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AN ANNOTATED BIBLIOGRAPHY OF STRING METHOD BOOKS AND THEORY BOOKS FOR PRE-COLLEGE STRING STUDENTS, WITH A FOCUS ON MUSIC THEORY CONCEPTS AND SEQUENCE ANALYSIS

by

Rebecca Zou Hale

A Thesis Submitted to the Graduate School, the College of Arts and Sciences and the School of Music at The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Master of Music

Approved by:

Dr. R. Daniel Beard, Committee Chair Dr. Joseph Brumbeloe Dr. Christopher Goertzen Dr. Douglas Rust COPYRIGHT BY

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ABSTRACT

The Hattiesburg Public School District (HPSD) Strings program, one of the largest public school string programs in the state of Mississippi, has been utilizing a method book series titled *Essential Elements for Strings* (EES) in their curriculum since the early 2000s. After almost two decades of use, the HPSD Strings staff has noticed that a majority of intermediate and advanced strings students struggle with fundamental music theory concepts. The current music theory deficiencies necessitate an improvement in the HPSD Strings curriculum's choice of instructional materials.

Referencing established music curricula and music theory textbooks, the instruction of fundamental music theory concepts of rhythm and pitch mostly follow a "Conventional Sequence." These concepts introduced in any given book can be categorized accordingly, and a correlation percentage can be calculated showing how well the publication places music theory concepts in a sequenced instruction. The sequences of eight string method book series and seven music theory books were analyzed and each book received a ranking according to their rhythm correlation, pitch correlation, and the correlation average. HPSD string teachers or any teacher who is considering improving their curriculum to utilize in the most time-efficient way may refer to the findings from this research to select materials for their string program.

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DEDICATION

My husband Joshua, my mother Gwen, and my sister Rachel, for always being my greatest supporters no matter the challenge this project brought. This work is dedicated to them with much love and affection.

My professors, Dr. Beard, Dr. Brumbeloe, Dr. Lee, and Dr. Rust, for constantly encouraging me to return and finish my master's degree. I am deeply grateful to them all.

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LIST OF ABBREVIATIONS

HPSD	Hattiesburg Public School District
EES	Essential Elements for Strings
NAS	National Arts Standards
MSALS	Mississippi Arts Learning Standards
PHSD	Park Hill School District
RPS	Rahway Public School
RCM	Royal Conservatory of Music
n.	note
<i>r</i> .	rest
h.	half
<i>w</i> .	whole
<i>q</i> .	quarter

CHAPTER I - INTRODUCTION

The Hattiesburg Public School District (HPSD) Strings program, established in the mid-1970s, is one of the largest public school string programs in the state of Mississippi. HPSD Strings provides orchestral experience - violin, viola, cello and double bass - to students starting from the fifth grade.¹ The program continues to grow each year and now has over 400 students participating district-wide. HPSD Strings' high school orchestras have collected numerous awards from competitions around the country, and participating graduates have gone on to receive music scholarships from prestigious universities.²

Starting in the early 2000's, HPSD Strings has been utilizing a method book series titled Essential Elements for Strings (EES) in their curriculum. After almost two decades of use, the HPSD Strings staff has noticed a few problems, one of these being that a majority of intermediate and/or advanced strings students struggle with fundamental music theory concepts. For example, the strings students are taught how to identify and perform basic rhythm notation such as quarter notes and eighth notes in 5th grade. By 8th grade, students typically can perform complex pieces with various rhythmic patterns, but still may not be able to explain the note duration for a single eighth note. A music theory assessment based on the fundamental concepts introduced in the EES book series was administered to a group of HPSD's 7th grade to 12th grade string students in May 2021.³ The students were asked to answer questions identifying basic

¹ Hattiesburg Public School District, "HPSD Strings," n.d., http://strings.hattiesburgpsd.com/home.

² Hattiesburg Public School District.

³ See Appendix A for the IRB approval letter and sample questions of the student assessment.

rhythm and pitch notation learned during their first year of string study. The assessment data showed the average rhythm portion of the assessment across grades 7 to 12 was 70.58%, and the pitch portion of the assessment averaged even lower with 68.91%.

This deficiency in comprehension of music theory concepts further hinders the student's sight-reading skills, making rehearsals less efficient. As students learn new pieces, the teacher must spend a significant amount of time repeatedly explaining and modeling basic music theory concepts instead of the students identifying these concepts and learning the pieces on their own. Teachers today already struggle with time management in rehearsals as elective classes are usually overlooked compared to core classes. Since school districts' rating and budget depend on how well their students' state test scores are, many have resorted to use elective class time to host school events and tutoring sessions to avoid taking students out of their core classes. Some schools would even implement a "modified schedule" during testing windows that shorten elective class times to as low as 25 minutes to allow longer instructional time in the core classes.⁴ Excluding the amount of time it takes tuning the instruments and warming up, the amount of time left to rehearse is so precious that this reality is increasing the educators' needs for a more efficient use of class time.

These issues mentioned above are also on top of an increase in time demanded from teachers. In their free time, teachers are required to not only plan lessons, but also attend school organized events, receive additional trainings, perform supervising duties, mentor new teachers, work on administrative paperwork, and keep constant contact with

⁴ See Appendix C for a sample document regarding the "modified schedule".

students' parents.⁵ All of these extra tasks take time away from teachers' planning time, which may only be one hour during their 8-hour workday. With established lesson plans built around decades of using the same material, teachers may feel that it is too time-consuming to look for new materials.

The current music theory deficiencies necessitate an improvement or even a change in the HPSD Strings curriculum's choice of instructional materials. To identify if these deficiencies were only a problem in HPSD Strings or a more widespread problem, teachers in MS, AL, and FL were surveyed to rate their current instructional materials.⁶ The survey data shows that over 70% of the teachers have been using the EES book series in their program for at least 3 years, but only gave EES an average rating of 2.91 on a scale of 1 to 5 when asked if they feel EES helps improve their students' music theory comprehension. A majority of the teachers who took the survey also stated that they have to come up with their own handouts to supplement the lack of music theory materials but often have no time to implement them during class due to the shortage of time in rehearsals. This research project aims to review a selection of current strings method and theory books on the market, and provide a database of annotated bibliographies for HPSD string teachers or any teacher who is considering improving their curriculum to utilize in the most time-efficient way.

⁵ See Appendix C for a sample document regarding "teacher's extra tasks".

⁶ See Appendix B for the IRB modification approval letter and sample questions of the teacher survey.

CHAPTER II – REVIEW OF RELATED LITERATURE

In his dissertation, Teaching Music Theory in the Traditional Wind Band

Rehearsal, Dr. Eric Harris expresses his concern that "band students who are deprived of basic music theory instruction are not only handicapped during their public school years, but are also placed at a disadvantage should they wish to pursue a music major in college."⁷ Harris also quotes noted educators and theory pedagogues, including Dr. Michael Rogers, who states "most students with performance experience and the ability to read notes know a little bit about many different things but nothing about connections, reasons why things work in a particular way..."⁸ Harris conducted a lengthy research in hopes to find solutions for the said problems. After failed attempts to find an established curriculum of sequenced theory instruction for band students, Harris resorted to construct his own music theory curriculum for the band. Observations and assessment data mentioned in Chapter I have showed that HPSD Strings' students are experiencing similar deficiencies, which leads to the next few questions regarding music theory instruction for the string students.

(1) Does the current string method book used in HPSD Strings provide sequenced music theory instruction?

