Pedagogy in Practice: Lived Experiences of Kodály-Inspired Music Educators

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Pedagogy in Practice: Lived Experiences of Kodály-Inspired Music Educators

A DISSERTATION
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION
OF THE UNIVERSITY OF ST. THOMAS
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By
Leigh Ann Mock Garner

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FOR THE DEGREE OF
DOCTOR OF EDUCATION

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Pedagogy in Practice: Lived Experiences of Kodály-Inspired Music Educators

We certify that we have read this dissertation and approved it as adequate in scope and quality. We have found that it is complete and satisfactory in all respects, and that any and all revisions required by the final examining committee have been made.

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Final Approval Date
Dedication

This dissertation is dedicated to my husband Bill, and my children Liam and Landon. Without their support and patience, my dream of pursuing a doctoral degree would not have been possible. I also dedicate this work to all Kodály-inspired music educators whom work tirelessly to provide the finest musical experience for young musicians. Their dedication to teaching will continue to inspire my own work as a pedagogue and scholar.
Acknowledgements

My dream of pursuing and completing doctoral studies would not have been possible without the support of family, friends, and colleagues. First and foremost, I want to thank my husband Bill for his unending support throughout my studies. He willingly took on full-time parenting of our sons during the final writing process. Throughout my coursework, he edited my papers and contributed his own educational perspectives, adding clarity to my work. I also want to thank Liam and Landon for being very patient with me throughout this process as well. To my parents Jim and Sharon, I am eternally grateful. They taught me to value and appreciate the privilege of pursuing post-graduate degrees in my field. In addition, they spent countless hours editing this dissertation and provided sound feedback throughout the process.

I would like to thank the Kodály-inspired music educators who participated in this study. Their expertise in the field of music education as well as their openness and candor throughout the process are what made this study real. Their obvious love of teaching and their students, as well as their insights into quality pedagogic processes promise to contribute to the field of Kodály-inspired music education.

I want to express my sincere appreciation for the expert guidance of my committee members, Dr. Eleni Roulis and Dr. Bruce Kramer. Both provided me with the confidence to tackle the world of Grounded Theory and Phenomenology, a process in which I was able to examine how theory guides practice, and also how practice guides theory.

Finally, my deepest appreciation goes to my dissertation chair, Dr. Carroll Gonzo, Chiuminatto Distinguished Professor of Research in Music Education. I’ve always known that I would pursue a doctoral degree; he was instrumental in making it happen. For the past six years Dr. Gonzo has served as a mentor, confidante, and “chief editor.” His love and expertise in the
field of scholarly writing is infectious. It is my intention to honor him by applying all that he has
taught me in my own work as a teacher and scholar.
Abstract

The problem of this dissertation was to identify and analyze certain learning modalities to determine to what extent they are linked to and function in the teaching of musical elements when nested in a Kodály-inspired instructional sequence. Specifically, what are the pedagogical characteristics and implications for the teacher and, by extension the learner when engaged in the teaching/learning of aural, kinesthetic, oral and visual activities in the preparation and practice of musical elements?

The research methods employed in this study were structured based upon the nature of phenomenology, defined by Creswell (2007) and Van Manen (1990), and grounded theory, defined by Charmaz (2006). The data were generated from classroom observations, interviews with teacher participants, and a research journal. Rich description of the phenomenon of Kodály-inspired music instruction was the basis for the development of theoretical structures about aural, oral, kinesthetic, and visual learning.

The findings in this study indicate that the intentional creation and implementation of modality-based musical learning experiences is critical to developing students’ abilities to intellectually process musical elements. Further, the following modalities sequence was identified as a result of the collected data: aural, kinesthetic, oral, and visual. The data that emerged from the modality-based learning experiences served as the genesis for formulating the following eight theoretical constructs, which capture the essence of the major findings for this research: 1. Educators must develop aural learning experiences that lead to aural literacy. The pedagogical aural activities that lead to these experiences are rooted in and extrapolated from a sequential curricular structure. 2. Teachers must design aural learning experiences in which the
students are asked to rely on information embedded in their aural memory to identify known and unknown musical information, e.g., melodic and rhythmic elements and/or musical elements.

3. Physical movement in the teaching/learning process is a pathway to the cognitive processing of subject matter. 4. Teachers employ physical movement as a pathway to achieving students’ musical expression, performance, and demonstration of overall knowledge of the subject of music. 5. Oral learning experiences are created by teachers to help students verbally articulate their ability to process cognitively the nature of music material. 6. Teachers implement oral learning experiences with the intent to elicit students’ cognitive abilities to process the symbolic function of language executed through performance of the subject. 7. Leading students to unlock the symbolic language of music visually requires pedagogical aural, kinesthetic, and oral precursors in the acquisition of the visual understanding and music making. 8. There is a symbolic relation among aural, kinesthetic, oral, and visual learning that combine to complement and reinforce each other to inform the teaching/learning process of music.
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CHAPTER 1

Introduction

A primary goal of an educational system is to cultivate skills in teachers enabling them to integrate theoretical structures with current teaching practices. According to John Dewey (1897) quality instructional processes should be an outgrowth of teachers’ consistent questioning of fixed belief systems, norms, and terminologies. The organic nature of the educational process demands this questioning by educators and guides them in creating a learning environment that has relevance to the individual needs of students.

Dewey’s commentary is meaningful for current educational practices. A teacher’s knowledge of the individual learning styles of students is one component that guides instructional practice. Modality-based instruction—the teaching of aural, oral, kinesthetic, and visual learners—is critical to fostering successful cognitive processing in students (Barbe & Swassing, 1979). Until the latter part of the twentieth century, modality-based instructional practices were reserved for the special education setting. However, researchers quickly discovered that the same principles for teaching aural, oral, kinesthetic, and visual learners could be applied to general education as well.

Dunn and Dunn (1992) state that children process information two ways. The first is through global processing whereby students process an entire concept and concentrate on the details of the concept later. The second is through analytic processing; they process information in a sequential manner by first breaking the concept into smaller parts. According to the authors,
children start out as global processors. As they mature, they become analytic processors. This shift in processing skills is highly influenced by the school environment.

The research of Dunn and Dunn (1992) and Barbe and Swassing (1979) about learning and cognitive processing as it relates to aural, oral, kinesthetic, and visual learners has relevance in the field of music education as well. The tonal, rhythmic, and harmonic acquisition skills of young children are impacted by the way in which the musical material is experienced in the music classroom (Hair, 1977, 1981; Apfelstadt, 1986; Martin, 1991; Cummings Persellin, 1992, 1994; Miller, 2002). The majority of research linking learning modalities to cognitive processing of musical material is positivistic in nature; essentially measuring the skill development of young musicians.

This valuable research is foundational to the study of aural, oral, kinesthetic, and visual learning experiences as they relate to the sequential instructional practices of Kodály-inspired music educators. According to Houlahan and Tacka (1994), children should experience musical material employing all four modalities. Furthermore, employing modality-based instruction throughout the phases of the sequential instructional process is critical to the students’ abilities to cognitively process musical material. The current study is designed to examine, through a phenomenological lens, the role of modality-based instruction in Kodály-inspired teaching practices.

**Statement of the Problem**

The problem of this dissertation is to identify and analyze certain learning modalities to determine to what extent they are linked to and function in the teaching of musical elements
when nested in a Kodály-inspired instructional sequence. Specifically, what are the pedagogical characteristics and implications for the teacher and, by extension, the learner under the following instructional conditions:

1. Aural activities in the preparation or practice of a musical element;
2. Kinesthetic activities in the preparation or practice of a musical element;
3. Oral activities in the preparation or practice of a musical element;
4. Visual activities in the preparation or practice of a music element.

**Significance of the Problem**

For the past fifty years, leaders in education have been examining the nature of school curricula and instructional techniques. A significant amount of research focuses on how learners obtain knowledge. According to Barbe and Milone (1981), learners process information through three modality strengths: auditory, visual, and kinesthetic. The modality in which a learner most effectively attains knowledge is identified as modality strength. In addition to auditory, kinesthetic, and visual learning modalities, research has addressed oral learning as well. Hair (1981) studied verbal identification of musical concepts in young children.

Research in aural, oral, kinesthetic, and visual learning exists in general and music education. Much of this research is positivistic and takes place in laboratory settings. Little research about learning modalities as they occur within the instructional process in music exists. By extension, it follows that there is a need for study of learning modalities and subsequent construction of activities within a sequential, Kodály-inspired instructional method. Therefore, this study was conducted with the intent to provide new insights into music educators’ understanding of the relationship between instructional theory and instructional practice.
**Researcher’s Perspective**

My experience as a Kodály-inspired music educator began fourteen years ago, shortly after I graduated from college. Feeling the need to learn more about my chosen field, I started graduate school after my second year in the classroom. Four years later, I received a Master of Arts in music education, with a concentration in Kodály studies. Kodály-inspired teaching practices were developed by Hungarian composer Zoltán Kodály and quickly spread to the United States and other parts of the world during the 1960s.

During my intensive Kodály training, I studied musicianship (sight-singing and ear training), conducting, choral singing, pedagogy, and folk song classification and analysis. The goal of these courses is to develop comprehensive musicianship skills in elementary music teachers. After intensive methodology training, teachers would subsequently be able to model their newly honed musicianship while teaching in a systematic, developmentally appropriate music curriculum based upon singing.

After I earned my master’s degree, I was invited to apprentice and teach with the Kodály faculty at a small private college in the Midwest. The training institute is a three-level, three-year program with the students completing one level each summer. I taught levels one and two pedagogy classes. In the second and third years of Kodály-inspired pedagogy training, considerable time is spent working with students on the principles of teaching music in a manner that reaches all learners. Specifically, students are encouraged and taught to think about four types of learners: aural, kinesthetic, oral, and visual.
While at the institute, students were asked to submit teaching videos to demonstrate their application of Kodály-inspired pedagogy. Unfortunately, these yearly videotape presentations were a process that only occurred during their time as on-campus students. Essentially, this yearly video presentation was no more than a pedagogical snapshot, a random capturing of a single lesson that might be representative of what a teacher would do during an entire academic year. Accordingly, I have been increasingly curious and concerned about the long-term application of the aforementioned practices learned during the students’ formal studies. When back in the music classroom, do these nascent teachers consistently and clearly apply what they were taught in a sustained manner?
CHAPTER 2

Review of Literature

In the past thirty years, the body of educational research has broadened to include studies about ways in which students learn. The acquisition of knowledge occurs through three learning channels: aural, kinesthetic, and visual learning (Barbe & Milone, 1981). This literature review addresses research in learning modalities through an exploration of the following related topics: (a) cognitive, learning, and instructional theories; (b) cognitive, learning, and instructional theories in music; (c) the nature of learning modalities; (d) the nature of learning modalities in music instruction; and (e) the implementation of learning modalities identified with Kodály-inspired instruction.

