

THE EFFECT OF COLOR MATERIALS ON STUDENT PERFORMANCE OF
ORIGINAL MUSIC COMPOSITIONS

By

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To my parents and my husband, Joe.

TABLE OF CONTENTS

	<u>page</u>
LIST OF FIGURES.....	6
LIST OF OBJECTS	7
ABSTRACT	8
CHAPTER	
1 INTRODUCTION	9
Problem of the Study	9
Significance of the Problem	10
Purpose of the Study	11
Delimitations	11
Definition of Terms.....	11
2 REVIEW OF LITERATURE	12
Introduction	12
Philosophical Rationale.....	12
Theoretical Rationale	13
Research Studies	14
3 METHODOLOGY AND PROCEDURES.....	16
Introduction	16
Procedures	16
Data Collection and Analysis	19
4 RESULTS	21
5 DISCUSSION	24
APPENDIX	
A LESSON PLANS	29
B INSTITUTIONAL REVIEW BOARD LETTER	33
C PARENTAL CONSENT FORM.....	34
D STUDENT ASSENT FORM.....	36

LIST OF REFERENCES 37
BIOGRAPHICAL SKETCH..... 38

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
3-1 Student in Group One using non-color mallets	18
3-2 Student in Group Two using color mallets	18
3-3 Student composition template.	20
5-1 Composition by student #105.	26
5-2 Composition by student #209.	27

LIST OF OBJECTS

<u>Object</u>	<u>page</u>
5-1 Student #209 composition performance. (.wav file, 2MB)	27

Summary of Project Option in Lieu of Thesis
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The purpose of this study was to determine the extent to which color materials affected student performance of original music compositions. Twenty-five second-grade students were instructed to compose a melody for a learned rhyme using only the available pitches on the xylophone. The music teacher guided both groups of students through the composition process. Students in Group One used regular pencils to notate their compositions and non-colored mallets to perform their composition on the xylophone. Students in Group Two used colored pencils to notate their compositions. These students performed on the xylophone using colored mallets, which coordinated with the notation of their composition.

Performances were recorded and analyzed for accuracy. A point was awarded for each note played as written with a maximum of sixteen points. Student scores ranged from three to sixteen points. A t-test result of $p=.03$ indicated students using color materials performed more accurately than students using non-color materials.

CHAPTER 1 INTRODUCTION

National standards for music education (Music Educators National Conference, 1994), developed by the MENC Task Force for National Standards in the Arts, guide teachers in developing music curriculum. These standards include skills and techniques such as singing, playing instruments, reading and notating music, and the areas of cultural and historical connections. The standards that present the greatest challenge to music educators, however, are those pertaining to creating and communicating through music (Lehman, 2008). According to the standards, students should improvise melodies, variations, and accompaniments, and compose and arrange music within specific guidelines.

Because teaching students to compose and perform their own music is challenging for music educators, this standard is often overlooked. Yet, with a guided process and appropriate teaching strategies and materials, perhaps music educators and students would find composition more approachable.

Problem of the Study

When it comes to students creating their own music, the music teacher may find notation to be the greatest problem. In addition, the challenge of reading notation and transferring the information to the instrument may inhibit the accuracy of students' performance of their own compositions. However, if students are to share their ideas musically and become true musical communicators, they need opportunities to compose their own music (Ginocchio, 2003, p. 51).

As elementary students begin reading music notation, the transfer of information from paper to instrument or from instrument to paper is a challenging concept. Though

students may visually recognize music notes as representations of musical sounds and be capable of verbally decoding the letter names or solfège symbols of the pitches, playing the pitches on an instrument presents an eye-hand coordination challenge. Often, elementary music teachers face this obstacle and find unsatisfactory results in students' performance on classroom instruments such as the xylophone.

Many elementary music teachers implement teaching strategies and methods to assist students in playing the xylophone successfully. For example, teachers may focus on technique and posture, may remove unnecessary bars from the instrument, may use mnemonic devices to direct students, or may provide visual reinforcement of the material. Even with these strategies, some students still experience difficulty in decoding written music notation and transferring it to the xylophone.

Significance of the Problem

Teaching young students to compose and perform their own music presents many challenges. Yet, if music educators are to address this national standard within the curriculum, it is important that teaching strategies and materials offer appropriate experiences for music students. It is also important that students feel confident in their abilities to notate and perform their own creations. Failure to provide composition opportunities at the elementary school level because of the challenges involved not only excludes one of the national standards for music education, but also deprives students of the creative process and performance of their own original work.