(2) Is there an established music curriculum for pre-college string students that provides sequenced music theory instruction?

⁷ Eric Lynn Harris, "Teaching Music Theory in the Traditional Wind Band Rehearsal: A Rationale, Survey of Materials, and Recommendations" (PhD diss., Hattiesburg, University of Southern Mississippi, 2006), 8.

⁸ Michael Rogers, *Teaching Approaches in Music Theory: An Overview of Pedagogical Philosophies*, 2nd ed. (Carbondale: Southern Illinois University Press, 2004), 34.

(3) What other resources can educators utilize to establish sequenced instructions if the answers to the first two questions are not ideal?

To find answers for the first question, the music theory concepts introduced in EES must be examined. Along with Essential Elements for Band, EES is a part of collection of instrumental method books published by Hal Leonard, designed for teaching string students in a group-class setting. The EES mainly focuses on teaching instrumental techniques using specifically designed exercises and familiar tunes, while introducing music theory concepts that correlate with the repertoire.⁹ Upon examining the music theory concepts, the placement of some of them could be considered quite awkward. For example, students are introduced to the quarter note rhythm early in the book on page 4, but the whole note rhythm is not introduced until almost the end of the book on page 37. The D major scale and key signature are introduced on page 11, while the concepts of half and whole steps, which make up the major scale pattern, are introduced much later on page 32. Referencing the assessment data of HPSD students mentioned in Chapter 1, where intermediate and even advanced students were having trouble explaining basic music theory concepts, those results are understandable as students may not understand related concepts due to the sporadic nature in which they are introduced. EES alone of course cannot represent all the available string method books, however, it does pose a possibility that some string methods books may not provide sequenced music theory instruction.

⁹ Hal Leonard Online, "Essential Elements Strings Book 1," 2022, https://www.halleonard.com/ee/strings/book1.jsp.

To answer the second question, attention can be first turned to national and state curriculum guidelines, which are designed to help music educators develop curriculum for their students. After reviewing both the *National Arts Standards* (NAS) and the *Mississippi College- and Career-Readiness Arts Learning Standards for Music* (MSALS), an outline can be created showing the suggested sequence of teaching music theory concepts in music classrooms (see Scheme 1).



Scheme 1. An outline based on MSALS' music standards PR 4.2.PK – PR 4.2.7

Referencing the outline, by 1st grade, students should be able to master concepts such as the beat, rhythmic patterns, and melodic contour. After 2nd grade, concepts such as tonality, meter, form and harmony should be introduced. However the language used in these music standards is quite vague regarding which specific theory concepts should be taught, as in "demonstrate knowledge of music concepts (such as tonality and meter) in music" and "read and perform rhythmic and melodic patterns using iconic or standard notation."¹⁰ The vague language might give teachers more flexibility in lesson planning, however it also possibly results in music theory concepts being placed in various sequences to align with the repertoire choice instead of following a logical sequence.

Besides the national and state music standards, only a few other guidelines for pre-college music students can be found, including Park Hill School District (PHSD)'s *High School Music Theory Curriculum* in MO, Rahway Public School (RPS)'s *Curriculum for Music Theory* in NJ, the Royal Conservatory of Music (RCM)'s *Theory Syllabus* in Canada, and Harris' *Fundamentals of Music Theory for the Windband Student*. Among these guidelines, PHSD and RPS's curricula adapts their expectations from the national and state standards but still do not provide precise enough guidance on a sequenced theory instruction. PHSD's curriculum outlines rhythm and pitch concepts in various topics in Unit 2 and Unit 3, placing these concepts in sequences moving from rhythm symbols to meter and beat, and pitch symbols to 7th chords (see Scheme 2 and 3). Frustratingly however, the language used to clarify the curriculum is still vague, as in "... students will understand the standard music symbols…" but does not indicate which specific concepts are considered "standard."¹¹

¹⁰ Mississippi Department of Education, *Mississippi College- and Career-Readiness Arts Learning Standards for Music* (Jackson, MS: Mississippi Department of Education, 2017), https://www.mdek12.org/sites/default/files/documents/Secondary%20Ed/MS%20CCR%20Arts%20Learni ng%20Standards%20for%20Music%202017%20FINAL.pdf.

¹¹ Park Hill School District, *High School Music Theory Curriculum*, Rev. (n.p.: Park Hill School Districts, 2020),

https://resources.finalsite.net/images/v1623873687/parkhillk12mous/bbbj6yvwmh2f7qcoiwfn/MusicTheor yCourseSummary--BoardFirstReadwithRevisions--January92020.pdf.



Scheme 2. An outline of rhythm concepts based on PHSD's 2020 High School Music Theory Curriculum



Scheme 3. An outline of pitch concepts based on PHSD's 2020 High School Music Theory Curriculum

RPS's curriculum outlines rhythm concepts in Unit 1 and 5, and pitch concepts in Unit 1 through 4 (see Scheme 4 and 5). The provided rhythm sequence moves from basic notation symbols to meter but is not clear as what specific notations are classified as "basic." Compared to the rhythm sequence, the pitch sequence is more detailed listing specific pitch concepts moving from staff and clefs to triads and 7th chords.



Scheme 4. An outline of rhythm concepts based on RPS' 2020 Curriculum for Music Theory I: Grades 10-12



Scheme 5. An outline of pitch concepts based on RPS' 2020 Curriculum for Music Theory I: Grades 10-12

Only Harris' and RCM's guidelines offered detailed sequenced theory instruction, in both the element of rhythm and pitch. Harris organizes the concepts in three levels and lists specific concepts that need to be taught in each level chronologically (see Scheme 6 and 7). RCM's syllabus organizes fundamental concepts in two levels and lists specific concepts within each level (see Scheme 8 and 9). However, both these two guidelines, and the other pre-college guidelines mentioned do not seem to follow a unified sequence, hence it would be difficult to say that there is an established sequence for pre-college students.



Scheme 6. An outline of rhythm concepts based on Harris' Fundamentals for Windband Students



Scheme 7. An outline of pitch concepts based on Harris' Fundamentals for Windband Students



Scheme 8. An outline of rhythm concepts based on RCM's Theory Syllabus



Scheme 9. An outline of pitch concepts based on RCM's Theory Syllabus

Since the answers to the first two questions are not ideal, the focus needs to turn to finding answers for the third question. With so few curricula developed for pre-college music students, it is necessary to look into existing materials that have established a clear sequence, such as established music theory books used in colleges and universities. After examining a selection of music theory textbooks designed for college music students, all of the textbooks provide a section of fundamental music theory concepts, except *Tonal Harmony in Concept and Practice*. Each book also displays similar characteristics as far as the general organization the subject material is concerned, where rhythmic and pitch concepts are organized into categories that follow a certain sequence (see Table 1). In the rhythm category, a majority of the books introduced basic rhythm notation first, covering concepts from the whole note to 16th note. Dotted symbols, from dotted half notes to dotted 8th notes, are introduced next, then simple meter, and finally compound meter. A few of the books further introduce concepts such as the introduction to concepts such as 32nd and 64th notes, grouplets and syncopation rhythm.

