A COMPARISON OF STRUCTURED VERSUS UNSTRUCTURED COMPOSITION TASKS AS ASSESSMENTS OF FIRST GRADE CHILDREN'S UNDERSTANDING OF ABA FORM AND RHYTHMIC AND TIMBRE DIFFERENCES

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ABSTRACT

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The purpose of this study was to examine the efficacy of unstructured composition tasks versus structured composition tasks in first grade students' understanding of ABA form and rhythmic and timbre differences. Subjects in this study were first grade students from a rural elementary school in the midwestern United States. Subjects were randomly assigned to one of two groups. Subjects were asked to compose a song in three sections with the first and third sections being exactly alike. The structured group learned a shark poem and those subjects were asked to create their own shark composition. The structured group had two white pieces of paper with a piece of red paper in the middle to represent the B section. The unstructured group had three white pieces of paper. The unstructured group simply received instructions to compose a song in three sections with the first and third sections being exactly alike. The students had five minutes to compose their songs and then their final compositions were videotaped. Three elementary music teachers served as judges and scored the compositions. The results showed that groups (structured vs. unstructured) differed in their ability to compose a piece in ABA form that demonstrated their understanding of rhythmic and timbre differences, $t(28) = -2.09$, $p < .05$. The unstructured group more effectively utilized ABA form and demonstrated greater understanding of rhythmic and timbre differences in their compositions.

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TABLE OF CONTENTS

CHAPTER I. STATEMENT OF THE PROBLEM

Introduction

The New Harvard Dictionary of Music defines composition as the activity of creating a musical work (Randel, 1986). Although the term ‘composers’ often refers to adults, children are quite capable of composing music. The National Standards for Arts Education (1994) includes compositional activities as one of the nine content standards every child should know and be able to do in music. When composing, children use higher level thinking skills. They not only use their musical knowledge, but they evaluate it: they analyze, synthesize, problem solve, categorize, and classify musical information in the process of composing music (Wiggins, 1990). Engaging in music compositional activities allows children to make musical decisions independently.

The process of composition differs from improvisation in that musical ideas are manipulated in a process that includes reflection and refinement. Although improvisation involves manipulating musical ideas, it occurs more instantaneously during the process of creating music. Composition allows for reflection so that musical ideas may be changed or altered for the final product (Atterbury & Richardson, 1995; Campbell & Scott-Kassner, 1995). Tafuri (2006, chap. 8) explained that composition and improvisation are similar yet different. Both are involved in creating new music, but composition offers multiple chances for reflection and revision while improvisation is irreversible.

Brophy (1996) suggested having children explore melody during composition after rhythm had been chosen as an assigned parameter by the teacher. He recommended that teachers use parameters, or ‘controls’ to help guide children who are beginning to compose. The purpose of parameters, according to Brophy, is to ensure a successful experience for students. He stated

that parameters can be as many or as few as needed, depending on the knowledge and experience of the students. These parameters may include but aren't limited to restricting choices in rhythm, length/repetition, scale, clef, or the tonic ending note. These parameters allow students to learn the process of composing without being overwhelmed by musical choices. Webster (2000), however, considered the exploration process to be an important part of the compositional process. He challenged teachers to encourage students to think about music as sound rather than be focused too much on performance outcomes. Hickey (2003, chap. 2) agreed with the exploration step in composition but insisted that teachers must move students into specific areas of musical ideas by using parameters in composition assignments. Although Brophy (1996) focused his writings on guided composition, he encouraged limited amounts of exploration within the confines of teacher-assigned parameters. Research seems to present conflicting ideas regarding the use of parameters in children's composition.

Research has been devoted to analyzing the process that children use when composing as well as analyses of the products of young composers (Gromko, 1994; Guilbault, 1999; Kratus, 1989, 1994, 2001; Stauffer, 2002). Kratus (1994) examined the correlation between students' ability to audiate (the ability to see what is only heard or hear what is only seen) and the way they composed as well as what they composed. He discovered that there were links between audiation abilities and certain musical characteristics in the children's compositions. Students who were able to audiate well tended to demonstrate tonal and metric cohesiveness in their compositions. They also tended to explore less in the compositional process. These findings were confirmed in a study conducted by Kratus in 2001.

Stauffer (2002) observed the instrument choices students made prior to composing. It is possible that children choose to write for a particular instrument, or group of instruments based

on prior experience. For example, Guilbault (1999) discovered that young children prefer unpitched instruments that are struck.

Statement of the Problem

Children may benefit from using assigned parameters in their compositions, especially in the early years. However, certain aspects of composition may produce different results when parameters are not enforced. For example, children may choose specific instruments with which to compose simply because they like the sounds of them or they may just enjoy the act of playing certain instruments. They may utilize differing timbres within their musical compositions not only because they are able to perceive different timbres, but because they are capable of choosing among timbres for a particular compositional effect. Factors such as age or musical experience may play a role in children's ability to demonstrate their understanding of timbre in their musical compositions. Timbre is a musical element that may or may not be considered by young composers. To date, this musical element has not been studied empirically.

