in String Playing

There are many technical skills that are important to a developing string player. Students typically develop different skills at varying ages, and some students may be predisposed to learning certain skills at a faster pace than other students.
Tuning

As beginning string players are given an instrument and prepare to play the very first notes, teachers are struck with the inevitable challenge of how to tune a large numbers of string instruments. Although tuning in the early weeks may be time consuming, students should be taught to tune their own instrument as early as possible.

Hopkins (2000) acknowledged that tuning is a process whereby the student is gradually weaned away from the help of the teacher and encouraged to tune their own instruments from an early age. As students are weaned from teacher support, Beller (1982) recommended using a tuner or piano to play one pitch (e.g., A), and then having students tune one person at a time. He stated that, after the piano plays the open string pitch designated by the director, the basses should enter one by one as directed by the teacher. After all of the bass students are playing in tune, the teacher then adds members of the string section one by one continuing from the cellos to the violas, finally tuning the violins. When one open string (e.g., A) has been tuned, the director then starts over by playing the next open string pitch on the piano and continuing the process with the entire orchestra. Hopkins (2002) stated that teachers should never take an instrument from a student, but should have the student hold the instrument, pluck the tuning string (e.g. A), and allow the teacher to tune the pegs/fine tuners as the student holds the instrument and plucks. This allows the student to see tuning as a joint effort and later it will be easier for them to assume responsibility for tuning their instrument.

Hopkins (2002) believed that in the elementary and junior high orchestras, students on all instruments should have fine tuners on each string. Kjelland (1993) agreed with Beller (1982) and Hopkins (2000, 2002) that tuning is a gradual process, and should be introduced in a specific sequence of steps.
Right Hand Technique

Placing the bow on the strings, a right hand technique, is a very pivotal moment for young string players. Prior to this technical skill string players have been learning the skills for their left and right hands separately. Allen (1994) stated that after students have first learned technical skills in both their left hand (fingering) and right hand (holding the bow), he then allows his students to do shadow bowing (bowing in the air above the strings) and finally to bow the open strings on the violin. Both Green (1966) and Lowe (1973, as cited in Gillespie, 1991, p. 35) found that, for beginners, using short bows rather than long bows gave students more success as they combined the left hand technique with the coordination of pulling the bow.

Left Hand Technique

As with right hand technique, left hand technique is also vital to the success of the young string player. The challenge of where to place the fingers on the fingerboard to produce the correct pitch can be very difficult for the beginning musician. Pinner (2000) and Bergonzi (1997) both found that finger tapes help students achieve success in playing the correct notes, and that they also helped students to learn how to set up a correct left hand frame.

Note Reading

Another important skill for young string players to learn is note reading. More than 50% of orchestra programs in the public schools start in the fourth or fifth grade (Gillespie & Hamann, 1998). In many elementary public school programs, students are exposed to music through a general music curriculum. It is possible that students may know how to read notes by the fourth or fifth grade, but there may also be students who do not know how to read them. Regardless of the students’ previous experience, directors must allot time in their rehearsals to teach two separate skills note reading, and how to play the violin and read music simultaneously.
Before the 1960s, string teachers in the classroom setting were teaching students how to read notes along with left hand technique, right hand technique, and bowing (Hewson, 1966). With new string educators evaluating the current methods, and the introduction of the Suzuki method in 1970, teachers began to reevaluate the timing of introducing note reading in the beginning string curriculum. Allen (1994) advocated teaching note reading as a layered curriculum that encouraged directors to teach note reading, left hand technique, and right hand technique as individual components in the first weeks of string lessons. After students gain a comfort level with the instrument, they are ready not only to combine the left and right hand motions as previously discussed, but to be slowly introduced to note reading. Similar to Gillespie (1991) and Allen (1994), Suzuki was also a strong proponent of rote before note teaching when instructing his beginning students (Suzuki, n.d. ¶1).

**Shifting**

Shifting is a skill that can be developed after right and left hand skills have been mastered and after the students have learned to tune their own instruments. The ability to read notes fluently is a necessary precursor to shifting (Sinsabaugh, 2005). There are two types of shifting: the glide (portamento) and the inaudible (often used in scales). When teaching the intermediate student how to shift, many teachers start with the glide, and may have a number of teaching strategies to use with their students (Cadieux, 2004; Sinsabaugh, 2005). Bass and cello students will need to shift earlier than violin and viola students due to the relationship between the size of the instrument and the size of the human hand, but similar techniques for teaching shifting can be used with all string instruments.
Vibrato

After mastering all of the previous skills, a student has been technically prepared to learn how to play with vibrato. Applebaum (1986), Lucktenberg (1994), and Fidlar (1989) stated that after students have had time to develop basic left hand skills, bowing, and intonation, they will have more motivation to learn the new skill of vibrato. Teachers have a variety of timelines for the appropriateness of introducing vibrato (Olstead, 1979). Some like to introduce the fundamentals of vibrato during the first year, some the second year, and some the third year in the public school setting. However, some teachers wait until high school before introducing this skill (Olstead, 1979). Olstead speculated that teachers who wait until high school to teach vibrato may feel insecure about teaching this advanced string technique. Fidlar (1989) stated that teachers should always model a good vibrato from the first lesson and then, as the students ask about it and take an interest in it, the time is appropriate to teach it. Students are more relaxed when they first begin string instruction, and teaching them to remain relaxed from the first lesson will prepare them to be successful with vibrato when it is formally introduced later (Mishra, 2003). Lucktenberg (1994) stated that students should learn vibrato in the intermediate grades. Lucktenberg (1994), Mishra (2003), and Kazez (1984) all agreed that it is much better to start students on vibrato too early, rather than too late.
CHAPTER III: PROCEDURE

Respondent Selection

The purpose of this study was to determine elementary, middle, and junior high school orchestra directors’ presentation sequence of technical skills to beginning and intermediate string students. This study did not assign specific grade levels to the labels “elementary, middle school, and junior high” with the knowledge that grade levels at these institutions can vary from state to state and even district to district. It can be determined retrospectively through analysis of the results that the following generalizations about grade level can be made: (a) elementary, K-6, (b) middle school, 6-8, and (c) junior high, 6-9 or 6-11. In order to acquire information about orchestra directors’ presentation sequence of technical skills, as well as to identify the method books they use, I surveyed 209 public school orchestra directors in the Eastern, Southern, Midwestern, and Western sections of the United States.

I asked three Bowling Green State University applied string professors to recommend states with exemplary public school orchestra programs in each of these sections of the country. Upon their recommendations, I contacted the executive committee members of both the Music Educators National Conference (MENC) and the American String Teachers Association (ASTA) of Illinois, Texas, California, and North Carolina in order to find cities and districts within their states that have distinguished orchestra programs. After receiving recommendations from both the MENC and ASTA executive members, I researched schools on the internet to acquire names of the schools and teachers. After finding the necessary information of school name, teacher name, school address, and teacher e-mail, I invited 57 teachers from Illinois, 53 teachers from Texas, 51 teachers from California, and 48 teachers from North Carolina to participate in this study.
Survey Distribution

First, I mailed each respondent a cover letter inviting him or her to complete the online survey. On the following day, I sent a similar copy of the cover letter to the respondents’ e-mail addresses inviting them to participate in the online survey and to inform them that they would also be receiving a written invitation in the mail with the same information. In both the electronic and paper versions of the cover letter, I included the web address for the online survey. Respondents were then directed to go to the website and complete the survey. The website was secure from outside users because it was not registered with any search engines. The only people who could participate were those who had received either or both the electronic and written invitation which included the website address. Respondents then had three weeks to complete the survey. Twelve days after mailing out the initial cover letter, I e-mailed all respondents a follow up reminder which included a link to the survey.

Components of the Survey

The first and second sections of the four-part survey gathered information about director profile and school profile, respectively. All questions in these sections were closed ended. Examples of director profile questions consisted of gender, years as a teacher, and degrees earned. School profile questions gathered data about the number of students enrolled in the school and in the orchestra program, whether the school is classified as urban, suburban, or rural, and the number of students who take private lessons.

The third section of the survey contained both open and closed ended questions. After discussions with Bowling Green State University professors and public school orchestra directors, nine skills were identified as being significant in the development of the young string player: (a) placing the bow on the string for the first time (b) note reading (c) low second finger
(d) low first finger (e) students tune their own instruments (f) vibrato and (g) shifting (violin/viola), (h) shifting (cello), and (i) shifting (bass). Closed ended questions in this section gathered data about the grade levels in which the seven skills are introduced in each teacher’s district. Open ended questions in this section asked respondents to share successful techniques that they have used to teach any of the seven skills.

The fourth section of the survey gathered information about the method books respondents use in their respective schools. This section consisted of several closed ended questions and two open ended questions. The last question of the survey was an open ended question that asked respondents to share any suggestions or advice they may have for pre- and in-service orchestra teachers relating to method book selection, recruitment, retention, or professional development.
CHAPTER IV: RESULTS

This chapter is divided into five sections. The first four sections report the data from each section of the closed ended questions in the survey: director profile, school profile, skills, and method books. The fifth section reports cross tab data. The cross tab data are divided into four parts. The first part compares the state and the higher education degree each director has earned. The second part reports cross tab data comparing the number of years directors had taught and the number of years they had been at their current teaching position. The third part of the cross tabs reports data from the skills portion of the survey, and the last part reports cross tab data from the method books section of the survey. Values in this chapter that do not add up to the total \( N \) of 60 (100%) respondents reflect the fact that not all who responded answered every question; only Questions 1, 2, 4, and 6 were answered by all 60 respondents. In the results section, the term respondents refers to orchestra directors.

Closed Ended Questions

Director Profile

A total of 209 elementary, middle school, and junior high orchestra directors were invited to participate in the online survey. Originally, letters were sent by mail and e-mail to participants in Illinois \( (n = 57) \), Texas \( (n = 53) \), California \( (n = 51) \), and North Carolina \( (n = 48) \). The original response rate was 31.5\% \( (N = 63 \text{ of } 209 \text{ directors}) \). Because there were only three responses from California these three surveys were eliminated from analysis to allow for a more realistic and useful comparison of the data. The new combined \( N \) of the three states was 60 \( (\text{IL } [43.33\%, \text{ } n = 26], \text{ } \text{NC } [33.33\%, \text{ } n = 20], \text{ } \text{TX } [23.33\%, \text{ } n = 14]) \), which raised the response rate to 37.97\% \( (N = 60 \text{ of } 158 \text{ directors}) \).
Forty-six respondents (76.77%) were women, and 14 (23.33%) were men. Illinois had
the highest response rate (43.33%, \( n = 26 \)), followed by North Carolina (33.33%, \( n = 20 \)), and
Texas (23.33%, \( n = 14 \)).

Question 2 asked respondents to indicate the city and state in which they teach.
Respondents replied from a total of 21 cities. Illinois and North Carolina both had respondents
from eight cities, and Texas had respondents from five cities. Of these 21 cities, four cities
constituted almost half 46.67% (\( n = 28 \)) of the respondents; Naperville, IL had nine respondents
(15%), Charlotte, NC had seven respondents (11.67%), St. Charles, IL had six respondents
(10%), and Plano, TX also had six respondents (10%).