Table 1

BOOK TITLE	whole half quarter 8th	16th	32nd	64th	dotted notes	simple meter	compound meter	grouplet	syncopation.
The Musician's Guide	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Harmony and Voice-leading	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Elementary Harmony	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	Х
Harmony in Context	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	Х	\checkmark
Music in Theory	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	Х	Х
The Practice of Harmony	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	Х	Х

Rhythm concepts introduced in a selection of music theory textbooks

Table 1 Continued

BOOK TITLE	whole half quarter 8th	16th	32nd	64th	dotted notes	simple meter	compound meter	grouplet	syncopation.
Today's Musician	\checkmark	\checkmark	\checkmark	Х	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Techniques and Materials	\checkmark	\checkmark	\checkmark	Х	\checkmark	\checkmark	\checkmark	Х	\checkmark
The Complete Musician	\checkmark	\checkmark	\checkmark	Х	\checkmark	\checkmark	\checkmark	Х	Х
Tonal Harmony	\checkmark	\checkmark	Х	Х	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
The Language of Music	\checkmark	\checkmark	Х	Х	\checkmark	\checkmark	\checkmark	Х	Х
Concise Introduction	\checkmark	\checkmark	Х	Х	\checkmark	\checkmark	\checkmark	Х	Х
Music Fundamentals	\checkmark	Х	Х	Х	\checkmark	\checkmark	\checkmark	Х	Х

In the category of pitch concepts, the majority of the books follows a more unified sequence first introducing the concepts of clefs, half and whole steps, and accidentals.¹² The books would then introduce major and minor scale patterns before moving on to major and minor keys, and finally covering intervals and chords.

The following schemes 10 and 11 show two types of sequences, in the category of rhythm and pitch concepts, are formed based on the majority of sequences of the textbooks. It might be possible to utilize these conventional sequences as a guidance to a sequenced theory instruction for pre-college string students. The following chapter will discuss utilizing the "conventional sequence" to analyze the music theory content from a selection of string method books and pre-college music theory books.

¹² *Elementary Harmony, Concise Introduction* and *Music Fundamentals* are the only three books that do not introduce the "alto clef" concept.



Scheme 10. An outline of the rhythm concepts in conventional sequences



Scheme 11. An outline of the pitch concepts in conventional sequences

CHAPTER III – METHODOLOGY

Referencing established music curricula and music theory textbooks, the instruction of fundamental music theory concepts of rhythm and pitch mostly follow a "Conventional Sequence." In this type of sequences, the rhythm concepts usually start with the introduction of durational symbols, which will be named as Category I for easy organizing. This is followed by dotted symbols (Category II) then simple meter (Category III) and compound meter (Category IV). Pitch concepts move from basic pitch notation (Category I) to scale patterns (Category II) and key signatures (Category III), before introducing the concepts of elementary harmony (Category IV). Each category contains a certain number of concepts, and the concepts are arranged in no specific order (see Scheme 12 and 13). As long as concepts are introduced together within their own category, the order of presenting the concepts can vary.



Scheme 12. An outline of the Conventional Rhythm Sequence with 22 rhythm concepts¹³

¹³ To ensure the names of the concepts fit within the schemes, some of the concept names are abbreviated. See the LIST OF ABBREVIATIONS page for a list of these abbreviations.



Scheme 13. An outline of the Conventional Pitch Sequence with 14 pitch concepts

To provide an aid to teachers when viewing the sequences in a quick glance, the conventional sequences can also be visualized on a line chart, with the X-axis showing the concepts' names and the Y-axis showing the category level. The resulting line charts should form a climbing trend line, showing concepts group together within their own category, moving from category I to category IV (see Figure 1 and 2).

Conventional Sequence

22 rhythm concepts



Figure 1. A line chart of the Conventional Rhythm Sequence



Figure 2. A line chart of the Conventional Pitch Sequence

With the "conventional sequence" in mind, music theory concepts introduced in any given book can be categorized accordingly and outlined into a line chart. For example, in the EES book series, 16 rhythm concepts are presented and can be categorized into the four rhythm categories, with each concept labeled based on the order that they appears in the book (see Scheme 14). The concepts labeled "N/A" means the concepts are not presented in the book.



Scheme 14. An outline of EES' rhythm concepts based on its original sequence

The numbered concepts can then be outlined into a line chart, with the X-axis showing the 16 numbered concepts in chronological order, and the Y-axis showing the category level of these concepts (See Figure 3). Concepts that are not presented in the book are included at the end of the X-axis in parenthesis and will not be considered as part of the sequence line charts. The resulting line chart shows several peak points, due to concepts from later categories being introduced among concepts of earlier categories, disrupting the "conventional sequence". For instance, concept #3 from category III is introduced among concepts #2 and #4 from category I, creating a spike in the line charts and will be considered as a misplaced concept.



Figure 3. A line chart of EES' original rhythm sequence

Compared to the climbing line chart that follows the "conventional sequence," the unstable line chart that follows EES' original sequence shows that five concepts are placed out of order (concepts #3, 5, 8, 9 and 13) and six concepts are not mentioned in the book series (concepts in parenthesis). Both the misplaced concepts and the missing concepts are indications that concept sequence does not 100% correlate to the conventional sequence. A correlation percentage can be calculated based on the following formula:

$\frac{total\ number\ of\ concepts - (misplaced\ concepts + missing\ concepts)}{total\ number\ of\ concepts} \times 100\%$

In the case of the EES book series, the correlation percentage of its rhythm concepts would be $\frac{22-(5+6)}{22} = 50\%$. A proposal can be made that the closer the sequence line chart of any book matches the conventional sequence line chart, the higher the correlation percentage. By providing this percentage of correlation for each publication, readers can more clearly see how well the publication places music theory concepts in a sequenced instruction.

Referencing the "conventional sequence", the sequence line chart (see Figure 4) of the rhythm concepts introduced in a different string method book, *String Basics*, shows five concepts are placed out of order (concepts #3, 9, 10, 11 and 12) and four concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the conventional rhythm sequence would be $\frac{22-(5+4)}{22} = 59.09\%$. By comparing the correlation sequence of EES and String Basics, it can be observed that the rhythmic concepts introduced in the latter achieves a slightly higher correlation to the conventional sequence than in EES. It can then be concluded that *String Basics* has a slightly better placement of concepts and logical sequence.

String Basics

59.09% rhythm sequence correlation



Figure 4. A line chart of String Basic's original rhythm sequence

Chapter IV will review and analyze a list of the market available materials and publications' music theory concepts placement using the methods mentioned in this chapter, and provide a sequence correlation percentage to help educators who are searching for materials that offer a more logical sequence of instruction from which they are currently using.

CHAPTER IV – ANNOTATED BIBLIOGRAPHY

The following catalog will contain information teachers may find helpful when searching for materials for their string curriculum. The texts are selected based on the current market and availability.

The catalog will be divided into two parts: (I) string method books, and (II) music theory books. Each catalog entry will provide the following information:¹⁴

Catalog Number: a sequential number assigned to each catalog entry (placed in alphabetical order by the book title).

Title: the full title as it appears on the cover of the book (including subtitles).

Author(s): the name(s) of author(s) as listed on the cover of the book.

Publisher: the name of the publisher as it appears in the book.

Type and Target Group: identifies the type of the book (strings method book or music theory book), the intended audience (beginning, intermediate, and/or advanced students), the discipline (strings, band, or general music), and the class setting (individual and/or group).

Unique Features: a brief summary of unique information believed to be pertinent to potential users.

Rhythm Concepts: an analysis of the rhythm concepts' placements, and their correlation to the *Conventional Rhythm Sequence*.

Pitch Concepts: an analysis of the pitch concepts' placements, and their correlation to the *Conventional Pitch Sequence*.