Purpose of the Study

The purpose of this study was to examine the efficacy of unstructured composition tasks versus structured composition tasks as assessments of first grade children's understanding of ABA form and rhythmic and timbre differences.

CHAPTER II. REVIEW OF THE LITERATURE

Composition is a way for students to demonstrate their musical thinking. In elementary general music classes, composition can also be used to assess student understanding of musical concepts. If students can compose with newly acquired information, then teachers can assess students' understanding of that concept through their music. Composition is but one segment of a general music curriculum (National Standards for Arts Education, 1994; Wiggins, 1990).

Beginning Student Composers: Suggestions for Teachers

Ginocchio (2003) stated that communication is the greatest skill we ever learn. He said that communication is also the most important skill to learn in musical development. Composition is an important tool in helping students learn to communicate through music. Ginocchio's band students spent an average of one day per week engaged in compositional activities. Although this commitment to learning compositional skills took time away from rehearsals, Ginocchio believed that the students demonstrated more musical expression in their playing. They also developed better music-reading skills due to their greater understanding of rhythm and melody through composition. Swanwick (1991) stated that the study of children's musical development compared to the study of children's language development. Children's ability to talk and write was analyzed to determine their understanding of language. Likewise, children's musical compositions could be analyzed to determine their understanding of music and enhance their communication within music.

Composition can be used as a tool for students to study form, texture, and dynamics. Wiggins (1990) suggested that when the music teacher provides opportunities for students to expand musical skills through composition, students respond positively. This may motivate students to learn more or at least continue to learn. It also provides the teacher more

opportunities to evaluate students' comprehension of musical concepts. Once students have experienced large- and small-group composition in controlled settings, Wiggins encouraged teachers to use free composition in the classroom. Free composition allowed students to incorporate any combination of musical concepts they had learned into their musical works. This type of composition allowed students to explore beyond the boundaries of previous composition assignments and allowed them the opportunity to try new ways to utilize their current musical understandings. Allowing students opportunities to share their compositions with others may help students see themselves as composers. Besides sharing compositions with the classroom teacher, students performed original compositions at a concert, at a school assembly, or other special meetings. A public performance, however large or small, may also allow for the further development of critical listening skills.

Hickey (2003) suggested that students begin by exploring musical sounds in order to stimulate creativity in their first compositions. Once that creative freedom is experienced, focus on the organization of music is needed. Basic musical forms may be used to continue exploring the effects of musical sounds in composition. Subsequent assignments might focus on specific elements of music such as timbre, texture, melody, or accompaniment. Assignments progress to more abstract concepts such as balance, tension and release, or unity and variety in music followed by the highest level of using larger musical forms. Each level utilizes previous levels and may circle back before moving on to the next level, occurring in one year or multiple years.

Hickey (2003) identified four possible composition outcomes in the classroom based on the assigned parameters and craftsmanship rules assigned by the teacher: a "rule-bound" composition, a non-musical exercise, a creative composition, or chaotic "noise" (p. 43). An ideal creative composition occurs in a balanced experience of the two assigned factors of parameters

and craftsmanship rules. By having enough parameters and rules to guide a student yet giving them choices to help them be creative, the teacher offers opportunities for the students to feel pride in their work and develop intrinsic motivation to compose music.

Brophy (1996) suggested the use of guided composition in music classrooms. He defined this activity as composing with as many parameters as the young composer needed. These parameters may restrict rhythm, key signatures, beginning and ending notes, instrumental choices, or any other musical element the teacher feels may benefit students in the compositional process. According to Brophy, guided composition allows teachers to provide step-by-step instruction to students who are just beginning to compose. By putting some controls on the students' compositions, the teacher can help students succeed at composing. Guided composition also offers teachers the opportunity to assess student understanding of musical concepts based on whether they can use them appropriately in compositions.

Thoms (1987) suggested various ways to provide students with the opportunities to compose. He suggested that elementary children should improvise narrative works on Orff instruments, improvise with a variety of instruments using an electronic piece as inspiration, set poems to music, compose a piece based on a simple harmonic progression, or manipulate collected environmental sounds on tape (p. 28). He argued students can learn composition through experiences such as improvisation or developing variations on a theme. He also suggested encouraging music ideas by using other disciplines. This could include visual art, poetry or other literary sources, dance, and other music.

Individual Differences and the Development of Music Composition Skills

When Burnard (2000) studied the meanings children gave to their experiences in improvisation and composition, she discovered that children's musical training was not a dominating factor in their musical understanding. Their creative intention, or what they intended to create with their music, was the greatest factor in determining children's perspective on improvisation and composition. Burnard suggested that educators encourage children to think critically and creatively by assisting them in the activity of creating music.