Question 3 asked respondents what their primary instrument was. All but one respondent
answered this question, as shown in Table 1. Of the 59 respondents, violin was the primary
instrument (50.85%, \( n = 30 \)), followed by cello (16.95%, \( n = 10 \)) and double bass (8.47%, \( n = 5 \)).

Table 1

<table>
<thead>
<tr>
<th>Primary Instrument</th>
<th>Number of years</th>
<th>( n )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violin</td>
<td></td>
<td>30</td>
<td>50.85</td>
</tr>
<tr>
<td>Cello</td>
<td></td>
<td>10</td>
<td>16.95</td>
</tr>
<tr>
<td>Double bass</td>
<td></td>
<td>5</td>
<td>8.47</td>
</tr>
<tr>
<td>Viola</td>
<td></td>
<td>4</td>
<td>6.68</td>
</tr>
<tr>
<td>Piano</td>
<td></td>
<td>4</td>
<td>6.68</td>
</tr>
<tr>
<td>Saxophone</td>
<td></td>
<td>2</td>
<td>3.39</td>
</tr>
<tr>
<td>French horn</td>
<td></td>
<td>2</td>
<td>3.39</td>
</tr>
</tbody>
</table>

(table continues)
Question 4 asked respondents to indicate the highest academic degree they had earned. Of the 60 respondents, 41.7% \((n = 25)\) had a bachelor’s degree, 55% \((n = 33)\) had a masters degree, and one \(1.7\%\) had a doctoral degree.

Question 5 asked respondents if a masters degree was required where they teach. Fifty-seven \(96.6\%\) indicated that a masters degree was not required where they teach. One person did not answer this question, and two respondents \(3.4\%\) indicated that a masters degree was required. One was from Plano, Texas, the other from Raleigh, North Carolina.

Question 6 asked respondents if a mandatory string methods course was part of their undergraduate education. Fifty-seven \(95\%\) responded that they were required to take a string methods course. Of the remaining 5% \((n = 3)\) who were not required to take a string methods course, two were currently teaching in Texas, and one was teaching in North Carolina.

Question 7 asked respondents to indicate the total number of years they had taken private lessons on a string instrument. Six \(10.2\%\) respondents had taken lessons for more than 25 years (see Figure 1).

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Count</th>
<th>Time (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contrabassoon</td>
<td>1</td>
<td>1.69</td>
</tr>
<tr>
<td>Flute</td>
<td>1</td>
<td>1.69</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>99.79</td>
</tr>
</tbody>
</table>
Question 8 asked respondents how long they had been teaching music in the schools (see Figure 2). Of the 59 respondents who answered this question, 13 (22.03%) had been teaching for one to three years, followed by 11 (18.6%) who had been teaching for more than 25 years.
Figure 2

*Number of Years Respondents Had Taught Music in the Schools*

Question 9 asked how long respondents had been in their current teaching position. Nineteen (32.76%) of the 58 respondents were in the first, second, or third year at their current teaching position (see Figure 3).
Question 10 asked respondents to list the number of years they had taught orchestra, general music, band, choir, or other music classes. Table 2 shows the different music classes that respondents had taught. Twenty-two (37.29%) taught general music for at least one year. Table 3 lists the number of years respondents had taught general music.
Table 2

*Types of Musical Classes Respondents Had Taught*

<table>
<thead>
<tr>
<th>Type of class</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Orchestra</td>
<td>59</td>
</tr>
<tr>
<td>General Music</td>
<td>22</td>
</tr>
<tr>
<td>Band</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
<tr>
<td>Choir</td>
<td>8</td>
</tr>
</tbody>
</table>

*Note.* Percentages in this table pertain to the 59 respondents who completed this question.

Table 3

*Number of Years Respondents Had Taught General Music*

<table>
<thead>
<tr>
<th>Number of years</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>1-5</td>
<td>17</td>
</tr>
<tr>
<td>6-10</td>
<td>1</td>
</tr>
<tr>
<td>11-15</td>
<td>1</td>
</tr>
<tr>
<td>16-20</td>
<td>1</td>
</tr>
<tr>
<td>21-25</td>
<td>0</td>
</tr>
<tr>
<td>More than 25</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
</tbody>
</table>

*Note.* One respondent did not indicate the number of years he or she had taught general music.
Question 11 asked respondents to indicate the number of years they had taught music in different school settings, specifically public, magnet, charter, private school-religious affiliation, and private school non-religious affiliation (i.e., Waldorf, Montessori, Other). Even though respondents were asked to give information about the number of years they had taught in a public school, it was not a repetition of Question 8 (which asked respondents how long they had been teaching music in the schools). Question 8 asks respondents to indicate total teaching years, which includes the time they had spent at non-public institutions (see Figure 4), while Question 11 specified the exact number of years respondents had spent in the public schools. Of the 59 respondents who answered this question, eight had taught at magnet schools, two at charter schools, and five at private schools with religious affiliations.
Question 12 asked respondents who taught at private, non-religious schools, to indicate the type of school and the number of years they were employed there. Only five respondents (8.33%) taught at a private, non-religious school. Of these five respondents, one taught at a Waldorf school and four taught at unspecified private schools.

Question 13 asked respondents to indicate how many years they had taught private string lessons (see Figure 5). The mode ($n = 22$) for respondents teaching private string lessons was between six to ten years.
Figure 5

*Number of Years Respondents Had Taught Private String Lessons*

![Graph showing the number of years respondents had taught private string lessons.](image)

**School Profile**

Question 14 begins the school profile section of closed-ended questions. School profile questions were designed to gather information about each of the respondent’s schools. Question 14 has five different parts, which will be represented in five separate figures and tables. Respondents were allowed to enter data for each school where they teach, to a maximum of six schools. Table 4 shows the number of schools assigned to each respondent.
The first part of Question 14 asked respondents to classify each of their schools as an elementary school, middle school, or junior high school (see Table 5). The second part asked respondents to indicate whether their school was in an urban, suburban, or rural setting (see Table 6). The third part of Question 14 asked respondents to indicate how many orchestras were at each of their schools. Nineteen schools had only one orchestra, while nine schools had more than five orchestras (see Figure 6). The fourth part asked respondents to indicate the number of orchestras at their schools that were organized by audition (see Figure 7). The fifth and last part of Question 14 asked respondents to indicate how many orchestra concerts (both at school and away from school) were given at their school(s) each year (see Figure 8).
Table 5

*Types of Schools Assigned to Respondents*

<table>
<thead>
<tr>
<th>Type of School</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>47</td>
<td>43.11</td>
</tr>
<tr>
<td>Middle School</td>
<td>58</td>
<td>53.21</td>
</tr>
<tr>
<td>Junior High</td>
<td>4</td>
<td>3.67</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>99.99</td>
</tr>
</tbody>
</table>

*Note.* Respondents may teach at more than one school; therefore, the total exceeds the N of 60 respondents.

Table 6

*School Locations Where Respondents Were Employed*

<table>
<thead>
<tr>
<th>Location</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>15</td>
<td>13.76</td>
</tr>
<tr>
<td>Suburban</td>
<td>92</td>
<td>84.40</td>
</tr>
<tr>
<td>Rural</td>
<td>2</td>
<td>1.83</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>99.99</td>
</tr>
</tbody>
</table>

*Note.* Respondents may teach at more than one school; therefore, the total exceeds the N of 60 respondents.
Figure 6

Number of Orchestras at Respondents’ Schools
Figure 7

*Number of Schools with Orchestras Organized by Audition*
Question 15 asked respondents to indicate the grade levels offered at each of their schools. They were asked to give information for up to six schools (see Table 7).
Table 7

*Grade Levels at Respondents’ Schools*

<table>
<thead>
<tr>
<th>Grade level</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Pre-K–5</td>
<td>33</td>
</tr>
<tr>
<td>3-5</td>
<td>4</td>
</tr>
<tr>
<td>4-6</td>
<td>9</td>
</tr>
<tr>
<td>6-8</td>
<td>56</td>
</tr>
<tr>
<td>6-9</td>
<td>2</td>
</tr>
<tr>
<td>6-11</td>
<td>2</td>
</tr>
</tbody>
</table>

| Total       | 106| 100.00 |

Question 16 had three parts. The first part asked respondents to approximate the number of students at their schools (total schools, \( n = 104 \)) (see Figure 9). The second part asked respondents to approximate the number of students in the orchestra program (total schools, \( n = 103 \)) (see Figure 10). The third part asked respondents to approximate the number of students taking private lessons at their schools (see Table 8).
Figure 9

*Approximate Number of Students at Respondents’ Schools*
Figure 10

Approximate Number of Students in the Orchestra Program at Respondents’ Schools

![Graph showing the approximate number of students in the orchestra program at respondents' schools. The x-axis represents the number of students ranging from 0-20 to More than 300, and the y-axis represents the number of schools ranging from 0 to 16. The graph indicates variations in the number of schools for different ranges of students.]
Table 8

Number of Respondents Who Had Students Taking Private Lessons

<table>
<thead>
<tr>
<th>Number of students taking private lessons</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>1-5</td>
<td>37</td>
</tr>
<tr>
<td>6-10</td>
<td>13</td>
</tr>
<tr>
<td>11-20</td>
<td>11</td>
</tr>
<tr>
<td>21-30</td>
<td>11</td>
</tr>
<tr>
<td>31-40</td>
<td>5</td>
</tr>
<tr>
<td>41-50</td>
<td>4</td>
</tr>
<tr>
<td>51-60</td>
<td>3</td>
</tr>
<tr>
<td>61-70</td>
<td>1</td>
</tr>
<tr>
<td>71-80</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
</tr>
</tbody>
</table>

Question 17 asked respondents to indicate the grade in which students began to play a string instrument as mandated by their school district. Twenty-nine (50%) respondents started their students on a string instrument in the sixth grade (see Figure 11).
Question 18 is the beginning of the third section of the survey, the skills section. After discussions with Bowling Green State University applied string professors and public school orchestra directors, nine skills were identified as being significant in the development of the young string player. Question 18 asked respondents to indicate the grade in which the district mandates that they introduce the following nine technical skills: (a) placing the bow on the string for the first time, (b) note reading, (c) low second finger, (d) low first finger, (e) students tune their own instruments, (f) vibrato, (g) shifting (violin/viola), (h) shifting (cello), and (i) shifting (bass) (see Table 9).
**Table 9**

*District Mandated Program – Introduction of Technical Skills*

<table>
<thead>
<tr>
<th>Skill</th>
<th>K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Not Introduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placing the bow on the string for the first time</td>
<td>1</td>
<td>----</td>
<td>----</td>
<td>5</td>
<td>10</td>
<td>9</td>
<td>25</td>
<td>----</td>
<td>----</td>
<td>1</td>
</tr>
<tr>
<td>Note reading</td>
<td>----</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>21</td>
<td>----</td>
<td>----</td>
<td>1</td>
</tr>
<tr>
<td>Low second finger</td>
<td>----</td>
<td>1</td>
<td>----</td>
<td>3</td>
<td>9</td>
<td>10</td>
<td>25</td>
<td>2</td>
<td>----</td>
<td>1</td>
</tr>
<tr>
<td>Low first finger</td>
<td>----</td>
<td>----</td>
<td>1</td>
<td>----</td>
<td>6</td>
<td>6</td>
<td>23</td>
<td>14</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Students tune their own instruments</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>3</td>
<td>7</td>
<td>23</td>
<td>11</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Vibrato</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>1</td>
<td>----</td>
<td>----</td>
<td>15</td>
<td>23</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Shifting (violin/viola)</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>2</td>
<td>----</td>
<td>17</td>
<td>24</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Shifting (cello)</td>
<td>----</td>
<td>----</td>
<td>1</td>
<td>----</td>
<td>2</td>
<td>4</td>
<td>26</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Shifting (bass)</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>24</td>
<td>3</td>
<td>----</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note.* Numbers in this table refer to the number of respondents who introduce a given technical skill in a particular year. Numbers in bold indicate the mode for each skill.
Question 19 asked respondents to indicate their ideal grade level for starting beginning strings, if they could design their own program (see Figure 12). Nineteen respondents (37.25%) would like to start students on a string instrument in the fourth grade, and no respondents were interested in starting beginners on a string instrument later than the sixth grade.