Various factors may affect music educators' exclusion of composition in the elementary music classroom. Music teachers may not have experienced the process of composition enough themselves to feel comfortable teaching it to their students. Teachers may be concerned that the notation skills necessary are too difficult to teach.

Another factor may be the amount of class time required for a composition project. All of these factors and others may contribute to an elementary music educator's choice to avoid composition. Finding materials and processes that ensure student success and can be implemented with ease are significant aspects of this study.

Purpose of the Study

The purpose of this study is to determine the effects of color materials on student performance of music composition. Results of this study may be useful to elementary music educators as they determine the most effective teaching method for performance accuracy on pitched instruments. By assessing students' performance accuracy of their own compositions, the types of materials used for instruction can be evaluated. The following research question guided the study: To what extent does utilizing colored pencils and colored mallets affect the accuracy of students' performance of their own compositions?

Delimitations

The following will not be accounted for in this study: previous music experience or lessons, music aptitude, rhythmic accuracy, general classroom experience, gender, or ethnicity.

Definition of Terms

solfège: The use of syllables in association with pitches as a mnemonic device for indicating melodic intervals (Hughes & Gerson-Kiwi, n.d.).

CHAPTER 2 REVIEW OF LITERATURE

Introduction

The review of literature begins with the philosophical foundations of the study and a review of various philosophers' perspectives on the topic of composition. Philosophies of music educators such as Bennett Reimer and David Elliot are examined. A theoretical rationale is presented for the study, which includes theories on teaching composition. Finally, this section closes with research studies on notation and the use of color materials.

Philosophical Rationale

When addressing the task of composing, music educators and philosophers find it is a critical component of the music curriculum. According to Bennett Reimer, "composition is a mode of musical study which can be most effective for clarifying how music works and for giving the actual experience of bringing music to birth" (Reimer, 1970, p.118). Children of all ages can use the experience of composing to utilize learned skills and cultivate notation skills. A healthy sense of personal musical responsibility is also a benefit of the student composition process (Reimer, 1970). Reimer explains that "children can become more musically responsive through music making, which therefore constitutes an important element of general music education (Reimer, 1970, p. 118).

Musicing, as David Elliott explains, is the intentional action of making music through performance. According to Elliott, music literacy and decoding of music notation should be taught and learned through musicing and musical problem solving (Elliott, 1995, p. 61). Presenting students with musical challenges and opportunities for problem

solving can be accomplished through musical performances and projects like composing (Elliott, 1995, p. 72). Elliott suggests that performance of a musical work is especially valuable in assessing musical achievement because it provides authentic and tangible evidence of a person's moment-to-moment musical understanding (Elliott, 1995, p. 76).

Theoretical Rationale

Guiding students through a structured composition activity with clear limitations may help insure success in the composition process. Brophy (1996, p. 17) concludes that "guided composition is an excellent technique for building confidence in students' creative and notational skills". Guided composition involves the instructor controlling as many parameters of the composition as necessary for the developmental level of the student composers. Brophy (1996, p. 15) states that "a beginning composer who is not yet familiar with music notation needs to become personally involved in writing music within a context that is creative, comfortable, and developmentally appropriate in order to build his or her understanding of musical signs and symbols."

The guided composition process is systematic. First, the educator sets the necessary parameters for successful composing and notation by the students. Depending on the developmental level of the students, these parameters may include rhythm, length, scale, clef, and ending pitches. Next, the students learn the prescribed aspects of the composition, and practice notating these elements individually. After gaining an understanding of these elements, students improvise a melody on an instrument set up with the pitches determined by the educator. When students have developed a melody they prefer, they notate that melody in a first draft. Once students have finalized the composition, they are asked to create a final copy using the

appropriate form of notation determined by the educator. Brophy provided examples of appropriate parameters for elementary student compositions as well as assessment strategies for evaluating the students' progress. Brophy concluded that the result of the guided composition process is "a positive hands-on learning experience that gives your students the opportunity to become personally involved with music notation in a satisfying and successful manner" (Brophy, 1996, p. 18).

Research Studies

Rogers (1996) investigated the relationship of colored notation on students' ability to read rhythms. In Rogers study, though rhythmic values of varying notes were not consistently notated in the same color, students who received instruction using colored notes read rhythms with greater accuracy than students who did not learn with colored notes. Rogers concluded that such colors may have increased student interest in the process itself. In a similar study, Rogers (1991), researched the use of color as an instructional tool and learning aid and found statistically significant results. He noted that students trained with color-coded notation may have associated particular colors to corresponding pitches, but may also have become dependent on the color when sight-reading new music.

