Effectiveness of Rhythm Syllables: A Comparative Study for Teaching Rhythmic Literacy to Young Students

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ABSTRACT

The purpose of this comparative study is to compare the effectiveness of two contrasting rhythmic syllable approaches with first grade students developing audiation and literacy skills. In this study, four first grade classes will be assessed through the music literacy program, *Conversational Solfege*, developed by Dr. John Feierabend. The study will compare students' musical development with two classes utilizing functional syllable systems and the remaining two classes utilizing non-functional syllable systems through teacher led exercises. The rhythmic content presented to both groups will consist of quarter note and eighth note combinations in duple meter. Videos of individual students echoing rhythm patterns, decoding familiar and unfamiliar rhythm patterns from neutral syllables, aurally creating rhythm patterns, reading rhythm patterns and written documentation of rhythm dictation will be collected, analyzed, and graded by several elementary general music educators. Rubrics adapted from the *Conversational Solfege Level 1 Teacher's Manual* will be used to measure student achievement.

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Chapter 1: Introduction

Statement of Purpose

The purpose of this comparative study is to compare the effectiveness of two contrasting rhythmic syllable approaches with first grade students developing audiation and literacy skills. In this study, four first grade classes will be assessed through the music literacy program, *Conversational Solfege*, developed by Dr. John Feierabend. The study will compare students' musical development with two classes utilizing functional syllable systems and the remaining two classes utilizing non-functional syllable systems through teacher led exercises. The rhythmic content presented to both groups will consist of quarter note and eighth note combinations in duple meter. Videos of individual students echoing rhythm patterns, decoding familiar and unfamiliar rhythm patterns from neutral syllables, aurally creating rhythm patterns, reading rhythm patterns and written documentation of rhythm dictation will be collected, analyzed, and graded by several elementary general music educators. Rubrics adapted from the *Conversational Solfege Level 1 Teacher's Manual* will be used to measure student achievement.

Rationale

John Feierabend, a music psychologist and leader in the field of elementary music education, recommends utilizing functional rhythm syllables in the Conversational Solfege music literacy program. Functional rhythm syllables differentiate between the macro and micro beat make up of a given pattern. In this approach, syllables have different names for the sound that occurs on the beat versus a sound that occurs halfway between downbeats. Although functional rhythm syllables have been suggested in various methodologies, many Kodály certification programs and current Kodály resources demonstrate the use of traditional Hungarian rhythm syllables (ta and ti-ti) which are nonfunctional. In my own undergraduate and collegiate

experience of earning a Level IV Kodály certification, I practiced pedagogical exercises using traditional Hungarian rhythm syllables. This study seeks to discover if the use of functional syllables results in higher quality student responses through carefully designed assessments aimed to measure students' abilities to speak with expression and musicality as well as their ability to perform reading and writing activities with accuracy and ease. The comparative study will take place during the first semester of school (late August - mid January).

Expected Findings

The two main data driven components in this study include 1) the results of various rhythm assessments and 2) the results of a survey indicating personal preference of rhythm syllable systems. Regarding the results in assessments designed for the first grade classes utilizing nonfunctional rhythm syllables, I expect students to achieve lower scores in decoding, improvising, reading, and writing duple meter patterns. With the first grade classes using the functional rhythm syllables, I expect students to achieve higher scores in decoding, improvising, reading, and writing duple meter patterns. Since these assessments will be interpreted and graded by multiple music teachers, I expect for the assessments scores to generally match between each educator.

After surveying elementary music educators in which I seek to find their personal preference of rhythm syllables, I expect the majority of elementary music teachers to utilize nonfunctional syllables for quarter note and eighth note rhythm patterns. I also expect to observe a survey participant's preference of rhythm syllables to correlate with the rhythm syllable system practiced in their personal experience in undergraduate or certification programs.

Chapter 2: History and Rationale of Rhythm Syllable Systems

General music methodologies and approaches utilize specific guidelines, terminology, and sequencing of content. For each methodology described in this chapter there are various practices of mastering rhythmic skills. Many strategies used in elementary music methodologies employ the use of rhythm syllables. In the traditional Kodály methodology, master teachers suggest to use the nonfunctional rhythm syllables developed in Hungary (Choksy, 1988). In the Orff Schulwerk approach, Gunild Keetman suggests using words in the student's native language that correlate to the amount of syllables to the rhythmic concept (Keetman, 1974, p. 96). In Music Learning Theory developed by Edwin E. Gordon, he suggests using functional rhythm syllables (Gordon, 2012, p. 84).

History of Rhythm Syllable Systems

The first establishment of a rhythm syllable system began in the 19th century. This practice called the French Time-Names system, often referred to as the Galin-Paris-Chevé method or Chevé method, was developed primarily by Pierre Galin, Amié Paris, Nanine Paris, and Emil Chevé in France (Brumfield, 2014, p.10). In this system, "syllables are based on combinations of beat functions, time values of notes, and positions of notes in a measure" (Gordon, 2012, p. 76). "Vowels indicate beats and consonants indicate sequence" (Gordon, 2012, p. 76).

The Chevé system later became adapted for use in the Kodály methodology. The Kodály philosophy developed in the mid 1940's in Budapest, Hungary primarily by Hungarian composer and ethnomusicologist, Zoltán Kodály. In an effort to preserve Hungarian nationalism and the value of music itself, Kodály "believed that a music curriculum based on folk songs and games of Hungarian culture would keep the Hungarian language and customs from being lost" (Bonnin,

2005, p.51). Commissioned by Kodály, Hungarian music educator, Jenő Ádám developed the curriculum used for the Kodály methodology at the Liszt Academy (Bonnin, 2005). During this time, the French Times-Names system was simplified to fit the needs of the Hungarian music educators. (Gordon, 2012, p. 76). Since then, different versions of the Kodály rhythm syllables have been employed but among the most popular and traditional is the association of "ta" for a quarter note and "ti-ti" for paired eighth notes.

By the 1960s, the Kodály methodology was introduced to American music educators. During this period of transferring knowledge of the methodology between countries, little to no change was made to the rhythm syllables employed in Hungary. American music educators began studying the methodology from Hungarian music educators who traveled to the United States. In turn, American music educators traveled to Hungary to observe Kodály music classes in action (Bonnin, 2005). Lois Choksy, a pioneer in adapting the Kodály methodology for use in American schools, used "ta" and "ti-ti" rhythm syllables in her text, *The Kodály Method I: Comprehensive Music Education* (Choksy, 1988, p.35). Even contemporary Kodály resources still recommend the use of the traditional non-functional syllables. For example, Susan Brumfield's, *First We Sing* series from 2014 utilized the "ta" and "ti-ti" syllables (Brumfield, 2014, p.10).

During the 1970s and 1980s Edwin E. Gordon developed "Music Learning Theory" which primarily was founded on Gordon's research in musical aptitude, teaching musical literacy through the sound before sight approach, and audiation development. During this time, Gordon adopted James Froseth's functional rhythm syllables to use in his research. (Feierabend and Strong, 2018, p. 7). Functional syllables require the same syllable to occur on each *macrobeat*. Regarding the Froseth syllables, macrobeats (beats that fall on the strong beat of the

meter) are assigned the syllable "du" whereas syllable names associated with *microbeats* (beats that fall in between the strong beats such as a pair of eighth notes) are labeled "du de." (Gordon, 2012, p. 86).

However, the use of functional rhythm syllables are employed in another contemporary resource widely accepted by Kodály music educators. In 2008, Mícheál Houlahan and Philip Tacka, authors of *Kodály Today*, recommended the "Takadimi" rhythm syllables. These syllables, like Gordon's, differentiate between macro and microbeat functionality. The Takadimi rhythm syllables system was introduced by Richard Hoffman, William Pelto, and John W. White in their article entitled "Takadimi: A Beat-Oriented System of Rhythm Pedagogy," from the *Journal of Music Theory Pedagogy 10* in 1996. In their notes of *Kodály Today,* Houlahan and Tacka recommended the use of this syllable system in which they explained "From our own work with university as well as elementary school students, we are strongly convinced that it is a superior system for rhythmic reading and hearing" (Houlahan and Tacka, 2008, p. 593).

Adapted from the table comparing traditional Kodály rhythm syllables to Takadimi syllables featured on page 119 in *Kodály Today,* Table 1 compares traditional Kodály, Takadimi, and Froseth rhythm syllables.

Rationale for Functional Rhythm Syllables

In his book, *Learning Sequences in Music: Skill, Content, and Patterns,* Edwin E. Gordon describes the shortcomings of the Kodály rhythm syllables. In *Chapter 4: Tonal Solfege and Rhythm Solfege*, Gordon explains two main approaches to labeling rhythm syllables: *time-value names* and *beat function*. Regarding time-value names, "each syllable or name is assigned according to the time-value name of a note regardless of beat type or meter." (Gordon, 2012, p. 78). Music Learning Theory sequences musical literacy skills in a sound before sight approach.

For example, the practice of *decoding* rhythmic and melodic concepts first occurs aurally without visual representations. In decoding stages, students listen to patterns spoken on a neutral syllable and repeat the same pattern using the accurate syllables. With this sequencing in mind, Gordon states that syllables utilizing time-value names are not recommended because "whatever understanding is acquired at the aural/oral level cannot be solidified adequately to serve as readiness for the verbal association level." (Gordon, 2012, p. 78). He explains that in order for students to be successful with the time value name approach, teachers often find themselves having to show the symbol to solidify the concept.

Conversely, the beat function approach assigns macrobeats and microbeats different verbal associations. Among the many benefits of the beat function system, it allows students to learn rhythm patterns using internal logic. Beat function syllables use different syllables for successive microbeats depending on their placement in a pattern. (Gordon, 2012, p. 85). For example, sixteenth notes in simple duple meter would be spoken as "du ta de ta" while three paired eighth notes in compound duple meter would be spoken as "da da di." Since each macrobeat is consistently spoken as "du" the practice of decoding rhythms becomes inferred and predictable.

Gordon points out another reason for not favoring Kodály syllables. He states that there has been little to no development for adapting these syllable systems for use in meters other than duple. "For chanting usual triple meter in the Kodály system, random mnemonics are used more often than syllables associated with time-value names of notes, but they of course, lack internal logic as do those for usual duple rhythm patterns." (Gordon, 2012, p.83). Furthermore, Gordon explains that even the Takadimi system, although functional, produces unmusical results. He explains the scenario in which "the sound "a" is pulsated for elongation, for example, a dotted

quarter in 2/4" often leads to an unmusical performance (Gordon, 2012, p. 89). He also states that the syllables "ka" and "ki" cause a "contorted tongue motion" which proves to be more challenging. (Gordon, 2012, p. 89).