Cognitive, Learning, and Instructional Theories

John Dewey

John Dewey is considered one of the most prolific philosophers of the early twentieth century. His writings about public education and its affect on society continue to be a driving influence for philosophers and educators who have succeeded him. In the following section of this review of literature, Dewey’s perspectives about education, psychology, and esthetics are discussed with the intent of addressing current issues facing educators, specifically elementary music teachers.

Education

According to Dewey, the process of education begins at an unconscious level at birth. This stage in life is a time when habits, ideas, consciousness, and emotions are formed (Dewey, 1897). The environment and social interactions shape and stimulate the growth of a child; it is from these interactions that a child is able to construct meaning in the world.
Formal education takes the organic process described above and organizes it into a form understandable by humans. Dewey (1897) states:

In sum, I believe that the individual who is to be educated is a social individual and that society is an organic union of individuals. If we eliminate the social factor from the child, we are left only with the abstraction; if we eliminate the individual factor from society, we are left only with an inert and lifeless mass (p. 230).

This process is both psychological and sociological. The psychological process is the first and most basic starting point of education, while societal norms build upon the organic process of psychological development by forming meanings for which children are able to develop their knowledge and powers.

In our society, the development of knowledge and powers takes place predominantly in the school setting (Dewey, 1897). Although this is a specialized setting, the school should represent the present life and community, which children need in order to grow and prosper. The school should be an outgrowth of the home setting from which children experience their first steps toward acculturation (Dewey, 1897). Dewey writes that the greatest mistake made in education comes from a sense of “community” that is neglected in the schools. Instead, schools simply translate information that is to be utilized later in life, lacking any immediate relevance to the lives of children.

To avoid this irrelevance, Dewey believes the moral obligation of the school is in maintaining the welfare of society (Dewey, 1909). Activities in school should have moral significance when judged relative to societal standards; thus the education of the child should have relevance to real life. This relevance is accomplished by creating a setting in which the moral development of children within societal customs and norms is suffused into the learning process. Nothing should be taught out of context.
Providing a contextual learning environment demands that educators be aware of the relationship between social life and the educational process. This relationship provides the structure for the curriculum. According to Dewey, “old education” ignores the dynamic, fluid qualities of the life experiences of a child. Subject matter is “deposited” and learning becomes a process of the memorization of facts. Instead, Dewey believes that the subject matter be an outgrowth of primitive, intuitive learning, derived from social settings (Dewey, 1897). Thus, abstract subjects such as literature, reading, math, and science, when introduced too early, have no relevance to the child. The process of teaching such subjects to their fullest capacities begins with cultivating intrinsic motivators in students.

In order to develop an effective curriculum, the teacher, who is experienced in the subject matter, must be vitally aware of how the social contexts of the child provide a relevant learning environment that elicits full understanding. The child’s perspective is underdeveloped. Accordingly, teachers must rely on their own experiences in order to make judgments about curriculum matters that aid in guiding the learning process of children. This guidance is not an external stimulus created by the teacher. It is reflective of the individual needs of the learner. Once the educator is aware of the needs of each child, carefully crafted curricula can be developed (Dewey, 1902).

The implementation of curriculum is accomplished through development of instructional methods. Dewey avers that societal norms that shape a child’s growth should also interpret and guide the methods in which formal subjects are taught (Dewey, 1897). Reference to societal norms provides context for which skills in reasoning can be developed. Because they are the foundation on which learning is built, organic emotions and true interest in subject matter should never be suppressed in the learning process. Emotions, according to Dewey, are a reflex of
actions. Therefore, active learning must precede passive learning; muscular learning precedes sensory learning (Dewey, 1897).

The process of education, as stated above, is defined by key components such as the school environment, subject matter, curriculum, and method. None of these components can be integrated into a successful process without a clear idea of the aims of education. Dewey defines aims as follows: “An aim implies an orderly and ordered activity, one in which the order consists in the progressive completing of progress” (Dewey, 1916, p. 251). Setting an aim for educational practices entails foresight and the ability to see an end result. This foresight functions through careful observation of all learning conditions and the cultivation of process and sequence. Additionally, foresight allows for fluidity and flexibility throughout the instructional process.

Effective aims in education have three inherent characteristics: (a) it must be developed based upon intrinsic activities, instincts, and habits of those being educated; (b) it must be capable of being translated into relevant and effective methods of instruction; and (c) it should be specific in nature because generality can detach students from the subject matter (Dewey, 1916). In addition to these characteristics, Dewey provides aims specific to educating the very young. First, early childhood education is of utmost importance. Dewey’s views about early education are grounded in the work of Pestalozzi, Froebel, and Rousseau. Rousseau (as cited in Dewey, 1916) advocates for cultivating the natural health and moral development of young children. Health is attained only through physical movement, exercising both the body and mind. Educators are responsible for observing the natural tendencies of children as they engage in spontaneous play activities within their natural environment. It is in this active mode of learning that the educator becomes aware of the individual needs of each child and is subsequently able to
foster the appropriate learning experience. This mode of enactive learning will be explored within the context of the psychological development in the following section of this review of literature.

**The Reflex Arc Concept in Psychology**

At the turn of the century, there existed dualistic thought concerning psychology, specifically in the area of stimulus and response and peripheral and central structures. The belief was that sensations, thoughts, and acts worked on an individual basis in succession of each other. A stimulus occurs first, followed by a central activity (an idea), followed by a physical act. This successive work was called the reflex arc concept. Dewey (1896) argues that this analysis is incomplete.

Reflex arc idea, as commonly employed, is defective in that it assumes sensory and stimulus and motor response as distinct psychical existences, while in reality they are always inside a co-ordination and have their significance purely form the part played in maintaining or reconstituting the co-ordination; and (secondly) in assuming that the quale of experience which precedes the “motor” phase and that which succeeds it are two different states, instead of the last being always the first reconstituted, the motor phase coming in only for the sake of such mediation (p. 5).

Dewey claims that stimulus and response are simply a division of labor within a concrete whole. He calls this process *co-ordination*. In co-ordination, the movement of the body is followed by a sensation. The sensation gives value to the experience (movement), which is then fully understood and contextualized by the processes in the brain (Dewey, 1896).

Moreover, Dewey posits the view that those who use the term sensori-motor in the context of two separate acts are in error. He believes the body and mind work as one. Sensation does not occur before motion; feeling sensation in itself is motion, working as one unified continuum (Dewey, 1896). Dewey also notes that stimulus and response are teleological in
nature as they take place with the intent of reaching an end result, thus fulfilling the natural
instincts of humans.

**Custom and Habit**

Habits require the cooperation of organism and environment through natural impulses
and the use of language. Habits are defined as “arts.” “They involve skill of sensory and motor
organ, cunning or craft, and objective materials. They assimilate objective energies, and
eventuate in command of the environment. They require order, discipline, and manifest
technique. They have a beginning, middle, and end” (Dewey, 1922, pp. 24-25).

Dewey maintains that habits are formed based upon prior customs set by society. When
children are born, they are immediately influenced by their surroundings. At first, the response
of the young child is instinctual and imitative in nature. As the child develops, thought enters
into habitual actions based upon direct interactions with the environment. The thought processes
are expressed through the development and subsequent use of language. It is through the process
of communication between humans that customs are molded and transformed. Thus, habits are
never static, and customs are ever changing (Dewey, 1922).

Artists perform habits as they develop a craft. As thought and feeling enter the creative
process, artists are further driven to master their craft through practice. Works of art or
performance that are devoid of feeling are merely mechanical in nature (Dewey, 1922). Thought
and feeling are two components of the creative process that capture the essence of a work.
Essence, according to Dewey, is defined as meaning. The meanings are inherent of social norms
and rules in society, and no sound, word, or work of art exists with meaning in isolation.
Language, culture, and communication give works context and meaning (Dewey, 1925).
Art as Experience

The modern perception of art has changed so that those pieces that are considered “classic works” are devoid of their original meaning. Dewey argues that this perception allows humans to appreciate art only at face value. A true esthetic experience occurs only when art is experienced and understood within a cultural context. He states, “In order to understand the esthetic in its ultimate and approved forms, one must begin with it in the raw; in the events and scenes that hold the attentive eye and ear of man, arousing his interest affording him enjoyment as he looks and listens” (Dewey, 1934, p. 3).

According to Dewey, what is esthetic in art is determined by the degree to which one fully lives and perceives an experience. For an experience to be esthetic, this connection must be present. Further, Dewey claims esthetic experience is a product of positive and negative tensions in the environment. When tension is resolved through the creative process and resolution is reached, the experience is considered to be esthetic in nature. He states “Because experience is the fulfillment of an organism and its struggles and achievements in a world of things, it is art in germ. Even in its rudimentary forms, it contains promise of that delightful perception which is esthetic experience” (Dewey, 1934, p. 19).

When referring to experience in general, Dewey defines the term in two capacities. The first is an experience that culminates based upon work that is distracted. Thought is not working in tandem with motion. The end result occurs with little satisfaction, which Dewey calls inner lethargy (Dewey, 1934). The second type of experience described by Dewey is one in which humans are engaged in the creation of something, seeing it to its fullest fruition, thus creating inner fulfillment. He qualifies this as having an experience. In other words, the first is mechanical in nature, and the second is artistic in nature (Dewey, 1934).
Dewey identifies distinct characteristics of an experience. First, the activity must have continuous flow and progression; one act builds upon previous acts. The act is intellectual in nature but also involves human emotion throughout the experience. Finally, an experience has its own distinct esthetic quality that is fulfilled through completion of the act. There is a beginning, middle, and an end (Dewey, 1934).