According to Rogers (1996, pg .15), there is a considerable body of educational research outside music suggesting that the use of color in instructional materials can improve student performance and retention. Hebb's theories and a hypothesis by Peters (1981) suggest a plausible explanation for the efficacy of multisensory teaching approaches in general and the use of color-coded instructional materials in particular (Rogers, 1991, pg. 64). Stimuli received through several senses excite more neurons in several localized areas of the cortex, thereby reinforcing the learning process and

improving retention. Similarly, color-coded notation activates more cell assemblies and phase sequences (Hebb's terms for associations of neurons) than uncolored notation (Rogers, 1991).

Aside from Rogers's research, few studies investigate the use of color in music education materials. Specifically, the current researcher has not discovered any literature investigating the use of colored mallets in performing color-coded notation. Cutietta and Haggerty (1987, p. 91) concluded that further understanding of color associations to music might produce valuable insights that can be used in forming new instructional strategies.

CHAPTER 3 METHODOLOGY AND PROCEDURES

Introduction

An action research study and nonequivalent group comparison guided this study. Participants consisted of 25 second-grade students between the ages of 7 and 8 years who attended general music class once each week. Non-random sampling was used as students attended music class according to their assigned homeroom. The data collection instrument included a composition template and scoring tool created by the teacher-researcher. Parents received consent forms and the students received assent forms to complete prior to the research study.

Procedures

The study took place at a rural elementary school in north central Florida. The school is comprised of approximately 225 students, 75% percent of whom are eligible for federal free or reduced-price lunch program. The school's ethnic groups include 67% white students, 23% black, six percent multiracial, 3% Hispanic, less than 1% American Indian, and less than 1% Asian/Pacific Islander.

Second-grade students were selected to participate in the study. The teacher-researcher instructed the students for 6 weeks prior to beginning the study. During this time, the students learned rhythm reading and notating skills and performed movements to a steady beat. The teacher-researcher was not aware of the students' previous experience with composing. Therefore, a guided composition approach was chosen that used only two pitches notated on one staff line.

The second-grade students attended music class in two separate homeroom groups. All students received the same initial instruction from the music teacher.

Through two consecutive music classes, students learned a four-measure rhyme and discovered the rhythmic notation of the rhyme together with teacher guidance (Appendix A). The teacher and students said the rhyme, played the rhyme on non-pitched percussion instruments, and then notated the rhythm of the rhyme using iconic notation. Students were then guided to notate the rhythm of the rhyme using standard notation of quarter notes, quarter rests, and eighth notes.

In the following two class meetings, students were taught how to compose a melody for the rhyme using only the pitches “sol” and “mi” (Appendix A). Students in Group One notated their compositions using a regular pencil and played their composition using non-colored mallets (Figure 3-1). Students in Group Two notated their compositions using a green colored pencil for “sol” and an orange colored pencil for “mi” (Figure 3-2). The color of the notation corresponded to the color placed on the mallets used for performance. Because “sol” was notated using a green colored pencil, the mallet used to play “sol” on the xylophone was also labeled green. “Mi” was notated using an orange colored pencil and the mallet used to play “mi” was labeled orange. Color was added to the mallets using a 2-inch-wide strip of colored paper wrapped around the stick of the mallet. The teacher set up the xylophones with only the two necessary pitches available to the students.



Figure 3-1. Student in Group One using non-color mallets



Figure 3-2. Student in Group Two using color mallets

Data Collection and Analysis

Students were provided with a composition template created by the teacher-researcher (Figure 3-3). The template included a blank line with the solfège labels “sol”, above the line, and “mi”, below the line. The text of the rhyme was provided along with the quarter rests in the rhythm. Students composed their pieces individually and were allowed practice time on a xylophone before performing their compositions.

Students within each group were assigned a number to ensure anonymity in the data collection and analysis process. This number was written on the student’s composition and stated by the researcher on the audio recording prior to each student’s performance. The teacher-researcher then made an audio recording of each student’s performance for later evaluation.

Upon collecting student data, scores were determined by listening to the audio recording and marking each note on the students’ written composition. If the note was played correctly, the student received one point. If the note was played incorrectly, the student received no point. Each student received a total score based on the number of notes played correctly. A total of sixteen notes were written and played in each composition. Mean, median, and mode were calculated for each data set. A T-test was performed to determine the statistical significance of the results.