Figure 12

Respondents’ Ideal Program – Preferred Grade Level to Start Beginning Strings

Question 20 asked respondents to consider their response to Question 19 (respondents indicated their ideal grade level for starting beginning strings) and indicate their ideal grade for introducing the nine technical skills from Question 18. Forty-nine (81.67%) respondents answered this question (see Table 10).
### Table 10

**Respondents’ Ideal Program – Preferred Grade Level for Introducing Technical Skills**

<table>
<thead>
<tr>
<th>Skills</th>
<th>Pre-K</th>
<th>K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placing the bow on the string for the first time</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td><strong>17</strong></td>
<td>12</td>
<td>5</td>
<td>****</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Note reading</td>
<td>****</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td><strong>20</strong></td>
<td>10</td>
<td>4</td>
<td>****</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Low second finger</td>
<td>****</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td><strong>14</strong></td>
<td><strong>14</strong></td>
<td>9</td>
<td>****</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Low first finger</td>
<td>****</td>
<td>****</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td><strong>20</strong></td>
<td>11</td>
<td>4</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Students tune their own instruments</td>
<td>****</td>
<td>****</td>
<td>****</td>
<td>****</td>
<td>****</td>
<td>1</td>
<td>5</td>
<td>17</td>
<td><strong>24</strong></td>
<td>1</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Vibrato</td>
<td>****</td>
<td>****</td>
<td>1</td>
<td>****</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td><strong>27</strong></td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>****</td>
</tr>
<tr>
<td>Shifting (violin/viola)</td>
<td>****</td>
<td>****</td>
<td>1</td>
<td>****</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td><strong>20</strong></td>
<td>11</td>
<td>1</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Shifting (cello)</td>
<td>****</td>
<td>****</td>
<td>1</td>
<td>****</td>
<td>3</td>
<td>5</td>
<td>15</td>
<td><strong>20</strong></td>
<td>4</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
<tr>
<td>Shifting (bass)</td>
<td>****</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td><strong>19</strong></td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>****</td>
<td>****</td>
<td>****</td>
</tr>
</tbody>
</table>

*Note. Numbers in this table refer to the number of respondents who introduce a given technical skill in a particular year. Numbers in bold indicate the mode for each skill.*
Method Books

Question 23 begins the method books section of the survey. The method books section is a short section with one closed ended question and two open ended questions. Question 23 contains four sections: method book, school type (elementary, middle school, junior high, or both elementary and middle/junior high), core or supplement, and mandated or chosen. Respondents were asked to identify the method book they use (Table 11), whether it is the core method book of their curriculum or a supplement to other pieces/books (Table 12), and whether it was mandated by the district or if they chose it (Table 13).

Table 11

<table>
<thead>
<tr>
<th>Method books</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential Elements</td>
<td>52</td>
<td>51.49</td>
</tr>
<tr>
<td>Other(s)</td>
<td>26</td>
<td>25.74</td>
</tr>
<tr>
<td>Suzuki</td>
<td>14</td>
<td>13.86</td>
</tr>
<tr>
<td>Applebaum</td>
<td>3</td>
<td>2.97</td>
</tr>
<tr>
<td>Müller Rusch</td>
<td>3</td>
<td>2.97</td>
</tr>
<tr>
<td>Strictly Strings</td>
<td>3</td>
<td>2.97</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>101</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note.* Respondents may teach at more than one school; therefore, the total exceeds the N of 60 respondents.
Table 12

*Method Books Used as Core or Supplement*

<table>
<thead>
<tr>
<th>Usage</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>57</td>
<td>58.16</td>
</tr>
<tr>
<td>Supplement</td>
<td>41</td>
<td>41.84</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note.* Respondents may teach at more than one school; therefore the total exceeds the *N* of 60 respondents.

Table 13

*Method Book Selection: Chosen or Mandated*

<table>
<thead>
<tr>
<th>Selection</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chosen</td>
<td>77</td>
<td>81.05</td>
</tr>
<tr>
<td>Mandated</td>
<td>18</td>
<td>18.95</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note.* Respondents may teach at more than one school; therefore the total exceeds the *N* of 60 respondents.

Cross Tabs

The cross tabs section has four parts. The first part compares respondent degrees and their state. The second part compares the total years teaching and the number of years respondents have been in their current teaching position. The third part has four comparisons
between the skills section of the survey and four other questions. The last part showed the results of comparisons between method books and other questions from the survey.

Cross Tab – Part 1

Number of Educational Degrees in Each State

A cross tab between the respondents’ state of employment (Illinois, Texas, North Carolina) and the percentage of respondents in that state who hold either a bachelor or masters degree is presented in Figure 13.

Figure 13

Percentage of Respondents with Bachelor’s or Masters Degrees in Each State
Cross Tab – Part 2

Total Years Teaching and Years in Current Teaching Position

A cross tab comparison between Question 8 (How many years had you been teaching music in the schools, see previous Figure 2), and Question 9 (How many years had you been in your current teaching position, see previous Figure 3) is shown in Figure 14.

Figure 14

Total Number of Years Respondents Had Spent Teaching and Number of Years They Had Been in Their Current Teaching Position
Technical Skills

The third section of cross tabs compares data from Question 20 (At what grade would you introduce the following skills in your optimal string program) (see previous Table 10) and: (a) respondents’ degree (masters or bachelor) (see Figure 15), (b) primary instrument (string [violin, viola, cello, bass] or non string) (see Figure 16), (c) years teaching (1-10, 11-20, more than 21) (see Figure 17), and (d) location (urban or suburban) (see Figure 18). In the skills section of the survey, respondents were asked to indicate the grade level they would introduce the following technical skills to developing string players in the public schools: (a) placing the bow on the string for the first time, (b) note reading, (c) low second finger, (d) low first finger, (e) students tune their own instruments, (f) vibrato, (g) shifting (violin/viola), (h) shifting (cello), and (i) shifting (bass).

In section three of the cross tabs, the results display only the greatest $n$ for each grade level. As shown previously in Table 10, one respondent indicated that bass shifting should be introduced as early as kindergarten, 19 respondents indicated that bass shifting should be introduced in the fourth grade, and three respondents indicated that bass shifting should not be introduced until the seventh grade.
Figure 15

*Grade Level When Technical Skills are Introduced by Respondents With Bachelor’s and Masters Degrees*

![Graph showing grade level when technical skills are introduced by respondents with Bachelor's and Masters Degrees.](image-url)
Figure 16

Grade Level When Technical Skills are Introduced by Respondents Whose Primary Instrument is String or Non String

[Graph showing the grade level when technical skills are introduced by respondents with string or non-string instruments. The graph compares the introduction of skills such as bow, note reading, low 2nd finger, low 1st finger, students tune, vibrato, shifting (violin/viola), shifting (cello), and shifting (bass).]
Figure 17

*Grade Level When Technical Skills are Introduced by Respondents Based Upon Years of Teaching Experience*

![Graph showing grade level when technical skills are introduced by respondents based upon years of teaching experience. The graph compares different technical skills such as bowing, note reading, finger positioning, and shifting across grade levels (1-8) and years of teaching experience (1-21 years). Each skill is represented by a line with markers, differentiated by years: 1-10 years (solid square), 11-20 years (open circle), and more than 21 years (triangles). The x-axis represents technical skills, while the y-axis represents grade levels.*
Figure 18

*Grade Level When Technical Skills are Introduced by Respondents in Urban and Suburban Settings*

![Graph showing grade level when technical skills are introduced.](image)

*Note.* Rural schools only had two respondents and were excluded from analysis to allow for a more realistic comparison of the data.

Cross Tab – Part 4

*Method Books*

The final section of cross tabs reports the comparisons between, method books and (a) degree (Figure 19), (b) state (Figure 20), (c) mandated or chosen (Table 14), and (d) school type (Table 15).
Figure 19

Percentage of Bachelor’s and Masters Degree Respondents Who Use Each Method Book

- EE = Essential Elements
- SS = Strictly Strings
- MR = Müller Rusch
- S = Suzuki
- A = Applebaum
- O = Other
Figure 20

Percentage of Respondents, By State, Who Use Each Method Book

EE = Essential Elements
SS = Strictly Strings
MR = Müller Rusch
S = Suzuki
A = Applebaum
O = Other
Table 14

*Method Books: Core or Supplement of Curriculum for Each School Type*

<table>
<thead>
<tr>
<th>School Type</th>
<th>Core n</th>
<th>Core %</th>
<th>Supplement n</th>
<th>Supplement %</th>
<th>Total n</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>19</td>
<td>33.33</td>
<td>6</td>
<td>14.63</td>
<td>25</td>
<td>25.25</td>
</tr>
<tr>
<td>Middle School</td>
<td>35</td>
<td>61.40</td>
<td>32</td>
<td>78.05</td>
<td>68</td>
<td>68.69</td>
</tr>
<tr>
<td>Junior High</td>
<td>1</td>
<td>1.75</td>
<td>2</td>
<td>4.88</td>
<td>3</td>
<td>3.03</td>
</tr>
<tr>
<td>Elementary and MS/JH</td>
<td>2</td>
<td>3.51</td>
<td>1</td>
<td>2.44</td>
<td>3</td>
<td>3.03</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>57</td>
<td>99.99</td>
<td>41</td>
<td>100.00</td>
<td>99</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Table 15

*Method Books Used at Each Type of School*

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Essential Elements</th>
<th>Strictly Strings</th>
<th>Müller Rusch</th>
<th>Suzuki</th>
<th>Applebaum</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$ (% )</td>
<td>$n$ (%)</td>
<td>$n$ (%)</td>
<td>$n$ (%)</td>
<td>$n$ (%)</td>
<td>$n$ (%)</td>
</tr>
<tr>
<td>Elementary</td>
<td>16 (64%)</td>
<td>---</td>
<td>1 (4%)</td>
<td>3 (12%)</td>
<td>---</td>
<td>5 (20%)</td>
</tr>
<tr>
<td>Middle School</td>
<td>32 (46.38%)</td>
<td>2 (2.9%)</td>
<td>2 (2.9%)</td>
<td>10 (14.49%)</td>
<td>3 (4.35%)</td>
<td>20 (28.99%)</td>
</tr>
<tr>
<td>Junior High</td>
<td>1 (33.33%)</td>
<td>1 (33.33%)</td>
<td>---</td>
<td>1 (33.33%)</td>
<td>---</td>
<td>1 (33.33%)</td>
</tr>
<tr>
<td>Elementary and MS/JH</td>
<td>2 (66.66%)</td>
<td>---</td>
<td>---</td>
<td>1 (33.33%)</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Total</td>
<td>51 (51%)</td>
<td>3 (3%)</td>
<td>3 (3%)</td>
<td>14 (14%)</td>
<td>3 (3%)</td>
<td>26 (26%)</td>
</tr>
</tbody>
</table>

$(n = 100)$
CHAPTER V: DISCUSSION

This chapter contains three sections. The first is a discussion of responses to the 21 closed ended questions in the survey. The results of the cross tab comparisons of these 21 questions are discussed in the second section. The third section presents implications for music education and suggestions for further research.