Kratus (2001) described composition as the process of creating musical ideas, modifying those ideas, and choosing from available musical options. Some of those available options are determined by the natural restraints offered by the instrument being used in the composition. The researcher studied melodic instruments and whether available pitches affected children's compositions – both during the process and in the final products. He suggested that although students under nine years of age can learn to compose with meaning, if they don't have experience and instruction in composition, they may have difficulty composing songs that they can later reproduce. Kratus' study included 48 fourth graders from a suburban elementary school in the midwestern United States. The subjects had no formal instruction in musical composition. The mean age of the subjects was 10 years, 2 months. There were 29 females and 19 males in the study. The students were asked to each compose a song on a xylophone which was organized in one of four ways: (1) pentatonic with five bars, (2) pentatonic with ten bars, (3) melodic minor with five bars, and (4) melodic minor with ten bars (p. 296). They were asked to begin their song on the pitch D, which was labeled "1." They were given ten minutes to work on their songs but did not have to use all of the allotted time. When finished, students were asked to play their song twice. Four people who were pursuing graduate degrees in music education independently

judged the subjects. Two judges analyzed the process and categorized the results into exploration, development, repetition, and silence. Two other judges rated the product variables in the areas of tonal cohesiveness, metric cohesiveness, use of melodic patterns, use of rhythmic patterns, and replication. The results of this study suggested that the musical materials made available to children when they compose affect certain aspects of the compositional process as well as certain characteristics of their musical compositions. Students who were offered fewer tones spent less time exploring during the compositional process, but they didn't necessarily spend more time developing musical ideas. Students who composed with 10 tones created longer songs although they replicated them less successfully. These results indicated that it may be best for children to have a large pitch set to use if the teacher's intention is to engage children in musical exploration. Conversely, a limited pitch set may be more beneficial for compositional activities that focus on developing a musical idea.

Swanwick and Tillman (1986) observed that preschool children seem intrigued and delighted with the various sounds they can create in music. This would point towards the assumption that children would soon learn to purposefully demonstrate these sounds, or timbres, in music. Swanwick and Tillman hypothesized that children follow a natural sequence of musical development. They collected and analyzed compositions from seven children aged three to nine. Each child was given several musical opportunities involving composition. They were asked to make up a pattern on one or two maracas then make up a pattern on the tambourine. They were asked to make up a piece from the child's instrument choice, chosen from instruments familiar to the child including the maracas and tambourine already played. They were asked to make up a pattern on the child's instrument choice, chosen from instruments unfamiliar to the child. Next they made up a pattern on the chime bars of E, G, and A with one mallet and then made up a

piece with a xylophone pentatonic scale and two mallets. Then they were asked to make some music with a metallophone scale of C major and two mallets and then make up a piece with a full chromatic scale and two mallets. They were asked to play something like 'It is sunny and I am happy' on any of the instruments. Finally, they were asked to sing a song that was self-composed, with words or humming or singing on 'la'. All of these musical encounters were tape recorded and the child was later asked to repeat each task. This provided information on the child's musical memory as well as information about which musical elements in the composition remained. A tape was prepared that included typical work from children ages three to nine. Three samples from the second recordings were used in random age order. Three independent judges listened to the tape and were asked to identify the ages of the children on the tape. The judging results indicated that observable musical differences did occur between ages of children. To further expand on this study to determine if this would occur similarly in a larger sample, this study continued for four years with 48 children who produced several hundred compositions. A definite order of musical development stages emerged.

Swanwick and Tillman identified eight modes of development that children typically go through when learning music, including music composition. These modes seem to indicate the musical development of children through their capability to recognize and use elements of music. Children begin in the sensory mode from birth to age three where they tend to explore and experiment with musical instruments and vocal sounds. They are particularly impressed with timbre and dynamics at this level. Children (age 4-5) next move into the manipulative mode where they gain experience in handling instruments and develop technique. They begin to organize a regular pulse developed from the natural structure of the instruments. Children (age 5-6) thirdly move to the mode of personal expressiveness. This mode is typically demonstrated

through vocal expression by changing speed and volume. The fourth mode is the vernacular. Children (age 7-8) gravitate toward conventional musical organization like standard metrical phrases of two, four, or eight bars. The fifth is the speculative mode. Children (age 10) begin to explore structural possibilities and try to contrast established musical ideas. The sixth mode is the idiomatic. Children (age 13-14) develop the musical ideas that at a previous stage were musical surprises into recognizable musical styles or models. Contrasts and variations are specifically used rather than simply discovered through exploration. The seventh level (age 15+) is the symbolic mode. Specific pieces of music, or certain phrases or chord progressions become significant to the child. Individuals become increasingly aware of the affect of music and tend to communicate with others and reflect on musical experiences. The eighth mode (mature age) is systematic. Music becomes part of the child's value system and may be embraced through the concept of history, sociology, musicology, psychology, or philosophy. The eight modes are subcategories that move in the same direction: materials, expression, form, and value. These modes are ongoing, so development from one level to another was described as a spiral.

Swanwick (1991) analyzed the 1986 study from which he and Tillman had observed a definite sequence of development in children's musical learning. The original study involved one school, so Swanwick chose to replicate the study in 1991 to determine if the sequence applied to only the school of students in the original study, or if the results seemed to be universal. The second study produced the same sequence of development that was originally observed. However, as the author suspected, the pace that students progressed through the levels varied based on musical experiences in the school system. The children who participated in the tradition of musical composition had a more rapid progression through the levels of development. This

seems to indicate that music instruction in composition needs to be included in schools in order for children to more quickly progress in musical development.