Lastly, a further reason to consider using the Froseth syllable system is that the system is used in other respected methodologies. In John Feierabend's *Conversational Solfege Level 1: Teacher's Manual*, the use of Gordon's rhythm syllables are employed. Feierabend states:

> "The rhythm syllables used in this method were developed by James Froseth and Edwin Gordon, and used with permission of GIA Publications. These rhythm syllables were selected from the various rhythm syllables systems for their internal logic. The beat is always referred to as "du." Other sounds are labeled according to where they occur proportionally between the beats." (Feierabend, 2001, p. TM10).

Although Gordon's Music Learning Theory is similar to the Kodály methodology in which rhythmic and melodic concepts are practiced in order of sound before sight, his argument for using beat function rhythm syllables defend the practice of mastering the skill of aurally decoding rhythmic patterns. Gordon and Froseth's syllables utilize internal logic, work in all types of meters, produce musical results, is easily pronounced, and is used in other methodologies. These benefits allow students to be more successful in the aural and pre-visual stage of learning new rhythmic concepts.

An Overview of *Conversational Solfege*

*Conversational Solfeg*e is a music literacy based curriculum written and developed by music psychologist, John Feierabend. The assessments used in this study are derived from the assessments included in *Conversational Solfege Level I Teacher's Manual*. Prior to writing the *Conversational Solfege* curriculum, Feierabend completed most of his doctoral research in which

Edwin Gordon served as the music education graduate department chair at Temple University in the late 1970's (Feierabend and Strong, 2018). By 1996, Feierabend served as the president of the Organization of American Kodály Educators (OAKE).

Similar to the Kodály method and Gordon's Music Learning Theory, *Conversational Solfege* is a sound before sight process in design. The program requires 12 steps to be mastered sequentially to ensure proficient development in rhythmic and melodic literacy skills. The first half of the steps are ear focused while the second half of the steps are reading and writing centered. On page 147 of *Feierabend Fundamentals,* Feierabend justifies this approach by quoting author of *Endangered Minds,* Jane Healy. "If Sesame Street producers really want to teach children the foundations of reading, they should take all the pictures off the screen for a while and get kids to listen to the sounds. Skills of phonological awareness are the entry point to reading." (Healy, 1990, p.289). These 12 steps are best described on page 150 in Feierabend's book, *Feierabend Fundamentals* (Feierabend and Strong, 2018, p.150).

"The 12 Steps of Conversational Solfege

(Each step must be mastered before moving on to the next)

1. **Readiness-Rote:** The teacher introduces students to a minimum of two pieces of music chosen for the current unit. Students learn and perform these pieces. Note: It is ideal if the first two pieces chosen have an accompanying game or movement so that the students will also be engaged in a "doing" activity. *Step 1 from the next unit can be introduced at any time while working through the present unit.*
2. **Conversational Solfege-Rote:** The teacher speaks or sings Patterns Set A (and for tonal units also C and D) from the current unit with rhythm or solfege syllables. Students echo the teacher using the same syllables.

3. **Conversational Solfege-Decode/Familiar:** The teacher speaks or sings patterns learned in Step 2 using neutral syllables. Students decode by speaking or singing the correct rhythm or solfege syllables. Then, the teacher performs rhymes or songs from Step 1 (phrase by phrase, if necessary) with original text. Students decode by speaking or singing with rhythm or solfege syllables. Students should decode patterns before songs or rhymes.
4. **Conversational Solfege-Decode/Unfamiliar:** The teacher speaks or sings Patterns Set B and then the third and fourth rhymes or songs chosen for the unit. Students decode with rhythm or solfege syllables.
5. **Conversational Solfege-Create: Improvise.** (Game time! Ideas offered in the Techniques section of the CS manual.) Students create original patterns, first in a group, and then in solo. The teacher assesses each student response for accuracy, listening for evidence of aural mastery in 85 to 90 percent of students before moving to the Reading steps. This is the assessment step for individual aural mastery.
6. **Reading-Rote:** This is the first time students should see any type of visual representation of what they've heard. The teacher speaks or sings patterns with syllables and students echo with syllables while looking at notation. Names of notes and parts of notes can be introduced at this step or any of the remaining steps.
7. **Reading-Decode/Familiar**: The teacher shows notation without speaking/singing for students, who think the pattern and then speak or sing with rhythm or solfege syllables as they read (patterns before songs or rhymes). Pieces previously

unfamiliar at Step 4 can now be used as familiar. The teacher may choose to ask students to think through music before speaking or singing it with syllables to reinforce inner hearing.

8. **Reading-Decode-Unfamiliar:** Sight-reading. The teacher shows notation to students, who think and then speak or sing with syllables as they read. The classical piece is usually presented at this step. The teacher plays a recording of the piece while students speak or sing along with rhythm or solfege syllables. Note: A discussion of the piece (e.g. genre, composer, instrumentation) and/or playing or moving with the music serves as an excellent "about" and/or "doing" portion of the lesson.
9. **Writing-Rote:** Copy. Students work on correct note formation (manuscript). This is a good time to teach/reinforce names of notes or parts of notes (e.g. quarter note, stem, flag) as an "about" activity.
10. **Writing-Decode/Familiar:** Dictate. After hearing patterns, songs, or rhymes students peak or sing with syllables (reinforcing inner hearing) and then write notation.
11. **Writing-Decode/Unfamiliar:** Dictate. After hearing unfamiliar patterns, songs, or rhymes, students speak or sing with syllables and then write notation. Syllables are power. They tell you what to write.
12. **Writing-Create**: Compose. Students create and perform original music with syllables and then write notation. Syllables are power. They tell you what to write."

Each of these steps allow for ample opportunity for assessment. In this study, steps 1 -12 will be assessed both in a large group setting and at an individual level between four first grade classes. The below rubrics have been adapted from the *Conversational Solfege Level 1 Teacher's Manual*. Videos will be taken via the *Class Dojo* app during general music classes and later reviewed for assessment. Each of the four first grade classes attend general music class once a week for 50 minutes. Two of the first grade classes will utilize "ta" and "ti-ti" syllables while the remaining two classes will utilize "du" and "du-de" syllables.

It is important to note that the students featured in this study have also attended kindergarten general music lessons in which John Feierabend's *First Steps in Music* curriculum was thoroughly explored. Many of the students included in this study were deemed to have the recommended prerequisites of John Feierabend. According to the music teacher, the students have consistently shown qualities of being tuneful, beatful, and artful music makers.

1. Rubric-Speaking Rhyme
Student Task: Students speak a familiar rhyme independently

The student's rhyme performance:

5	Maintained consistent beat and correct rhythm patterns with precision
4	Maintained consistent beat, but rhythm patterns lacked precision
3	Maintained consistent beat but included some incorrect rhythms
2	Demonstrated difficulty maintaining consistent beat and included some incorrect rhythms
1	Lacked consistent beat and included incorrect rhythms

2. Rubric - Echoing simple patterns
Student Task: Students echo respond to a teacher's model rhythm patterns using the correct syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding duration.

4	Was nearly accurate with a minimum of misplaced syllables.
3	Included a portion of accuracy and a portion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

3. Rubric -Decoding simple patterns
Student Task: Students listen and immediately duplicate a familiar rhythm pattern first performed by the teacher with neutral syllables. However, the rhythm patterns are to be performed by the students using the correct rhythm syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding duration.
4	Was nearly accurate with a minimum of misplaced syllables.
3	Included a portion of accuracy and apportion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

4. Rubric -Decoding complex patterns
Student Task: Students listen and immediately duplicate an unfamiliar rhythm pattern first performed by the teacher with neutral syllables. However, the rhythm patterns are to be performed by the students using the correct rhythm syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding duration.
4	Was nearly accurate with a minimum of misplaced syllables.
3	Included a portion of accuracy and apportion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

5. Rubric - Rhythm Pattern Create (Improvise) Rubric
Student Task: Students will perform original rhythm patterns. Original rhythm patterns are performed by the students using correct rhythm syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding duration.
4	Was nearly accurate with a minimum of misplaced syllables.
3	Included a portion of accuracy and apportion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

6. Rubric -Rhythm Pattern Read (Rote) Rubric
Student Task: While looking at a notated pattern, students listen and immediately duplicate with their voices a rhythm pattern first performed by the teacher with syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding pitch/duration.
4	Was nearly accurate with a minimum of misplaced syllables.
3	Included a portion of accuracy and apportion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

7. Rubric -Rhythm Pattern Read (Decode Familiar) Rubric
Student Task: While looking at a familiar notated pattern, students examine and perform with their voices a rhythm pattern. The patterns are performed by the students using the correct rhythm syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding pitch/duration.
4	Was nearly accurate with a minimum of misplaced syllables.

3	Included a portion of accuracy and apportion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

8. Rubric -Rhythm Pattern Read (Decode Unfamiliar) Rubric
Student Task: While looking at an unfamiliar notated pattern, students listen and immediately duplicate with their voices a rhythm pattern first performed by the teacher with syllables.

The student's syllable performance:

5	Was accurate in the use of syllables with corresponding pitch/duration.
4	Was nearly accurate with a minimum of misplaced syllables.
3	Included a portion of accuracy and apportion of inaccuracy.
2	Included a majority of misplaced syllables with only one or two accurately placed.
1	Was completely inaccurate.

9. Rubric -Rhythm Pattern Write (Copy) Rubric
Student Task: While looking at a notated familiar rhythm pattern, the students are asked to recreate on blank staff paper correct note heads, accurate locations, stems, etc.

The student’s notation of the given rhythm pattern:

5	Was copied accurately with precision
4	Was nearly accurate but included a few incorrect rhythms
3	Included a portion of accuracy and a portion of inaccuracy
2	Was incorrect but included accurate fragments
1	Was not recognizable

10. Rubric -Rhythm Pattern Write (Dictation-Decode Familiar) Rubric
Student Task: Students write accurate rhythmic notation after hearing familiar rhythm pattern(s).