An experience, which consists of successive acts, can be both artistic and esthetic in nature. Dewey makes a distinction between both terms. The artistic experience is one in which energy is constantly flowing into and out of the creative process. It demands that artists take personal risks and give of themselves in order to fully create a work. Artists constantly evaluate, shape, and change the work in progress. They possess sensitivities and perceptions of art that differs from the esthetic understanding of the perceiver. This perception is what makes someone artistic in nature. It is the culmination of this artistic experience, the fulfillment of the process that makes the process and work esthetic in nature. Thus, for something to be truly artistic, it must also be esthetic. “Since ‘artistic’ refers primarily to the act of production and ‘esthetic’ to that of perception and enjoyment, the absence of a term designating the two processes taken together is unfortunate” (Dewey, 1934, p. 49).

When referring to an experience as artistic and esthetic in nature, Dewey writes about them in relation to the act of expression. Art is an act of expression, but he states the importance of recognizing what expression is and where it comes from. He describes how impulsion is a seminal beginning of an experience. The impulsion is a progression of energy, which is based upon the instinctual need of an organism. This need or impulse is a product of interaction of the organism and the environment.
Impulsion propels an experience into action, but the natural tension inherent in the experience demands that humans progress while reflecting on past experiences. This reflection provides meaning and context to the impulsion, allowing for the reshaping and guidance of future experiences. When meaning is attached to an impulsive experience, it is capable of taking on artistic and esthetic qualities. In addition, Dewey states that emotion is a key component of expression, originating in the organic experience of the artist’s interest in the subject matter. He describes how even young children are capable of such experiences (Dewey, 1934).

I do not think that the dancing and singing of even little children can be explained wholly on the basis of unlearned and unformed responses to then existing objective occasions. Clearly, there must be something in the present to evoke happiness. But, the act is expressive only as there is in it a unison of something stored from past experience, something therefore generalized, with present conditions. In the case of the expressions of happy children, the marriage of past values and present incidents takes place easily; there are few obstructions to overcome, few wounds to heal, few conflicts to resolve (p. 74).

The above example illustrates that all humans are capable of engaging in acts of expression. Expression is born out of an organic level of interest in subject matter coupled with an impulsion or need to experience the subject matter through a creative and artistic process. Dewey (1934) summarizes how this process is integral to human experience. “Works of art are not remote from common life that are widely enjoyed in a community, are signs of a unified collective life. But they are also marvelous aids in the creation of such a life” (p. 84).

The work of John Dewey creates a solid philosophical framework as a basis for the current study in which the nature of musical learning, specifically aural, oral, kinesthetic, and visual learning modalities is examined. Dewey’s views provide the foundation for the analysis of how and why elementary music teachers create relevant musical experiences targeting various
learning styles of young children. The nature of his writing about esthetics provides structure for examining these activities as they relate to students’ responses as well.

Jean Piaget

One aspect of effective music instruction is dependent upon the music specialist’s understanding of cognitive development in children. The cognitive theories of Jean Piaget provide a framework for educators to conduct research in the areas of learning, curriculum development, and pedagogy. Through extensive experimental and observational studies, Piaget determined that four developmental stages manifest themselves in young children. The stages are (Piaget, 1970, p. 711):

1. Sensorimotor (Birth to 1 ½ years)
2. Preoperational (1 ½ to 7 years)
3. Concrete Operational (7 to 11 years)
4. Formal Operational (11 to 13 years)

The four stages of development are sequential; one effectively precedes the next. Therefore, development that occurs in one stage is foundational for successive stages (Piaget, 1970). Piaget described the sensorimotor stage as follows: “We call it “sensorimotor” period because the infant lacks the symbolic function; that is, he does not have representations by which he can evoke persons or objects in their absence” (Piaget & Inhelder, 1969, p. 3). In this stage, the actions of children are mainly in response to external stimuli, through senses, reflexes, and manipulation of objects. Children are unable to construct mental pictures of objects and are unaware of the concepts of time, space, and causality (Bybee & Sund, 1982).

The preoperational stage is defined by the child’s increasing ability to form mental images of objects, as well as the ability to form semiotic processes such as language (Piaget,
process of thought precedes motor responses. No longer imitative in nature, children in the preoperational stage are able to carry out tasks based upon memorization of previous modeling. Children in this stage are limited in their abilities since they can only concentrate on one task at a time and are unable to comprehend the views of others in relation to their own (Bybee & Sund, 1982).

As children progress into the concrete operational stage, they are able to perform mental operations. A very basic operation in this stage is conservation, in which the child is able to comprehend that a change in physical appearance of an object can occur while the physical property of the object stays constant (Piaget & Inhelder, 1969). Children in this stage are limited to processing only what is familiar to them; they are unable to construct responses based upon hypothetical thinking (Bybee & Sund, 1982).

The final stage of cognitive development, formal operational, typically begins at the age of eleven. Piaget describes the characteristics of the child during this stage. “He becomes capable of drawing the necessary conclusions from truths which are merely possible, which constitutes the beginning of hypothetical-deductive or formal thought” (Piaget & Inhelder, 1969, p. 132). In essence, the child can construct theories from hypothetical constructs. The constructs of this thinking are highly symbolic in nature, and the use of logic is consistently present (Bybee & Sund, 1982).

Because the subjects to be observed in the present study range in age from 5 years to 11 years, Piagetian learning theory has particular relevance for this investigation. Accordingly, consideration of the characteristics of cognitive development during the preoperational stage is considered as they relate to pedagogical practices in the elementary music classroom.
Lev Vygotsky

In the early twentieth century, Russian psychologist Lev Vygotsky studied human development, publishing many works that continue to influence present-day educational practices. Vygotsky examined humans using a socio/historical approach. Specifically, human development is a product of social relationships and interactions (Smidt, 2009). According to Vygotsky, culture is the social environment in which a child develops. Past history of that culture is used as a basis for the child to function and learn in the environment. The child then develops tools to mediate that culture. An example of a mediation tool is language development (Smidt, 2009).

Vygotsky developed two central theories of child development: (a) cultural-historically developed tools mediate the child’s relation to the world; and (b) the competence to handle such tools is acquired in social settings through guidance from others (Vygotsky as cited in Hedegaard, 2007, p. 246).

Additionally, competence is developed through a process of concept formation and according to Vygotsky, occurs in two distinct stages and social settings. The first is the acquisition of everyday concepts—concepts that are learned at a very basic level through human interaction and manipulation of objects (Hedegaard, 2007). This stage occurs in the preschool years. As children approach school age, they enter a stage of forming scientific concepts. Typically, this stage takes place in the school setting. The child is now learning through social interaction but does so through the use of a system of symbolic interactions. The acquisition of everyday and scientific concepts are interconnected and sequential in manner but differ in
structure, setting, and process (Hedegaard, 2007). Vygotsky explained this phenomenon as follows:

We know that the relationship between instruction and development differs with each developmental stage. With each stage, the character of development changes and the organization of instruction takes new form. Even more significant, however, is the fact that the relationship between instruction changes with each stage…. We will refer to this as a transitional spontaneous-reactive form of instruction since it constitutes a bridge between the spontaneous instruction characteristic of early childhood and the reactive instruction common to the school age (1934, p. 238).

How, then, do Vygotsky’s theories influence the practices of pedagogues? His theory suggests that children are encouraged to explore the environment through interaction with other children, adult caregivers, and/or teachers. The learning environment is not random in structure; it is up to the adult to carefully construct an educationally rich setting (Hedegaard, 2007).

In the current study, the nature of musical learning experiences are examined. Vygotsky’s theories provide a framework in which teachers are cognizant of their selection and implementation of developmentally appropriate learning processes. Vygotsky stated this in his recommendation for educators:

The development of the scientific concept, a phenomenon that occurs as part of the educational process, constitutes a unique form of systematic co-operation between the teacher and the child. The maturation of the child's higher mental functions occurs in the co-operative process, that is, it occurs through the adult’s assistance and participation (1934, pp. 168-169).

**Jerome Bruner**

Jerome Bruner is one of the most revered psychologists of the twentieth century. Inspired by the work of Vygotsky and Piaget, he developed a philosophy for education resulting in sound instructional theories, which have influenced educational practices for the past fifty years. His early writings are based upon Piagetian thought. In the latter half of the century,
Bruner shifted his attention to examining human behavior and educative processes based upon the socio/historical perspectives of Lev Vygotsky (Smith, 2002).

In his most famous work, *The Process of Education*, Bruner described his theories for learning with subsequent recommendations for curriculum reform. He begins by theorizing that the act of learning serves two purposes. The first is to provide the ability to transfer a specific skill from one learning situation to the next. The second is to provide the capability to transfer and recognize the applicability of subject matter from one situation to the next (Bruner, 1960, 1977). This transfer process occurs when one fully grasps the *structure* of a subject. “Grasping the structure of a subject is understanding it in a way that permits many other things to be related to it meaningfully. To learn structure in short, is to learn how things are related” (Bruner, 1960, 1977, p. 7).

Based upon the intellectual development of the learner, children are able to make sense of the world through the process of translation (Bruner, 1960, 1977). Through this process, the child applies meaning and intellectual purpose to the structure of a subject (Garner, 2010). Thus, Bruner hypothesized that the structure of any subject can be taught to any child. This success is dependent upon knowledge of the developmental stage of the child. Based upon the developmental stages of Piaget, Bruner believes structure can and should be introduced at the earliest stages possible. The complexity of the structure of the subject simply increases as the child develops. Bruner states, “There is an appropriate version of any skill or knowledge that may be imparted at whatever age one wished to begin teaching—however preparatory the version may be” (Bruner, 1966, p. 35).

This theory set the foundation for recommendations in the area of curriculum planning and implementation. One such recommendation was the introduction of the concept of the *spiral*
**curriculum**, a curricular structure designed to lead the learner through a subject in a sequential manner. Bruner explains, “A curriculum should involve the mastery of skills that in turn leads to the mastery of still more powerful ones, the establishment of self-reward sequences” (Bruner, 1966, 1977, p. 35).

As these educational theories were being implemented in American school curricula, Bruner became increasingly concerned about how the process of learning occurs in a democracy. As with Vygotsky, Bruner believes social and historical context directly affect academic achievement, and he describes four issues that lend themselves to this issue: (a) learning is contextual; (b) individuals should be open to multiple perspectives; (c) educators should think of education in a manner of what is possible, not simply how it is; and (d) the primary goal of education should be to produce autonomous thinkers, who create and stimulate social change (Bruner as cited in Parr, 1999, p. 56).