Webster (2000) suggested that the process of creativity should be ongoing rather than only encouraged after fundamental music structures are learned. He contradicted the music teachers who claim that the primary way for students to experience and understand music is to perform it. He argued that the most successful teachers are those who encourage creative thought and understanding as music is experienced. Successful teachers ask probing questions to encourage students to think about and analyze different aspects of listening to and making music. Webster recommended that educators focus on three broad areas in teaching music: (1) how students respond to and think about music while listening to it, (2) how students think while creating new music in compositions and improvisations, and (3) how students approach a performance of music in new ways (p. 2). In this teaching style, students are never too young or too inexperienced to explore musical concepts. Through this process, students will hopefully focus on the effect of expressive music rather than simply the mastery of technical difficulties.

Kratus (1989) studied the ability of seven-year-olds to compose music rather than improvise. He argued that their inability to replicate their compositions and their possible interest in the process rather than the product may inhibit their compositional processes. In this study, there were 60 seven-, eight-, and nine-year-old subjects with ten boys and ten girls in each age-group. The subjects were randomly chosen from a suburban elementary school in Cleveland, Ohio. Subjects were excluded from the study if they had received piano or organ lessons or if they had an electric keyboard at home. Subjects were given a few tasks to orient them on the keyboard before beginning the assignment such as playing steps, leaps, and repeated notes the length of the keyboard. Each subject was asked to compose a song beginning on middle C

(marked “X”). They were limited to using only the white keys of the keyboard. They were each given ten minutes to compose their song. The subjects had no formal instruction in musical composition. When finished, subjects were asked to play the song twice for tape recording. Two judges, who were pursuing graduate degrees in music education and were considered by the author to be excellent musicians, independently judged the compositions. The results of this study suggested that children’s strategies for composing music change with age. Younger children seemed to explore more ($p < .001$) while older children seemed to develop ($p < .001$) and repeat ($p < .01$) musical ideas more while composing. Students who developed ideas and used repetition and silence during the compositional process replicated their songs more accurately than those who explored more. There were no significant differences between girls and boys in how they used their time during composing. All 60 subjects had no problem composing on a keyboard for ten minutes, so Kratus suggested that perhaps children as young as seven can begin to improvise while children as young as nine can begin to compose with meaningful shaping of ideas.

Gromko (1994) studied children’s invented notations which represented their musical understanding as well as an interpretation of what they heard. The sixty subjects were preschool and elementary children from a private elementary school and a public elementary school in the midwestern United States. All subjects were tested in groups for perceptual discrimination of tonal and rhythmic patterns using the *Primary Measures of Musical Audiation* (Gordon, 1979). Subjects were tested individually for musical ability and invented notations. Each child was taught to sing a two-phrase folk song and then asked to play it on bells. The children were tape-recorded singing and then playing after they could perform each task twice without error. Subjects were then asked to write they way the song sounded so that they could remember how

to play it on another day or so that a child not present could tell how the song sounded based on what they saw written down. The children were then asked to sing the song and conduct it using their notation. They could then change their notation if they desired. Three independent judges scored the recordings and the notations. It was determined that children's ability to discriminate between tonal and rhythmic patterns was directly related to their performance skills. These abilities were also found to be related to a child's age. Children who could recognize pitch and rhythmic patterns, and who could reproduce pitches and rhythms, were capable of creating notations that reflected both pitch and rhythm in music. Since children are capable of recognizing variances of pitch and units of rhythm, it seems possible that they may also be able to recognize nuances in timbre.

Children Identifying and Composing with Timbre

Research has shown that children can differentiate between timbres at a very young age. Fullard (1967) studied preschool children's ability to aurally discriminate between orchestral instruments. Subjects were three- and four-year-olds including four girls and six boys with a mean age of 51 months. The subjects were from middle-class or professional families and half of the subjects had experienced some contact with music. The instruments used were divided into two groups. The violin, clarinet, and violincello were Set A; the flute, viola, and French horn were Set B. The instrumental excerpts were tape recorded and then the tape was edited to include verbal instructions for the subjects. Photographs of the instrument sets were each placed on white poster board with a hole cut in the bottom with a cup under the hole for the subjects to receive a piece of candy for correct answers. The researcher gave each subject a pretest which consisted of the child singing a familiar nursery song with the researcher to relax the subject. The researcher then asked the subject to identify each of the six instruments, of which samples were then played.

Positive comments were applied when correct answers were given; neutral comments were applied to incorrect answers. The subject was given a piece of candy and the score was recorded. After the pretest was completed, the subject was introduced to the instruments. The subject was taught the names of the instruments and questioned on those instrument names when shown the instrument pictures. Subjects were taught how to touch the picture of an instrument and say the name of the instrument. When this process was correctly performed several times, the subject received a reward and was ready to begin the project. Tape recorded instructions were given for the subject to touch the instrument they hear and say its name out loud. It was discovered that some subjects tended to touch the instrument without saying the name, but if the subject named the instrument when prodded, points were given. A posttest was given that was the same as the pretest. Subjects had to correctly name each instrument in order to receive a correct score. It was discovered that learning had definitely occurred from pretest to posttest since each subject's score improved. Fullard (1967) suggested that a larger sample be studied and a long-term study be conducted to determine if the learning was temporary or more permanent.