The student's notation of the given rhythm pattern:

5	Was written accurately with precision
4	Was nearly accurate but included a few incorrect rhythms
3	Included a portion of accuracy and a portion of inaccuracy
2	Was incorrect but included accurate fragments
1	Was not recognizable

11. Rubric -Rhythm Pattern Write (Dictation-Decode Unfamiliar) Rubric
Student Task: Students write accurate rhythmic notation after hearing unfamiliar rhythm pattern(s).

The student's notation of the given rhythm pattern:

5	Was written accurately with precision
4	Was nearly accurate but included a few incorrect rhythms
3	Included a portion of accuracy and a portion of inaccuracy
2	Was incorrect but included accurate fragments
1	Was not recognizable

12. Rubric-Rhythm Pattern Write/Composition Rubric
Student Task: Students will create (spoken) and then notate original rhythm patterns.

The student:

5	Created an original patterns according to given guidelines without error
4	Created an original pattern according to given guidelines with limited error
3	Created an original pattern according to given guidelines with regular error.
2	Created an original pattern but inconsistent with given guidelines
1	Was unable to create an original pattern

Rhythmic Element Duple Meter	**Kodály Rhythm Syllables**	**Ta ka di mi Rhythm Syllables**	**Froseth syllables**
♩	ta	ta	du
♫	ti ti	ta di	du de
𝅗𝅥	Ta ah	ta ah	du
𝅝	Ta ah ah ah	ta ah ah ah	du
𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯	ti ri ti ri	ta ka di mi	du ta de ta
♫	ti ti ri	ta di mi	du de ta
𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯	ti ri ti	ta ka di	du ta de
♩. 𝅘𝅥𝅯	tim ri	ta mi	du ta
𝅘𝅥𝅯𝅘𝅥𝅯.	ri tim	ta ka	du ta
♩. 𝅘𝅥𝅯	tie - ti	ta - di	du de
♪♩ 𝅘𝅥𝅯	syn-co-pa	ta-di---di	du de de
Compound Meter			
♫♫	ti-ti ti	ta ki da	du da di
♩.	ta	ta	du
♩ 𝅘𝅥𝅯	ta ti	ta da	du di
♪♩	ti ta	ta ki	du da

Table 1

Chapter 3: Results and Findings

Music Educator Survey

On November 18, 2019 the survey entitled “Rhythm Syllable Survey” was posted to the following elementary general music education Facebook groups: “Feierabend Fundamentals,” “Kodály Educators,” and “American Orff Schulwerk Association Discussion Group.” The content of the survey is displayed on the following pages.

QUESTIONS RESPONSES 256

Section 1 of 2

Rhythm Syllable Survey

The purpose of this survey is to gather information about the various rhythm syllables employed by elementary music teachers.

Do you teach elementary general/vocal music? *

- Yes
- No

Select the rhythm syllables you currently use in your classroom. *

- "Ta" for quarter notes; "Ti-Ti" for paired eighth notes; "Tika-tika" or "Tiri-tiri" for sixteenth notes; "Ta-ah" for half notes
- "Du" for quarter notes; "Du-de" for eighth notes; "Dutadeta" for sixteenth notes; "Du" for half notes
- "Takadimi" syllables
- Word associations such as "apple pear" for eighth note pair and quarter note
- 1e+a
- I do not use rhythm syllables.
- Other...

Have you always used the rhythm syllable system above? *

- Yes
- No

If you selected "no", please indicate the rhythm syllable system (if any) that you previously used in your classroom.

Long answer text

Section 2 of 2

Teacher training and certification programs

Description (optional)

Select the rhythm syllable system your certification or college (elementary general music methods) experience utilized most frequently. *

- "Ta" and "ti-ti"
- "Du" and "du-de"
- 1e+a
- Takadimi
- Word associations such as "apple pear" for eighth note pair and quarter note
- Other...

Please indicate the certifications you have obtained. *

- [ ] Conversational Solfege Certification
- [ ] Dalcroze Level I Certificate
- [ ] Dalcroze Level II Certificate
- [ ] Kodály Level I Certification
- [ ] Kodály Level II Certification
- [ ] Kodály Level III Certification
- [ ] Music Learning Theory Level I Certification
- [ ] Music Learning Theory Level II Certification
- [ ] Orff Schulwerk Level I Certification
- [ ] Orff Schulwerk Level II Certification
- [ ] Orff Schulwerk Level III Certification
- [ ] I do not have any of the above certifications.
- [ ] Other...

If you selected more than one certification from the question above, please indicate which syllable systems you used for each methodology. (For example: "Takadimi; Kodály" and "Du du-de; Conversational Solfege")

Long answer text

Please list the college(s) or universities in which you have received your above certifications.

Long answer text

Please list the college or university where you received your degree in music education. *

Long answer text

I currently use my preferred rhythm syllables because it was suggested by my certification program or college. *

- True
- False

I am familiar with the terms "Functional" and "Nonfunctional" rhythm syllables. *

- True
- False

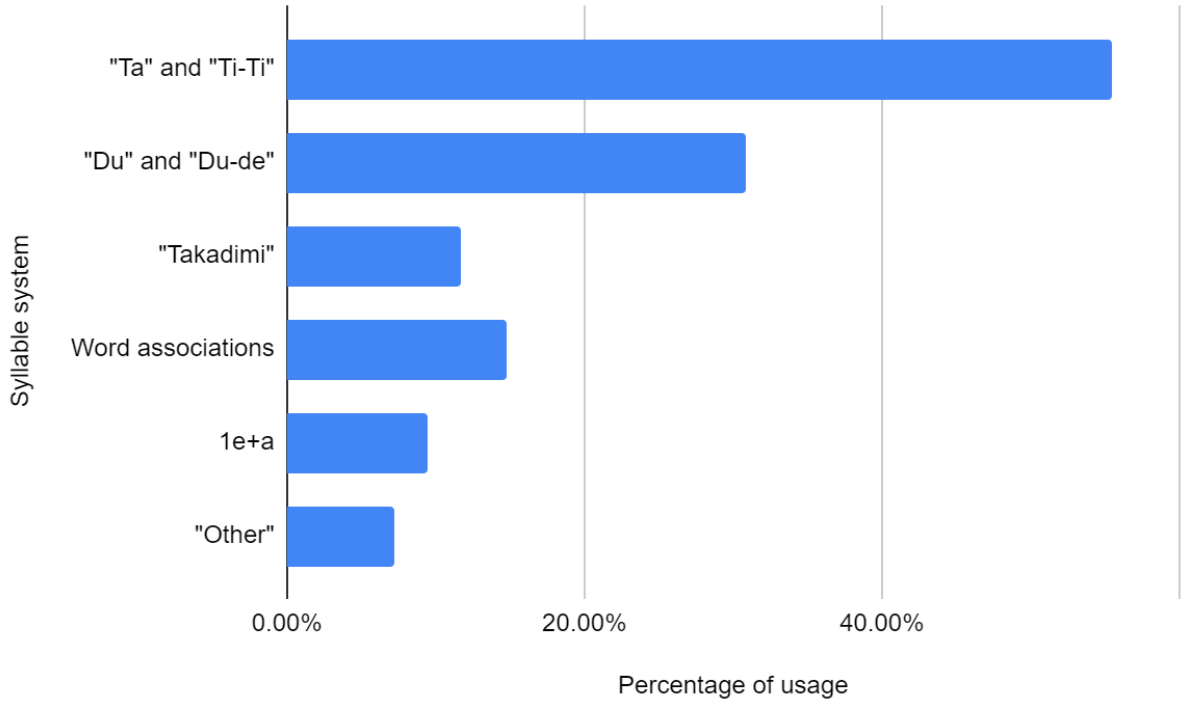
Do you feel like the rhythm syllable system that you currently use works well for your students? Please include the system you are using in your description.

Long answer text

There were 256 responses collected in total. Out of the 256 responses, 14 indicated receiving education from outside of the United States. Respondents indicated that they received education from the following countries outside of the United States.

Country	**Quantity of Respondents**
Australia	2
Canada	8
Ecuador	1
Germany	1
Scotland	1
United Kingdom	1

In regards to syllable usage, the majority of teachers indicated that they employ non-functional “ta” and “ti-ti” rhythm syllables. According to the survey 55.5% of respondents indicated that they currently use “ta” and “ti-ti” rhythm syllables. 30.9% currently use “du” and “du-de” functional rhythm syllables. 11.7% indicated that they use the “Takadimi” functional rhythm syllables. 14.8% use word associations (such as apple for paired eighth notes and pear for quarter notes) while 9.4% indicated they use the “1e+a” counting system. Lastly, 7.2% of respondents chose “other” and described a system not listed as one of the choices. Of the 7.2% who indicated “other”, 3 respondents listed that they use the “ta” and “ta-ti” system which would be considered “functional”.

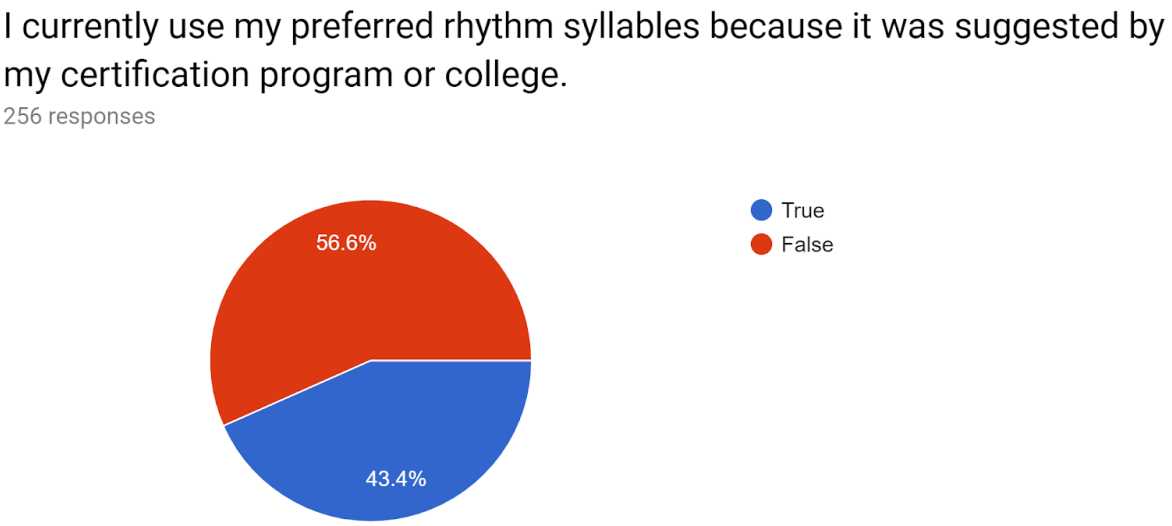


In terms of syllable preference, 85% of respondents that utilize “ta” and “ti-ti” syllables stated that they have always used “ta” and “ti-ti” rhythm syllables. The remaining 15% indicated that they previously used other syllable systems such as “Takadimi,” “du” and “du de”, “1e+a” or are currently in the process of switching to “du” and “du-de” rhythm syllables. As stated above, 30% of respondents indicated that they currently use “du” and “du-de” rhythm syllables. 15% of “du” and “du de” users indicated that they previously used “ta” and “ti-ti” rhythm syllables and made the switch to “du” and “du-de” rhythm syllables. The majority of the other “du” and “du-de” users stated that they have always used that syllable system.