¹⁴ The format of this catalog is in reference to Chapter IV of Harris' dissertation.

Catalog Number: I. 1

Title: All for Strings: Comprehensive String Method Book 1, Book 2, and Book 3 Author(s): Gerald Anderson, Robert Frost

Publisher: Neil A. Kjos Music Company

Type and Target Group: A series of three string method books designed for beginning, intermediate, and advanced string students in a group class setting.

Unique Features: New notes, new ideas, and written activities are highlighted by colorcoded symbols. Book 1 includes detailed explanation on parts of the instrument, care of the instrument, string accessories, and provides photographs of proper instrument positions. Book 2 contains a section on classroom tuning procedures and introduction to vibrato. The Manual/Score offers strategies for teachers, covering topics such as bow grip exercises, counting system for rhythms, separating right and left hand, etc. The book series starts with a *Starting By Rote* section, which presents a unique and flexible way to start string students with a minimum amount of reading materials, so that the students can concentrate on playing positions and bowing habits without the added problem of reading music.¹⁵

Rhythm Concepts: Six concepts are placed out of order (concepts #2, 8, 9, 10, 13 and 14) and six concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 45.45% (see Figure 5).

¹⁵ Gerald Anderson and Robert Frost, *All for Strings: Comprehensive String Method Book 1* (San Diego, CA: Neil A. Kjos Music Company, 1986), 24.

Pitch Concepts: Three concepts are placed out of order (concepts #6, 8 and 11) and two concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 64.29% (see Figure 6).
All for Strings

45.45% rhythm sequence correlation



Figure 5. A line chart of All for Strings' original rhythm sequence



Figure 6. A line chart of All for Strings' original pitch sequence

Catalog Number: I. 2

Title: Artistry in Strings: A Comprehensive Course of Study for Group or Private Instruction Book 1 and Book 2

Author(s): Robert Frost, Gerald Fischbach, Wendy Barden

Publisher: Kjos Music Press

Type and Target Group: A series of two string method books designed for beginning and intermediate string students in an individual or group class setting.

Unique Features: The book series includes a series of movement-oriented exercises, *Swingercises*, that introduce and reinforce technical skills such as instrument posture, bow stroke, articulation with plenty of photograph demonstrations.¹⁶ The book series also offers two double bass approaches, one starting on *Low Position* and moving toward the bridge, and the other in *Middle Position* moving toward the fingerboard nut.¹⁷ The *Teacher's Manual* includes pedagogical advice for each unit lesson on teaching posture, finger patterns, bowing, and articulations. A primer-level volume of the series is available for string classes with younger beginning students or limited class time.¹⁸

Rhythm Concepts: Four concepts are placed out of order (concepts #5, 6, 9 and 10) and seven concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 50.00% (see Figure 7).

¹⁶ Robert Frost, Gerald Fischbach, and Wendy Barden, *Artistry in Strings: A Comprehensive Course of Study for Group or Private Instruction Book 1* (San Diego, CA: Kjos Music Press, 2002), 11.

¹⁷ Frost, Fischbach, and Barden, 10–11.

¹⁸ Frost, Fischbach, and Barden, 3.

Pitch Concepts: Five concepts are placed out of order (concepts #8, 9, 10, 12 and 13) and all 14 pitch concepts are mentioned in the book series. The correlation percentage to the *Conventional Pitch Sequence* is 64.29% (see Figure 8).

Artistry in Strings

50.00% rhythm sequence correlation



Figure 7. A line chart of Artistry in Strings' original rhythm sequence



Figure 8. A line chart of Artistry in Strings' original pitch sequence

Catalog Number: I. 3

Title: Essential Elements for Strings: A Comprehensive String Method Book 1 and Book2, and An Essential Elements Method Book 3

Author(s): Michael Allen, Robert Gillespie, Pamela Hayes

Publisher: Hal Leonard

Type and Target Group: A series of three strings method books designed for beginning, intermediate and advanced strings students in a group-class setting.

Unique Features: New concepts are placed in highlighted sections. With the purchase of any book, students, parents, and teachers can access the *EE Interactive*, which is an online resource center that introduces easy set of technology tools for online teaching, learning, assessment and communication.¹⁹ The *Teacher's Manual* includes letters to parents and students for communication, assessment rubrics for evaluation, and a bibliography of a list of essential string resources. The *Teacher Resource Kit* contains lessons plans, music theory and history worksheets and assessment sheets for each unit lesson.

Rhythm Concepts: Five concepts are placed out of order (concepts #3, 5, 8, 9 and 13) and six concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 50.00% (see Figure 9). **Pitch Concepts**: Three concepts are placed out of order (concepts #4, 8 and 9) and three concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 57.14% (see Figure 10).

¹⁹ Hal Leonard Online, "Essential Elements Interactive," 2022, https://www.halleonard.com/ee/interactive/.

Essential Elements for Strings

50.00% rhythm sequence correlation



Figure 9. A line chart of Essential Elements for Strings' original rhythm sequence



Figure 10. A line chart of Essential Elements for Strings' original pitch sequence

Catalog Number: I. 4

Title: Measures of Success for String Orchestra: A Comprehensive Musicianship String Method Book 1 and Book 2

Author(s): Gail Barnes, Brian Balmages, Carrie Gruselle, Michael Trowbridge

Publisher: FJH Music Company

Type and Target Group: A series of two string method books designed for beginning and intermediate string students in a group class setting.

Unique Features: Each of the books is organized into four chapters labeled Opus 1 through 4, with each Opus lasts approximately one quarter of a grading period.²⁰ At the end of each Opus there is an *Encore!* page which provides a variety of assessments based on chapter content.²¹ The Teacher's Manuel provides detailed information on recruitment, retainment, class set-up and other elements of a healthy orchestra.

Rhythm Concepts: Five concepts are placed out of order (concepts #3, 4, 8, 9 and 13) and six concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 50.00% (see Figure 11).

Pitch Concepts: Two concepts are placed out of order (concepts #5 and 7) and four concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 57.14% (see Figure 12).

²⁰ Gail Barnes et al., *Measures of Success for String Orchestra: A Comprehensive Musicianship String Method Book 1* (Fort Lauderdale, FL: FJH Music Company, 2014), 10.

²¹ Barnes et al., 10.

Measures of Success for String Orchestra

50.00% rhythm sequence correlation



Figure 11. A line chart of Measure of Success for String Orchestra's original rhythm sequence



Figure 12. A line chart of Measure of Success for String Orchestra's original pitch sequence

Catalog Number: I. 5

Title: New Directions for Strings: A Comprehensive String Method Book 1 and Book 2
Author(s): Joanne Erwin, Kathleen Horvath, Robert McCashin, Brenda Mitchell
Publisher: FJH Music Company

Type and Target Group: A series of two string method books designed for beginning and intermediate strings students in a group-class setting.

Unique Features: Each book is set up in 18 Units, of which each unit follows a foursection format: preparation, unit focus, review and assessment.²² Color coded symbols are used throughout the book to mark new concepts, national standards alignment, written activities, and review checkpoint. All four strings of each instrument are colored coded and introduced from the beginning, which provides for an expanded range of pitches for reading and playing.²³ The book series also offers two double bass teaching approach with two separate books, containing same technical information but different starting location on the fingerboard.²⁴ The Teacher's Manuel includes detailed information on preparing good body posture before introducing instrument posture.

Rhythm Concepts: Five concepts are placed out of order (concepts #3, 4, 11, 12 and 13) and five concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 54.55% (see Figure 13).