Wooderson and Small (1981) studied the abilities of first and second graders to choose the correct of two instruments when a sound sample was played. Subjects were 789 students from three rural elementary schools. Subjects were shown a picture of two instruments while listening to a ten second excerpt of one of the instruments. The subjects were to mark an 'X' in the square representing the correct instrument on their answer sheet. The instruments were paired within their instrument families and the pictures were representative of size differences. Twenty instruments were tested which made for ten pairs of pictures. The ten pairs were each shown twice in random order although each instrument was only played once. Subjects were offered two practice questions concerning the piano and guitar to determine their understanding of the

task. Pairing of instrument pictures was designed to bring correct responses; for example, subjects saw a piano and trumpet while hearing the piano. Subjects who answered incorrectly (n = 89) were considered to not understand the task and their answers were excluded from the final sample pool (N = 700). The testing results were analyzed in two ways: (a) the total number of correct items and (b) the total number of correct pairs. First and second graders both answered more individual test items correctly than they did test pairs. Second graders also answered more items correctly in both analyses than did first graders. Older children were more accurate in their recognition of the oboe and French horn, but grade level was not a factor in the accuracy of children's recognition of the flute, snare drum, and clarinet. The overall pattern of correct instrument identification was similar between first and second grade. Although children seemed to recognize various timbres, the question remaining was whether or not they would incorporate contrasting timbres in a composition task.

Instrument Preferences in Children's Compositions

Teaching children to compose involves many teacher decisions, but student composers have choices as well. One of the choices they need to make when learning to compose is which instrument, or instruments, to use. Stauffer (2002) noted that although most of the students she studied in middle school composed for their own instrument, many of them did not. It seemed that instrument choice may have reflected the student's own competency on his/her own instrument. Since this was a small study, it is difficult to determine without further research what led students to write for an instrument other than their own. Stauffer also observed that student compositions contained many links to both their musical experiences and their life or culture experiences.

Kersey (1966) studied whether an exploratory instrumental music program affected subjects' aural perception of instrumental timbre. Two schools were involved in the study: one who participated in the instrumental music program and one who did not. The school which participated in the experimental instrumental music program had been doing so for a few years, so a pretest was considered inappropriate. Third graders studied percussion and then violin for approximately four months each. Fourth graders studied clarinet and then trumpet for approximately four months each. The experimental group contained 125 subjects and the control group had 100 subjects. The Musical Environment and Attitude Scale (created by the researcher) was applied to both groups and no statistical difference was discovered between the two groups. The Test of Aural Perception of Instrumental Timbre was also given to both groups. A significant difference between the two groups was discovered, however, the author did not indicate the direction of the difference.

Research seems to indicate that teachers typically assign specific instruments for students when they compose or let students make their own choice of which available classroom instruments they use in composing (Wiggins, 1990). However, little research has investigated whether students choose instruments for musical reasons or simply because they are comfortable with those instruments. It is understandable that when given the choice of instruments with which to compose, students choose instruments that are familiar to them. It may be the case that students demonstrate their understanding of musical concepts more successfully when given instruments that are developmentally appropriate.

Guilbault (1999) discovered that children preferred struck unpitched instruments (72%) over pitched and shaken instruments when improvising. Subjects for this study were 32 children from three to six years of age who were participating in a community music school program in

Flint, Michigan. Each subject improvised on a struck unpitched instrument, a pitched instrument, and a shaken unpitched instrument. Subjects were then asked to tell which instrumental timbres they preferred. Independent judges rated each improvisation for kinesthesia, craftsmanship, closure, flexibility, and involvement. Guilbault defined kinesthesia as the degree of gross and fine motor movements involved in sound production; craftsmanship was defined as organizing the music in a seemingly purposeful order; closure was defined as the music seeming to convey a sense of conclusion; flexibility was defined as using a variety of techniques used to produce sounds; involvement was defined as the degree of focus and absorption in the music making. The children's time spent improvising as well as verbal responses were analyzed to determine the preferred instrument timbre of each child. When children improvised on preferred instruments, they scored higher on craftsmanship, flexibility, and involvement than when they improvised on instruments they liked less. This suggests that children's improvisational products are affected by their instrument timbre preferences. Children tended to organize music more purposefully, vary their techniques for producing sounds, spend more time improvising, and be more focused in the music making when playing preferred instruments.

In Northwestern Ohio, the K-12 Fine Arts Course of Study (Wilhelm, 2004) recommends that primary students be able to identify and demonstrate contrasting elements of music, identify classroom instruments visually and aurally, and identify similar terms in the arts such as pattern and texture. If young composers are guided with sounds and then given the task of demonstrating contrast in ABA form using percussion instruments, their understanding of timbre usage should be clear in their compositions. If young composers are given the task of demonstrating contrast without guidelines, they may or may not successfully compose using contrasting sections of timbre.

In conclusion, research has begun to show the benefits of composition being a regular part of children's music education. However, details within the arena of composition have yet to be thoroughly examined. The idea of timbre being used in young children's compositions has not been studied. Whether or not children consciously choose to use specific timbres within their compositions remains to be studied.