Mama Caught a Flea

The image shows two musical staves. The top staff has a treble clef and a key signature of one flat (Bb). The notes are: sol (G4), mi (E4), and a whole note (G4). The lyrics are: "One, two, three." followed by a bar line, then "Ma - ma caught a flea!" followed by a bar line. There are two fermatas above the notes. The bottom staff is empty, with the lyrics: "Flea died, Ma - ma cried." followed by a bar line, then "One, two, three." followed by a bar line. There is one fermata above the final note.

Figure 3-3. Student composition template.

CHAPTER 4 RESULTS

Results for the two groups were collected on a scoring tool, which indicated the accuracy of each note in the composition. As the teacher-researcher listened to each recorded student performance, a score was given for each note played. One point was awarded for a note played as notated in the student's composition. No point was awarded for an incorrect note. Table 4-1 shows note accuracy of students in Group One who used non-color materials. Table 4-2 shows note accuracy of students in Group Two who used color materials.

Mean, median, and mode were calculated for the two groups. The mean for Group One was 12.07 while the mean for Group Two was 15. However, the median and mode were 16 for both groups. This is a result of Group One scores ranging from 3 to 16. Low scores in Group One (3, 5, 7, 7, 9) contributed to a much lower mean for the group. The range of scores for Group Two was 8 to 16, with only one student scoring below 15 points. Therefore, the mean for Group Two was much higher than the mean for Group One.

A two-sample unequal variance t-test was performed comparing the data sets. The probability associated with a student's paired t-Test, with a one-tailed distribution, was $p=0.03$. Therefore, the observed difference between students using non-color materials and those using color materials was statistically significant and not due to chance.

Table 4-1. *Group One, non-color materials, note accuracy by student.*

Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Student #																	
101	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	5
102	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
103	1	1	1	0	1	1	0	1	1	1	1	0	0	0	0	0	9
104	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
105	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	10
106	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3
107	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
108	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
109	1	1	1	1	0	1	0	1	0	1	1	0	1	1	1	1	12
110	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
111	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
112	0	0	0	1	0	1	0	0	0	0	0	1	1	1	1	1	7
113	1	1	1	0	1	1	0	0	0	0	0	1	1	0	0	0	7
114	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
115	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16

Table 4-2. *Group Two, color materials, note accuracy by student.*

Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Student #																	
201	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
202	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
203	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	15
204	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
205	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
206	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
208	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
209	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	8
210	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	15
211	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16

Note: Data excluded for student 207 because no parental consent was provided.

Table 4-3. *Comparison of results from Group One and Group Two.*

Group	Mean	Median	Mode	sd
1*	12.07	16	16	4.62
2**	15	16	16	2.37

Note: * non-color materials
 ** color materials

CHAPTER 5 DISCUSSION

Utilizing the most effective teaching method for student composition is essential to the success of student performance. Both groups in this study experienced the same guided composition process with prescribed parameters for their songs. This process provided developmentally appropriate rhythms and pitches, practice with notation skills, a template for creating the final product, and an instrument with only the necessary pitches available. Because of the guided process, the teacher found the composition project to be accessible to the students with few difficulties.

Materials utilized in this study were necessary to determine the effect of color on student performance accuracy. Performance results of this study indicate a statistically significant comparison of playing accuracy with a t-test result of $p=.03$. Students in Group One had a mean score of 12.07 while students in Group Two had a mean score of 15. However, the median and mode of the two groups were the same.

Students in Group One notated their compositions using a non-colored pencil and played the xylophone with non-colored mallets (Figure 5-1). Though the average score for this group was only 12.07, eight of the fifteen students played their compositions with no mistakes. Students in Group One who scored considerably lower were observed playing the instrument with little regard for the notation of their composition. Several of these students played the rhythm of the rhyme accurately, but appeared to be improvising the melody as they performed. It is not clear if the students in Group One who did not play accurately were unable to decode the notation system or if they were unsure which mallet corresponded with the pitches. According to the teacher-

researcher's observations, the accurate pitches these students played seemed to occur by chance.

Students in Group Two had an average score of 15 and seven of the ten students played their compositions with no mistakes. An interesting observation was made of students #203 and #210, both whom scored 15. While notating their compositions, these students used the incorrect corresponding color for one note. To notate the low pitch "mi" below the line, the students used a green colored pencil. This only occurred for note #13 in both students' compositions. When the students played the written note, both performed according to the color of the notation using the green mallet and not the location of the note below the line. This mistake did not appear elsewhere in the notation and did not cause the students to make additional mistakes while performing.