Closed Ended Questions

Director Profile

Two-hundred and nine elementary, middle school, and junior high orchestra directors from California, Texas, North Carolina, and Illinois were invited to complete the online survey 63 replied with a response rate of 30.43 % (Question 1). Three states had relatively similar response rates: Illinois (43.33%, n = 26), North Carolina (33.33%, n = 20), and Texas (23.33%, n = 14). In order to allow for an equal comparison among the four states California was eliminated from the study due to a low response rate of 5.88% (n = 3). Directors from all four states received a letter both in the mail and by e-mail, but it was difficult to find the e-mail addresses for many California directors due to different organizational structures of their school websites. Since this was an online survey, the California directors (who had received only the printed letter by mail) may have been less likely to participate because they would have had to take extra steps to enter the web address for the survey in their internet address bar in order to access it. Consequently, it may be that California directors chose not to complete the survey because they did not receive the original e-mail invitation or subsequent e-mail reminder.

Consistent with Hamann (1993), a majority (83.05%) of respondents in this survey indicated that their primary instrument was violin, viola, cello, or double bass (Question 3). It was unexpected that more than half of the respondents (55%) had a masters degree (Question 4),
because 96.6% of respondents stated that a masters degree was not required where they teach (Question 5).

It was not surprising that 95% of respondents were required to take a mandatory string methods course as part of their undergraduate education (Question 6). When asked to indicate the number of years they had taken lessons on a string instrument, most respondents (71.19%) answered that they had taken lessons from 7-21 years (Question 7). There were three respondents who had never taken string lessons and a surprising six respondents who had taken lessons for more than 25 years.

The highest response rate (32.75%, \( n = 19 \)) for Question 9 indicated that respondents had been in their current teaching position for only one to three years. Even though 18.6% \( (n = 11) \) of respondents had taught for more than 25 years (Question 8) only 5% \( (n = 3) \) of them had been in their current teaching position for more than 25 years. This seems to indicate that, although respondents have continued teaching, they have changed schools several times.

Question 10 asked respondents to list the number of years they had taught music classes other than orchestra. Thirty-seven percent had taught general music. This is not surprising because respondents in this survey were currently employed in the elementary, middle school, or junior high setting, which is where many general music courses are taught. It was interesting to note that 23.73% of the respondents had taught band, receiving the second highest number of responses after general music. Although band and orchestra are both instrumental ensembles, there are some striking differences between the two groups, especially during students’ developmental years in music. For example, when starting a beginning orchestra program, the fundamentals of producing a sound on violin, viola, cello, and bass are somewhat similar. When teaching a beginning band program however, it is necessary for the director to know how to
produce a sound on a variety of different instruments. The homogeneous setting of teaching all stringed instruments differs greatly from teaching in the heterogeneous setting of brass, woodwinds, and percussion.

Questions 11 and 12 asked respondents to indicate the number of years they had taught in different types of schools: public, magnet, charter, private school-religious affiliation, and private school non-religious affiliation (i.e., Waldorf, Montessori, Other). One-third of respondents (33.33%) had taught in public schools for 0-5 years. Respondents in this category accounted for more than twice the number from any of the other 5-year groupings. This may be due to the fact that these respondents are recent college graduates and may remember the value of performing and participating in research projects. It was surprising that only five of the 60 respondents had taught at private schools with religious affiliations, and five had taught at private schools with non-religious affiliations. With so many respondents who had taught for more than 25 years, it seemed possible that the results would have reflected a greater number of respondents who had taught in private schools.

It was unexpected, that even though 18.6% (n = 11) of respondents had taught orchestra in the public schools for more than 25 years, 41.51% (n = 22) of respondents had taught private string lessons for only 6-10 years (Question 13).

School Profile

Question 14, which had five parts, gathered information on each elementary, middle, or junior high school where respondents taught. It was surprising that a majority (51.72%) of respondents indicated that they taught at only one school, which is in contrast to Hamann (1993) who found that more than half of the orchestra directors in his survey taught at two schools. The fact that more than half of respondents in this survey taught at only one school may be due to the
fact that many respondents either taught at large middle schools, or taught at high schools in addition to their middle school duties. Data on high schools were excluded from the current study due to its focus on developing technical skills in the young string player. When selecting the respondents for this survey, no specific attention was given to the size or location of school. Due to the financial demands of supporting a string program it was not surprising that 84.40% of respondents’ schools were in a suburban district, where the population is often more affluent, and out of a total of 107 schools, 34.58% had three orchestras.

It was not unexpected that the grade levels for Question 15 were similar to the responses gathered in Question 14. Question 14 asked respondents to indicate the type of school they taught at (Elementary [43.11%], Middle School [53.21%], Junior High [3.67%]), and Question 15 asked respondents to indicate the grade level at their schools (K-6 [43.40%], 6-8 [54.71%], 6-11 [1.89%]). There are slight variances in percentages due to the fact that there were 109 responses to Question 14 but only 106 responses to Question 15.

As explained for Question 14, no attention was given to the size or location of the school when inviting respondents to participate in the survey. Even though the results indicated that 25.96% of 104 schools had more than 1,000 students, no programs had more than 300 students involved in their orchestra program. Thirty-eight percent of schools had less than 50 students in their orchestra program (Question 16). On the other hand, since more than a quarter of the schools had more than 1,000 students, this could account for the fact that 34.58% of schools had three orchestras.

The last question in the school profile (Question 15) indicated that 50% of respondents start their students on a string instrument in the sixth grade. This is relatively consistent with the findings from a study by the National Arts Education Research Center (Leonhard, 1989) in
which it was determined that most students began string instruction in the fourth, fifth, or sixth grade.

Technical Skills

The questions in this section asked respondents to give information on the following nine skills: (a) placing the bow on the string for the first time, (b) note reading, (c) low second finger, (d) low first finger, (e) students tune their own instruments, (f) vibrato, (g) shifting (violin/viola), (h) shifting (cello), and (i) shifting (bass). Because Question 15 established that half of the string programs surveyed start in the sixth grade, it is not surprising that seven of the nine skills are introduced in sixth grade (Question 16). The two skills that are not introduced in the sixth grade are shifting (violin/viola) and vibrato. It may be that these skills are not introduced until a later grade because directors want to be ensure that students have a good foundation with the other seven skills.

Given the opportunity to choose the grade at which they could start their beginning strings, respondents (37.26%) would prefer to start their students in the fourth grade, which is two years earlier than the district mandated majority of sixth grade (Question 17). Due to the success of the Suzuki method with young children (Speed, 1992), it was very surprising that, given an opportunity to create an ideal orchestra program, respondents would not be eager to start students on a string instrument as young as kindergarten or first grade. With respondents choosing to start their ideal program in the fourth grade, it was not surprising to see that respondents would then prefer to introduce skills earlier: three in the fourth grade, two in fifth, and four in sixth (Question 18).
Method Books

This section of the survey consisted of one closed ended question that pertained to method books. Given the choice of five method books or choosing “other,” 51.49% of respondents use the *Essential Elements* series, 25.74% chose the “other” option for method books, and 13.86% use Suzuki books. With a quarter of respondents choosing a method book not on the list, it is unfortunate that no opportunity was provided for respondents to indicate the method book they chose. Also, even though Suzuki method books have been published since the 1960s, they remain a relatively popular choice for the string educators who completed this survey.

Cross Tabs

The cross tabs section has four parts. The first part compares respondent degrees and their state. The second part compares the total years teaching and the number of years respondents have been in their current teaching position. The third part of the cross tabs has four comparisons between the skills section of the survey and four other questions. The last part of the cross tabs shows the results of comparisons between method books and other questions from the survey.

Cross Tab – Part 1

*Number of Educational Degrees in Each State*

Even though only two districts required respondents to have a masters degree, it was surprising that 55% of respondents had earned one. Illinois had the highest percentage (72%) of respondents with masters degrees, while North Carolina had the lowest percentage (36.84%).
Cross Tab – Part 2

Total Years Teaching and Years in Current Teaching Position

This cross tab was an example of extreme contrast between the total years teaching and the years a respondent had been in their current teaching position. It was not surprising to note that even though 18.6% of respondents had taught for 25 or more years, only 5.17% of respondents had been in their current teaching position for 25 or more years. This implies that respondents change either grade levels or school districts from time to time during their teaching career.

Cross Tab – Part 3

Technical Skills

The first cross tab in section three compares the differences and similarities of when respondents with masters degrees and bachelor’s degrees introduced the nine skills listed in Question 18. Interestingly, degree did not have a large impact on the grade level when a respondent introduced a specific skill.

The second cross tab compared if given the choice, in what grade would string or non string players introduce the set of nine skills. Non string players indicated that they would require students to tune their own instruments earlier than string players required them. There were two skills that string players would introduce earlier than non string players: bow on string and vibrato. The bow on string skill is one that is limited to the point at which the string program begins. If the program does not begin until the sixth grade, then it is obviously not possible to introduce this skill until then. It is important to note that string players would introduce vibrato earlier in the sequence of technical skills. This may be due to the fact that string instrument vibrato is a technique that is not performed on any woodwind, brass, or
percussion instrument. With this in mind, the string players may feel more confident with their understanding of vibrato and are not afraid to introduce such a complex skill at an earlier age than non string players.

The third cross tab in this section placed the respondents into three groups, depending upon the number of years they had been teaching. The respondents who had been teaching either 1-10 years or more than 21 years indicated that they would introduce many skills at the same time. The exception in this cross tab were the respondents who had been teaching for 11-20 years who introduced low second finger, independent tuning, and shifting on the violin and viola one grade level earlier than the other two teaching groups.