CHAPTER III. METHODOLOGY

Subjects

Subjects participating in this study were volunteers from first grade music classes at a rural public elementary school in the midwestern United States where the researcher of this project was employed as a music teacher. This elementary school consisted of students in pre-kindergarten, kindergarten, and first grade. The total enrollment for this elementary school was 185 students with 82 in the first grade. There were four first grade classes. Pre-kindergarten and kindergarten students met in music class one time per week; first grade students met twice per week for a total of 70 minutes of weekly music instruction.

Representatives from each of the four classrooms participated in the study (n = 4, n = 6, n = 9, n = 12).The research project was explained (see Appendix A) to all first graders (N = 82) during regular music class. Students were then able to ask questions about the project. Students who were interested in participating signed a student consent form (see Appendix B) and took home an explanatory letter (see Appendix C) with an additional information consent form for parents (see Appendix D). Students who returned both completed forms participated in the study (N = 31). The mean age of the participating subjects was seven years and five months. The final subject pool consisted of 21 females (68%) and 10 males (32%).

Method

The subjects included first grade participants (N = 31) from a rural public elementary school in the midwestern United States. The mean age of the participating subjects was 7 years and 5 months. Subjects consisted of 21 females (68%) and 10 males (32%). Students were randomly assigned to the structured group (n = 16) or the unstructured group (n = 15).

Procedure

Individual testing occurred outside of music class during lunch, during afternoon recess, or before school. Non-pitched percussion instruments were presented on the table for subjects to choose from for use in their compositions. The instruments were limited to woods and metals (woodblocks, guiros, claves, triangles, cymbals, finger cymbals, jingle bells). Because the study focused on children's use of timbre, the choices of instruments offered contrasting tone colors and were instruments with which the subjects were familiar. Subjects were randomly assigned to the structured group (n = 16) or unstructured group (n = 15). The structured group received guidance designed to lead them to compose a song in ABA form using contrasting timbres in their compositions (Appendix E). They learned a short poem (Prelutsky, 1993, p. 33) about a shark which included the word 'crunch' in it to represent a sound. Subjects in the structured group were then asked to create their own shark composition to share with the researcher.

All subjects were given identical verbal instructions for their compositions (see Appendix E). The structured group was shown three pieces of paper (white-red-white) on the table to remind them of the three sections in their composition with the red paper representing the contrasting section – though they were not specifically informed about the purpose of the contrasting colors. The unstructured group simply had three white pieces of paper on the table. The papers were large enough for the students to place the instruments on them if they chose to organize their composition plans in this manner. After giving instructions, the researcher answered any questions the subjects may have had. Each subject was given five minutes alone in the room to compose a short piece of music using any or all of the instruments provided. When the subject was finished and came to the door to tell the researcher that he or she was finished, or

the time limit was reached on the researcher's timer, subjects were videotaped performing their compositions. The videotapes were then presented to three judges for scoring.

Materials

The quality of the compositions was assessed by three elementary music teachers using a rubric developed by the researcher (see Appendix G). High quality compositions had three sections (possible three points), one repeated section (possible two points), similar rhythmic motives in the repeated section (possible four points), similar timbres in the repeated section (possible four points), contrasting rhythmic motives in the B section (possible three points), and contrasting timbres in the B section (possible three points). The highest possible score was 19, signifying accuracy in adherence to ABA form and understanding of rhythmic and timbre differences.

CHAPTER IV. RESULTS

The purpose of this study was to examine the efficacy of unstructured composition tasks versus structured composition tasks as assessments of first grade students' understanding of ABA form and rhythmic and timbre differences.

Individual subject sheets from each judge were scored and tallied. Cronbach's *alpha* was used to determine interjudge reliability and results indicated that, for the most part, judges were consistent in their ratings (α=.89). One judge seemed to repeatedly score the compositions differently from the other two judges; however, given an *alpha* of .89 all three judges were used in the analysis of the data. Thus, individual scores from all three judges were added together to create a composite score. The resulting data allowed for statistical comparisons between the structured and unstructured groups on their composite scores which assess form, rhythmic motives and timbre differences. Subject number 23 was eliminated because the judges could not hear the composition on the video tape. Means and standard deviations for both groups are presented in Table 1.

Table 1

Means and Standard Deviations of Composite Scores

Group Composite	N	M	SD	*t*
Structured	16	35.37	18.34	-2.09*
Unstructured	14	47.07	10.05	

*$p < .05$

An independent t-test was used to examine whether or not subjects' means on the composite score differed by group (structured/unstructured). Results indicated a statistically significant difference between groups $t(28) = -2.09$, $p < .05$. Table 1 shows that the structured

group’s mean composite was lower than that of the unstructured group. The unstructured group produced compositions that more effectively utilized ABA form. They also demonstrated greater understanding of rhythmic and timbre differences in their compositions.