Student #209 had a score of 8 and began making mistakes when moving from Line 1 to Line 2 of the song. This student played all pitches in Line 2 with the wrong mallet. Various explanations could account for this confounding variable. The student may have vision problems or experience difficulty when decoding symbols. These variables were not accounted for in this study. Figure 5-2 and Object 5-1 show Student #209's composition notation and performance.

Student # 105

Mama Caught a Flea

sol
mi
One, two, three. Ma - ma caught a flea!

Flea died, Ma - ma cried. One, two, three.

Figure 5-1. Composition by student #105.

Note: Student #105 notated using a non-colored pencil. The beginning and ending phrase were written as “mi, sol, mi”, but performed as “sol, mi, sol”.

Mama Caught a Flea

The image shows two staves of handwritten musical notation. The top staff begins with the notes 'sol' and 'mi' written above the staff line. The melody consists of several notes: a red note on 'mi' for 'One,', a blue note on 'sol' for 'two,', and a red note on 'mi' for 'three.'. A double bar line follows. The second part of the staff has a red note on 'mi' for 'Ma - ma', a blue note on 'sol' for 'caught a', and a red note on 'mi' for 'flea!'. The bottom staff continues the melody with a red note on 'mi' for 'Flea', a blue note on 'sol' for 'died,', a red note on 'mi' for 'Ma - ma', and a blue note on 'sol' for 'cried.'. A double bar line follows, and the final part has a red note on 'mi' for 'One,', a blue note on 'sol' for 'two,', and a red note on 'mi' for 'three.'. The notes are drawn with colored pencils (red and blue), and the lyrics are written in black ink below the staff.

Figure 5-2. Composition by student #209.

[Object 5-1. Student #209 composition performance. \(.wav file, 2MB\)](#)

Results of this study indicate that color material does affect student performance accuracy of their own compositions. Students who utilized colored pencils to notate and colored mallets to perform their compositions played with greater accuracy than students who used non-color materials. Although the type of materials used was likely the cause of this result, other extraneous variables were not taken into account. Not all students involved in the study attended this school prior to the current school year. Therefore, the background knowledge and experience of playing the xylophone may have affected the students' performance. Individual student learning abilities within the two groups may have affected retention of skills throughout the four class meetings and

may have affected the understanding of the musical concepts. Finally, the motivation provided by the use of colored pencils and mallets may have increased student interest in the project.

Previous research suggests that use of color materials may increase student retention and music notation reading. The current study indicated this may be true as students notate and perform their own compositions. Further research is needed to corroborate these findings.

Results of this study may be useful to elementary music educators. Using the guided composition process with color materials provides students the opportunity to compose and perform successfully. Music educators need not be hesitant to teach composition, even to the youngest of students. If providing students with the aid of color notation and mallets increases their accuracy, educators should consider utilizing this teaching method.

As the teacher-researcher in this study, these findings are especially useful to me. Student performances were more accurate when using color materials, and teaching the concepts involved in the composition process was made easier. Coordination of colors between the notation and the mallets was useful when referring to a pitch with the group using color materials. Guided composition with color materials is a teaching method I intend to continue using with young students who have little experience with notation. As students master the concepts involved in composing, notating, and performing their own music, color materials may no longer be needed.