Eighty-four percent of respondents taught at a suburban school, 13.76% taught at an urban school, and only 1.83% taught at a rural school (Question 14). The fourth cross tab in this section compares the grade levels when the respondents at the suburban and urban school settings introduce the nine technical skills. The two respondents from rural schools were excluded in order to ensure a more realistic comparison of the data. It was surprising that 25% of urban respondents indicated that they would teach note reading in kindergarten, but would put the bow on the string in the fifth grade. This may be a fault in the survey where it may have been unclear to the respondents that note reading should be specifically related to reading notes while playing the violin.

Cross Tabs – Part 4

Method Books

The fourth part of the cross tabs was used to see if there were any trends with the method book that respondents were using with (a) the degree they earned, (b) the state they worked in,
(c) if the method book was mandated by their district or chosen by the individual director, and
(d) school type (elementary, middle or junior high school).

The first and second cross tab data comparing method book choice with state and degree earned are very similar. Regardless of state or degree, respondents generally liked or disliked the same method books.

The third cross tab compared the school type with whether or not the method book was a core or a supplement of the curriculum. Not surprisingly, 76% of elementary, 51.47% of middle school, and 30% of junior high respondents use method books as the core of their curriculum. It can be surmised that as students progress on their instruments respondents use method books less and other music (i.e., sheet music) more.

The final cross tab provided information about which method books were used at each type of school. Elementary schools used all of the books except Strictly Strings and Applebaum, and junior high schools used only Essential Elements, Strictly Strings, and an unknown “other” book. It should be noted that middle school respondents were the only ones who used Applebaum method books.

Implications for Music Education

Based upon the results of this study, the following points may be useful for elementary, middle school, and junior high orchestra directors to consider:

1. Orchestra directors may want to consider using the method book Essential Elements.

2. If students begin string instruction in the sixth grade, it may be developmentally appropriate to introduce the following skills in the same year (a) placing the bow on the string for the first time, (b) note reading, (c) low second finger, (d) low first
finger, (e) students tune their own instruments, (f) shifting (cello), and (g) shifting (bass).

3. Orchestra directors should consider introducing vibrato before the students enter high school.

4. It may be important for orchestra directors to take at least one year of lessons on a string instrument.

5. Suburban schools seem to be the most likely to have orchestra programs.

6. It may be that method books are not exclusive to the elementary orchestra classroom; they may also be useful as supplemental materials in the middle school and junior high settings.

7. If given the opportunity, directors should consider starting their program as early as the fourth grade.

Suggestions for Further Research

Based upon the results of this study, suggestions for further research are:

1. It may be beneficial to replicate this study on a larger scale to have either (a) a larger sample of orchestra directors from the same states and/or (b) a sample of orchestra directors from other states in the same regions.

2. It may be helpful to replicate the survey done by Leonhard (1989) in order to determine the status of string programs in the schools today.

3. It may be useful to compile a handbook describing effective ways orchestra directors teach their young string players to successfully develop technical skills.
4. It may be beneficial for researchers to observe public school orchestra directors in order to measure the success of using certain method books when teaching the nine technical skills.
REFERENCES


APPENDIX A:

COVER LETTER SENT TO DIRECTORS
Dear Orchestra Director,

As a masters graduate student in music education at the College of Musical Arts at Bowling Green State University, I am conducting my thesis research project concerning the grade levels at which certain string techniques are introduced and the selection of appropriate method books for elementary, middle school, and junior high orchestra students. Based upon recommendations by professors at Bowling Green State University your state was selected, and the ASTA President of your state recommended the string programs in your city as being programs of distinction. In this survey, you will be asked to provide anonymous information about yourself and your orchestra program.

There are no known risks or benefits to you by participating in this study. Your identity will remain anonymous; no request will be made for your name or any other information that would reveal your identity during the course of this study. All information you provide in the survey will remain confidential. Data will be kept on a password protected website and results will be reported in a summary format. Participation in this study is voluntary, and by completing the survey, you consent to the use of your information in this study. It should take a maximum of 20 minutes for you to complete the survey. You can complete the survey online by entering the following address in your web browser: http://www.surveymonkey.com/s.asp?u=573802676543

In order to complete my research in a timely manner, I request that you please complete the online survey no later than **November 10, 2006**.

Please feel free to contact my advisor Dr. Kantorski or me if you have any questions about this research project. You may also contact the Chair of the Human Subjects Review Board here at Bowling Green State University with questions about your rights as a research participant.

Thank you for participating in this research project. The information you provide will substantially contribute to a deeper understanding of the appropriate grade levels for introducing string techniques and will also provide feedback on the types of method books that teachers are successfully using in their classroom. The information provided on this survey will assist pre- and in-service orchestra directors as well as non string players who teach orchestra in efforts to improve their teaching.

Sincerely,

*Jennifer L. Bell*

Graduate Student
College of Musical Arts
Bowling Green State University
APPENDIX B:

ELEMENTARY, MIDDLE, AND JUNIOR HIGH SCHOOL

ORCHESTRA DIRECTOR SURVEY
Elementary, Middle School, and Junior High Orchestra Director Survey

For the purposes of this survey:

- **Orchestra** is a term that refers to a student ensemble that includes violin, viola, cello, and/or bass only.

This survey will take approximately 15-20 minutes to complete. Thank you in advance for your time and expertise.

**Director Profile**

1. Gender: □ Male □ Female

2. In what city and state do you currently teach?
   CITY ____________________________ STATE ____________________________

3. What is your primary instrument? ________________________________

4. What is the highest degree you have earned? ________________________________

5. Is a masters degree required where you teach? □ Yes □ No

6. Did you take a string methods course as a required part of your undergraduate education?
   □ Yes □ No

7. What is the total number of years that you have taken private lessons on a string instrument?
   ______

8. How many years have you been teaching music in the schools? ________

9. How many years have you been in your current teaching position? ________

10. Please list the music classes you have taught and the number of years you have taught these classes.

<table>
<thead>
<tr>
<th>Type of class (classroom, orchestra, choir, band, other)</th>
<th>Number of years</th>
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11. Please indicate the number of years you have taught music in each of the following types of schools.

   Public School (not Magnet or Charter) ________
   Magnet School ________
   Charter School ________
   Private School: Religious affiliation ________
   Private School: Non-religious affiliation (Please indicate type: Montessori, Waldorf, other) ________

12. Have you taught private string lessons?
   □ Yes, for ________ years
   □ No

13. Approximately how many string students have you taught privately per year for the past five years?
   This year ________
   Last year ________
   2 years ago ________
   3 years ago ________
   4 years ago ________
**School Profile**

14. In today’s music education programs, many teachers teach at more than one school within a single school district. For each school, please go horizontally across the chart and fill in the appropriate information. Please supply information that pertains *only* to the elementary school(s), and middle or junior school(s) where you teach orchestra.

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<th>School</th>
<th>Type E/MS/JH (Elementary, middle school, junior high)</th>
<th>What grades are at this school?</th>
<th>U/S/R (Urban, Suburban, Rural)</th>
<th>Number of orchestras at school (orchestra = ensemble with violin, viola, cello, and/or bass.)</th>
<th>Number of orchestras organized by grade at this school</th>
<th>Number of orchestras organized by audition at this school</th>
<th>Approximate number of students in school</th>
<th>Total number of students in orchestra program</th>
<th>Number of concerts per year</th>
<th>Approximate number of students taking private lessons on their string instrument at this school</th>
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15. At what grade do students start a string instrument in your school district?

__________
Skills
16. At what grade do you introduce the following skills?
   a. Putting the bow on the string for the first time _____________
   b. Note reading _____________
   c. Low 2\textsuperscript{nd} Finger _____________
   d. Low 1\textsuperscript{st} Finger _____________
   e. Students tune their own instruments _____________
   f. Vibrato _____________
   g. Shifting: violin/viola _____________
   h. Shifting: cello _____________
   i. Shifting: bass _____________

17. If you could design your own orchestra program in the public schools, at what grade would you start your string program?
   _____________

18. Based on your response to question number 17, at what grade would you introduce the following skills in your optimal string program?
   a. Putting the bow on the string for the first time _____________
   b. Note reading _____________
   c. Low 2\textsuperscript{nd} Finger _____________
   d. Low 1\textsuperscript{st} Finger _____________
   e. Students tune their own instruments _____________
   f. Vibrato _____________
   g. Shifting: violin/viola _____________
   h. Shifting: cello _____________
   i. Shifting: bass _____________

19. Very briefly, please explain any special phrases or teaching tricks you use to teach the following skills.
   a. Putting the bow on the string for the first time:
   
   b. Note reading:
   
   c. Low 2\textsuperscript{nd} Finger:
d. Low 1st Finger:

e. Students tune their own instruments:

f. Vibrato:

g. Shifting: violin/viola:

h. Shifting: cello:

i. Shifting: bass:

20. In addition to my seven skills listed above, are there other important technical skills that should be taught in a young string player’s developmental years? If so, what are they? Please explain.
Method Books
21. What method books do you use? (Please check all that apply)
   □ Essential Elements
   □ Strictly Strings
   □ Müller Rusch
   □ Suzuki
   □ Applebaum
   □ Mel Baum
   □ Others, Please list _________________

22. Is this series of method books the core of your curriculum, or a supplement?
   □ Core            □ Supplement            □ Both

23. Did you choose these method books series or were they mandated by your school(s)?
   □ Chosen           □ Mandated

24. If you could choose your own method book series, which ones would you choose? Why?
26. Please provide any suggestions or advice you may have for pre-service or in-service orchestra directors relating to their professional development, method book selection, student recruitment, student retention, or other related topics please include them below.

Professional development:

Method book selection:

Student recruitment:

Student retention:

Related topics:

Other suggestions or advice:

Thank you!
APPENDIX C:

RESPONSES TO OPEN ENDED QUESTIONS
Question 21: Very briefly, please explain any special phrases or teaching tricks you use to teach the following skills: Placing the bow on the string for the first time, Note reading, Low second finger, Low first finger, Students tune their own instruments, Vibrato, Shifting (violin/viola), Shifting (cello), Shifting (bass).

- Bow = pencils, dowel rods, paper tubes, rubber band "seat belt" on frog.
  Vibrato = squishy knuckles, introduce arm vibrato but if wrist naturally occurs I do not change it, Essential Elements' techniques, rock to rhythm tracks from Orchestra Expressions.
  Note Reading = finger patterns, rote listening and call and response.
  Shifting = "harmonic limbo" which is shifts between 1st position and octave harmonic.

- For all "secondary placements" of fingers on the violin/viola I use "Finger Squares". To teach low 2s for example - hold down the first finger on the A string throughout the exercise (note B). Place the second finger on C - C# - (jump across to the D string) F# - F, then begin the square again. This can be done to introduce, low 1s, high 3s and low 4s as well.

- Bow placement: Middle of the road, right over the F holes.
  Note reading: Lots of ladder references
  Low 2nd finger: Squish Hot cross buns vs Burnt cross buns.

- When teaching students to tune their own instruments, it is helpful to have them be able to tune their A string by themselves first, then teach them to tune in 5ths by having everyone play A while one section at a time tunes D. Then everyone plays D while one section at a time tunes G. Follow same procedure for C and E strings. This keeps students engaged while practicing tuning, listening and drawing a smooth straight bow stroke.