When analyzing the data of users in terms of earned certifications, 74% of survey respondents indicated attaining some level of certification in *Conversational Solfege*, Dalcroze, First Steps in Music, Kodály methodology, and/or Orff Schulwerk approach. Of the 74% indicating some form of certification, 35% indicated earning some form of Kodály certification. The majority (70%) of Kodály trained educators indicated that they currently employ “ta” and

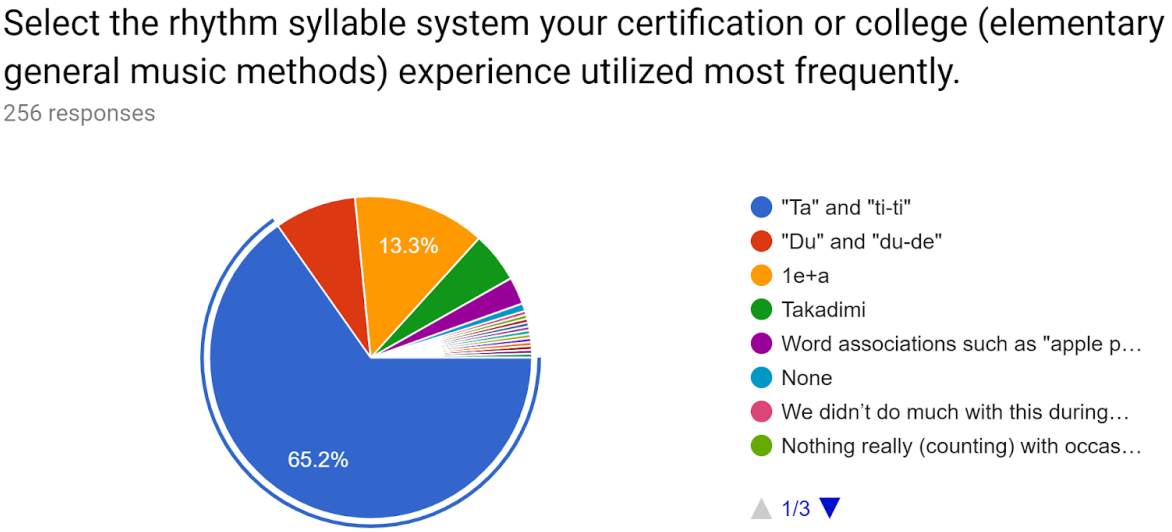
"ti-ti" rhythm syllables. Of the 74% indicating some form of certification, 33% indicated certification in John Feierabend's *Conversational Solfege*. 65% of *Conversational Solfege* trained music educators employ "du" and "du-de" syllables. In the 25% of surveyees who indicated not holding a certification in the methodologies described above, 58% employ "ta" and "ti-ti" rhythm syllables.

The survey aimed to measure respondents' reasoning for using one syllable system over another. 56.6% of respondents indicated that they disagreed with the following statement, "I currently use my preferred rhythm syllables because it was suggested by my certification or college." The remaining 43.4% agreed.



The majority of music educators who completed the survey indicated that the nonfunctional syllable system of "ta" and "ti-ti" was utilized most frequently in their collegiate or certification experience. The predicted findings described in Chapter 1 states that surveyees' preference of rhythm syllable system are expected to correlate with their personal experience in undergraduate or certification programs. Although, 56.6% disagreed with "I currently use my preferred rhythm syllables because it was suggested by my certification or college", the majority

of surveyees use “ta” and “ti-ti” syllables in the classroom (55.5%) and the majority of surveyees selected “ta” and “ti-ti” to be the rhythm syllables utilized in their collegiate or certification experience (65.2%).



Assessment Scores

Each first grade student was assessed on the “12 Steps of *Conversational Solfege*” based on the rhythmic development of quarter note and paired eighth note patterns. As described in Chapter 2, the twelve steps are as follows:

1. Readiness-Rote
2. Conversational Solfege-Rote
3. Conversational Solfege-Decode/Familiar
4. Conversational Solfege-Decode/Unfamiliar
5. Conversational Solfege-Create: Improvise
6. Reading-Rote
7. Reading-Decode/Familiar

8. Reading-Decode-Unfamiliar
9. Writing-Rote
10. Writing-Decode/Familiar
11. Writing-Decode/Unfamiliar
12. Writing-Create

It is important to note that in the *Conversational Solfege* curriculum, John Feierabend recommends for students to decode familiar and unfamiliar songs and rhymes in addition to patterns. This study only shows the data of assessment of patterns from Unit 1 of *Conversational Solfege* (see Appendix 1) with the exception of step 1 (Speak a rhyme).

Each of the twelve steps were recorded in a video format during general music class under individual student portfolios through the application, *Class Dojo*. Students began with step 1 (Speak a rhyme) in mid-September. During the months of September-January, first grade students proceeded through all of the twelve steps. Students completed step 12 by the end of January. Three music teachers were asked to score each of the student's videos collected in *Class Dojo*. Teachers scored each student's assessment based on the rubrics described in Chapter Two. A summary of all twelve rubrics may be referenced below:

Score	**Description**
5	Was accurate in syllable usage
4	Was nearly accurate with a minimum of misplaced syllables
3	Included a portion of accuracy and a portion of inaccuracy
2	Included a majority of misplaced syllables
1	Was completely inaccurate

The table below is a list of the average assessment scores graded by Teacher 1.

Step	***Conversational Solfege* Description**	**Nonfunctional Average Score**	**Functional Average Score**
1	Speak a rhyme	4.48	**4.75**
2	Echo rhythms	**5.00**	4.82
3	Decode familiar rhythms	3.34	**4.18**
4	Decode unfamiliar rhythms	2.50	**3.94**
5	Create a pattern	4.50	**4.79**
6	Echo patterns visually	**4.92**	4.74
7	Decode from familiar visual pattern	4.52	**4.90**
8	Decode from unfamiliar visual pattern	4.47	**4.56**
9	Copy notation	4.87	**5**
10	Decode/dictate familiar pattern	4.05	**4.11**
11	Decode/dictate unfamiliar pattern	3.57	**4.33**
12	Compose personal pattern	4.58	**4.86**

The table below is a list of the average assessment scores graded by Teacher 2.

Step	***Conversational Solfege* Description**	**Nonfunctional Average Score**	**Functional Average Score**
1	Speak a rhyme	4.71	**4.78**
2	Echo rhythms	**5**	4.76
3	Decode familiar rhythms	3.01	**4.06**
4	Decode unfamiliar rhythms	2.23	**3.66**
5	Create a pattern	4.19	**4.71**

6	Echo patterns visually	**4.89**	4.82
7	Decode from familiar visual pattern	4.47	**4.82**
8	Decode from unfamiliar visual pattern	4.39	**4.57**
9	Copy notation	4.89	**4.97**
10	Decode/dictate familiar pattern	**3.97**	3.92
11	Decode/dictate unfamiliar pattern	3.26	**4.22**
12	Compose personal pattern	4.36	**4.64**

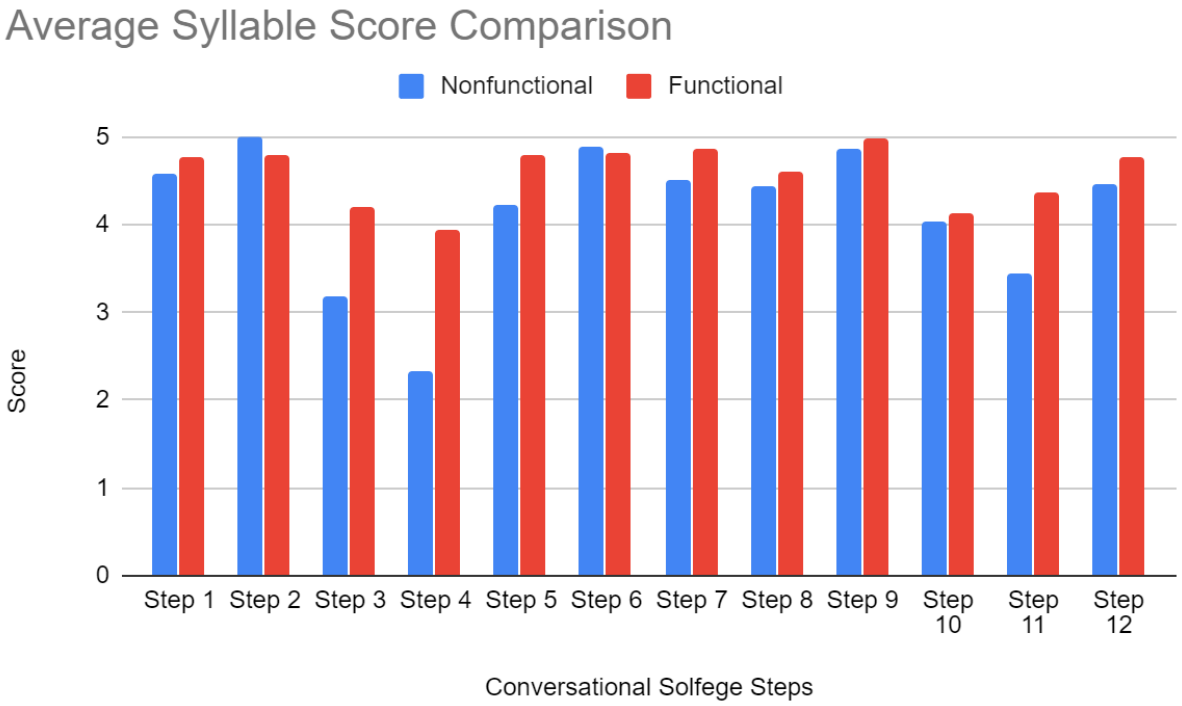
The table below is a list of the average assessment scores graded by Teacher 3.