APPENDIX A LESSON PLANS

Music Lesson Plan

Grade Level: 2 nd grade Date: 9/10-9/11	Lesson Activity: 1, 2, 3. Mama Caught a Flea! -Lesson 1
Concepts: Expression Rhythm Form Melody Timbre Texture/Harmony Skills: Singing Playing Moving Creating Reading Listening/Analyzing	
Vocabulary: beat, rhythm, quarter note, quarter rest, eighth notes	Materials and Equipment: non-pitched percussion instruments, flea magnets, rhythm notation board
Objectives: TLW sing on pitch. TLW perform movements to the steady beat. TLW notate a rhythm using iconic notations and quarter notes, quarter rests, and eighth notes.	
Sunshine State Standards Achieved: Skills and Techniques <input checked="" type="checkbox"/> 1. The student sings, alone and with others, a varied repertoire of music. M.U.A. 1.1 (1,2) <input checked="" type="checkbox"/> 2. The student performs on instruments, alone and with others, a varied repertoire of music. M.U.A. 2.1 (1) <input checked="" type="checkbox"/> 3. The student reads and notates music. M.U.A. 3.1 (1) Creation and Communication <input type="checkbox"/> 1. The student improvises melodies, variations and accompaniments. M.U.B.1.1 () <input type="checkbox"/> 2. The student composes and arranges music within specific guidelines. M.U.B.2.1 () Cultural and Historical Connections <input type="checkbox"/> 1. The student understands music in relation to culture and history. M.U.C.1.1 () Aesthetic and Critical Analysis <input type="checkbox"/> 1. The student listens to, analyzes, and describes music. M.U.D.1.1 () <input type="checkbox"/> 2. The student evaluates music and music performances. M.U.D.2.1 () Applications to Life <input type="checkbox"/> 1. The student understands the relationship between music, the arts, and disciplines outside the arts. M.U.E.1.1 () <input type="checkbox"/> 2. The student understands relationships between music and the world beyond the school setting. M.U.E.2.1 ()	
Procedure: 1. Good morning - echo song 2. Steady beat movement activity - teacher-led, non-locomotor 3. Focused listening questions: "What insect is in this rhyme?" "What happens to the insect?" "Who is the person in the rhyme?" "How does that person feel?" 4. Speak rhyme. (One, two, three. Mama caught a flea. Flea died, Mama cried. One, two, three.) 5. Answer focused listening questions. 6. Teach rhyme by rote, echo phrase by phrase. Clap and speak rhythm. Transfer to non-pitched percussion instruments. 6. Notate rhythm of words using iconic notation of one flea, two fleas, or no fleas on a beat. 7. Discover standard notation of quarter notes, quarter rests, and eighth notes for rhyme.	
Assessment: Performance Observation	Technology:

Music Lesson Plan

Grade Level: 2nd grade

Date: 9/17-9/18

Lesson Activity: 1, 2, 3. Mama Caught a Flea!

-Lesson 2

Concepts: Expression Rhythm Form Melody Timbre Texture/Harmony

Skills: Singing Playing Moving Creating Reading Listening/Analyzing

Vocabulary:

beat, rhythm, quarter note, quarter rest, eighth notes

Materials and Equipment:

flea magnets, rhythm notation board, white boards & markers, mallets, xylophones

Objectives:

TLW sing on pitch.

TLW notate and perform a rhythm using quarter notes, quarter rests, and eighth notes.

TLW notate a melody containing the pitches sol and mi.

Sunshine State Standards Achieved:

Skills and Techniques

- 1. The student sings, alone and with others, a varied repertoire of music. M.U.A. 1.1 (1,2)
- 2. The student performs on instruments, alone and with others, a varied repertoire of music. M.U.A. 2.1 (1)
- 3. The student reads and notates music. M.U.A. 3.1 (1)

Creation and Communication

- 1. The student improvises melodies, variations and accompaniments. M.U.B.1.1 (2)
- 2. The student composes and arranges music within specific guidelines. M.U.B.2.1 ()

Cultural and Historical Connections

- 1. The student understands music in relation to culture and history. M.U.C.1.1 ()

Aesthetic and Critical Analysis

- 1. The student listens to, analyzes, and describes music. M.U.D.1.1 ()
- 2. The student evaluates music and music performances. M.U.D.2.1 ()

Applications to Life

- 1. The student understands the relationship between music, the arts, and disciplines outside the arts. M.U.E.1.1 ()
- 2. The student understands relationships between music and the world beyond the school setting. M.U.E.2.1 ()

Procedure:

1. Good morning song - echo song
2. Recall rhyme from previous lesson. Display rhythm with flea notation. Change to standard notation.
3. Practice writing rhythm of rhyme on white boards.
4. Pat rhythm on legs, alternating hands. Transfer to mallets. Practice with mallets on knees.
5. Model mallet technique on xylophones. Discuss location of high and low sounds. Explore the instrument.
6. Improvise melody using the rhythm of the rhyme. Discuss the need and desire to notate song.

Assessment:

Performance Observation

Technology:

Music Lesson Plan

Grade Level: 2nd grade
Date: 9/24-9/25

Lesson Activity: 1, 2, 3. Mama Caught a Flea!
-Lesson 3

Concepts: Expression Rhythm Form Melody Timbre Texture/Harmony
Skills: Singing Playing Moving Creating Reading Listening/Analyzing

Vocabulary:
beat, rhythm, quarter note, quarter rest,
eighth notes, sol, mi

Materials and Equipment:
mallets, xylophones, Student Assent Forms

Objectives:

TLW sing on pitch.

TLW notate and perform a rhythm using quarter notes, quarter rests, and eighth notes.

TLW notate and perform a melody containing the pitches sol and mi.