In the present study, the subjects are trained in the Kodály approach. One of the principles of this approach is to present material and activities in a systematic, sequential manner. The concept of Jerome Bruner’s spiral curriculum is used as a model for this instructional method. In addition, his socio/historical views of education will be addressed when participating teachers are asked to describe their teaching and learning environment.

**Howard Gardner**

For the past thirty years, Howard Gardner researched the links between child development and the concept of human intelligence. Gardner defines intelligence as “a biological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture” (Gardner, 1999, pp. 33-34). Gardner’s work is rooted in and developed from Piagetian learning. Piaget’s work identified core
structures that can be applied to multiple mental operations, and carried out through various
tasks. Gardner’s model for development applies to other non-western cultures. Gardner believes
that research should be conducted beyond linguistic, logical, and numerical development.
Unlike Piaget, Gardner theorizes that the stages of development occur in a more gradual manner.

Furthermore, he postulates that humans possess multiple intelligences, contradicting
previous psychological theory that humans are born with a single intelligence. When Gardner
first wrote about his multiple intelligence theory, he introduced seven separate intelligences: (a)
linguistic intelligence; (b) logical-mathematical intelligence; (c) musical intelligence; (d) bodily-
kinesthetic intelligence; (e) spatial intelligence; (f) interpersonal intelligence; and (g)
intrapersonal intelligence (Gardner, 1993, pp. 73, 99, 128, 170, 205, & 237). In recent years,
Gardner (1999, p. 47) added three more intelligences to his schema: naturalist, spiritual, and
existential.

Gardner (1999) identified the nine core intelligences based upon two main principles.
First, intelligences must have an “identifiable core operation or set of operations.” Second,
intelligences are “susceptible to encoding in a symbol system” (pp. 36-37). He gives an example
specific to musical intelligence: core operations in musical intelligence consist of pitch, rhythm,
timbre, and harmony. The system of symbols in which those operations exist is musical notation
(Gardner, 1999).

**Linguistic Intelligence**

Linguistic intelligence is the most common intelligence that is shared among humans.
Those who possess linguistic intelligence use spoken and written language well, giving attention
to semantics, phonology, syntax and pragmatic functions of language. According to Gardner
(1993), linguistic intelligence is “a sensitivity to the order among words—the capacity to follow
rules of grammar, and, on carefully selected occasions, to violate them. At a somewhat more sensory level—sensitivity to the sounds, rhythms, inflections, and meters of words—that ability which can make even poetry in a foreign tongue beautiful to hear” (p. 77).

In the current study, the operation of semantics, the meaning of words, plays a significant role in musical learning. In the elementary music classroom, students are often asked to describe music through verbal expression. In order to accomplish this, they are required to recall vocabulary that is specific to the task. Thus, the nature of linguistic intelligence will be considered in relation to oral learning experiences in the music classroom.

**Bodily-Kinesthetic Intelligence**

According to Gardner’s theory, bodily-kinesthetic intelligence “entails the potential of using one’s whole body or parts of a body (like a hand or the mouth) to solve problems or fashion products (Gardner, 1999, p. 42).” Kinesthetic sense provides one with the timing and judgment to carry out tasks. The brain begins the process through cognitive thought, sending a message to the spinal cord, which controls movements produced by joints, muscles, and tendons in the extremities. In essence, voluntary movements are closely related to thought processes of the brain.

Movements become increasingly complex as one progresses through the developmental stages identified by Piaget. Additionally, Gardner links this gradual developmental process with Jerome Bruner’s theory of acquisition of structural knowledge, where new knowledge builds upon prior experiences and cognitive operations. The same applies to kinesthetic development (Gardner, 1999).

Kinesthetic learning is one of the core modalities that will be examined in the current study. Movement skills are cultivated as a natural expression of music. Gardner has provided a
theoretical foundation for which movement is linked to cognitive processes. This approach will be examined within the framework of a sequential, developmentally appropriate, curricular structure.

**Spatial Intelligence**

Those who have strengths in spatial intelligence are able to recognize and manipulate patterns within the confines of large and small spaces. Gardner (1993) explains, “Central to spatial intelligence are the capacities to perceive the visual world accurately, to reform transformations and modifications upon one’s initial perceptions, and be able to re-create aspects of one’s visual experience, even in the absence of relevant physical stimuli” (p. 173). Typically, the visual nature of spatial intelligence is problematic for those who possess high intelligence in music or linguistics. Strong spatial skills are inherent in visual artists, scientists, and engineers.

According to Gardner (1993), there are three capacities in which spatial skills function: (a) the ability to transform or to recognize the transformation of one element into another; (b) the capacity to conjure up mental imagery and then to transform that imagery; or (c) the capacity to produce a graphic likeness of spatial information (p. 176).

Gardner formulates this theory based upon Piaget’s extensive testing of spatial abilities in children. In the preoperational stage, children are able to create mental imagery of an object based upon their previous experiences. They are not, however, able to conduct formal operations on the object. As children progress into the concrete operational stage, they are again able to create a mental image of an object but can now view that object in a transformative state. They have developed an ability to manipulate images and objects within a specific spatial realm. In the formal operational stage, the child is finally able to process and imagine an object or image in abstraction and carry out specific operations based upon that image (Gardner, 1999).
In the current study, the relevance of spatial intelligence will be studied as it relates to a visual learning modality. The elementary music curriculum consists of various ways in which visual learning is implemented. Reading iconic and formal notation is one, but this category is expanded when activities such as gross and fine motor movement and playing barred instruments are embedded in the instructional sequence. These activities rely on spatial abilities and, therefore, will be significant to this examination.

**Cognitive, Learning, and Instructional Theories in Music**

The works of Dewey, Piaget, Vygotsky, Bruner, and Gardner lay the foundation for educational practices and research. Their theories of cognition, learning, and instruction are applicable in many academic areas, in this case, music education. This strong foundation is examined further by discussing the work of Carl Seashore, Edwin Gordon, and Howard Gardner’s research about musical intelligence.

**Carl Seashore**

Carl Seashore began his work in the area of the psychology of music around the same time as Piaget and Vygotsky. His research addresses the development of the mind and its capacity for musical thought processes. According to Seashore (1938), “Intelligence is musical when its background is a storehouse of musical knowledge, a dynamo of musical interests, an outlet in musical tasks, and a warmth of musical experiences and responses” (p. 8).

The musical mind is equipped with capacities for hearing, feeling, and understanding music in a variety of formats. Musicality is developed through four main sensory capacities: (a) tonal (sensitivity to pitch and timbre); (b) dynamic (sensitivity to loudness and stress); (c) temporal (a sense of time, tempo, and rhythm); and (d) qualitative (sensitivity to timbre, areas of harmony, and tone) (Seashore, 1938). While these capacities are innate at birth, according to
Seashore, maturation and training can increase the complexity of these capacities over time. Further, he proposes that formal musical training is simply a process of attaching meaning to these innate capacities. True musical learning is the acquisition and retention of musical information and experiences and the cultivation of musical skill.

Based upon his theory, Seashore created an instrument in which musical talent could be accurately measured. *The Seashore Measures of Musical Talent* was developed with the intent to provide diagnostic information that would guide teachers in designing appropriate individualized music instruction based upon specific strengths and weaknesses in the musical skills of students. Six skill areas are measured in the test, each being evaluated for its individual purpose, while also contributing to the overall musical profile of the child. They are: pitch, loudness, rhythm, time, timbre, and tonal memory (Seashore, 1960, as cited in Gordon, 1969).

*The Measures of Musical Talent* was first piloted at the Eastman School of Music in 1922. The results of the ten-year project validated the primary objectives for the testing. Thus, music educators across the United States began using *The Measures of Musical Talent* as a diagnostic test in their instrumental and classroom music programs.

**Edwin Gordon**

The learning and instructional theories of Edwin Gordon continue to guide researchers and practitioners in the field of music education. Foremost in Gordon’s work is his theory of how children understand music. He believes musical understanding occurs through a process of listening called *audiation*. Audiation occurs “when one hears and comprehends music silently when the sound of the music is no longer or never has been physically present” (Gordon, 1997, p.19). This process includes acquiring skills in listening, recall, performance—singing, chanting, moving, playing—creating, improvising, reading, and notating. According to Gordon, the
process of audiation is the basic measure of music aptitude, which is “the child’s potential to learn music” (Gordon, 1997, p. 9). The aptitude of a child can be enhanced through informal and formal instruction. Eventually, aptitude for music stabilizes by the age of nine.

Since all children are born possessing some level of music aptitude, Gordon recommends that the musical guidance of children begin as soon as possible. Sixty-eight percent of children have average musical potential, 16 percent have above average potential, and 16 percent have a below average or low musical potential (Gordon, 1997). Consistent with Vygostskian theoretical thought, Gordon believes that the home is the most important learning environment for young children; therefore parents should provide musical guidance. This guidance is informal in nature but is imperative to the musical development of the child (Gordon, 1997).

According to Gordon, young children learn language through listening first, followed by speaking, then reading, and finally, writing. He believes children learn music in much the same manner. The first stage in musical learning is termed music babble. Very young children experience babble through tonal and rhythmic sounds that are either self produced or experienced externally in the environment. These experiences with sounds serve as readiness learning for later musical development. Children, based upon their environment, emerge from this stage at varying ages. Gordon claims that children who emerge from this stage early possess higher music aptitude than those who emerge later. This early development of aptitude in music is crucial. As children approach eighteen months of age, language development dominates, and less time and attention is given to musical development (Gordon, 1997).

The cultivation of music aptitude continues as children emerge from the music babble stage. Audiation continues to be the foundation for musical development. “The ability to audiate
musical sound in terms of tonality and meter provides the basic readiness for the use of
metaphors and for the theoretical understanding of music symbols and structures” (Gordon,
1980, p. 3). Audiating melody is primarily accomplished through singing, and audiating rhythm
is primarily accomplished through kinesthetic activity. Gordon believes that these activities
must precede any instruction in theoretical understanding. Thus, he provides a sequential theory
for instruction that is based upon two main functions: discrimination and inference.

Discrimination emphasizes rote learning processes, and inference emphasizes conceptual
learning, which is the more complex of the two. According to Gordon (1980), both can occur
concurrently, one being emphasized more than the other.