²² Joanne Erwin et al., *New Directions for Strings: A Comprehensive String Method Book 1* (Fort Lauderdale, FL: FJH Music Company, 2007), 10–12.

²³ Erwin et al., 8.

²⁴ Erwin et al., 9.

Pitch Concepts: Two concepts are placed out of order (concepts #5 and 7) and one concept is not mentioned in the book series (concept in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 78.57% (see Figure 14).

New Direction for Strings

54.55% rhythm sequence correlation



Figure 13. A line chart of New Direction for Strings' original rhythm sequence



Figure 14. A line chart of New Direction for Strings' original pitch sequence

Catalog Number: I. 6

Title: Sound Innovations for String Orchestra: A Revolutionary Method for Beginning, Early-Intermediate Musicians Book 1 and Book 2

Author(s): Bob Phillips, Peter Boonshaft, Robert Sheldon

Publisher: Alfred Music

Type and Target Group: A series of two string method books designed for beginning and intermediate string students in a group class setting.

Unique Features: The content of the book series is organized into multiple levels focusing on sound production in various aspects of fundamentals, techniques, development, and performances. *Sound Advices*, reminders for students regarding the lesson materials, are placed throughout the lessons. *Sound Check* contains checklists of mastered skills at the end of each level. Access to *SI Online*, an online multimedia resource for teachers, students, and parents, is available with the purchase of the book. *SI Online* includes audio demonstration and accompaniment tracks, video demonstration of fundamental skills, and supplemental enrichment content.²⁵

Rhythm Concepts: Five concepts are placed out of order (concepts #1, 7, 8, 9 and 13) and six concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 50.00% (see Figure 15). **Pitch Concepts**: Four concepts were placed out of order (concepts #4, 5, 6 and 9) and all 14 concepts from the *Conventional Pitch Sequence* are mentioned in the book series. The correlation percentage to the *Conventional Pitch Sequence* is 71.43% (see Figure 16).

²⁵ Bob Phillips, Peter Boonshaft, and Robert Sheldon, *Sound Innovations for String Orchestra: A Revolutionary Method for Beginning Musicians Book 1* (Van Nuys, CA: Alfred Music, 2010), 5.

Sound Innovations for String Orchestra

50.00% rhythm sequence correlation



Figure 15. A line chart of Sound Innovations for String Orchestra's original rhythm sequence



Figure 16. A line chart of Sound Innovations for String Orchestra's original pitch sequence

Catalog Number: I. 7

Title: *Strictly Strings: A Comprehensive String Method Book 1 and Book 2*, and *Orchestra Companion Book 3*

Author(s): Jacquelyn Dillon, James Kjelland, John O'Reilly

Publisher: Highland/Etling Publishing

Type and Target Group: A series of three string method books designed for beginning, intermediate and advanced string students in a group class setting.

Unique Features: The book series introduces bowing on all open strings from the beginning. Each new concept is accompanied by a *Reminder* section with checklists on finger placement, posture and bow movement. Book 3's contents are divided by key centers, and each section contains performance materials such as scales, shifting studies, etudes and orchestral excerpts.

Rhythm Concepts: Five concepts are placed out of order (concepts #3, 6, 7, 9 and 11) and six concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 50.00% (see Figure 17). **Pitch Concepts**: Three concepts are placed out of order (concepts #3, 7 and 8) and three concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 57.14% (see Figure 18).

Strictly Strings

50.00% rhythm sequence correlation



Figure 17. A line chart of Strictly Strings' original rhythm sequence



Figure 18. A line chart of Strictly Strings' original pitch sequence

Catalog Number: I. 8

Title: String Basics: Steps to Success for String Orchestra Book 1, Book 2, and Book 3 Author(s): Terry Shade, Jeremy Woolstenhulme, Wendy Barden

Publisher: Neil A. Kjos Music Company

Type and Target Group: A series of three string method books designed for beginning, intermediate, and advanced string students in a group class setting.

Unique Features: Each lesson is organized in five sections with *Steps to Success, New Notes, New! Terms & Symbols, Strategies for Success in Performance and Music Understanding,* and *Practice and Assessment.* The *Steps to Success* and *New Notes/Terms* sections list lesson objectives and introduce new concepts to the students. The *Strategies for Success* and *Practice/Assessment* provides teacher with lesson plan ideas. Book 3 includes instructions on instrument tuning with small and large adjustments. Students and teachers can also access the *Interactive Studio,* which are downloadable resources featuring practice tracks, video lessons, and extra materials for extended learning opportunities.²⁶ The Teacher's Edition includes various instructional strategies, troubleshooting solutions, duplicable worksheets and more.

Rhythm Concepts: Five concepts are placed out of order (concepts #3, 9, 10, 11 and 12) and four concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 59.09% (see Figure 19).

²⁶ Terry Shade, Jeremy Woolstenhulme, and Wendy Barden, *String Basics: Steps to Success for String Orchestra Book 1* (San Diego, CA: Neil A. Kjos Music Company, 2010), 6–7.

Pitch Concepts: Five concepts are placed out of order (concepts #4, 5, 9, 10 and 11) and two concepts are not mentioned in the book series (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 50.00% (see Figure 20).

String Basics

59.09% rhythm sequence correlation



Figure 19. A line chart of String Basics' original rhythm sequence



Figure 20. A line chart of String Basics' original pitch sequence

Catalog Number: II. 1

Title: Basic Music Theory and History for Strings: Workbook 1 and Workbook 2 Author(s): Wendy Barden, Terry Shade

Publisher: Kjos Music Press

Type and Target Group: A series of two music theory/history books designed for string students.

Unique Features: The book series organizes music theory and music history content in two separate sections. In the music theory section, each page is divided in half, with the top-half introducing the concepts, and the bottom-half providing practice and ear training section for the students. The music theory instruction also relates certain concepts to the fingerboard of string instruments. The *Answer Key* has a *Teacher's Corner on each theory page*, with notes about the answers, suggested assessment, more practice activities, and ear training examples.²⁷ The history section includes many photographs, with an emphasis on the development and growth of string instruments, orchestral instruments, and the orchestra.²⁸

Rhythm Concepts: Five concepts are placed out of order (concepts #1, 8, 9, 10 and 12) and eight concepts are not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 40.91% (see Figure 21).

²⁷ Wendy Barden and Terry Shade, *Basic Music Theory and History for Strings: Workbook 1* (San Diego, CA: Kjos Music Press, 2015), 3.

²⁸ Barden and Shade, 54.

Pitch Concepts: Five concepts are placed out of order (concepts #4, 7, 8, 9 and 10) and three concepts are not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 42.86% (see Figure 22).

Basic Music Theory and History for Strings

40.91% rhythm sequence correlation



Figure 21. A line chart of Basic Music Theory and History for Strings' original rhythm sequence

Basic Music Theory and History for Strings



42.86% pitch sequence correlation

Figure 22. A line chart of Basic Music Theory and History for Strings' original pitch sequence

Catalog Number: II. 2

Title: Essentials of Music Theory: Alto Clef Edition Complete Author(s): Andrew Surmani, Karen Surmani, Morton Manus Publisher: Alfred Publishing

Type and Target Group: A series of three music theory books designed for general music students.

Unique Features: Each book from the series organizes music theory contents into six units, with each unit contains one-page long lessons, an ear training page, and a page on review of the lessons. A set of ear training CD are also available with the purchase of the book, containing usical examples played by a variety of instruments.²⁹ The layout of the book allows spaces for students to complete the in-class assignments with no need to use additional paper.