Sunshine State Standards Achieved:

Skills and Techniques

- 1. The student sings, alone and with others, a varied repertoire of music. M.U.A. 1.1 (1,2)
- 2. The student performs on instruments, alone and with others, a varied repertoire of music. M.U.A. 2.1 (1)
- 3. The student reads and notates music. M.U.A. 3.1 (1)

Creation and Communication

- 1. The student improvises melodies, variations and accompaniments. M.U.B.1.1 ()
- 2. The student composes and arranges music within specific guidelines. M.U.B.2.1 ()

Cultural and Historical Connections

- 1. The student understands music in relation to culture and history. M.U.C.1.1 ()

Aesthetic and Critical Analysis

- 1. The student listens to, analyzes, and describes music. M.U.D.1.1 ()
- 2. The student evaluates music and music performances. M.U.D.2.1 ()

Applications to Life

- 1. The student understands the relationship between music, the arts, and disciplines outside the arts. M.U.E.1.1 ()
- 2. The student understands relationships between music and the world beyond the school setting. M.U.E.2.1 ()

Procedure:

1. Review rhyme from previous lesson and rhythm on the chart.
2. Sing sol, mi patterns using words and rhythm from the rhyme. Add hand signs to show high and low.
3. Discover notation of sol mi patterns on a one-line staff, notating sol (high) sounds above the staff line and mi (low) sounds below the staff line.
Group 1: Use only black notation for pitches;
Group 2: Use green notes for sol, orange notes for mi.
4. Compose a melody for the rhyme as a class on board. Practice playing on knees, then xylophones.
5. Tell students that next week they will compose their own melody for the rhyme, choosing sol or mi for each note.
6. Distribute and sign Student Assent Forms.

Assessment:
Performance Observation

Technology:

Music Lesson Plan

Grade Level: 2nd grade
Date: 10/1-10/2

Lesson Activity: 1, 2, 3. Mama Caught a Flea!
 -Lesson 4

Concepts: Expression Rhythm Form Melody Timbre Texture/Harmony

Skills: Singing Playing Moving Creating Reading Listening/Analyzing

Vocabulary:

beat, rhythm, quarter note, quarter rest, eighth notes, sol, mi, compose

Materials and Equipment:

mallets, xylophones, composition templates, pencils

Objectives:

TLW sing on pitch.

TLW notate and perform a rhythm using quarter notes, quarter rests, and eighth notes.

TLW create and perform a melody containing the pitches sol and mi.

Sunshine State Standards Achieved:

Skills and Techniques

- 1. The student sings, alone and with others, a varied repertoire of music. M.U.A. 1.2 (1,2)
- 2. The student performs on instruments, alone and with others, a varied repertoire of music. M.U.A. 2.2 ()
- 3. The student reads and notates music. M.U.A. 3.2 ()

Creation and Communication

- 1. The student improvises melodies, variations and accompaniments. M.U.B.1.2 ()
- 2. The student composes and arranges music within specific guidelines. M.U.B.2.2 ()

Cultural and Historical Connections

- 1. The student understands music in relation to culture and history. M.U.C.1.2 ()

Aesthetic and Critical Analysis

- 1. The student listens to, analyzes, and describes music. M.U.D.1.2 ()
- 2. The student evaluates music and music performances. M.U.D.2.2 ()

Applications to Life

- 1. The student understands the relationship between music, the arts, and disciplines outside the arts. M.U.E.1.2 ()
- 2. The student understands relationships between music and the world beyond the school setting. M.U.E.2.2 ()

Procedure:

1. Good morning song - echo song
2. Review reading and playing sol, mi patterns on xylophones.
3. Distribute teacher-prepared composition templates.
 - Group 1: regular pencils only
 - Group 2: green colored pencil for sol, orange colored pencil for mi
4. Model aligning notes with words; allow students to choose and notate their own melodies.
5. Practice individual melodies at instruments.
 - Group 1: non-colored, neutral mallets
 - Group 2: green mallet for sol, orange mallet for mi
6. Allow each student to perform own composition from their notation. Record each performance for later scoring.

Assessment:

Summative Assessment -Student Compositions

Technology:

Flip Camera

APPENDIX B
INSTITUTIONAL REVIEW BOARD LETTER



PO Box 112250
Gainesville, FL 32611-2250
352-392-0433 (Phone)
352-392-9234 (Fax)
irb2@ufl.edu

August 12, 2009

TO: Lacey Cupp
2322 NE 11th Street
Gainesville, FL 32609

FROM: Ira S. Fischler, PhD; Chair *ISF*
University of Florida
Institutional Review Board 02

SUBJECT: **Approval of Protocol #2009-U-0824**

TITLE: The Effect of Color Materials on Student Performance of Music Composition

SPONSOR: None

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Your protocol was approved as an expedited study under category 7: *Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.* Given your protocol, it is essential that you obtain signed documentation of informed consent from the parent or legal guardian of each participant. When it is feasible, you should obtain signatures from both parents. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research.