The process of discrimination includes five components: aural/oral learning; verbal
association; partial synthesis; symbolic association; and composite synthesis (Gordon, 1980, p.
12). Aural/oral learning occurs through listening and performing music at a very basic level.
Tonality and rhythm are developed through singing and moving. Once this foundation is set,
children are ready to describe their experiences with tonal and rhythm patterns through verbal
association. This process leads to partial synthesis, where the patterns are contextualized within
known repertoire through a more complex process of audiation. In the following stage, symbolic
association, children are able to begin reading and writing systems of symbols or notation. The
final stage of discrimination is composite synthesis, in which children comprehend tonal and
rhythmic patterns as a contextual whole through performance, listening, reading, and writing
(Gordon, 1980).

The process of inference builds upon knowledge acquired during discrimination. There
are three components to inference learning: generalization, creativity/improvisation, and
theoretical understanding (Gordon, 1980, p. 12). Generalization is a process whereby children
identify unknown tonal and rhythmic patterns based upon their comparisons to previously learned material. Students still follow a sequence of aural/oral learning, followed by verbal association, and then symbolic association, but they do so with unfamiliar patterns. Once a strong foundation of generalization skills is set, children are able to create and improvise music. Creativity is based upon one’s self-imposed parameters, and improvisation is based upon parameters that are externally set (Gordon, 1980). The final stage of Gordon’s learning theory is theoretical understanding. This form of advanced understanding is the ultimate outcome of all readiness learning, in which students are able to apply their knowledge within abstract thought as well as the parameters for advanced performance in music. Again, aural/oral, verbal, and symbolic learning are all assimilated into this final stage and are done so at the highest level of musical understanding (Gordon, 1980).

Gordon structures his learning theory based upon the principle of spiral learning established by Jerome Bruner. The stages of Gordon’s theory are structured in a hierarchy that cultivates musical understanding built upon previous knowledge and experiences. The sequencing of the instruction, according to Gordon, should then be set to meet the specific musical objectives of the group (Gordon, 1980).

In the current study, Kodály-inspired instruction employs principles of spiraling and the methodical sequencing of activities. Edwin Gordon established a framework for this model by clearly defining the learning process of musical learning, which has relevance for the examination of aural, oral, kinesthetic, and visual learning in the elementary music classroom.

**Howard Gardner: Musical Intelligence**

In his study of multiple intelligences, Howard Gardner determined that all humans possess musical intelligence. He defines it by stating, “musical intelligence entails skill in
performance, composition, and appreciation of musical patterns” (Gardner, 1999, p. 42). It emerges at the very earliest stages of development and is cultivated and nurtured by the social and cultural context of the child. Further, Gardner claims musical intelligence is most closely related to linguistic intelligence (Gardner, 1993).

Musical intelligence is auditory in nature; the two main elements are pitch and rhythm. Timbre is of less importance than pitch and rhythm but is relevant to the development of musical skill (Gardner, 1993). Gardner writes of two main methods for examining musical development. The first is a “bottom-up” approach, where the method in which humans process single elements in music is examined. Rhythmic and tonal patterns are used to test musical intelligence but are not contextualized within a larger musical work. This method is used primarily in laboratory testing.

The second method of testing musical intelligence is a “top-down” approach in which the entire musical idea is presented in order to study comprehensive understanding. Gardner recommends that both approaches be integrated. “In the realm of music, it is possible to examine sensitivity to individual tones or phrases, but also to look at how these fit together into a larger musical structure which exhibit their own rules and organization” (Gardner, 1993, p.108).

Utilizing integrated methods of testing musical intelligence, Gardner and his colleagues have identified key characteristics and behaviors in the development of musical competence. Papoušek and Papoušek (1982, as cited in Gardner, 1993) found that children attain aspects of pitch and melody far earlier than speech patterns. Babies demonstrate this by cooing, babbling, and imitating vocal inflections of caregivers. Between the ages of eighteen months and 2 years, children are able to spontaneously sing patterns and imitate repetitive patterns in known songs. At 3 to 4 years, children’s spontaneous singing is replaced with the ability to reproduce and sing
entire songs. By school age, children are able to contextualize song material, as well as sing with increasing accuracy. The success of this development is dependent upon early exposure to musical experiences due to the fact that by the time children reach school age, cultivation of linguistic development dominates, leaving less time and attention for music education.

Children who are exposed to diverse musical experiences are able to process music in two ways. The first is a figural approach, which is highly intuitive in nature. The child is able to describe elements of music with very little theoretical background. The second is referred to as the formal mode. In this advanced approach, the child is able to process music based upon a theoretical foundation that requires the use of a formal symbolic system (Bamberger, 1982, as cited in Gardner, 1993). In order for children to reach their fullest musical potential, they need to experience both modes of learning.

The theoretical foundation of Gardner’s study of musical intelligence is an extension of the work of Seashore and Gordon. Most individuals would agree that musical development is cultivated in an environment that provides sequential, developmentally appropriate musical experiences. The current study will examine the creation and implementation of activities appropriate for aural, oral, kinesthetic, and visual learners, with the hope that it will provide pedagogical and musical guidance for Kodály-inspired music educators.

**Learning Modalities**

Research in learning modalities—aural, oral, kinesthetic, and visual learning—increased in the early 1980s. Four researchers, Kenneth and Rita Dunn, Walter Barbe, and Michael Milone were the first to author a number of these studies. Their work in learning modalities permeated educational research, encouraging educators to address individual learning styles and the subsequent implications for both teachers and learners.
Barbe and Milone (1981) tested 1,000 school children and teachers in Southern California. The results of these tests were combined with earlier results collected from testing elementary students in a Midwestern city, a group of musically talented high school students, and teachers throughout the United States. The purpose of the study was to examine the relationships of modality strengths, learning, and other aspects of development.

The researchers defined a *modality strength* as “channels most efficient for processing information” (Barbe & Milone, 1981, p. 378). Further, they differentiate a *modality strength* from a *modality preference*. “A modality strength implies superior functioning in one or more perceptual channels and is assessed through a task of some kind” (Mills, 1970, in Barbe & Milone, 1981, p. 378). A *modality preference* is usually self-reported by the learner, expressing the modality in which the learner prefers to use when processing information (Dunn, Dunn, and Price, 1975, in Barbe & Milone, 1981).

The modality strengths of participants in the study were measured by asking them to recreate sequences of geometric patterns. The patterns, presented visually, aurally, and kinesthetically, increased in length throughout the progression of the test. The researchers tabulated the results and found that 30 percent of the participants frequently used visual modality, and another 30 percent employed mixed-modalities to complete the tasks. Twenty-five percent of the participants exhibited strengths in auditory learning, and 15 percent exhibited strengths in kinesthetic processing (Barbe & Milone, 1981).

From these results, the researchers formed conclusions about the implications of modality strengths on processing information, learning, and development.
1. Mixed-modality strengths are more prevalent in adults than in children. Children with mixed-modality strengths experience a higher level of achievement than those who rely on a single modality strength for processing information.

2. A modality strength is not a fixed characteristic. Strengths shift as a child develops. Primary-age children are more auditory than visual and are the least developed kinesthetically. Around the age of six, a shift occurs, and visual strengths become dominant, followed by kinesthetic, and then auditory strengths. In adulthood, another shift occurs. Visual learning is still dominant, but auditory learning is more prevalent and kinesthetic learning is the least utilized. The researchers support these data with previous research stating that school children enter an environment of learning that is naturally more visual and kinesthetic due to the nature of instruction in reading and writing. As children grow into adulthood, kinesthetic strengths are less prevalent because adults are less active in school (Frosting & Horne, 1964, in Barbe & Milone, 1981).

3. The racial backgrounds and gender of the participants had no impact on the modality strengths of the children.

4. There is a connection between the modality strengths of children and the modality strengths of classroom teachers. The researchers stated that the way in which a teacher manages the classroom and conducts lessons are reflective of the modality strengths of the teacher, thereby directly influencing development of modality strengths in the students.

5. Finally, the researchers stated implications for education in regard to the identification of modality strengths of children and educators. Teachers should recognize and be aware of their own modality strengths and the potential influences of those strengths on
instructional practices. Moreover, teachers should recognize the modality strengths of individual students, subsequently constructing appropriate activities that reach learners who may be either aural, oral, visual, or kinesthetic (Barbe & Milone, 1981).

Dunn (1988) wrote a commentary about teaching students according to their modality strengths and preferences. Her research revealed that students are often able to verbalize their modality preference, but this does not necessarily mean how they prefer to learn is the same as their modality strength. Dunn discussed processes such as the development and implementation of standardized testing in reading; designs that neglect to recognize the modality strengths of individual children. Additionally, early research in learning modalities only measure visual and aural learners based upon the teaching styles of the time, leaving out kinesthetic and oral processing.

According to Dunn, kindergarten children are generally strongest in kinesthetic learning. As children progress in school, visual learning is more likely to become a dominant strength. It is not until the upper elementary school years that children develop strengths in auditory learning.

Through their work in identifying the development of modality strengths in young children, Dunn and his colleagues developed *The Dunn, Dunn, and Price Model of Learning Styles* (1984, in Dunn, 1988, p. 306). The test contains 23 elements that affect the processing of information. Students are asked to identify the elements that resonate most with their ability to learn. Examples of elements include: (a) the instructional environment (noise level and lighting); (b) emotionality (motivation and persistence); (c) the people with whom one learns most easily (alone, in pairs, peers, authoritative or collegial adult); (d) physical characteristics (perceptual strengths and energy levels); and (e) psychological or cognitive inclinations.
The *Learning Style Inventory* (1984) was developed as an instrument that provides individual and group profiles of the learning styles of children in grades three through twelve. Numerous experimental studies that employ these instruments reveal that when students were taught in a manner that complemented their learning preferences and strengths, their test scores were higher in comparison to students whose learning environments were not complimentary to individual learning modalities (Dunn, 1988).

Dunn discussed implications for teachers and learners when modality strengths are measured. First, it is important for educators to recognize the learning strengths of individual students rather than relying on the comprehensive strengths of a large group. She further recommends that educators be cognizant of the fact that modality strengths and modality preferences in an individual can either be the same or different because preferences are self-identified, and strengths are measured by completing tasks (Dunn, 1988).

**Learning Modalities in Music Instruction**

As the number of studies examining learning modalities in general classroom instruction increased, music educators began to investigate the implications of teaching to individual modality strengths and their affects on the teaching and learning process. Following is an overview of literature and studies in music education that address aural, oral, kinesthetic, and visual learning.