- Keep your bow on the highway, not on the side of the road. Vanilla ice cream sounds.
  Bow grip - hold as light as a feather. No banana bow thumbs!
  Low 2, Low 1 - F natural, etc. Use lots of aural training - rote repeat skills right from the start, with less explaining first. Then explain.
  Vibrato skills - do motions without the sound at first. Viva Vibrato book is excellent.
  Tuning – Middle of the first year. Ask them to hear if pitch matches, and to wave when it does as you tune in lessons. 2nd year begin to have them work on tuning with partners. One person sounds an in tune A, one person turns the tuner for the student's instrument being tuned. Take turns. This is an ongoing skill development, but worth it.

- Guide tapes on the bow help students know where to place their bow. I recommend starting note reading early. It's also beneficial to introduce various finger patters by rote, very early on.

- We discuss finger patterns when learning low 1s and 2s. We do alot of ear training while we learn to tune our own instruments.

- Work on finger patterns off instrument.
Tuning – electric tuners with clip on bridge.
Harmonic or vibrato and shifting - practice sliding up and down finger board.
Work on bow exercises before bow goes on the string - use pencil and dowel rods -
practice place and lift - early bow hold.

• Note reading - I use pneumonic devices.
  Tuning - I use a Korg chromatic tuner first so they learn to tune first by sight and then by
  ear.

• Low 2nd Finger: 1+2 touch Tuning: think of Jaw's theme -- 1/2step difference, listen for
  that difference to tell if you are sharp or flat.
  Shifting: match with open strings (i.e., cello 4 on E (A string), match 2 (D) with open
  string.

• For teaching low 2nd finger, have the students imagine that each 1/2 step on the
  violin/viola fingerboard is a seat in a movie theater. When the students are playing high
  2nd finger, there is a "bucket of popcorn" sitting in the space between 1st and 2nd finger.
  Then, fingers 2 & 3 "get in a fight", and 2 moves next to finger 1. The popcorn is moved
  to the C# spot.

• You must spend time simply holding the bow before playing on the string with it. At least
  one or two weeks, and send home digital photos of excellent bow holds for students to
  use as a visual guide.
  Note reading - use page 18 in Essential Elements Book 1 - it is perfect for low 2nd finger.
  I teach Mission Impossible (F# F# A B F# F# E F-natural, etc.) the kids love it! And put
  an extra little sticker on the F-natural spot.

• Bowing = Mississippi hotdog; Michael, Michael Motorcycle.
  Low 2 and Low 1 = Twinkle is turned into Stinkle also the touching of the fingers for
  whole and half step.
  Shifting = Tapes to show where the positions start.
  Rhythms = fruits (watermelon = 4 sixteenths, apple = 2 eighths, plum = 1 quarter) and
  then use only the stems of the notes for reading and writing rhythms.
  Vibrato = students swing from their thumbs, polish the string lightly and then place finger
  down...all with the proper set up.

• Use a mirror for bowing, use only 1/2 of bow where note head is placed, say names a lot
  and play by rote first.
  First use electronic tuners.

• 1: Place the bow at various points (tip, middle, frog) then move the bow to those points.
  2: Acronyms. Say Note Names
  3: fingers 1 and 2 are best friends because 2 and 3 had a fight.
  6: Draw a smiley face on the tip of violin/viola fingers and in 4th or 5th position, they lay
   down the finger to see the smiley face and pick it up again.
  9: Basses are special, they shift first
I teach cello second position when I teach 4th finger to violin/viola. We start with note reading from the beginning - students MUST understand musical alphabet - we sing it forward and backwards to tune of Twinkle and write alphabet patterns forward and backward beginning on varying alphabet letters in the middle. Putting bow on string for first time follows exercises without sound using toilet paper tube, index card with "Railroad track" drawn on it - card is woven over middle 2 strings so student can "drive on the track" with bow without going off the track. 
Low 2nd finger - we play "Cold Cross Buns" with F-natural on D and C-natural on A, then "Stinkle, Stinkle Little Star" with F-natural, and crazy named variations of songs they already know with naturals instead of sharps added. I encourage vibrato if a student is interested and trying it out, but do not generally teach it in class - not enough time to cover everything! 
We encounter low 1st finger when we find it in a piece of music first, then as ability level advances, have a unit on it.
I generally teach self tuning the second semester of the second year, as I think students need time to be able to HEAR what correct tuning sounds like, and for some that takes quite a while.

For Pre-K I use the "butter-box violin" until they learn that violin is not a toy! I allow students to make up their own rhymes for the lines and spaces for notes.

Note Reading: "a note can look like a clown turned upside down with a pickle for a nose and it still will be ________ (where the head of the clown is).

Bow on the string: keeping the bow on the highway.
Note reading: FACE, Every Good Boy Does Fine.
Low 2nd Finger: "2nd finger best friends with your 1st finger."
Vibrato: wave, polish motion.

Note reading: I have students sing their music. First in solfege and then singing note names, and then singing fingerings. For some strange reason it works. I place the bow on their string for the first time and pull with them. So their first sound is always a good sound. They will never know how to make a really bad sound.

Beginning upper strings hold bow at balance point for about 6 weeks until position is set and relaxed.
Bow on the string- lane 3, parallel to bridge. To find good sound, press until crunch then back off for a full, pretty sound.
Note reading- funny phrases- "every good burger deserves fries"
Vibrato- hold banjo style with 2nd finger touching side of fingerboard- rock shifting-shuttle up and down fingerboard

For tuning-I introduce it in 5th grade using an electronic tuner first, and then gradually by 6th grade start doing it more by ear.
- Low 2 - Intro Da Blues Da Bears, Snake Charmer Rock and roll
  Tuning - singing easy tunes - Matching Games Note Reading- Ladder Drill - Alpha Soup
  Low first Spooky tune Creepy Crawler - Finger flex Bow Hold

- Bow - bow games in the air for control.
  Note reading - tape staff on floor. Students stand on 1st line, 2nd space etc.
  Low 2 - hold left hand in air, give first finger a hug with 2nd finger. listen to what that
  sounds like - teacher demonstrates, then play.
  Low 1 - teach Twinkle, twinkle little star with low one - Spooky Twinkle!
  Vibrato - use shakers with a penny inside a film canister.
  Shifting - practice moving hand up and down the neck. put tapes in third position on
  instrument.
  Shifting cello bass - put tapes, target practice - slide hand up to land on a tape.

- Bow: practice bow hold on a pencil bow, teacher manually moves bow on the string
  during tuning.
  Low 2. Telling them to "squish" their 2nd finger helps.
  Tuning: we use tuners as early as they can operate the equipment and simultaneously
  have them match pitches.
  Vibrato: tape a pencil on back of hand, place hand in 4th position and work to get arm
  motion-first. Cellos-make sure elbow level is correct. Have them do a rubbing motion on
  arm to get feel of direction of vibrato (so they don't roll!) have them shape the hand and
  move the hand quickly between 1st and 4th position- then have a finger stick and make
  the hand go on.

- Shifting --we practice the tunneling slide.

- Lots of half step/whole step theory.
  Tuning: start with A string and progress to all, start pegs in 8th grade; listen to 5ths
  Shifting - include bow placement - more firm fingers in higher positions

- I introduce shifting using scales first so it is by ear and less scary for first-timers. I often
  have students who study privately demonstrate various skills and show the class how to
  do it. They often help their stand partners, too. I like doing call and response for many
  new skills.

- Bow on string ... (pull bow).
  Note reading ... (next letter = next finger).
  Low 2 = squish 2.
  Low 1 = (explain high vs low sound, which way to move finger).
  Tuning...hear pitch as you change pitch entire time.
  Shifting...put your 1st finger where your “xx” finger normally goes. Shifting cello/bass
  (put your first finger on the “xx” next note on your fingerboard).

- Tune: turn the fine tuner towards your highest string if you want the string to go higher,
  toward your lowest string if you want the string to go lower.
Violin/viola shifting finger placement: associate key signatures with far 3/close 4 or close 3/far 2
All string shifting: "dying cows" portamentos 1st to 3rd positions after motion upward out of 1st is comfortable but before formal shifting and reading of shifting is introduced

- Bowing: Learn by using paper towel tubes on the instrument and learning the motions. I call this "training wheels."
  Note Reading: Pnuemonics for lines and spaces. Also saying letter names out loud while reading.
  Low two: "fingers two and three were best friends until C and F natural came along. Now finger two is hanging out with finger one."
  Low one: Music theory, how we can figure out that a flat lowers the pitch a half step and notes such as B-flat and E-flat must be played using a lower one.
  Vibrato: violin, viola, use backward "knocks" on the door. Then in shoulder position practice rhythmic vibrato as students secure the scroll of the instrument against a wall.
  Cello: practice "shaking a soda" then transfer to second finger in fourth position.
  Shifting: study music theory. "Put first finger where third finger usually goes." etc. also do finger slides and play simple melodies using all first finger only on one string.

Question 22: In addition to the nine skills previously listed in Question 18, are there other important technical skills that should be taught in a young string player’s developmental years? If so, what are they? Please explain.

- Bow hold, bow hold, bow hold. I am a new teacher still, but I have seen the best programs in my district are the students with the best bow holds. Holds that are shaped properly and RELAXED. I also believe in introducing spiccato and 3 octave scales before getting to high school.

- Aural pitch matching and time keeping. An orchestra member has to be able to tune their notes to one another, no one can be stubborn that their "tape" is in tune. Students must be taught to move their fingers if it doesn't match the pitch of the others in the ensemble. Students also must be taught how to keep their internal clocks moving in a piece of music and how to play with it. I would also add to all of your previously mentioned skills - "how to follow a conductor". If students don't know what we're doing waving at them, why should they watch?! They need to know what the signs mean that we are giving them if they are to have any importance and impact on their musical development (dynamics, tempo, balance, style, syncopations, entrances, etc.).

- Listening to self and others in a group. Rhythm (clapping, counting, playing).

- Teach aural skills right from the start. This can be with pitches, rhythm echoes, articulation, dynamics, etc.
• POSITION POSITION POSITION. The first year is all about establishing good posture and bow control.

• I do alot of emphasis on ear training and basic rhythm exercises to supplement their skills on their instruments.

• Correct left hand - cello and bass - c shape hand - no mosquito fingers (collapsed fingers) elbow pointed to tummy with no pan hand (wrist) bow flexibility.

• Proper left hand position correct bow holding grip.

• Ear Training (hearing and comprehending pitches). Singing (ability to sing their parts on the correct pitches) Listening to both live and recorded music and gain from that knowledge of hearing the instruments.

• POSTURE; particularly hand posture which allows for easy shifting ability later on.

• Teaching rhythm patterns by using appropriate words to remember the pattern.

• Obviously, correct instrument posture would be one of the first important skills to learn.

• Perfect bow holds, perfect posture, staccato, legato, curved fingers on the tips, left cello elbows out, using the full length of the bow, dynamics, and ear training to develop the ear so that students will play in tune!

• Spiccato bowing = students need to learn the bounce comes from the thumb and pinky rocking the bow for the bounce not from the arm...learning to separate the wrist from the arm opening the arm from the elbow for a straight bow stroke.