Step	***Conversational Solfege* Description**	**Nonfunctional Average Score**	**Functional Average Score**
1	Speak a rhyme	4.52	**4.75**
2	Echo rhythms	**5**	4.82
3	Decode familiar rhythms	3.21	**4.37**
4	Decode unfamiliar rhythms	2.29	**4.24**
5	Create a pattern	3.97	**4.89**
6	Echo patterns visually	4.87	**4.88**
7	Decode from familiar visual pattern	4.52	**4.90**
8	Decode from unfamiliar visual pattern	4.47	**4.67**
9	Copy notation	4.83	**5**
10	Decode/dictate familiar pattern	4.09	**4.33**
11	Decode/dictate unfamiliar pattern	3.53	**4.52**
12	Compose personal pattern	4.47	**4.78**

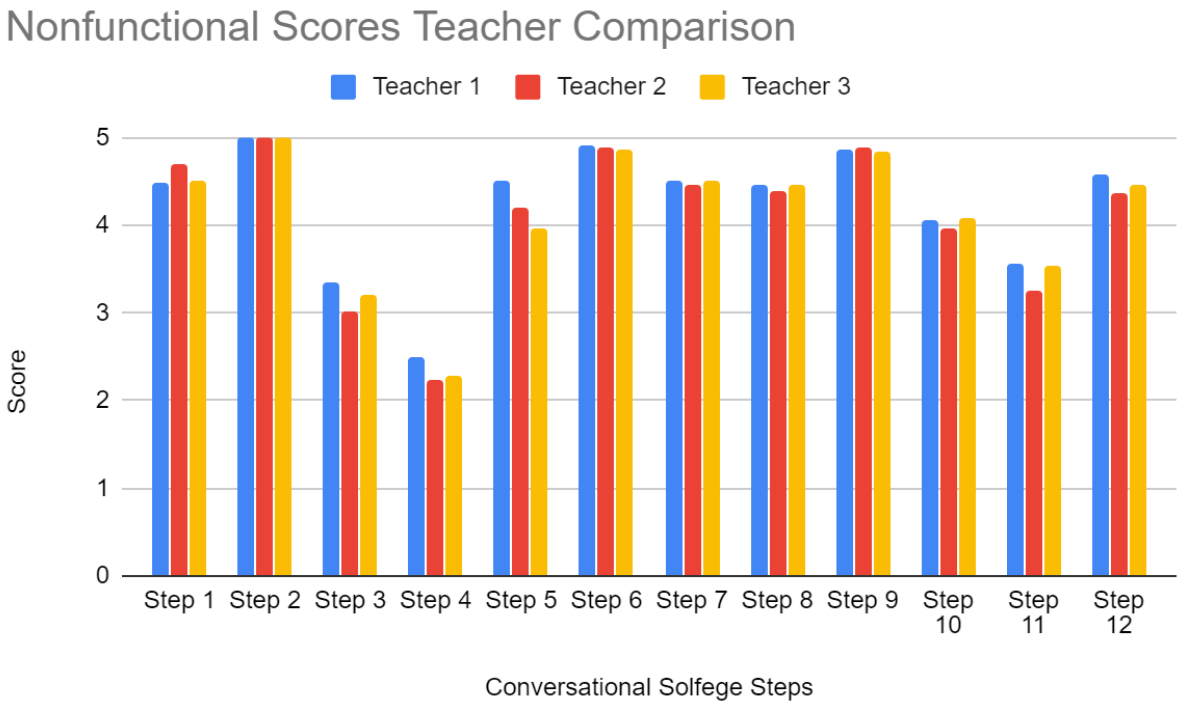
The table below is based on the average of assessment scores between Teachers 1, 2, and 3.

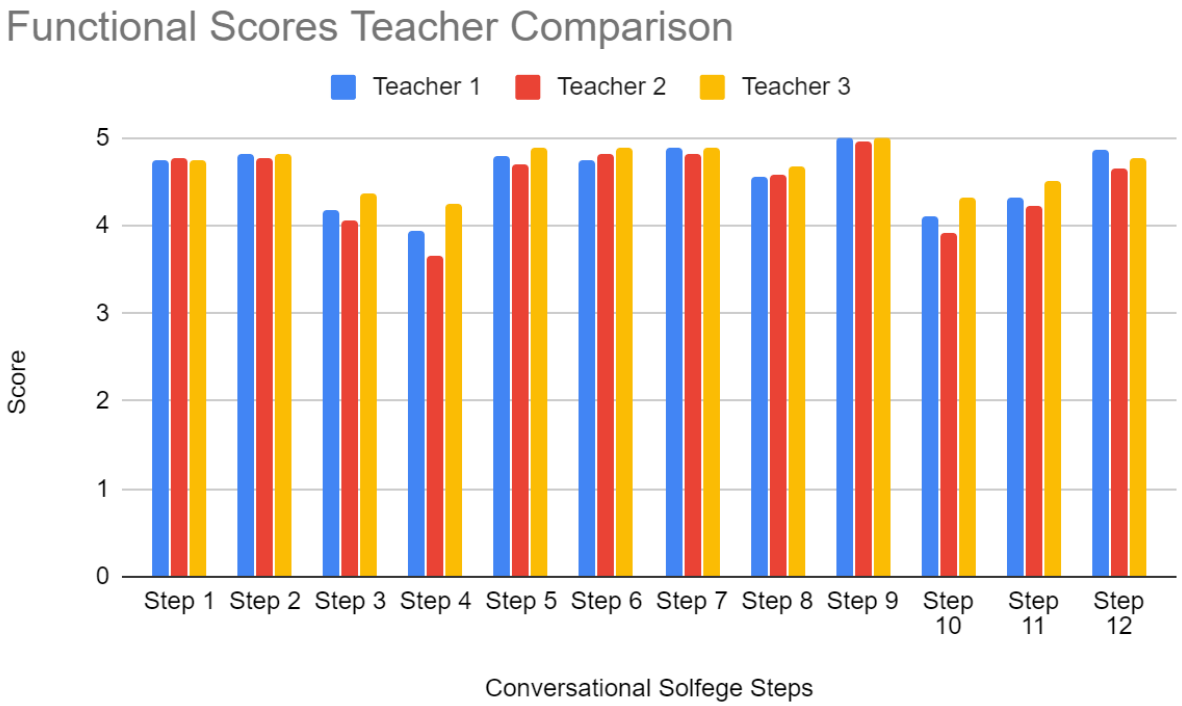
Step	***Conversational Solfege* Description**	**Nonfunctional Average Score**	**Functional Average Score**
1	Speak a rhyme	4.57	**4.76**
2	Echo rhythms	**5.00**	4.80
3	Decode familiar rhythms	3.19	**4.20**
4	Decode unfamiliar rhythms	2.34	**3.95**
5	Create a pattern	4.22	**4.80**
6	Echo patterns visually	**4.89**	4.81
7	Decode from familiar visual pattern	4.50	**4.87**
8	Decode from unfamiliar visual pattern	4.44	**4.60**
9	Copy notation	4.86	**4.99**
10	Decode/dictate familiar pattern	4.04	**4.12**
11	Decode/dictate unfamiliar pattern	3.45	**4.36**
12	Compose personal pattern	4.47	**4.76**

The following graph compares the overall average score per assessment with functional versus non-functional rhythm syllables.



The two graphs on the following pages compare the average assessments scores between Teachers 1, 2, and 3. The first graph measures teachers' average score for nonfunctional rhythm syllables. The second graph measures teachers' average score for functional rhythm syllables.


Nonfunctional Scores Teacher Comparison
Teacher 1
Teacher 2
Teacher 3
Score
0
1
2
3
4
5
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Step 7
Step 8
Step 9
Step 10
Step 11
Step 12
Conversational Solfege Steps


Functional Scores Teacher Comparison
Teacher 1
Teacher 2
Teacher 3
Score
0
1
2
3
4
5
Step 1
Step 2
Step 3
Step 4
Step 5
Step 6
Step 7
Step 8
Step 9
Step 10
Step 11
Step 12
Conversational Solfege Steps

A list of all scores compiled can be found in Appendix 2. Assessment scores were recorded in three separate binders per teacher and later transferred to an Excel workbook. Teachers completed score sheets for each student (see Appendix 3). Students with no score listed indicates a student's absence on the day the assessment was recorded.

Chapter 4: Conclusion

The purpose of this action-research study was to compare the effectiveness of nonfunctional and functional rhythm syllables in the elementary general music classroom. In Chapter 1, the predicted outcome stated that the classes utilizing functional syllable systems would score higher in decoding, improvising, reading, and writing duple meter patterns. The results presented in chapter 3 indicated that the classes utilizing functional syllables scored higher in steps 1, 3, 4, 5, 7, 8, 9, 10, 11, and 12. The presentation of the data described in Chapter 3 indicated that functional syllables yield significantly higher performance scores than nonfunctional syllables in three of the twelve assessment types: 1) decoding familiar patterns aurally (step 3), 2) decoding unfamiliar patterns aurally (step 4), and 3) dictating unfamiliar patterns (step 11). It is also important to highlight that all four classes scored very similarly in the reading assessments (steps 7 and 8).

Three teachers graded each student in all twelve assessments to add credibility to this study and to avoid a biased perspective. Two graphs in Chapter 3 compared average assessment scores between all three teachers. These graphs indicated that all three teachers scored the students in this study very similarly. When analyzing average scores of students utilizing functional rhythm syllables, students achieved a “3.6” or higher in all twelve levels of assessment. Comparatively, students utilizing nonfunctional rhythm syllables did not meet this level of scoring.

It is important to note that John Feierabend does not recommend starting rhythmic literacy or the *Conversational Solfege* curriculum until students are deemed to be “tuneful, beatuful and artful” or by the time students reach second grade (Feierabend and Strong, 2018, p. 361). As described in Chapter 2, the music teacher of the students who participated in this study

considered the students to be tuneful, beatful, and artful. However, it is worth considering the following question: “Could the results of this study differed if students were in second grade?”