CHAPTER V. DISCUSSION

Summary

The purpose of this study was to examine the efficacy of unstructured composition tasks versus structured composition tasks as assessments of first grade children's understanding of ABA form and rhythmic timbre differences. Subjects in this study were first grade students from a rural elementary school in the midwestern United States. Subjects were randomly assigned to one of two experimental groups. Subjects were asked to compose a song in three sections with the first and third sections being exactly alike. The structured group learned a shark poem and those subjects were asked to create their own shark composition. Both groups were provided with three pieces of paper on the table to remind them of the three sections. The structured group had two white pieces of paper with a piece of red paper in the middle to represent the B section. The unstructured group had three white pieces of paper. The unstructured group simply received instructions to compose a song in three sections with the first and third sections being exactly alike. The students had five minutes to compose their songs and then their final compositions were videotaped. Three elementary music teachers served as judges and scored the compositions on the use of sections and whether the A sections were identical with regards to rhythm and instruments used and if the B section was different from the A section in rhythm and/or instrument timbre.

The results showed that the mean composite scores for the structured group were statistically significantly lower and scores more varied than the mean composite scores of the unstructured group, $t(28) = -2.91$, $p < .05$. The significant difference found indicated that subjects in the unstructured group were more successful in producing compositions that utilized

ABA form as well as contrasting rhythms and timbres in the B section than subjects in the structured group.

Conclusions

My results support previous research that reported very young children are capable of recognizing differing instrumental timbres (Wooderson & Small, 1981; Fullard, 1967; Swanwick & Tillman, 1986). Subjects often questioned whether they needed to use all of the instruments or only two instruments. They also questioned how many notes they needed in their compositions. Both of these questions may be attributed to the type of compositions they were accustomed to creating in music class. One subject created a rather complex composition. She didn't receive full points from the judges because her rhythms were not very clear and her choice of instruments was not exactly repeated. This could possibly be due to the fact that only two instruments were available for each type of instrument (two cymbals, two guiros, etc.). She used metal instruments for her A sections and wooden instruments for her B section. She also utilized an ABA form within each of the three sections. This subject also made up a poem; it was about a cat and a mouse. This subject makes it seem possible that some students simply extend what is being taught and can transfer their understanding into varying formats. It may also be possible that this extension of ideas was sparked by the shark poem.

Many subjects questioned where the pencil was to write down their compositions. Their idea of creating music seemed to involve writing it down even though most of their classroom experience in composition had not involved paper and pencil. Some questions focused on how to use the papers on the table, or if they should/could place their instruments on their papers. The three sheets of paper were used by many subjects, but some did not use the papers to organize their compositions. Some laid their instruments on the three papers and used them accordingly in

their compositions. Others used the first two papers and returned to the first paper for the third section. Others changed their instruments for each section but stood in one place without using the papers. It was not possible to determine whether the students who chose not to use the papers simply did not understand why or how to use the papers, or if they decided against using them for other reasons. After receiving instructions, one subject in the structured group simply stated, "Oh, like ABA." This subject created an ABA composition using contrasting timbres. Another subject in the structured group interrupted the researcher's instruction and observed that the papers were the same color for those sections. She also made a poem and then created an ABA composition using contrasting timbres. Yet another subject from the structured group touched the white papers and asked if those two had to be the same. This subject created an ABA composition but did not use contrasting timbres. Based on these comments or questions and the resulting compositions, understanding of the task obviously varied between subjects. Perhaps the three sheets of paper made it clear to the subjects how to compose in ABA form, but without specific instructions to use contrasting timbre, the subjects may or may not have thought of timbre possibilities.

Based on the outcome of the compositions, all children understood the task. All subjects but one who verbalized questions were from the structured group. The single subject from the unstructured group wondered if two instruments should be used. Although students who performed their compositions as practiced or similar to their practice tended to score higher on the timbre item, there was not a definite pattern in subjects who practiced versus subjects who performed without any visible practice. Subjects who performed as practiced included a few members who scored very low on the item of timbre; likewise, subjects who did not practice before performing included a few who scored high on the item of timbre.

Recommendations for Further Research and Implications for Music Education

Further research is needed to determine how young children transfer their understanding of ABA form, rhythmic motives and timbre differences to their compositions. Further study is also needed on what kind of structure helps or hinders children of this age when composing. Research is needed to determine how very young children work through the process of composition in comparison to their final products. Some educators believe children need a certain amount of knowledge in music elements before composing (Brophy, 1996). Others argue that children can learn those elements as they compose (Webster, 2000). Further study in this area would help resolve this debate. Since composing in ABA form was not a problem for subjects in this study and they were very excited to compose music, educators definitely need to consider expanding their composition programs in the primary grades. My study has shown that composition can be effectively used as and assessment tool to evaluate children's understanding of certain musical elements.

Although some research has been conducted in the area of children composing music, perhaps it is time for more specific research that delves into why children make certain compositional choices. Knowing why children tend to make specific choices when composing would point to actual musical knowledge versus 'liking how it sounds'. This would validate the belief that music composition strengthens and demonstrates children's understanding of musical elements. This type of research would also help guide music educators on how to approach composition in the music classroom for optimal educational results.