In an early study of learning modalities in music instruction, Hair (1977) investigated abilities to discriminate tonal direction in verbal and nonverbal tasks by first grade students. One hundred forty-four students were asked to identify the tonal direction of two-, three-, and four-note patterns while listening and playing on resonator bells patterns provided by the researcher.
In addition to the written and performance tasks, the students were asked to verbalize whether the patterns went “up and down” or “higher and lower.”

The children scored significantly higher on the performance test than on the verbal or written tests. The scores on the written test were higher than those on the verbal test. Additionally, the responses on three-tone patterns were more consistent than two- and four-tone patterns. In the verbal responses, 65 percent of the children were able to indicate the direction of the tonal pattern. Thirty-three percent were not able to verbalize the tonal direction. At times, children would use gestural motions to indicate their answers. Some gave accurate gestural responses, but their verbal responses did not match. Only 5 percent of the students actually used the terminology of “up and down” or “high and low.” From these results the researcher concluded that young children are able to discriminate the tonal direction of patterns by first showing their answers with gestures, followed by verbalization. Thus, it is highly unlikely that children can listen to and label tonal patterns without formal musical training.

Further research by Hair (1981) studied young children’s abilities to identify musical concepts in listening samples through verbal communication. Specifically, she asked if formal music terminology would be used. A large-group listening test was administered to 226 children in grades 2, 3, and 4, and 73 adult music and general education majors. The children were divided into three ability groups: low ability, medium ability, and high ability. *Happy Birthday* and *Twinkle, Twinkle Little Star* was each played ten times on the piano. In each repetition, one musical concept was changed (i.e., played loud or soft). The students were asked to listen to the two songs and write down a word that described the musical changes in each repetition (i.e., faster or slower).
The results revealed that the high ability group of children scored significantly higher than the medium and lower ability groups. Additionally, the high ability group chose the correct musical terminology more often than the other two groups. If some of the children did not know the correct terminology, they consistently repeated a word used to describe a previous repetition of the song material, illustrating little actual knowledge of the meaning of specific terminology. Among the adults, the music education majors scored higher than the general education majors. The data led the researcher to conclude that music training does have an effect on the ability to listen to and label musical examples using appropriate terminology. Although children were unable to identify changes in pitch, rhythm, timbre, and harmony, the adults were able to complete these tasks.

Apfelstadt (1986) studied the relationship of modality strengths and vocal accuracy in second grade students. According to her research, music is an aural art that can only be experienced fully when listening skills are developed. Since children develop aural modality strength in upper elementary grades, the researcher posits the need for kinesthetic and visual reinforcement when teaching children to sing with accuracy. Sixty-five second grade students were administered a brief singing test in which they echoed patterns sung by the researcher. Next, the modality strengths of the participants were determined. Each child completed the Swassing-Barbe Modality Index (SBMI).

The results of the SBMI revealed the majority of the children were visual learners. Auditory learners represented the next highest group, followed by mixed-modality learners, and then kinesthetic learners. These results, when compared to the scores from the singing test indicate that the visual learners were more accurate singers than the auditory learners. Apfelstadt further stated the results could be attributed to the fact that for children to repeat patterns, they
also must go through a process of remembering the pattern. It is possible that visual learners are able to visualize the pattern in their heads, thus scoring higher on the singing assessment.

The results of this study led the researcher to state the implications for teaching singing in relation to the modality strengths of young children. First, if visual learners are able to “picture” a melodic pattern before singing, aural and kinesthetic learners should be provided with visual activities that develop this skill as well. Moreover, the researcher cautions teachers not to depend on rote singing as a means of teaching vocal accuracy. Visual and kinesthetic activities should also be included in instruction. “The use of hand signs as in the Kodály system, stair step resonator bells, and line drawings to show the melodic contour of patterns are all suggestions seemingly used to make the aural impression of melodies more accurate” (Apfelstadt, 1986, p. 4).

Martin (1991) studied the use of hand signs when examining the acquisition of tonal skills in first grade students. The researcher wanted to know whether students’ pitch and tonal acquisitions would be affected when provided with kinesthetic and visual reinforcement. In the experiment, a large group of children were divided into three groups. The first group was asked to echo patterns sung by the teacher. The second group was invited to do the same, using hand signs as well. The third group echoed and signed while looking at visual stimuli such as melodic contour with Tonic Sol-fa syllables. In addition to the performance testing, all students were administered the Primary Measures of Music Audiation Test and the Metropolitan Readiness Test, which measure school readiness in young children.

Results of the study indicate that children with higher musical aptitude were the most successful at pitch and tonal acquisition. The researcher conducted training sessions with the students, but the sessions were determined to have no impact on the final scores of any of the
groups. The final results revealed that the groups provided with kinesthetic or visual stimuli scored higher than the group that solely echoed patterns sung by the teacher, further supporting the design of multi-modality instructional activities for young children.

The relationship of multi- and single-modality strengths and the short-term recall of rhythm patterns were tested with first, third, and fifth grade students (Cummings Persellin, 1992). The researcher questioned whether maturation and instruction targeting modality strengths would play roles in the recall of rhythm patterns. Upon entering the examination room, students drew a card, indicating one of seven modality tests: auditory, kinesthetic, visual and auditory, visual and kinesthetic, auditory and kinesthetic, and visual, kinesthetic, and auditory. Students were asked to recreate six rhythm patterns that increased in difficulty and length. The assessment method was representative of the modality card drawn by the student. For the visual test, short and long icons were used to represent the rhythms.

Results of these tests indicate that first grade students scored lowest on all tests. Regarding all the modality sub groups, the first grade students who were administered the visual test scored lowest overall. The highest scores for first grade students were only in the auditory and the kinesthetic tests. The third grade students had the next highest scores, and the fifth grade students scored the highest on all tests when compared to the other grade levels. The greatest gain in mean score was in the visual test between the first and third grades. The third grade students scored highest in the mixed modality test combining visual, auditory, and kinesthetic. The fifth grade students’ highest mean scores were split between visual-auditory testing and kinesthetic-auditory testing.

Results of the experiment illustrate that maturity and age do play a role in the modality strengths of children and that strengths shift with age. Therefore, when teaching rhythm to
young children many kinesthetic and auditory preparatory activities should be provided before introducing symbolic (visual) representations. When symbolic representations are introduced to primary-age children, they should be reinforced with auditory and kinesthetic activities. Cummings Persellin concluded, “teachers who prefer to teach using a Kodály presentation are to be encouraged to continue to involve their children in auditory and kinesthetic rhythmic activities before introducing the children to the printed page [of music]” (1992, p. 314).

In a subsequent study, Cummings Persellin (1994) studied learning modalities as they relate to rhythmic and melodic acquisition in 4- and 5-year-olds. Sixty-one students in a public, pre-kindergarten program were provided with fifteen-minute music classes, twice a week for ten weeks. The children and instructional techniques were divided into four groups: visual, kinesthetic, auditory, or multi-modality. Each group was given a pre- and post-test measuring acquisition of melody and rhythm.

Results suggested that the auditory group and the multi-modality group improved significantly from pre- to post-testing. Visual learners scored higher on the posttest for acquisition of rhythm but made no gains in acquisition of melody. The kinesthetic group made no significant gains. Auditory and multi-modality group matched pitch more accurately than the visual or kinesthetic groups. The researcher observed that the visual and kinesthetic groups concentrated more on the pictures or the movement than on accurately listening to and echoing melodic patterns. Conclusions based upon the foregoing research propose that pre-school music instruction should include activities for multi-modality learners.

Miller (2002) studied modality instruction that was integrated into constructivist instructional techniques in the elementary music classroom. The researcher observed that music concepts presented in activities employing multi-modality learning, increase student
engagement, guide the teacher in developing age-appropriate activities, create an environment for more wide-spread learning, and provide for deeper understanding and longer retention rates.

Based upon these results, a process for multi-modal music instruction for kindergarten through grade two was developed. Teachers should begin by introducing concepts aurally, eventually adding kinesthetic reinforcement. The visual applications of musical elements follow. Additionally, the teacher should provide time for individual student practice and frequently assess student progress (Miller, 2002).

The studies previously discussed illustrate that teaching music in a manner that serves the learning styles of individual students is very similar to teaching to individual learning styles in the general classroom. In both settings, teachers must employ strategies and activities that foster cognitive processing in aural, oral, kinesthetic, and visual learners.

The next section of this literature review presents key philosophical, pedagogical, and methodological principles of teaching in a Kodály-inspired music classroom. The discussion of principles is followed by specific research linking learning modalities and Kodály-inspired teaching practices.

**Kodály-Inspired Pedagogy**

The studies discussed in this review of literature address learning modalities as they relate to conceptual learning in both the general and music classroom settings. The premise of the current study is to determine the implications of learning modalities for teachers and students as they relate to conceptual learning within a Kodály-inspired music classroom. The following is an explanation of the principles of Kodály-inspired teaching and the influence these principles have on elementary music teaching in the United States.
Throughout his life, Zoltán Kodály often spoke of his desire to re-establish a quality musical heritage that had been once lost in his native country of Hungary. In 1973, Erzsebet Szőnyi wrote *Kodály’s Principles in Practice: An Approach to Music Education through the Kodály Method*. Included in this book are some basic principles that were extrapolated from Kodály’s writings and his work with other pedagogues (Szőnyi, 1973, pp. 12-17).

**Philosophical Tenets of Kodály-Inspired Teaching**

- Music belongs to everyone: proper musical education is to be the means of appreciating and enjoying it.
- Music illiteracy impedes musical culture and is the cause of sparse attendance at serious concerts and opera productions.
- Music is an experience the schools must provide.
- Music education contributes to the many-sided capabilities of a child, affecting not only specific music aptitudes but also general hearing, his ability to concentrate, his conditional reflexes, his emotional horizon, and his physical culture.

**Pedagogical Principles of Kodály-Inspired Teaching**

- Active participation in music-making is by far the best way to get to know music.
- Musical culture must be introduced as early as nursery school, instead of the usual belated attempt at secondary schools.
- Hungarian folk music is to become the child’s musical mother tongue. Only after acquiring it, should he turn to foreign musical material.
• Children should be taught with only the most musically valuable material. For the young, only the best is good enough. They should be led to masterpieces by means of masterpieces.

• Song and movement should be united in the practice of popular folk games.

**Methodological Principles of Kodály-Inspired Teaching**

• Developmentally appropriate repertoire and activities should be presented in a sequential manner.