The main reasoning for using first grade students rather than second grade students in this comparative study is because the second grade students had already been exposed to functional rhythm syllables in first grade. Prior to this school year, the music teacher and students completed literacy steps 2 and 3 at the end of first grade utilizing the Froseth functional rhythm syllables. The study would have yielded biased results had the second grade students been assessed.

Since the results of this study imply functional rhythm syllables are more effective, one might conclude that general music teachers should consider switching to using functional rhythm syllables in the classroom. According to the survey results described in Chapter 2, the majority of music teachers employ nonfunctional rhythm syllables. An important trend observed in the results of the survey also suggested that the majority of teachers who do not have extra training (i.e. certifications in Kodály, Orff Schulwerk, or *Conversational Solfege*) typically employ nonfunctional “ta” and “ti-ti” rhythm syllables. The results of the survey also stated that the majority (65.2%) of collegiate music education programs employ nonfunctional syllables in elementary music pedagogy classes.

Therefore, one must consider the following questions: “Are we utilizing the most effective knowledge to teach content to our students? Why use syllables developed in the Hungarian language in the United States when most students do not speak Hungarian? Are we providing our students with the most effective and successful way of learning? What might have this study looked like if students continued using functional versus nonfunctional syllables

beyond Unit 1? Are we utilizing high quality resources and seeking research that will help our students be successful musical people beyond elementary school?"

Many of the answers to these questions cannot be determined based on the results of this study alone. However, it can be concluded that the results of this study indicate that students who utilized functional rhythm syllables were more successful in their literacy development.

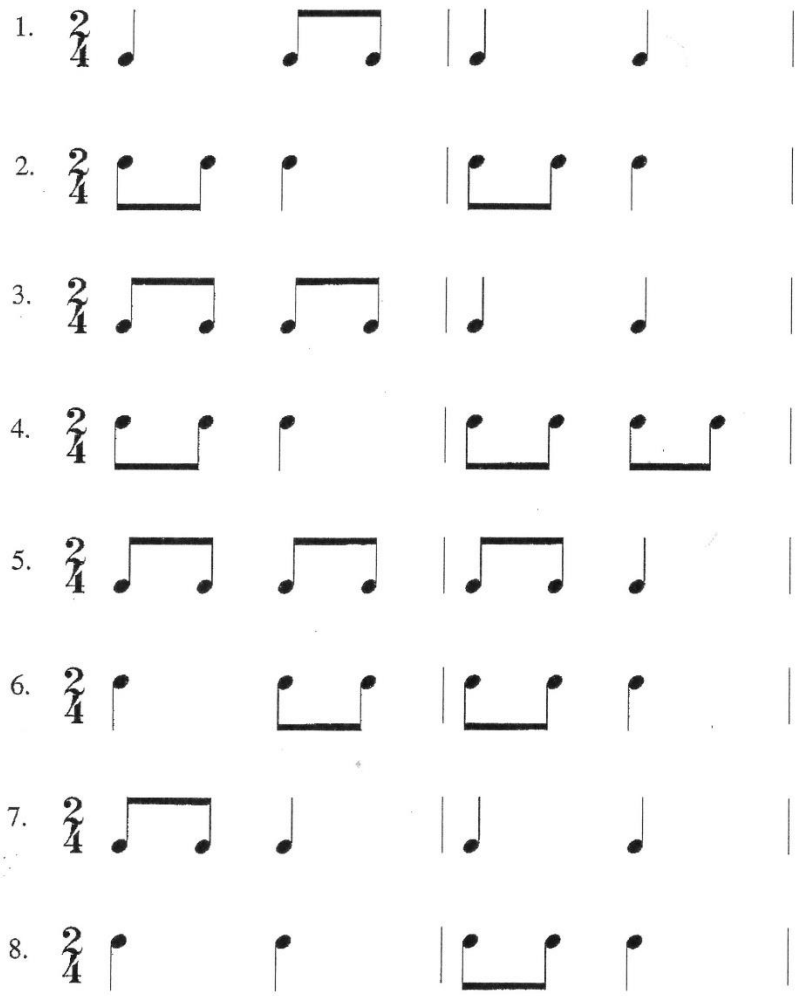
Appendix 1

Unit 1 Rhythms from *Conversational Solfege Level One*

Conversational Solfege – Level 1 *General Music*

Unit 1

Patterns Set 1A



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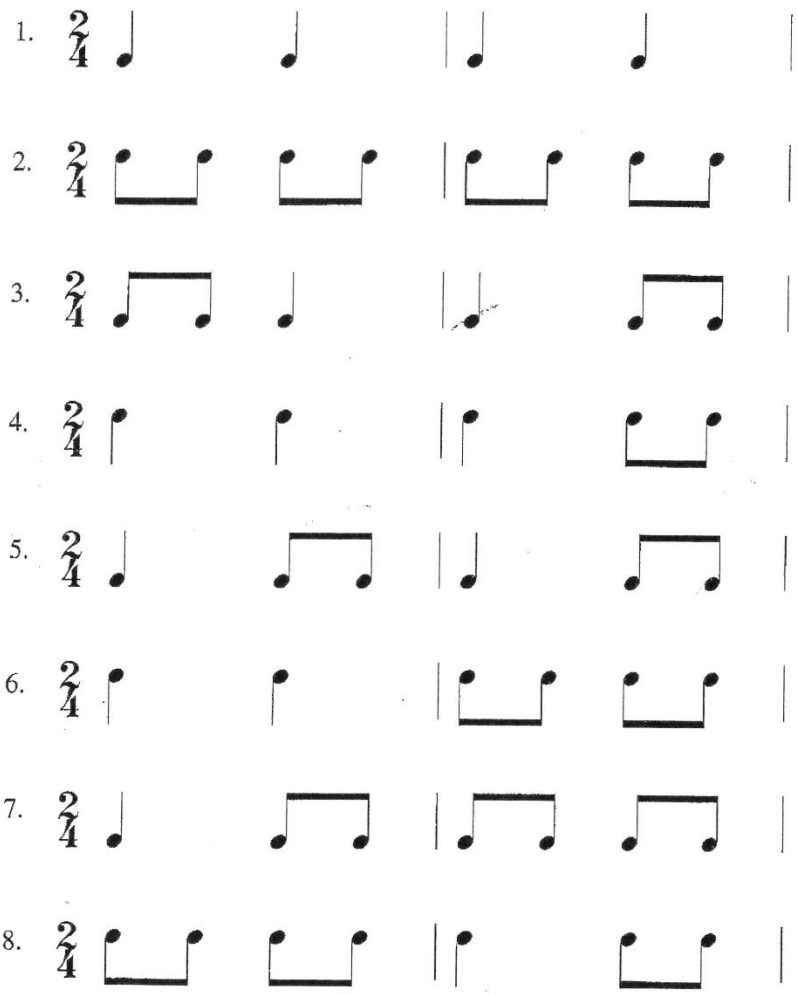
Conversational Solfege – Level 1 *General Music*

Unit 1

Patterns Set 1B



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Appendix 2

Teacher 1 Assessment Data

Student/Score	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12		Key	
Student 1	5	5	3	1	5	5	2	3	5	3	3	4			Nonfunctional
Student 2	5	5	2	2	3	5	5	5	2	3	3	4			Functional
Student 3	5	5	4	3	5	5	5	5	5	4	2	5			
Student 4	4	5	3	2	4	5	5	4	5	4	2	5			
Student 5	4	5	2	2	3	5	5	5	5	5	1	5			
Student 6	5	5	3	2	5	5	5	5	5	5	3	5			
Student 7	4	5	2	1	5	5	5	5	5	5	3	4			
Student 8	4	5	5	3	2	5	5	4	5	4	5	5			
Student 9	5	5	5	3	5	5	5	5	5						
Student 10	5	5	5	3	5	5	5	5	4	5	5	5			
Student 11	4	5	4	2	3	5	5	2	5	5	5	4			
Student 12	5	5	5	3	5	5	5	5	5	5	5	5			
Student 13	4	5	3	2	5	5	1	2	5	2	5	2			
Student 14	5	4	3	3	5	5	5	3	5	3	5	2			
Student 15	5	5	5	4	4	5	1	5	5	5	5	5			
Student 16	2	5	3	3	5	5	5	5	5	5	3	5			
Student 17	5	5	5	4	5	5	5	5	5	5	5	5			
Student 18	5	5	3	1	5	5	5	4	5	4	3	5			
Student 19	4	5	3	2	5	5	5	4	5	2	3	5			
Total	**85**	**94**	**68**	**46**	**84**	**95**	**84**	**81**	**91**	**74**	**66**	**80**			
Average	**4.473684**	**5**	**3.578947**	**2.42105**	**4.42105**	**5**	**4.42105**	**4.263157**	**4.789473**	**4.111111**	**3.666666**	**4.444444**			
	4.47	**5**	**3.58**	**2.42**	**4.42**	**5**	**4.42**	**4.26**	**4.79**	**4.11**	**3.67**	**4.44**			
Student 1	2	5	3	2	4	5	5	4	5						
Student 2		5	3	2	4	5	5	5	5	5	5	5			
Student 3	5	5	3	2	5	5	5	5	5	5	5	5			
Student 4	5		2	2	5	5	3	5	5	4	2	5			
Student 5	5		3	2	4	5	5	4	5	3	5	5			
Student 6	4		3	2	3	5	5	5	5	5	3	4			
Student 7	5	5	2	2	5	5	5	5	5	3	3	5			
Student 8	5	5	3	2	5	4	5	5	5	5	3	5			
Student 9		5	2	2	4	4	1	2	5	1	1	5			
Student 10	5	5	5	3	5	5	5	5	5	5	5	5			