Rhythm Concepts: Six concepts are placed out of order (concepts #4, 8, 9, 10, 13 and 17) and four concepts are not mentioned (concepts in parenthesis). The correlation

percentage to the Conventional Rhythm Sequence is 54.55% (see Figure 23).

Pitch Concepts: Four concepts are placed out of order (concepts #10, 11, 12 and 13) and all 14 pitch concepts are introduced. The correlation percentage to the *Conventional Pitch Sequence* is 71.43% (see Figure 24).

²⁹ Andrew Surmani, Karen Surmani, and Morton Manus, *Essentials of Music Theory: Alto Clef Edition Complete* (Van Nuys, CA: Alfred Publishing, 1999), 1.

Essentials of Music Theory

54.55% rhythm sequence correlation



Figure 23. A line chart of Essentials of Music Theory's original rhythm sequence



Figure 24. A line chart of Essentials of Music Theory's original pitch sequence

Catalog Number: II. 3

Title: Master Theory: Theory Workbook

Author(s): Charles S. Peters, Paul Yoder

Publisher: Neil A. Kjos Music

Type and Target Group: A series of three music theory books designed for general music students.

Unique Features: The book series is the Volume 1 of the *Master Theory* collection, covers beginning to advanced music theory. Each lesson is arranged in a one-page format, with the top half introducing the concepts in highlighted sections, and the bottom half for students' assignments. There are one-page review pages after a number of lessons, and student tests at the end of the book. The layout of book provides enough space for students to complete the in-class assignments with no need for extra paper. Volume 2 of the collection covers elementary to advanced harmony and arranging.

Rhythm Concepts: Eight concepts are placed out of order (concepts #4, 5, 6, 10, 13, 17, 18 and 19) and one concept is not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 59.09% (see Figure 25).

Pitch Concepts: Two concepts are placed out of order (concepts #6 and 7) and one concept is not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 78.57% (see Figure 26).

Master Theory

59.09% rhythm sequence correlation



Figure 25. A line chart of Master Theory's original rhythm sequence



Figure 26. A line chart of Master Theory's original pitch sequence

Catalog Number: II. 4.

Title: *Music Theory for the Successful String Musician: A Curriculum of Theory, History, and Creativity Lessons and Exercises for Well-Rounded String Students*

Author(s): Christopher Selby

Publisher: GIA Publications

Type and Target Group: A music theory book designed for string students.

Unique Features: The book covers string orchestra related content, such as the origins of the orchestra, the fingerboard map, the classical symphony, music history eras and major composers. The *Teacher's Edition* contains unit lesson plans, supplemental worksheets for additional practice, unit quizzes to assess student learning, additional projects and activities, and concise online instructional video for each lesson.³⁰ Each lesson plan contains *Essential Questions* to guide student learning, strategies for daily instruction, and instruction for substitute teachers.

Rhythm Concepts: Ten concepts are placed out of order (concepts #9, 10, 11, 12, 13, 14, 15, 16, 17 and 18) and all 22 rhythm concepts are introduced. The correlation percentage to the *Conventional Rhythm Sequence* is 54.55% (see Figure 27).

Pitch Concepts: Three concepts are placed out of order (concepts #9, 10 and 12) and all 14 pitch concepts are introduced. The correlation percentage to the *Conventional Pitch Sequence* is 78.57% (see Figure 28).

³⁰ Christopher Selby, Music Theory for the Successful String Musician: A Curriculum of Theory, History, and Creativity Lessons and Exercises for Well-Rounded String Students (Chicago, IL: GIA Publications, 2020), 11.

Music Theory for the Successful String Musician

54.55% rhythm sequence correlation



Figure 27. Music Theory for the Successful String Musician's original rhythm sequence



Figure 28. Music Theory for the Successful String Musician's original pitch sequence

Catalog Number: II. 5

Title: Practical Theory, Complete: A Self-Instruction Music Theory Course Complete Author(s): Sandy Feldstein

Publisher: Alfred Music

Type and Target Group: A music theory book designed for general music students.

Unique Features: The book organizes music theory concepts into one-page lessons and provides review lessons after every 3 to 4 lessons. Answers to the review lessons are also included. The layout of the book provides enough space for students to complete in-class assignments and also includes extra staff paper if students need additional practice.

Rhythm Concepts: Five concepts are placed out of order (concepts #4, 8, 9, 10 and 13) and five concepts are not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 54.55% (see Figure 29).

Pitch Concepts: Four concepts are placed out of order (concepts #9, 10, 11 and 12) and one concept is not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 64.29% (see Figure 30).

Practical Theory

54.55% rhythm sequence correlation



Figure 29. A line chart of Practical Theory's original rhythm sequence



Figure 30. A line chart of Practical Theory's original pitch sequence

Catalog Number: II. 6

Title: *Standard of Excellence: Music Theory and History Workbook Book 1, Book 2, and Book 3*

Author(s): Chuck Elledge, Jane Yarbrough, Bruce Pearson

Publisher: Neil A. Kjos Music Company

Type and Target Group: A series of three music theory and history books designed for general music students.

Unique Features: The book series organizes the music theory and music history content into two separate sections. New concepts are placed in highlighted sections with large notations and space for students to complete in-class assignments. Assignments are presented as music games such as musical crosswords, music math, note decoder, scavenger hunt, etc. The music history section covers information from Antiquity through the 20th century on major composers and musical styles, and provides a music history timeline which help tie all the information together.³¹

Rhythm Concepts: Seven concepts are placed out of order (concepts #1, 8, 10, 11, 12, 14 and 16) and two concepts are not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 59.09% (see Figure 31).

Pitch Concepts: Three concepts are placed out of order (concepts #5, 9 and 12) and one concept is not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 71.43% (see Figure 32).

³¹ Chuck Elledge, Jane Yarbrough, and Bruce Pearson, *Standard of Excellence: Music Theory and History Workbook Book 1* (San Diego, CA: Neil A. Kjos Music Company, 1993), 1.

Standard of Excellence

59.09% rhythm sequence correlation



Figure 31. A line chart of Standard of Excellence's original rhythm sequence



Figure 32. A line chart of Standard of Excellence's original pitch sequence

Catalog Number: II. 7

Title: *Thirty Days to Music Theory: Ready-To-Use Lessons and Reproducible Activities* for the Music Classroom

Author(s): Ellen Wilmeth

Publisher: Hal Leonard

Type and Target Group: A music theory book designed for general music students. **Unique Features**: This book is divided into three units of *Rhythm*, *Melody*, and *Directions*. The *Rhythm* and *Melody* units covers music theory concepts in the elements of rhythm, and pitch, and the *Direction* unit covers topics such as accidentals, tempo markings, articulations, etc. Each unit contains daily lessons and a unit test. At the end of the book, two additional review lessons are provided, combining all elements together.

Rhythm Concepts: Three concepts are placed out of order (concepts #4, 5 and 6) and five concepts are not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Rhythm Sequence* is 63.64% (see Figure 33).

Pitch Concepts: Five concepts are placed out of order (concepts #4, 5, 6, 10 and 11) and two concepts are not mentioned (concepts in parenthesis). The correlation percentage to the *Conventional Pitch Sequence* is 50.00% (see Figure 34).