• Musical material should be taught using a progression of sound before symbol.

• The curricular structure is based upon the principles of a spiral curriculum.

• All rhythmic and melodic patterns are derived from the context of quality repertoire.

• The principal instrument is the human voice.

According to Sinor (1997), Kodály espoused these principles, which were adopted and applied by American music educators beginning in the 1960s. She recommended the following for teachers desiring to implement Kodály-inspired teaching practices into their classrooms (1997, p. 4-5):

• the teacher must examine the goals of the Kodály approach and check to see if they are compatible with his/her own teaching goals;

• the teacher must maintain an active musical life. The cultivation of musicianship skills is of utmost importance;

• the teacher should look into beginning Kodály training in an institute or local workshops; and
• the teacher should become involved with regional and national Kodály organizations.

**Kodály-Inspired Pedagogy and Learning Modalities**

Only a few studies of Kodály-inspired teaching in relation to learning modalities exist. Saunders (1996) studied the relationship of perceptual modality and music aptitude. The researcher administered the Swassing-Barbe Modality Index and the Primary Measures of Music Audiation Test to 32 kindergarten students. Results indicated that 50 percent of the children were visual learners, 34 percent auditory learners, and 16 percent kinesthetic learners. Saunders concluded that there is a substantial relationship between tonal aptitude and auditory and kinesthetic abilities. In addition, there was a high correlation between the rhythmic aptitude scores and auditory ability. Therefore, the researcher recommends that kinesthetic reinforcement for tonal acquisition should be present in the instructional process. Some examples he provided were playing instruments and using hand signs and gestures to show the relationship of pitches.

Cousins Youngson and Cummings Persellin studied the use of Curwen hand signs in the process of developing vocal accuracy in young children (2001). Forty-seven first grade students received vocal music instruction for a period of ten weeks. All participants were pre- and post-tested for vocal accuracy. Half of the children received instruction that included vocal modeling, modeling of hand signs, and verbal feedback from the teacher. The other half received the same instruction, but the teacher did not provide modeling of hand signs in the instructional process. The group that received modeling of Curwen hand signs made significant gains in vocal accuracy. The group receiving no modeling of Curwen hand signs made small gains in vocal accuracy but not enough to be considered significant. Based upon the results, the researchers
recommend that multi-sensory experiences be provided in vocal instruction, specifically aural, kinesthetic, and visual activities.

Houlahan and Tacka (1994) discuss aural, oral, kinesthetic, and visual learning and their functions when embedded in the pedagogical sequence of preparation, presentation, practice and evaluation. Gardner (1991, in Houlahan & Tacka, 1994, p. 36) stated the need for recognizing the individual needs of learners.

Students learn in ways that are identifiably distinctive. The broad spectrum of students—and perhaps the society as a whole—would be better served if disciplines could be presented in a number of ways and learning could be assessed through a variety of means.

Teaching to individual modality strengths is one way, according to the authors, in which Kodály-inspired teachers can reach all learners. Moreover, a process for teaching aural, oral, kinesthetic, and visual learners should be embedded in the individual phases of preparation, presentation, practice, and evaluation. They recommend that children experience music physically first, followed by a sequence of aural, then oral instruction. The last modality to be introduced should be visual learning because children must physically, aurally, and orally process music before they are able to read or create a visual representation of it. The practice phase of Kodály-inspired teaching should include skill development in sight-singing, writing, memorization, inner hearing, dictation, part work, improvisation, composition, form and analysis, and listening. Thus, the authors conclude that when the above skill work is integrated into the instructional sequence, Kodály-inspired educators are also teaching to the modality strengths of children.

Gault (2005) also wrote about teaching aural, oral, kinesthetic and visual learning as it relates to the instructional process in Kodály-inspired teaching. He embraces Bruner’s modes of representing learning—enactive representation, iconic representation, and symbolic
representation—and translates them into a process for teaching musical elements. The first stage includes experiential activities such as singing, moving, aurally perceiving, and working with icons. The second stage includes bringing the experiential to consciousness by relating singing, moving, aural perception, and iconic work to the musical concepts. The final stage is the application of new knowledge through reading, writing, composing, and improvising (Gault, 2005).

Research discussed in this section is foundational for the current study of aural, oral, kinesthetic, and visual learning modalities because it relates to current teaching practices and the acquisition of musical elements within the Kodály-inspired music classroom. Saunders (1996) and Cousins Youngson and Cummings Persellin (2001) offer perspectives about how employing strategies that target learning modalities effects singing skills in young children. Houlahan and Tacka (1994) and Gault (2005) discuss how theoretical foundations for teaching aural, oral, kinesthetic, and visual learners serve as a framework for implementing Kodály-inspired instructional practices in the music classroom.

**Conclusions**

This review of literature illustrates how theoretical structures guide and influence instructional practice. The work of theorists such as Dewey, Piaget, and Vygotsky are seminal leading to the work of Bruner, Gardner and Gordon. Their cognitive and developmental theories serve as a foundation for studies in learning modalities and their implications on teaching practices and the learning process.

The initial research about learning modalities, as illustrated by the work of Barbe and Swassing and Dunn created momentum for similar research in the field of music education. Many of the studies presented in this review of literature are positivistic in nature and provide
solid groundwork for the current study. The purpose of this study is to examine learning modalities and their impact on Kodály-inspired instructional practices. An explanation of qualitative methods in phenomenology and grounded theory, as they are employed in this study, will be presented in the next chapter.
CHAPTER 3

Methodology

The problem of this study is to identify and analyze certain learning modalities, to determine to what extent they are linked to and function in the teaching of musical elements when nested in a Kodály-inspired instructional sequence. The qualitative research approach employed was mixed mode, combining the approaches of phenomenology and grounded theory. According to Creswell (2007, p. 57), “A phenomenological study describes the meaning for several individuals of their lived experiences of a concept or phenomenon.” It provides a rich description of what participants have in common. He further states, “The basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence” (Creswell, 2007, p. 58).

Van Manen (1990, p. 11) describes phenomenology as “A human science (rather than a natural science) since the subject matter of the phenomenological research is always the structures of meaning of the lived human world.” The essence of the phenomenon is described through a systematic study of underlying meanings and human structures (Van Manen, 1990). The current study examined the phenomenon of learning in the Kodály-inspired music classroom. In studying the structure of musical learning as it occurs in a naturalistic setting, it is hoped that underlying meanings are discovered about the nature of the teaching practices of participating teachers as they attempt to teach toward the specific learning modalities of their students.
The study of lived experience is further illustrated through using the approach of grounded theory. Multiple definitions of grounded theory exist. For the purposes of the current study, the social constructivist approach to grounded theory, developed by Dr. Kathy Charmaz, is employed. She describes this approach. “Simply stated, grounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories ‘grounded’ in the data themselves” (Charmaz, 2006, p. 2). Like phenomenological methods, grounded theory studies are “examining processes, making the study of action central, and creating abstract interpretive understandings of data” (Charmaz, 2006, p.9). The analysis and creation of theoretical structures occur as the data are being collected. This ongoing process of analysis informs subsequent steps in data collection (Charmaz, 2006).

No studies employing the above mixed-method could be found. One study that employs phenomenological methods was conducted by Bartholomew (1995). He studied the principle of teaching “sound before symbol” in the music classroom, examining it through a phenomenological lens. Studying the phenomena of melodic relationships, the intention of thought processes in active music-making, and the cultural relevance of repertoire, Bartholomew found that sound is contextualized within cultures through active participation in singing and music making. The contextualization is achieved through thought processes and responses that should guide educators in the creation and implementation of instructional methods.

In this study, the phenomena of learning music in the elementary classroom and its relationship to the teaching practices of Kodály-inspired educators is examined. Specifically, the practice of teaching music employing aural, oral, kinesthetic, and visual activities is studied.
Study Participants

From a group of twelve potential participants, three Kodály specialists were selected as subjects for this study. All participants were required to have a Certificate in Kodály studies or the equivalent of three levels of study. The researcher selected the participants based upon first-hand knowledge of the teachers’ teaching practices. Two of the three participants had either been observed in their teaching setting or had their teaching videos reviewed by the researcher. In general, the researcher examined the characteristics of the phenomena of learning that is occurring in the classroom, and how student responses act as a reflection of the musical experiences facilitated and led by the teacher.

Participants were observed three times in their classrooms for a minimum of one hour per visit. Simultaneously, detailed field notes, with observer’s comments, were collected. Following the observation phase of research, an hour-long interview with the participant-teacher ensued. Throughout this process a detailed research journal was written. The purpose of this journal was to gather notes to self, memos, and reflect on the philosophical, theoretical, pedagogical, and practical training of the researcher.

The participants in this study were all Kodály-inspired music educators teaching in public elementary school settings. All hold certificates in Kodály studies from the University of St. Peter, a small private university in the upper Midwest. Although the three participants attended the same Kodály program, all studied upper-level pedagogy with different instructors. The following is a description of each teacher participant and their teaching settings. Pseudonyms are used for the names of the teachers and their school names and locations (see Appendix A for site and background information categories).
• Lucy Smith teaches grades K through 5 in an elementary school located in a suburb adjacent to a major metropolitan area. Smith has 15 years of teaching experience, the past six at her current school. The school has a population of 575 students coming from upper to middle class backgrounds. Students in the school receive music instruction for 45 minutes twice a week. Two fifth grade classes were observed for this study.

In Smith’s school district there is an established music curriculum. Music specialists are required to assess student progress formally four times a semester. There are three semesters in an academic year.

• Carmen Prowell teaches grades K through 3 in two elementary schools in a small town located 40 miles west of a major metropolitan area. Prowell has 26 years of teaching experience. One school houses grades K through 2 and has 375 students; the other site includes grades 3 through 6 and has a population of 500 students. The community is predominantly middle class. Students receive music instruction for 25 minutes three times per week. A third grade class was observed for this study.

Prowell’s school district has an established music curriculum, consisting of a curriculum map and a scope and sequence for grades K through 6. The number and frequency of student assessments is not prescribed. Prowell assesses her students in written and performance format twice a month.

• Rita Baumgartner teaches grades K through 6 in an elementary school located in a suburb 15 miles south of a major metropolitan area. Baumgartner has nine years of teaching experience. There are 400 students in the school, all from lower and middle class

backgrounds. Kindergarten students receive music instruction 25 minutes per day for five consecutive days in a ten-day cycle. Students in grades 1 through 6 receive 50 minutes of instruction for three consecutive days in a nine-day cycle. A kindergarten class and a first grade class were observed for this study.