Student 11	2	5	3	2	5	5	5	4	5	2	2	5
Student 12		5	5	3	5	5	5	5	5	5	5	5
Student 13	5	5	4	3	5	5	5	5	5	2	2	3
Student 14		5		3	5	5	5	5	5			
Student 15	5	5	2	2	4	5	5	5	5			
Student 16		5	4	2		4	4	5	4	5	3	4
Student 17	5	5	3	5	5	5	5	5	5	5	5	5
Student 18	5	5	3	3	5	5	5	5	5			
Student 19	5	5	3	5	5	5	5	5	5	5	3	5
Total	**63**	**80**	**56**	**49**	**83**	**92**	**88**	**89**	**94**	**60**	**52**	**71**
Average	**4.5**	**5**	**3.111111**	**2.578947**	**4.611111**	**4.842105**	**4.631578**	**4.684210**	**4.947368**	**4**	**3.466666**	**4.733333**
	4.5	**5**	**3.11**	**2.58**	**4.61**	**4.84**	**4.63**	**4.68**	**4.95**	**4**	**3.47**	**4.73**
Student 1		5	2	4	5	4	4	4	5	2	2	3
Student 2	4	5	5	4	5	5	5	2	5	5	4	5
Student 3	5	5	5	4	5	5	5	5	5	3	5	5
Student 4	5		4	5		5	5	5	5	5	5	5
Student 5	5	4	5	3	4	5	5	5	5	1	5	5
Student 6	5	5	2	3	4	5	5	5	5	2	3	5
Student 7	5	5	5	5	4	1			5	5	5	5
Student 8	5	4	3	3	5	5	5	5	5	2	5	5
Student 9	5	5	5	3	5	5	5	5	5	4	3	5
Student 10	4	5	5	5	5	5	5	5	5	4	5	5
Student 11	5	5	5	4	5				5	5	5	5
Student 12	5	5	4	4	5	5	4	4	5	4	5	4
Student 13	4	5	3	2	5	4	5	5	5	2	5	4
Student 14	5	5	5	4	5	5	5	5	5	5	5	5
Student 15	4	5	4	3	5	5	5	5	5	3	3	5
Student 16	4	5		5	5	5	5	5	5	5	5	5
Student 17		5		5	5	5	5	5		5	3	5
Student 18	5	5		4	4	5	5	5	5	5	4	5
Total	**75**	**83**	**62**	**70**	**81**	**79**	**78**	**75**	**85**	**67**	**77**	**86**
Average	**4.6875**	**4.882352**	**4.133333**	**3.888888**	**4.764705**	**4.647058**	**4.875**	**4.6875**	**5**	**3.722222**	**4.277777**	**4.777777**
	4.69	**4.88**	**4.13**	**3.89**	**4.76**	**4.65**	**4.87**	**4.69**	**5**	**3.72**	**4.28**	**4.78**

Student 1	4	4	5	4	5	3	5	3	5	3	5	4			
Student 2	5	4	3	2	5	5	4	4		4	4	5			
Student 3	5	5	5	3	4	5	5	5	5	5	3	5			
Student 4	4	5	5	5	5	5	5	5	5	5	4	5			
Student 5	5	5	2	5	5	5	5	5	5	5	5	5			
Student 6	5	5	5	5	5	5	5	4	5	4	5	5			
Student 7	5	5	3	3	5	5	5	5	5	4	4	5			
Student 8	5	5		5	5	5	5	1	5	5	5	5			
Student 9	5	5	5	5	5	5	5	5	5	5	5	5			
Student 10	5	5	3	2	5	5	5	3	5	5	3	5			
Student 11	5	5	5	5	5	5	5	5	5	5	5	5			
Student 12	5	5	5	4	5	5	5	5	5	5	5	5			
Student 13	4	5	4	4	4	5	5	5	5	1	4	5			
Student 14	5	5	5	5	5	5	5	5	5	5	5	5			
Student 15	5	3	3	2	5	5	5	5	5	5	4	5			
Student 16	5	5	5	4	5	5	5	5	5	5	5	5			
Student 17	5	5	4	5	5	5	5	5	5	5	3	5			
Student 18			5	4	4	4	5	5	5	5	5	5			
Total	**82**	**81**	**72**	**72**	**87**	**87**	**89**	**80**	**85**	**81**	**79**	**89**			
Average	**4.823529**	**4.764705**	**4.235294**	**4**	**4.83333**	**4.833333**	**4.944444**	**4.444444**	**5**	**4.5**	**4.388888**	**4.944444**			
	4.82	**4.76**	**4.23**	**4**	**4.83**	**4.83**	**4.94**	**4.44**	**5**	**4.5**	**4.39**	**4.94**			

Teacher 2 Assessment Data

Student/Score	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12		Key	
Student 1	5	5	4	2	5	5	1	4	5	2	2	4			Nonfunctional
Student 2	5	5	1	1	4	5	5	5	1	5	5	5			Functional
Student 3	5	5	4	2	5	5	5	5	5	4	2	5			
Student 4	4	5	2	3	5	4	5	4	5	2	2	5			
Student 5	5	5	2	1	3	5	4	5	5	4	1	5			
Student 6	5	5	2	3	5	5	5	5	5	5	2	5			
Student 7	5	5	2	2	4	5	5	5	5	5	2	4			
Student 8	4	5	5	1	5	5	5	4	5	4	5	5			
Student 9	5	5	5	3	4	5	4	5	5						
Student 10	5	5	5	2	5	5	5	5	5	5	5	5			
Student 11	4	5	4	2	2	5	5	1	5	5	5	4			
Student 12	5	5	4	3	5	5	5	5	5	5	5	5			
Student 13	5	5	4	1	2	5	1	2	5	1	5	2			
Student 14	5	5	1	1	4	5	5	2	5	4	5	1			
Student 15	5	5	5	4	2	5	2	5	5	5	5	5			
Student 16	4	5	2	2	4	5	5	4	5	5	2	5			
Student 17	5	5	5	4	5	5	5	5	5	5	5	5			
Student 18	5	5	3	1	5	5	5	4	5	4	2	5			
Student 19	5	5	3	3	4	5	5	4	5	1	2	4			
Total	**91**	**95**	**63**	**41**	**78**	**94**	**82**	**79**	**91**	**71**	**62**	**79**			
Average	**4.7894**	**5**	**3.3157**	**2.1578**	**4.1052**	**4.9473**	**4.3157**	**4.1578**	**4.7894**	**3.9444**	**3.4444**	**4.3888**			
	4.79	**5**	**3.31**	**2.16**	**4.1**	**4.95**	**4.31**	**4.16**	**4.79**	**3.94**	**3.4**	**4.39**			
Student 1	3	5	3	2	3	5	5	4	5						
Student 2		5	3	2	4	5	5	5	5	5	5	5			
Student 3	5	5	3	2	4	5	5	5	5	4	5	5			
Student 4	5		2	1	5	5	4	5	5	3	1	5			
Student 5	4		2	1	4	5	5	4	5	4	5	5			
Student 6	4		2	1	3	5	5	5	5	5	3	4			
Student 7	5	5	2	2	5	5	5	5	5	3	3	5			
Student 8	5	5	2	2	5	3	5	5	5	5	2	5			
Student 9		5	2	2	2	5	1	2	5	1	1	5			

Student 10	5	5	5	3	4	5	5	5	5	5	5	5
Student 11	5	5	2	1	5	5	4	4	5	2	2	3
Student 12		5	5	4	5	5	5	5	5	5	5	5
Student 13	5	5	2	1	5	5	5	5	5	4	1	1
Student 14		5		3	5	5	5	5	5			
Student 15	5	5	2	2	4	5	5	5	5			
Student 16		5	3	2		4	4	5	5	4	2	2
Student 17	4	5	3	5	5	5	5	5	5	5	5	5
Student 18	5	5	3	3	4	5	5	4	5			
Student 19	5	5	3	5	5	5	5	5	5	5	2	5
Total	**65**	**80**	**49**	**44**	**77**	**92**	**88**	**88**	**95**	**60**	**47**	**65**
Average	**4.6428**	**5**	**2.72222**	**2.31578**	**4.27777**	**4.842105**	**4.63157**	**4.63157**	**5**	**4**	**3.133333**	**4.333333**
	4.64	**5**	**2.72**	**2.31**	**4.28**	**4.84**	**4.63**	**4.63**	**5**	**4**	**3.13**	**4.33**
Student 1		5	2	5	5	4	4	4	5	2	2	3
Student 2	4	5	5	5	5	5	5	3	5	5	4	5
Student 3	5	5	5	4	5	5	5	5	5	3	5	5
Student 4	5		5	5		5	5	5	5	5	5	5
Student 5	5	3	5	2	4	5	5	5	5	1	5	5
Student 6	5	5	3	3	4	5	5	5	5	2	3	5
Student 7	5	5	5	5	4				5	5	5	5
Student 8	5	4	3	4	4	5	5	5	5	1	5	5
Student 9	5	5	5	3	5	5	5	5	5	4	3	5
Student 10	5	5	5	5	5	5	5	5	5	4	5	5
Student 11	5	5	5	3	5	5			5	5	5	4
Student 12	5	5	3	2	5	5	3	4	5	4	5	3
Student 13	5	5	3	1	5	3	5	5	5	1	5	1
Student 14	5	5	5	3	5	5	5	5	5	5	5	5
Student 15	4	5	3	3	5	5	5	5	5	2	3	5
Student 16	5	5		5	5	5	5	5	5	5	5	5
Student 17		5		5	5	5	5	5		5	2	5
Student 18	5	5		3	4	5	5	5	5	5	4	5
Total	**78**	**82**	**62**	**66**	**80**	**82**	**77**	**76**	**85**	**64**	**76**	**81**
Average	**4.875**	**4.82352**	**4.13333**	**3.66666**	**4.70588**	**4.823529**	**4.8125**	**4.75**	**5**	**3.555555**	**4.222222**	**4.5**
	4.87	**4.82**	**4.13**	**3.67**	**4.7**	**4.82**	**4.81**	**4.75**	**5**	**3.56**	**4.22**	**4.5**