• Correct instrument hold, balance, left and right hand position.

• Correct intonation should be stressed from the very beginning. Teacher demonstrating incorrect intonation can be an effective teaching tool, as beginners have trouble understanding concept of finger being placed in EXACTLY the correct spot for the note to be in tune. I stress movement by steps and skips - they generally have more trouble with notes moving by skips and we look for that in our music. I use different colored highlighters to indicate different positions, esp. for bass players - this has been VERY helpful, especially for slower learners. We highlight melody/harmony lines in different colors for beginners as well. Separated notes (stopped bow between pitches) is very important to teach and takes constant reminding in warm-ups and literature. Dynamics can be taught from an early age. Listening is SO important - I play piano with my beginners all the time so they can hear what is correct.

• Ear training, relaxation.
• Students should be taught right/left hand technique as early as possible. Unlearning later is VERY hard.

• Slurring should be taught very early. Bowing separate bows becomes too much of a habit if you wait too late. Slurring also helps get rid of the staccato sound beginners often have.

• Listening skills: Sometimes overlooked. Students should learn to really listen as they play in an ensemble. Rhythm: Playing with a metronome and understand how to subdivide the beat. Bow Articulation: How we use our bow to create different articulations.

• Developing proper tone, proper position (i.e., no collapsed wrists on violin/viola), slurring, rhythmic foundation.

• I think extensions and high third fingers are more useful to learn before low 1. The literature really demands this. Also- students need to learn very early on about phrasing, dynamics and balance in a group. Listening to self and others very important. Bow distribution and placement also very important.

• For violins and violas, I like to introduce the 4th finger as soon as possible otherwise they make a huge deal about it. When they use it soon after they start, it is just another fingering to get used to.

• Posture Rhythm Concepts - A System to allow a student to become more independent. Note Reading Skills - Sight reading appreciation for hard work.

• Basses should be taught from the moment they begin playing in positions that those exist on ALL string, not just the G string. Use of alternate fingerings should also be mandatory. Also, where they are holding their violin and viola. If it is too far toward the front it will effect their bowing. Keeping of the tip of their fingers needs to be reinforced as well as the bow thumb being bent on their bow.

• Theory - knowledge of key signatures, beginning in year two. By year three, I give key signatures test on the Circle of Fifths. By year four, I include relative minors. By year five we play all three minor 2 octave scales and the majors for memory up through 3 sharps and 3 flats.

• Correct bowing variations.


• Proper sitting and standing posture seems like you covered most important issues.

• Quality tone production, phrasing, music theory, musicality ... (dynamics, articulation, ensemble, sight reading, ear training, and a million other things).
• Extensions forward- high 3-violin/viola and ex 4- cello 4th finger- violin/viola.

• Aural skills, singing, pitch matching, double stops, string crossing, slurring, détaché, staccato, slurred staccato, and simple spiccato bowing.

• Intonation posture bow arm and bowing techniques.

Question 24: If you chose your own method book series, which one(s) did you choose? Why?

• I will be switching to Orchestra Expressions next year. I love its layout, much more developmentally appropriate for basses, and deeply immersed in the National Standards. Plus, the author taught at a school 2 miles from here for a number of years and really captured the spirit of the orchestra programs in Plano for her book. Helps cut down on supplements.

• I chose to add the Suzuki literature and quite a bit of the Suzuki approach in my teaching of beginning and intermediate students for several reasons. One: I am a "Suzuki Kid". I and my brother learned our instruments through the Suzuki method. This method is well planned and thought out, as is the repertoire in the books. Two: the songs are almost precisely the same in books 1-2 for violin, viola, and cello. Three: I like the auditory training it gives students. Four: I teach privately as a Suzuki teacher and I always learn something new myself, whether it's a new problem to solve or a new way to solve an old problem!

• Book II of Strictly Strings works well for 6th graders coming into Jr. High School because it a great all encompassing review of previous learning while being different than what was done in previous grades. Book III (Orchestra Companion) works well for 7th and 8th graders because is helps move them on individually and as an ensemble while having a wide variety of things to play for different skill levels.

• Essential Elements was the one that had the fewest flaws or problems. I currently supplement with lessons I have written to compensate for those flaws.

• I've used numerous books over the years, but most recently have chosen Essential Elements 2000. Its student friendly and well organized. The CD and DVD that come with it are great for students to practice with. The pacing is good for young students.

• The Artistry in Strings series teaches all the major concepts and has interesting exercises for the students to work on.
• *Orchestra Expressions*. Contains many additional things related to music.

• *Orchestra Expressions* - new book - I was using *Essential Elements* and liked it - just wanted to try something new. Lots of overheads - pictures, etc.

• *Essential Elements* 2000. It seemed to be the best for grade school students.

• Suzuki has good solo pieces that the kids get excited about. Applebaum has good duet options for Solo/Ensemble Contest.

• I am most familiar with *Strictly Strings* and like it's approach to reading music. The 6th grade (only) goes through the book, and grades 7 and 8 use sheet music.

• For beginners, I like the *Concert Tunes for Beginning Strings* by Dale Brubaker. The size of the notes and ease of playing the tunes gives confidence to young players. It is essential to have an accompanist for these tunes.

• *Orchestra Expressions* - I like the CD to use in class so I can walk around and fix postures or point to notes on the page. *All for Strings* - very easy for students to see the main concept on the page.

• *Essential Elements* - simply because I know it the best.

• Our first year students are required to use *Essential Elements* 2000 Book One. I choose to use *All for Strings* Book 2 with my 2nd/3rd year students and draw from various other books for occasional supplemental material. I find *Essential Elements* 2000 book 2 doesn't have enough "practice" material in their book (for example, in book one there is ONE line for teaching ties!!)

• *Orchestra Expressions*, most thorough of them all, plus MANY pedagogical tools, supplemental materials. I tend to try the new ones as they come out. *Essential Elements* scale book.

• I used Müller Rusch (and others over the years) and have always had great success with this. Students move very quickly through and then Suzuki literature comes in very handy!

• *Essential Elements* for Strings 2000 because I felt it was the most extensive as far as explaining notes, theory, history, etc.

• *Essential Elements* Book 3 Technique book for my middle school. The introduction to shifting is great as well as all the scales and arpeggios.

• *Orchestra Expressions* for beginners - more comprehensive. *Essential Elements* for intermediate and advanced. *Orchestra Expressions* only has book one at this time. *Essential Elements* is laid out well and easy to use.
• **Essential Elements**-I like the progression of the book, and the songs. I really like the CD/DVD that goes along with it especially SmartMusic. Suzuki-I like the songs and they reinforce skills that they learn in *Essential Elements*. *Winning Rhythms*-I like how it reinforces rhythms, and we use it more as a warm up book.

• Suzuki - Cost effective

• *Winning Rhythms* for drill & practice of rhythm skills. *Fiddler's Philharmonic & Fiddler's Philharmonic Encore!* for alternative styles exposure.

• *Essential Elements*. I like the sequence of note introduction and note reading. I also like the CD so the students can hear what they are supposed to be playing. *Strictly Strings*. I use book 2 in year 3, and book 3 in year 5. My 6th graders are not quite ready to handle Essential Techniques Book 3 because of the level of shifting. Especially in the Bass book. Way too hard! So I use *Strictly Strings* Book 2 in 6th grade to reinforce keys and gently introduce shifting.

• *Essential Elements* has 4 different levels in a series. Is easy enough for kids to finish and work in book 2 in their first year of practice. I have tried other methods, but only supplement with those.

• I chose the *Essential Elements* 2000 book. This book has wonderful resources and the CD's are very helpful especially for a substitute to work with the class. The students like the setup and it is not too "Babyish" for the middle school students.

• *Orchestra Expressions* - start with 4th finger - great music history lessons - great CD accompaniments - lessons on composition - great transparencies/handouts

• Our 5th grade teacher starts our students using *Essential Elements* 2000. In 6th grade, we choose to use Artistry in Strings volume 1, 7th grade uses Artistry volume 2, and 8th grade uses High Tech for Strings. We found that Artistry meets more of the National Standards and has some great supplemental activities. High Tech works well for addressing shifting and additional higher level technique skills.

• *Artistry in Strings*--good selections of pieces.

• *Essential Elements* is a district decision.

• I chose *Essential Elements* for Strings 2000 for several reasons. The book introduces note reading over a period of time. The book is also pleasing to the eye. This book also has a play along CD, making the easy beginning lines interesting. I also have my middle school students get the All for Strings Theory Work Book. This helps each student learn faster.

• We are required to use *Essential Elements* 2000 district wide for sixth grade. I use All For Strings Theory Book 1 for the sixth grade, All For Strings method and theory for seventh grade, and All For Strings Book 3 for eighth grade. The *Essential Elements* book
1 is okay but I don't like book 2 or Essential Technique. I haven't found a better book than the All For Strings series. Some pedagogues like other books but they don't have to actually teach, do they?

- *All for Strings* books 2 and 3. It is very comprehensive and teaches a concept and fosters the new ideas throughout. Many method books just teach a new concept and drops it the next page. I also use Applebaum *Third and Fourth Position String Builder* to teach students shifting.

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**Question 25:** Please provide any suggestions or advice you may have for pre-service or in-service orchestra directors relating to their professional development, method book selection, student recruitment, student retention, or other related topics.

- Round-robin discussion with area directors on basic classroom topics - all brought up in your survey: vibrato, shifting, note names, etc... It is amazing the knowledge each teacher has for concepts and materials, yet we do not share with each other enough and take it for granted. It has been my biggest help, especially as a new teacher who did not know the music literature and method books. On a personal note, I have to mention I have a particular affinity for BGSU. One great thing I did after my first year of teaching was take the entire summer to myself. I completely got my mind off of teaching by riding my bicycle from Seattle to Maine = therapeutic. Coincidentally, I went through Bowling Green and swung by the campus where I witnessed a piece of great humor. Someone had chained an exercise bike to a bicycle rack outside of the student center! HA! It ties right into teaching, during your hard moments, find something that makes you smile and/or something takes your mind off teaching. For me, it was riding a bike and the accompanying adventures.

- I'm learning as a second year teacher, and finally the head director of my own program that you have to do the social things outside of class to maintain a high rate of student retention - otherwise you may as well be teaching math. Students are encouraged by their friends and by the potential of fun to be had, and making great music is not enough (as sad as that feels to those of us who live it). It's been a hard lesson to learn - but I'm "sucking it up" so to speak and it has raised the student happiness quotient of the class work as well. I've noticed they'll work longer and harder if there's some "non-music" fun afterwards. One more thing. The first year is the hardest with any program, the students aren't really yours. You'll get a lot of "that's not how so and so did it", or "why aren't we doing X". Stick in there and find someone that will listen to you whine every once in a while. Just think, next year the percentage of kids that remember what "so and so" did last year will be a lot lower. Believe in what you can do with your students. Some things from the old regime are good, but don't feel like to have to do it all - it won't necessarily win anyone over.
• Be sure to take a string repair class. I've never replaced so many bridges, strings, sound posts or had to find a quick fix to buzzes. It's nice to know what to do for those last minute problems.