It is essential that the parents/guardians of your minor participants sign a copy of your approved informed consent that bears the IRB approval stamp and expiration date.

If you wish to make any changes to this protocol, **including the need to increase the number of participants authorized**, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

The approval of this study is valid through **August 11, 2010**. If you have not completed the study by this date, please telephone our office (392-0433), and we will discuss the renewal process with you. It is important that you keep your Department Chair informed about the status of this research protocol.

ISF:dl

**APPENDIX C
PARENTAL CONSENT FORM**

Department of Music

PO Box 117900

University of Florida

Gainesville, FL 32611-7900

Parental Consent

Dear Parent/Guardian,

I am a graduate student in the Department of Music at the University of Florida, conducting research on notating and playing of music compositions under the supervision of Dr. Timothy Brophy. The purpose of this study is to compare the playing accuracy of students who use regular paper and pencil to notate music compositions with those of students who use color pencils and mallets. The results of the study may help teachers better understand the notation and playing of student compositions and allow them to design instructional practices accordingly. These results may not directly help your child today, but may benefit future students. With your permission, I would like to ask your child to volunteer for this research.

Half of the participating children will notate their compositions using regular pencils, while the other children notate their compositions using colored pencils. Children will then be asked to play their compositions. Those children using regular pencil will use non-colored mallets to play, while the children using colored pencils will use corresponding colored mallets. Your child's teacher will present the procedure during music class. The procedure will take place during three consecutive class meetings. With your permission, your child will be audio recorded during the instructional period. The audio recording will be accessible only to the researcher for verification purposes. At the end of the study, the recording will be erased. The children will be asked to identify themselves by random number only and their identity will be kept confidential to the extent provided by law. Results will only be reported in the form of group data. Participation or non- participation in this study will not affect the children's grades or placement in any programs.

You and your child have the right to withdraw consent for your child's participation at any time without consequence. There are no known risks or immediate benefits to the participants. No compensation is offered for participation. Group results of this study will be available in December upon request. If you have any questions about this research protocol, please contact me at 352-468-1451 or my faculty supervisor, Dr. Brophy, at 352-273-3193. Questions or concerns about your child's rights as research participant may be directed to the IRB02 office, University of Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

Lacey Cupp

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2009-U-0824
For Use Through 08-11-2010

I have read the procedure described above. I voluntarily give my consent for my child,
_____, to participate in Lacey Cupp's study of notation and playing of music
compositions. I have received a copy of this description.

Parent / Guardian Date

2nd Parent / Witness Date

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2009-U-0824
For Use Through 08-11-2010

APPENDIX D
STUDENT ASSENT FORM

Student Assent Form

I am Mrs. Cupp and I am a graduate student at the University of Florida. I am studying about how children compose music, and I'd like you to participate. If you do this, you will get to write your own music and perform it on the xylophone. We will spend three music classes on this project. You do not have to do this if you don't want to, and if you start and don't like it, you can quit at any time. Other than myself and your classmates, no one will hear your performance. Whatever you decide, this will not affect your grades. Your parent/guardian said it would be OK for you to do this. Are you interested?

____ Yes, I am willing to participate in this study.

____ No, I am not willing to participate in this study.

Student's Signature

Date

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2009-U-0824
For Use Through 08-11-2010

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BIOGRAPHICAL SKETCH

Lacey Anne Cupp earned a Bachelor of Music Education degree from Missouri State University in Springfield, Missouri, in December 2004, graduating with honors, summa cum laude. While a student at Missouri State, Lacey was a member of the Concert Chorale under the direction of Dr. Guy Webb and studied voice with Dr. Rose Mary Owens. Lacey was also a member of a student-organized female a cappella group.

Upon graduation, she moved to Gainesville, Florida and began teaching chorus and piano keyboarding at Buchholz High School. She then taught general music in Gainesville at Norton Elementary School for 2 years. The following school year, Lacey began teaching general music in Marion County, at Reddick-Collier Elementary School. She then returned to Alachua County and began teaching general music and gifted education at Waldo Community School.

Lacey also owns and operates Kindermusik with Lacey Cupp, as a licensed Kindermusik Educator providing a music education curriculum to preschool-aged children. After completing her Master of Music degree, Lacey plans to continue to teach elementary music.