Thirty Days to Music Theory

63.64% rhythm sequence correlation



Figure 33. A line chart of Thirty Days to Music Theory's original rhythm sequence



Figure 34. A line chart of Thirty Days to Music Theory's original pitch sequence

CHAPTER V – SUMMARY

After analyzing the music theory concept placements of the eight string method book series and the seven music theory books in Chapter IV, each book received a score showing the percentage of their correlation to the conventional sequences in the category of rhythm and pitch. As mentioned earlier in Chapter III, the higher the percentage, the closer the book sequence is correlated to the conventional sequence. The books are then ranked according to their rhythm correlation, pitch correlation, the correlation average.

Among the eight string method books, *String Basics* ranked first in the rhythm category with a correlation percentage of 59.09% (see Table 2). *New Directions* ranked first in the pitch category with a correlation percentage of 78.57%, as well as first overall with a correlation average of 64.29%.

Table 2

BOOK TITLE	RANK	RHYTHM
String Basics	1	59.09%
New Directions	2	54.55%
Artistry in Strings	3	50.00%
Essential Elements	3	50.00%
Sound Innovations	3	50.00%
Strictly Strings	3	50.00%
Measures of Success	3	50.00%
All for Strings	8	45.45%

Rhythm sequence correlation ranking of string method books

Table 3

Pitch sequence correlation ranking of string method books

BOOK TITLE	RANK	PITCH
New Directions	1	78.57%
Sound Innovations	2	71.43%
All for Strings	3	64.29%
Artistry in Strings	3	64.29%
Strictly Strings	5	57.14%
Essential Elements	5	57.14%
Measures of Success	5	57.14%
String Basics	8	50.00%

Table 4

Overall correlation ranking of string method books

BOOK TITLE	RANK	AVERAGE
New Directions	1	64.29%
Sound Innovations	2	60.72%
All for Strings	3	57.15%
Artistry in Strings	3	57.15%
String Basics	5	54.55%
Strictly Strings	6	53.57%
Essential Elements	6	53.57%
Measures of Success	8	51.30%

Among the seven music theory books, *Thirty Days to Music Theory* ranked first in the rhythm category with a correlation percentage of 63.64%. *Master Theory* and *Music Theory for the Successful String Musician* both ranked first in the pitch category with a correlation percentage of 78.57%. The former ranked first overall with a correlation

percentage of 68.83%, with a slightly higher correlation in the rhythm category than the latter.

Table 5

Rhythm sequence correlation ranking of music theory books

BOOK TITLE	RANK	RHYTHM
Thirty Days to Music Theory	1	63.64%
Master Theory	2	59.09%
Standard of Excellence	2	59.09%
Essentials of Music Theory	4	54.55%
Music Theory for the Successful String Musician	4	54.55%
Practical Theory	4	54.55%
Basic Music Theory and History for Strings	7	40.91%

Table 6

Pitch sequence correlation ranking of music theory books

BOOK TITLE	RANK	PITCH
Master Theory	1	78.57%
Music Theory for the Successful String Musician	1	78.57%
Essentials of Music Theory	3	71.43%
Standard of Excellence	3	71.43%
Practical Theory	5	64.29%
Thirty Days to Music Theory	6	50.00%
Basic Music Theory and History for Strings	7	42.86%
Table 7

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BOOK TITLE	RANK	AVERAGE
Master Theory	1	68.83%
Music Theory for the Successful String Musician	2	66.56%
Standard of Excellence	3	65.26%
Essentials of Music Theory	4	62.99%
Practical Theory	5	59.42%
Thirty Days to Music Theory	6	56.82%
Basic Music Theory and History for Strings	7	41.89%

Based on the data, *New Directions* and *Master Theory* correlate the most with the conventional sequence. Compared to the rest, they would be the most ideal materials to be implemented in the string curriculum with a goal of improving students' music theory comprehension. It should be noted however, implementing new materials in a string curriculum could be time consuming and challenging, especially for programs that operate on multiple grade levels (as in the case of the HPSD, from 5th grade to 12th grade.) Teachers may consider the follow options:

Implement the new materials with newly beginning 5th grade students, while the rest of the students in the program (6th through 12th grades) continue using the old materials. Eventually the new materials will be fully integrated into the curriculum over the span of eight years, after the first group of 5th grade students graduate from the program. The disadvantage of this approach is that new students who are learning with the new materials would presumably progress at a different rate from the older students

and if the program produces concerts where multiple grades perform together, developing those concert programs may become more complicated.

Implement the new materials with a larger portion of the beginning students (5th through 6th grades), while the rest of the grades (7th through 12th grades) continue using the old materials. The advantage of this option is that the time it will take to fully integrate the new materials will be shorter than the first option. This would also lessen the issues presented with developing concert programs, as 5th and 6th grade students should progress at a similar rate and be able to perform together with relative ease.

Both option one and two requires years for the new materials to be fully integrated into the curriculum, and older students would not be able to benefit from the logical sequence instruction of the new material. Additionally, teachers will need to plan and teach lessons for multiple grades of students utilizing both the new and old materials, which will be very time consuming.

A third approach would be to continue using the current materials, and use the new material to reinforce the theory instruction. In the case of HPSD, the students could continue to use the *Essential Elements for Strings*' music repertoire for performances, but begin following the *New Directions* and *Master Theory*'s sequences and their additional materials to guide music theory instruction. This way, the issues of multiple grades performing together is virtually eliminated while continuing to use the repertoire from the EES book series, while students simultaneously learn the music theory concepts in a more logical sequence, possibly improving their music theory comprehension.

Unfortunately, what this research was unable to uncover is a "perfect" book that follows the conventional sequence. The ranking data showed that a majority of the string

method books have a relatively low pitch correlation percentage in the 60% range, and an even lower rhythm percentage around 50%. The correlation percentage of music theory books are slightly better but not by much. This bibliography could be improved by researching more materials. With the advancement of technology over the last decade, more and more digital resources are finding their way into the classroom. Different types of media, such as online written resources, audio and video media, even augmented and virtual reality (AR/VR) may provide a higher correlated percentage and should be analyzed. Another improvement would be to administer a wider survey among string teachers, hopefully spanning across the entire country to find materials that other string programs use that may not be widely used in the Southeastern United States. The final improvement would be to create a "perfect" music theory book if no existing materials have a high enough correlation percentage, by following the conventional sequences and combining multiple resources.

The overall goal of this research is to provide string teachers a database that they can browse and choose method books or supplemental materials to utilize in their string curriculum in hopes to improve their students' music theory proficiency. This project can be furthered with research on the performance aspects of the method books, building a database for string educators that want to improve their students' performance ability. A review of all of the method books through a performance lens may uncover an imbalance between the performance aspects and the music theory aspects of the materials. In the case of the EES book series, even though the music theory sequence in the book is ranked quite low in correlation to the conventional sequence, the teacher survey shows that a large percentage of the teachers are satisfied with how the book series progresses students

in performance. Even though the EES lacks in theory introduction, it is serviceable in quickly progressing student performance. It would be beneficial to research the pedagogical approach of method books and find one that is the most balanced in performance and theory.

While doing research for this project, I have discovered a few favorite materials regardless their correlation score. In the string method book category, I really like the large margin of the *Strictly String* book series. *Sound Innovations* focuses on sound production and has two additional books on warm-ups and sound development. *New Directions* uses tetrachords to introduce the concepts of scales, and even mentions the concepts of solfege syllables. *Artistry in Strings* has a whole section dedicated to posture exercises with colored photographs. In the music theory book category, although *Standard of Excellence* was not ranked first, it has other positive traits that I like such as its large margin, interesting music theory games, and very clear and colorful layouts.