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Appendix A

Teacher Script Explaining Consent Form to Students

I am taking classes at Bowling Green State University to get my Master's Degree. I am doing a study about 1st graders composing music. All of you have the chance to participate in this study if you want to. You don't have to; it is not for a grade. You will only do it if you want to and your parent(s) say it's okay. If you are in this study, here is what I will ask you to do:

I will tell you what kind of form I want you to make your song in, just like we do in class. It may be in ABA form, ABAB form, ABCD form, etc. You will have instruments to choose from to make up your song. It will probably take about 5 or 10 minutes and we will do it during recess, lunch recess, or before or after school if you don't ride a bus. I will be videotaping you while you make up your song and also when you perform it for me. Nobody will watch the tape except for me and my teacher at Bowling Green. When I am done with this study, I will throw the tapes away.

If you want to be in this study, you will need to sign one of these papers that says "I will participate in Mrs. Wiemken's study." Your parents will sign their own form after they read my letter and you will bring their permission slip back to me before we can start.

Does anyone have any questions?

Appendix B

Student Consent Form

Student Consent Form

I will participate in Mrs. Wiemken's study.

_____

(participating student's signature) date

Appendix C

Parent Letter

April, 2006

Dear Parents,

I am currently a student at Bowling Green State University working towards my Master's degree in music education. I am conducting a research project for my thesis. I am investigating whether or not 1st grade students can demonstrate understanding of different instrument sounds using an ABA (same-different-same) form in their musical compositions. I am also researching whether students are more successful when instructed to use contrasting sounds or if they will naturally use them when given various instrument choices. The results will be used to help teachers set guidelines for classroom composition projects. Participation in this study is completely voluntary and in no way will affect your child's grade or class standing in music.

Participating children will be asked to compose a piece of music in ABA form (same-different-same) with a choice of instruments. One group will learn a brief poem containing words that describe a sound (e.g., "crunch."). They will then be asked to "make a song" that fits the word. After they have created their small song, they will be instructed to make a bigger song in which the first and third parts sound exactly the same and the middle part sounds very different. The other group will be given the exact same instructions for making a song. They will not learn the poem. Each child will be given 5 minutes to prepare their composition while being videotaped. I will also videotape their final music. The videotapes will be stored in a locked filing cabinet in my home and will be destroyed when my thesis is accepted by the Graduate School. I will be conducting this research during lunch recess or as students are available. There are no risks to the students greater than encountered in daily life.

Your child's information will remain confidential and his/her identity will not be revealed in any published results. Only members of the research team will have access to any information you provide. Students who choose to participate may withdraw from the study at any time without penalty. Students and parents may also ask any questions concerning the study and may request a summary or a copy of the results.

If you have questions about this study, feel free to contact me or my thesis advisor:

Patty Wiemken phone: 419.782.7941
e-mail: tin_aca_pwi@nwoca.org
Dr. Nancy Sugden phone: 419.372.2625
e-mail:nsugden@bgnet.bgsu.edu

If you have questions or concerns about the conduct of the study or your child's rights as a research participant please contact the Chair of the Human Subjects Review Board at BGSU.

HSRB phone: 419.372.7716
e-mail: hsrb@bgnet.bgsu.edu

Thank you,
Patty Wiemken
Noble Elementary Music Teacher

Appendix D

Parent Consent Form

Parental Consent Form

If you give permission for your child to participate in my study, please fill out this form and have your child return it to me at school.

I have read this letter and have had all my questions answered. I agree that _____ may participate in this study.
(child's name)

_____
(parent/legal guardian signature) date

Appendix E

Directions for Subjects

Structured Directions

Teacher: I have a poem for us to learn:

Never never disagree
never never disagree
with a shark beneath the sea,
lest you feel a sudden crunch
and discover you are lunch.

Child will perform poem with a touch chart that indicates rhythmic beats.

Teacher: I would like you to make up a shark poem of your own.
Child will compose a shark poem or song.

Teacher: Now I would like you to make your own song in three parts.
Teacher reveals visuals to support a three-part composition with the 1st and 3rd papers the same.

Teacher: The first and third parts should be exactly the same. The middle part needs to be VERY different from the first and third parts. The video camera will stay on while you are working. You will have 5 minutes to make it up and if you are finished early, just tell me. Then you will play your music for me. Do you have any questions?

Unstructured Directions

Teacher: I would like you to make up a song of your own. You need to make your song in three parts.
Teacher reveals 3 blank pieces of paper to serve as visual cues.

Teacher: The first and third parts should be exactly the same. The middle part needs to be VERY different from the first and third parts. The video camera will stay on while you are working. You will have 5 minutes to make it up and if you are finished early, just tell me. Then you will play your music for me. Do you have any questions?

Appendix F

Judging Sheet

Judging: Student #_____

Please circle one answer for each question.

1. This composition contains:

no sections two sections three sections

Stop here if there are no sections.

2. This composition contains:

no repeated sections one repeated section

Skip to question 5 if there are no repeated sections; otherwise, continue.

3. The rhythms in the repeated section (A) are:

not alike somewhat alike very much alike exactly alike

4. The instruments used in the repeated sections (A) are:

not alike somewhat alike very much alike exactly alike

5. The rhythms in the B section are:

no different from A similar to A very different from A

6. The instrument timbres in the B section are:

no different from A similar to A very different from A