Student 1	2	4	5	2	4	3	5	3	5	1	5	2
Student 2	5	5	3	2	4	5	4	4	5	2	3	5
Student 3	5	5	5	3	5	5	5	5	5	5	3	5
Student 4	5	5	5	5	5	5	5	5	5	5	4	5
Student 5	5	5	2	5	5	5	5	5	5	5	5	5
Student 6	5	5	5	5	5	5	4	5	5	4	5	5
Student 7	5	5	3	3	5	5	5	4	5	4	5	5
Student 8	5	5	5		5	5	5	1	5	5	5	5
Student 9	5	5	5	5	5	5	5	5	5	5	5	5
Student 10	5	5	2	1	5	5	5	3	4	5	2	5
Student 11	5	5	5	5	5	5	5	5	5	5	5	5
Student 12	5	5	5	5	5	5	5	5	5	5	5	5
Student 13	3	5	3	3	5	5	5	4	5	1	4	5
Student 14	5	5	5	4	5	5	5	5	5	5	5	5
Student 15	5	2	2	1	4	5	5	5	5	5	4	5
Student 16	5	5	5	4	5	5	5	5	5	5	5	5
Student 17	5	4	4	5	5	5	5	5	5	5	2	5
Student 18			3	4	3	4	4	5	5	5	4	4
Total	**80**	**80**	**72**	**62**	**85**	**87**	**87**	**79**	**89**	**77**	**76**	**86**
Average	**4.70588**	**4.70588**	**4**	**3.64705**	**4.72222**	**4.833333**	**4.83333**	**4.38888**	**4.94444**	**4.277777**	**4.222222**	**4.777777**
	4.7	**4.7**	**4**	**3.65**	**4.72**	**4.83**	**4.83**	**4.39**	**4.94**	**4.28**	**4.22**	**4.78**

Teacher 3 Assessment Data

Student/Score	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12		Key	
Student 1	5	5	3	2	3	5	3	4	5	3	2	4			Nonfunctional
Student 2	5	5	2	2	3	5	5	5	2	5	5	5			Functional
Student 3	5	5	3	3	5	5	5	5	5	3	2	5			
Student 4	4	5	3	2	3	5	5	5	5	3	2	5			
Student 5	5	5	2	1	2	5	5	5	5	5	1	5			
Student 6	5	5	2	2	5	5	5	5	5	5	3	5			
Student 7	4	5	3	2	5	5	5	5	5	5	3	4			
Student 8	4	5	5	2	2	5	5	3	5	4	5	5			
Student 9	5	5	5	3	5	5	3	5	5						
Student 10	5	5	5	3	5	5	5	5	4	5	5	5			
Student 11	4	5	4	3	2	5	5	4	5	5	5	5			
Student 12	5	5	4	3	5	5	5	5	5	5	5	5			
Student 13	5	5	5	2	4	5	2	2	5	2	5	2			
Student 14	5	5	2	1	5	5	5	3	5	3	5	3			
Student 15	5	5	5	5	3	5	2	5	5	5	5	5			
Student 16	3	5	2	2	4	5	5	4	5	5	3	5			
Student 17	5	5	5	4	5	5	5	5	5	5	5	5			
Student 18	5	5	2	2	4	5	5	3	5	3	3	5			
Student 19	3	5	3	2	5	5	5	4	5	2	2	4			
Total	**87**	**95**	**65**	**46**	**75**	**95**	**85**	**82**	**91**	**73**	**66**	**82**			
Average	**4.578947**	**5**	**3.42105**	**2.42105**	**3.94736**	**5**	**4.4736**	**4.31578**	**4.78947**	**4.05555**	**3.66666**	**4.55555**			
	4.58	**5**	**3.42**	**2.42**	**3.95**	**5**	**4.47**	**4.31**	**4.79**	**4.05**	**3.67**	**4.55**			
Student 1	4	5	2	1	3	5	5	3	5						
Student 2		5	3	2	4	5	5	5	5	5	5	5			
Student 3	5	5	3	1	4	4	5	5	5	4	5	5			
Student 4	5		1	1	5	5	3	5	5	4	1	5			
Student 5	5		3	2	4	5	5	3	5	3	5	5			
Student 6	4		4	1	2	5	5	5	5	5	3	4			

Student 7	5	5	2	3	4	5	5	5	5	3	4	5
Student 8	5	5	3	2	5	3	4	5	5	5	2	4
Student 9		5	2	1	3	4	2	2	5	1	1	5
Student 10	5	5	5	3	5	5	5	5	5	5	5	5
Student 11	4	5	3	1	4	5	5	5	5	3	3	4
Student 12		5	5	4	5	5	5	5	5	5	5	5
Student 13	5	5	3	2	5	5	5	5	5	4	3	1
Student 14		5		3	5	5	5	5				
Student 15	5	5	2	1	3	5	5	5	5			
Student 16	1	5	4	1	1	4	3	5	3	5	2	3
Student 17	5	5	4	5	5	5	5	5	5	5	5	5
Student 18	5	5	3	3	4	5	5	5	5			
Student 19	4	5	2	4	5	5	5	5	5	5	2	5
Total	**67**	**80**	**54**	**41**	**76**	**90**	**87**	**88**	**88**	**62**	**51**	**66**
Average	**4.466666**	**5**	**3**	**2.15789**	**4**	**4.7368**	**4.5789**	**4.63157**	**4.88888**	**4.13333**	**3.4**	**4.4**
	4.47	**5**	**3**	**2.16**	**4**	**4.74**	**4.56**	**4.63**	**4.88**	**4.13**	**3.4**	**4.4**
Student 1		5	4	4	5	4	4	4	5	2	2	2
Student 2	4	5	5	5	5	5	5	3	5	5	4	5
Student 3	5	5	5	4	5	5	5	5	5	4	5	5
Student 4	5	4	5	5	5	5	5	5	5	5	5	5
Student 5	5	4	5	3	4	5	5	5	5	2	5	5
Student 6	5	5	2	4	5	5	5	5	5	3	4	5
Student 7	5	5	5	5	5			5	5	5	5	5
Student 8	5	4	4	4	4	5	5	5	5	3	5	4
Student 9	5	5	5	4	5	5	5	5	5	4	4	5
Student 10	4	5	5	5	5	5	5	5	5	4	5	5
Student 11	4	5	5	4	5				5	5	5	5
Student 12	5	5	4	4	5	5	4	4	5	4	5	4
Student 13	4	5	3	3	5	4	5	5	5	3	5	4
Student 14	5	5	5	4	5	5	5	5	5	5	5	5

Student 15	3	5	4	4	5	5	5	5	5	4	4	5
Student 16	5	5		5	5	5	5	5	5	5	5	5
Student 17		5		5	5	5	5	5		5	4	5
Student 18	5	5		4	5	5	5	5	5	5	4	5
Total	**74**	**87**	**66**	**76**	**88**	**78**	**78**	**81**	**85**	**73**	**81**	**84**
Average	**4.625**	**4.83333**	**4.4**	**4.22222**	**4.88888**	**4.875**	**4.875**	**4.76470**	**5**	**4.05555**	**4.5**	**4.66666**
	4.63	**4.83**	**4.4**	**4.22**	**4.89**	**4.87**	**4.87**	**4.76**	**5**	**4.05**	**4.5**	**4.67**
Student 1	3	5	5	4	5	4	5	3	5	4	5	4
Student 2	5	5	3	3	5	5	4	4		4	4	5
Student 3	5	5	5	4	5	5	5	5	5	5	4	5
Student 4	5	5	5	5	5	5	5	5	5	5	4	4
Student 5	5	5	3	5	5	5	5	5	5	5	5	5
Student 6	5	5	5	5	5	5	5	4	5	4	5	5
Student 7	5	5	4	4	5	5	5	5	5	4	5	5
Student 8	5	5		5	5	5	5		5	5	5	5
Student 9	5	5	5	5	5	5	5	5	5	5	5	5
Student 10	5	5	4	3	5	5	5	3	5	5	4	5
Student 11	5	5	5	5	5	5	5	5	5	5	5	5
Student 12	5	5	5	4	5	5	5	5	5	5	5	5
Student 13	5	5	4	4	5	5	5	4	5	2	4	5
Student 14	5	5	5	5	5	5	5	5	5	5	5	5
Student 15	5	3	3	3	4	5	5	5	5	5	4	5
Student 16	5	5	5	4	5	5	5	5	5	5	5	5
5	5	4	5	5	5	5	5	5	5	5	3	5
Student 18			3	4	4	4	5	5	5	5	5	5
Total	**83**	**82**	**74**	**77**	**88**	**88**	**89**	**78**	**85**	**83**	**82**	**88**
Average	**4.882352**	**4.823529**	**4.35294**	**4.27777**	**4.88888**	**4.8888**	**4.9444**	**4.58823**	**5**	**4.61111**	**4.55555**	**4.88888**
	4.88	**4.82**	**4.35**	**4.27**	**4.89**	**4.89**	**4.94**	**4.59**	**5**	**4.61**	**4.55**	**4.89**

Appendix 3

Student Score Sheet Example

Aural Development

Speak a rhyme (Step 1)	Echo rhythms (Step 2)	Decode familiar rhythms (Step 3)	Decode unfamiliar rhythms (Step 4)	Create a pattern (Step 5)

Reading Development

Echo patterns visually (Step 6)	Decode from visual pattern (familiar) (Step 7)	Decode from visual pattern (unfamiliar) (Step 8)

Writing Development

Copy notation (Step 9)	Decode (dictate) pattern (familiar) (Step 10)	Decode (dictate) pattern (unfamiliar) (Step 11)	Compose personal pattern (Step 12)

References

Bonnin, J. (2005). Katinka Dániel and Her Contributions to Kodály Pedagogy in the United States. *Journal of Historical Research in Music Education, 27*(1), 49-64. Retrieved from http://www.jstor.org/stable/25597917

Brumfield, Susan (2014). *First, we sing! Kodály-inspired teaching for the music slassroom*. Milwaukee: Hal Leonard.

Choksy, Lois (1988). *The Kodály method* (2nd ed.). Englewood Cliffs: Prentice Hall, Inc.

Feierabend, John (2001). *Conversational solfege level one: Teacher's manual*. Chicago: GIA Publications, Inc.

Feierabend, John & Strong, Missy (2018). *Feierabend fundamentals: History, philosophy, and practice*. Chicago: GIA Publications, Inc.

Gordon, Edwin E. (2012). *Learning sequences in music: Skill, content, and patterns*. Chicago: GIA Publications, Inc.

Healy, Jane M. (1990). *Endangered minds: Why children don't think and what we can do about it*. New York, NY: Simon & Schuster.

Hoffman, Richard, Pelto, William, & White, John W. (1996). Takadimi: A beat-oriented system of rhythm pedagogy. *Journal of Music Theory Pedagogy*, 10. 7-30. Retrieved from http://proxy-wcupa.klnpa.org/login?url=https://search.proquest.com/docview/1417985?accountid=14971

Houlahan, Michael & Tacka, Phillip (2008). *Kodály today: A cognitive approach to elementary music education.* New York: Oxford University Press.