• Be a flexible team player with everyone in the school!

• Get out there in the field and do as much observing as you can. I learned more form doing this than anything else. Subscribe to the American String Teacher, MENC and the Suzuki journal. These have many, many teaching strategies that are useful. Enjoy your own learning process. This is one of the best and most rewarding professions you can be in!

• Learn a wide variety of techniques for recruitment, retention, and methods. Each district's (and school's) culture will have a huge impact on your program. You have to be flexible and be able to adapt to make the program work.

• Those are big topics! Learn as much as you can be observing other teachers, then when it's your turn dive in and don't be afraid to try new things. Find a mentor who can help you through the details of the first few years -- you need someone to go to and brainstorm about how lessons/rehearsals are going. Attend conferences and clinics to constantly gather new ideas. Good luck to you!

• As a new orchestra teacher I would recommend that you observe as many people as possible.

• For the subjects you mention in the question, please continue rotating the subjects during in-service. New teachers need more of this.

• Go to as many music workshops as possible, get into a classroom and observe and teach if possible - try and experiment Recruitment - find what movies are out and try to play the music for the kids - hands on playing with those you are recruiting!!!!!! retention - parties - get to know the kids out of the classroom - build relations Get to know the parents (email - calls - meetings - letters, etc) get them on your side get organized - lots of paper work and money collecting - find out what works for you - I have a pocket folder with a pocket for each class for papers, etc. I also have hanging wall folders for kids to put practice charts or other papers needed. That way, I don't have to spend time collecting for money - I have a hanging lock (suggestion box) on the wall - kids put the money in an envelope and put it in the box.

• Take a class in string instrument repair.

• Volunteer as much as possible before you start teaching. Nothing beats the real thing. Use what you know at first, then branch out. Don't try to be too ambitious your first year! ASK FOR HELP. Get the students involved with field trips/recruitment etc. Let them make signs, write letters, etc. Play through the book(s) before you teach them. Know where your kids will struggle -- be ready with a new approach to help them master the
concept. Also, find a way to practice classroom management before you start. Volunteer for orchestra programs, or even to be a camp counselor. You've got to know how to manage multiple students before the first day! Oh, and be yourself :) Your students appreciate (and can readily detect) authenticity. Thank you for teaching music!!

- Choosing repertoire for orchestra students is the number one way of increasing motivation and retention in orchestra. I have also been piloting the "SmartMusic" software with my middle school students with great success. I've been scanning in excerpts from orchestra pieces, and students do a weekly test on each one. The parents say they have never seen their students practice so much! Check it out!

- Going out to visit other programs and watching other experienced teachers is extremely valuable. You can learn tricks and tips this way. For retention, you have to make it fun for the students. Give them LOTS of supplemental songs that they can play... that they WANT to learn such as “Star Wars”, “Harry Potter”, “Jingle Bell Rock”, etc. Let them spin the cellos and basses and make your concert a joy for parents to listen to.

- I don't think enough teachers realize the importance of the Suzuki Method. I would like to see more people exposed to good Suzuki training. People write it off as a read-by-numbers method

- no method book is perfect - pick the one that best meets your philosophy in developing technique realize kids are busy and progress may be slow - be patient realize parents are distracted and have a hard time helping their kids - be patient get to know your secretaries and custodians really really well. Go outside the box in trying things - you'll be surprised at what works have fun! Music can be a gas!

- Positive reinforcement works with retention. Other students can recruit for the program far better then teachers can. Also, be sure to have the school principal and guidance counselors on your side. Surround yourself with colleagues who can help you.

- Professional development classes for non string players who teach orchestra classes are always helpful. Extra help in teaching composition/improvising are usually necessary. One of the biggest challenges in our jobs is scheduling - at what age do students begin playing? Do classes meet every day or every other day? For how long? Are classes arranged by grade level or ability level? (Mine are only by grade level and it is frustrating to get students in a beginning class who have several years of experience already playing who cannot go into a more advanced class - middle school scheduling system) One of my schools is a magnet that draws from half of a very, very large system, and getting students INTO my class is a major challenge every year. Also, having enough instruments for needy students to use is challenging. Fund raising: we do a walk-a-thon - spend One class period. Students get sponsors, we ALL walk 8 laps around the track. Incentive: for each $50 raised, a student can throw a whipped cream pie (paper plate with w. cream on it) at their director. I typically raise $1500 at each of my schools, the band director at one raises over $5,000 each year. Pure profit (except for paper plates, cups for
water, and whipped cream) I could go on and on, but need to get back to planning. Good luck. Hope this will help your research.

- I highly recommend attending an ASTA summer workshop for an intense emersion into our craft. Studying with and observing world-class string teachers brought new ideas and enthusiasm to my teaching. It also taught me patience and respect for young learners by giving me many tools and approaches to the same problems.

- The school administrators are the ones that I have the most difficulty dealing with. They believe that we are the experts in our field (music/strings), but then are not very supportive to the programs. My only advice is to keep trying. I have been hard at this from University level down for over 20 years. Children need an outlet for their emotions and music can be one of these outlets!!!

- Have fun and be fun.

- There is no right method or better book. A teacher must do what works for them to be most effective as well as seeing what works best with their students. What is most important is as along as the students walk away with a positive learning experience playing their instrument.

- When recruiting, ALWAYS include a hands-on experience. It is extremely important if you have to compete for numbers with band and choir. Watch and learn from other good teachers and conductors. Region orchestra clinic is good for this. Retention- set a high standard but make it fun.

- Professional development-1. Learn as many things from as many different people as possible. It is amazing to watch people teach different concepts that you might not think of on your own. You can get great ideas this way. 2. Don't be afraid to try new things when something isn't working. You might have the best lesson plan, and it might have worked with the class last year, but if it isn't working to teach the students, change it. 3. Be flexible with classroom teachers if you are going to be teaching in the schools. I teach with a pull-out schedule, and there are some times that I can't see the students because the teacher needs them for something. It only happens a little, but I let it go, that way when you NEED them for practice before a concert, they will also let them come and see you.

Student Retention-1. You can't save them all. I used to get so discouraged at the beginning if one of my students quit, but the truth is that they are not all going to love orchestra. I have found that if a student doesn't want to be there, then it is not worth getting upset about it. Often it leads to more time with students who want to learn, and that is more fun. Student Recruitment-Our band and orchestra recruits together in the spring. We recruit 3rd graders to actually start as 4th graders in the summer—in August before regular school starts. I love recruiting together because we are not competing for students, we all go together so that the students pick an instrument they want to play, and the instruments are presented in an equal way. I have done it the other way when orchestra starts in 4th grade, but band doesn't start until 5th grade, and we just lost a lot of students to the band. It was very frustrating.
• Seek private lessons on each instrument which is not your primary instrument so that you are learning from a specialist on that instrument. Pass on what you learn in those lessons to your students. Don't be afraid to ask your students who are in private lessons to give a suggestion for fingering or bowing if they are playing at a higher level than you do, everyone, including you, will benefit from this. Keep orchestra fun while getting the work done and students will want to do more for their ensemble.

• Beginning orchestra directors need to know their method book backwards, forwards and inside out. When is note reading happening? Does the book introduce all fingers on one string all at once? How fast is the learning pace, and does it match the type of lessons you have? For instance, I really like Bob Phillip's *String Explorer*, but I only see the elementary students once a week. That book moves too fast for my students. The teacher should also consider WHEN to teach shifting to each of the instruments. The book should match your curriculum. Do you teach shifting in the 2nd year? Third year? What about the basses? Having a set curriculum and having a book that meets the outcomes of that curriculum, and also meets state and national standards is very important. Each orchestra director needs to map out all goals for every year, and research which materials will best meet those goals. Another professional development topic - How does an orchestra teacher meet the needs of the ever increasing special education population that appears in orchestra? How do we meet the needs of these students, and how can they be successful in a group setting? A very tough question to answer!

• Student recruitment and retention will make or break a program.

• Keep it interesting. Throw in a short tune or snippet of a tune that they know or recognize. Sometimes they will learn the rest of the song on their own. Have lots of small ensembles or soloists and train them to perform community service activities in your area.

• Find a good mentor - ask lots of questions.

• In regard to recruitment, try to only sell your product. I am totally against using colorful instruments and electric anything simply because that is not what I teach as my subject during the school day. To me, that would be like a band teacher recruiting by using a rock band. Kids get sucked in for the wrong reasons. Eventually, they become disillusioned and realize that all the hype was just that, and you wind up with only the kids that should have been there in the first place. We have a great product...playing stringed instruments. Play great music and show them what it really is all about. Then, I feel like you'll get the kids who really want to be there. :)

• Orchestra directors need to work together to maintain and grow current orchestra programs. We also need to work together to help create new orchestra programs.

• The standard string methods classes from undergrad are not enough. I never would have survived my job my first 2 years if I didn't have fabulous colleagues who played upper
strings and had great tricks for teaching them. I wouldn't have the strong groups I now have. Whether it's utilizing each other's skills and talking about it in meetings or seeking more training, my own teaching skills and the skills of my groups have increased in great part to the "tricks of the trade" and extra study of the instruments that I have gotten from my colleagues and through my master's degree.

- We have several inn-service meetings in our district. There are over twenty orchestra teachers and many are primarily wind players so help from real string teachers is essential. We will have some openings next year - Come on down!

- To recruit, you have to go out on a limb and make your program known. You have to go out to the local elementary schools to do a "dog and pony" show. Method book selection: just look at the concepts that are being taught. Most methods are good, but none are perfect. Just look for the ones that are going to be the most enriching. The best professional development is to share ideas with colleagues and to listen to speakers that teach what you teach.
APPENDIX D:

A HISTORY OF STRING METHOD BOOKS
History of String Method Books

Figure D1

String Method Books (1900-2004)

1914

1923
Giddings, Thaddeus P. and Maddy, Joseph A. *Universal Teacher for Orchestra and Band Instruments*. Elkhart, Inc., C. G. Conn.

1928
Giddings, Thaddeus P. and Maddy, Joseph A. *Instrumental class teaching; a practical teachers' guide in instrumental music classes*. Cincinnati, Ohio: Willis Music.

1933
1937

1938

1939

1939

1940

1941

1948
Barbakoff, Samuel Y. *Fun for Fiddle Fingers.* Toronto: Gordon V. Thompson.

1948

1949
Herman, Helen. *Bow and Strings.* New York: Belwin.

1951
Barbakoff, Samuel Y. *Fiddling By the Numbers.* New York: Carl Fischer.

1959

1960

1961

1962

1963
1966

1968

c1970s

c1970s

1970

1970

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1971

1972

1972

1974

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1976

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1983

1985

1985

1985

1986

1988

1988

1990

1991

1991

1991
1991
*TIPS: Establishing a String and Orchestra Program.* Reston, VA: Music Educators National Conference.

1992

1994

1996

1997

1997

1999

2001

2003
Smith, B. P. & Froseth, J. O. *Do It! Play Strings.* Chicago: GIA.

2004