APPENDIX A – An Assessment on Essential Elements for Strings





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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

· The risks to subjects are minimized and reasonable in relation to the anticipated benefits.

- The selection of subjects is equitable.
- · Informed consent is adequate and appropriately documented.
- · Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
- . The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

 PROTOCOL NUMBER:
 21-083

 PROJECT TITLE:
 A Music Theory Assessment Based on "Essential Elements for Strings"

 SCHOOL/PROGRAM
 Music

 RESEARCHERS:
 PI: Rebecca Hale Investigators: Hale, Rebecca~Beard, Danny~

 IRB COMMITTEE ACTION: Approved
 CATEGORY:

 CATEGORY:
 Expedited Category

 PERIOD OF APPROVAL:
 28-Oct-2021 to 27-Oct-2022

Sonald Baccofr.

Donald Sacco, Ph.D. Institutional Review Board Chairperson

Figure A1. IRB Approval Letter



ESSENTIAL ELEMENTS FOR STRINGS BOOK 1 ASSESSMENT PAGE 1

Figure A2. Student Assessment Sample Questions

APPENDIX B – A Survey on Essential Elements for Strings





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Modification Institutional Review Board Approval

The University of Southern Mississippi's Office of Research Integrity has?received the notice of your modification for your submission A Music Theory Assessment Based on "Essential Elements for Strings" (IRB #:21-083).

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- · The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- · Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
- · The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

 PROTOCOL NUMBER:
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 PROJECT TITLE:
 A Music Theory Assessment Based on "Essential Elements for Strings"

 SCHOOL/PROGRAM
 Music

 RESEARCHERS:
 PI: Rebecca Hale Investigators: Hale, Rebecca~Beard, Danny~

 IRB COMMITTEE ACTION: Approved
 CATEGORY:

 PERIOD OF APPROVAL:
 08-Dec-2021 to 27-Oct-2022

Sonald Baccofr

Donald Sacco, Ph.D. Institutional Review Board Chairperson

Figure A1. IRB Modification Approval Letter

Strings Method Book Survey - Elementary

rebecca.hale@hattiesburgpsd.com Switch account

* Required

Email *

Your email

Which strings method book(s) are you currently using? *

All for Strings by Anderson and Frost Artistry in Strings by Frost and Fischbach Essential Elements for Strings by Allen, Gillespie and Hayes Measures of Success for String Orchestra by Barnes, Balmages, Gruselle and Trowbridge New Directions for Strings by McCashin, Horvath, Mitchell and Erwin Sound Innovation for String Orchestra by Sheldon, Boonshaft and Phillips Strictly Strings by Dillon, Kjeiland and O'Reilly Strings Basics: Steps to Success for String Orchestra by Shade and Woolstenhulme The Bornoff Approach: A Primer by Debbie Lyle Other:

How many years have you been using this method book in your strings curriculum? *

0-1 year 1-2 years 2-3 years 3 years and more

Using the current method book, please rate your students' performance level: *

My students can perform all of the music materials covered in the method book (90-100% proficient)

My students can perform most of the music materials covered in the method book (80-90% proficient)

My students can somewhat perform the music materials covered in the method book (60-80% proficient)

My students have difficulty performing the music materials covered in the method book (60% and/or below proficient)

Other:

Using the current method book, please rate your students' music theory comprehension level: *

My students can understand and apply all of the music theory knowledge covered in the method book (90-100% proficient)

Figure A2. Teacher Survey Sample Questions

$\label{eq:appendix} APPENDIX \ C-Supporting \ Documents$

MODIFIED ACTIVITY SCHEDULE

	P.R.V.O., Pre-K, Kinder		12:1		
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
LIBRARY	Rowell	McKenny	Laphand	Darby	Rowell
MUSIC	Laphand	Rowell	Darby	McKenny	Laphand
COMPUTER	McKenney	Darby	Rowell	Laphand	Darby
P.E.	Darby	Laphand	McKenny	Rowell	McKenny

	1 st – 2 nd GRADE		12:30-1		
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
LIBRARY	Simmons	Duncan	Dupree	Morgan	Dupree
MUSIC	Dupree	Morgan	Simmons	Duncan	Morgan
COMPUTER	Morgan	Dupree	Duncan	Simmons	Duncan
P.E.	Duncan	Simmons	Morgan	Dupree	Simmons

	3" – 4" GRADE		1:00-1:25 P.M.		
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
LIBRARY	Griffin	Buckley	Cook	Saucier	Griffin
MUSIC	Buckley	Cook	Saucier	Griffin	Buckley
COMPUTER	Cook	Saucier	Griffin	Buckley	Cook
P.E.	Saucier	Griffin	Buckley	Cook	Saucier

	5° GRADE		1:25-1:50 P.M.		
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
LIBRARY		Marshall	Smith	Terrell	
MUSIC	Smith	Terrell	Marshall		Terrell
COMPUTER	Marshall		Terrell	Smith	Marshall
P.E.	Terrell	Smith		Marshall	Smith

Figure A1. Sample of "Modified Schedule"

INFORMATION HUB

- SAFETY DRILLS: STRESS THE IMPORTANCE OF TAKING THESE SERIOUSLY TO STUDENTS.
 REMEMBER BE READY TO HAVE YOUR WINDOWS COVERED IMMEDIATELY!
- All classes must have at least 3 feet between all students at all times. All shields must be up at all times. Students and staff should wear masks appropriately.
- Joint ELA & Math PLC Meeting Tuesday 8/24 in cafeteria @ 1:45.
- All staff should work to be out of the building by 5:00 so spraying and disinfecting can take place on Monday and Wednesday.
- Only those students who are approved to be virtual or those who are quarantine should be online on Zoom and completing work in schoology.
- All STAFF: Complete Emergency Contact Form ASAP.
- All staff and students 12 and up are encourgaed to take the COVID vaccine. It is available at the N.R. Burger Clinic. Call 601-450-0805 for more info.
- Lesson Plans must notate how virtual/at home students are receiving instruction.
- Upload Virtual Open House Links by FRIDAY 8/27.
- All staff should arrive by 6:55 and report to duty.
- Attendance Slips should be put out by 7:35 daily.
- Chromebooks may be chekced out by parents in the front office daily. POC Ms. Barnes
- 7th and 8th grade students are STRONGLY ENCOURAGED to wear purple and white shirts only to distinguish Burger from STEAM.

Figure A2. Sample of "Teacher's Extra Tasks"

IMPORTANT DATES

Aug. 23rd Leader In Me Lighthouse Training

> Aug. 26th NRB TIA @ 3:00 Transploreum POC- Mr. Barnes

Aug. 27th (PBIS) Tiger Kickback Block Party

Aug. 30th PTSA Meeting Election of Officers @ 6:00 in the Transploreum

Aug. 31st Jr. High Football vs Petal 5:00 p.m. & 6:00 p.m.

Aug. 31- Sept. 1 Burger ELA BOY Diagnostic Hold in 1st period until 9:30 Students who finish on time with no flags will be rewarded!

Sept. 2nd Title I Meeting @ 5:00 Sept. 2nd Open House @ 5:30 Events are VIRTUAL! Staff should be at school.

Sept. 3-4 Burger Math BOY Diagnostic Hold in 1st period until 9:30 Students who finish on time with no flags will be rewarded.

> Sept. 6th Labor Day - No School

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