Baumgartner’s school district has a music curriculum on record but she does not use it. She has developed her own scope and sequence for teaching. Student assessment occurs twice a year, a common agreement among the music specialists in the district. There is, however, no agreement among the specialists as to when and how musical elements are taught within the grade levels.

Data Gathering Procedures

Data gathering procedures most commonly used in phenomenological and grounded theory studies are open-ended interviews, observations, collection of field notes, and the examination of records and documents (Creswell, 2007 & Charmaz, 2006). In this study, the following forms of data gathering procedures include: (a) the generation of detailed field notes taken during the classroom observations; (b) open-ended interviews; and (c) a research journal.

Field Notes

All subjects were observed three times for a minimum of one hour in their classroom settings. During each classroom observation, field notes were taken. Included in those notes were observer’s comments and notes to self. In addition, interview questions that had relevance to the individual observation were scribed during and immediately following the classroom observation.
Open-Ended Interviews

According to Charmaz (2006), conducting in-depth interviews “…fits grounded theory strategies for increasing the analytic incisiveness of the resultant analysis….We narrow the range of interview topics to gather specific data for developing our theoretical frameworks as we proceed with conducting the interviews” (p. 29). Each subject in this study was interviewed upon the conclusion of the classroom observation. The interviews were recorded on a digital recorder, and hand-written notes were scribed during the interview process. These notes were added as comments and notes to self once the transcription of the interview was completed.

Because this study is observational in nature, the majority of the interview questions were generated from the individual classroom observations. Every subject was asked to answer a set of standardized questions that provided technical and demographic data (see Appendix B for interview questions).

Research Journal

According to Charmaz (2006, p. 16), “Grounded theorists’ backgrounds, assumptions, and disciplinary perspectives alert them to look for certain possibilities and processes in their data.” Throughout the current study, a personal research journal was written. It included detailed notes and reflections of data gathering sessions as well as philosophical, theoretical, and pedagogical perspectives and biases of the researcher. Moreover, detailed notes about the researcher’s background as a Kodály-inspired music specialist and teacher trainer were recorded.

Data Analysis

During the analysis phase of a phenomenological study, the researcher looks for patterns in the data from which themes and meanings emerge, providing deeper meaning to a lived
experience shared by a group (Van Manen, 1990). Furthermore, “phenomenological themes may be understood as the structures of experience” (Van Manen, 1990, p. 79). Data analysis in the grounded theory approach is very similar to phenomenology, with one small difference. In phenomenology, the researcher most commonly begins the analysis process after all the data are collected. In grounded theory, a systematic coding process allows for themes to emerge, and encourages the researcher to conduct in-depth analysis during the data collection process (Charmaz, 2006). This approach provides the researcher with an opportunity to use initial findings as a guide in subsequent data collection sessions. In the current study, the process developed by Charmaz was employed, beginning with the initial coding, followed by focused coding. The final step in the analysis was theoretical coding.

In initial coding, both line-by-line and incident-to-incident coding were used. Line-by-line coding is most appropriate for the analysis of data collected during interviews and was used as such in this study. Incident-to-incident coding, according to Charmaz (2006), is an ideal way to conduct analyses of observational field notes. A thematic structure is constructed through the comparison of single incidents as they occur in the field. This process was used to analyze the field notes generated from the classroom observations.

The second phase of analysis was focused coding in which the line-by-line and incident-to-incident codes were examined further. A decision as to which codes are most frequent and relevant was made and were subsequently formulated into conceptual categories (Charmaz, 2006). In the current study, the data collected during interviews was compared with that collected in the field notes. Themes and categories were then built upon this structure.

The final phase of data analysis used in this study was theoretical coding. “Theoretical codes specify possible relationships between categories you have developed in your focused
coding” (Glaser, 1978, as cited in Charmaz, 2006, p. 36). This integration of focused codes establishes a foundation for which theories are constructed.

**Validity and Generalizability**

According to Creswell and Miller (2000, in Creswell, 2007, pg. 207-209), the researcher should validate a qualitative study using a combination of 8 validation strategies. They are: (a) prolonged engagement and persistent observation in the field; (b) the use of triangulation (sources, methods, investigators, and theories); (c) peer review; (d) negative case analysis; (e) clarification of researcher bias; (f) member checking; (g) use of rich, thick description; and (h) external audits. The current study employs the procedures of observations, triangulation, clarification of research bias, member checking, and use of rich, thick description.

Triangulation provides multiple opportunities and perspectives for which the researcher can perceive and analyze data (Stake, 1995). According to Charmaz (2006, p. 14), “Researchers generate strong theories with rich data. Grounded theories may be built with diverse kinds of data—field notes, interviews, and information in records and reports.” This study constructed methodological triangulation by collecting and recording data through three channels: observation, open-ended interview, and research journaling.

The third method of data collection, the research journal, further establishes validity by exposing biases and preconceived philosophies, theories, and pedagogical viewpoints of the researcher. Grounded theorists must be cognizant of personal biases and assumptions because they may influence how the data are approached (Charmaz, 2006). These data were provided as a tool for monitoring the analysis of the philosophies, theories and pedagogic practices of the subjects in the study.
Detailed data were collected and recorded during the observation and interview processes. Subjects were asked to participate in member checking on two occasions during this study. Member checking provides an opportunity for subjects to review interview transcripts and the final report/analysis (Stake, 1995). In the grounded theory approach, the validation of the constructed theories is strengthened when the theories make sense for research participants as well as others sharing in the lived experience. The theoretical structure developed from in-depth analysis should “offer them deeper insights about their lives and worlds” (Charmaz, 2006, p. 183).

After the interviews were transcribed, the subjects in this study were asked to read and make necessary clarifications in their interview transcripts. The same procedure was followed when the final analysis of the data was written.

The procedures for validity and reliability outlined above have been provided with the intent of producing valid, reliable research, contributing to pedagogic processes in the elementary music classroom.
CHAPTER 4

Reporting of the Data

The sub-questions for this thesis will be answered in this chapter using data collected in three elementary music classroom settings. For the study, three modes of data gathering were employed: (a) classroom observations and videotaping; (b) open-ended interviewing of teacher participants; and (c) research journaling. In this chapter the observational and interview transcript data will be analyzed as a means of addressing each sub-question. Data generated from the research journal will be included when there is information that has relevance for each sub-question.

The problem of this study was to identify and analyze certain learning modalities, and determine to what extent they are linked to and function in the teaching of musical elements when nested in a Kodály-inspired instructional sequence. Specifically, what are the pedagogical characteristics and implications for the teacher, and by extension, the learner under the following instructional conditions:

1. Aural activities in the preparation or practice of a musical element;
2. Kinesthetic activities in the preparation or practice of a musical element;
3. Oral activities in the preparation or practice of a musical element;
4. Visual activities in the preparation or practice of a music element.
Aural Learning

Sub-Question #1: What are the pedagogical characteristics and implications for the teacher and, by extension, the learner when aural activities are presented in the preparation or practice of a musical element?

Class Observations Data

The three teacher participants in this study incorporated various aural activities within the preparation and practice phases of the instructional sequence. In the preparation phase of instruction, the teachers asked students to aurally identify the “unknown” element within known repertoire. If the class was working in the practice phase, the students were asked to identify the new element by name in known repertoire.

Smith

In the first observation session, Smith’s fifth grade students were aurally preparing the rhythm tim-ka. They began class by singing and dancing to known repertoire such as *As I Look into Your Eyes*—a song in which tim-ka is a prevalent rhythmic element (see Appendix C for notation of song). The students were then asked to listen to Smith play tim-ka patterns on the temple blocks. As soon as they recognized the *ostinato*, they were instructed to follow her aural cue by stepping the rhythms. Smith then transitioned into singing *I Love the Mountains*, asking the students to sing and step the rhythms of the song (see Appendix D for notation of song). When finished, she asked the students to identify where the “galloping rhythm” occurred in the song.
Prowell

Prowell’s third grade students developed their aural skills with fa by playing “The Poly Dot Game” (See Appendix E for game directions). Prowell extracted the pitch pattern fmrd from a familiar piece of repertoire. She instructed the students to give her a “thumbs up” when she sang that pattern and a “thumbs down” when she sang something other than fmrd. Once familiar with fmrd, the students spread out among a number of rubber dots placed on the floor. The teacher then sang numerous fa patterns and the students listened and walked between the dots. When she sang fmrd, the students were to arrive on a dot as soon as possible. The game continued with students finding another dot when fmrd was sung again and those without dots could and would steal dots. Once the students experienced success with this routine, she stopped singing the Tonic Sol-fa syllables and sang on the neutral syllable “loo.” The students exhibited success in aurally processing this form of the game as well.

Baumgartner

Baumgartner constructed activities to develop the aural skills of her students as they practiced the pitches sol and mi. She placed a short sol-mi motive on the three-line staff on the board. The students were asked to decode and sing the pattern. Immediately, a little boy in the class thought that the motive was found in the song Star Light, Star Bright. Another boy disagreed and said it was the first pattern of 1, 2, Sky Blue (see Appendix F for notation of song). The class tested each answer and determined that it was indeed the opening pattern of 1, 2, Sky Blue. The teacher next sang the second motive of the song with text. She asked the students to decode the pattern and sing it back to her in Tonic Sol-fa. The students were able to do so with ease and subsequently added the notation of the second motive to the first on the board.
Interview Data

The teacher participants in this study each took time to reflect upon the implications and outcomes of the aural activities they designed for their classes. When asked how the pedagogical and methodological principles of Kodaly-inspired teaching guided her design of aural activities, Smith responded:

Yep. It's hard to see in fifth grade because, you know, that's been all the work up to then but maybe, if it's okay, I could go back to my work in first grade. According to my training, everything that I do with first grade students that I have never seen before is aural: with the ears and oral first. We are experiencing music that way first and doing lots of movement with music. There is so much preparation going on in first grade before any concepts ever are brought forth “consciously.” I find that the longer I wait to “present,” the more successful my students are, so there is lots of time listening, lots of time singing, or speaking, and lots of kinesthetic work (Interview with Smith, April 18, 2011).

When asked the same question, Prowell reflected on the “Poly Dot Game.”

There were just a few kids who could pick up on (decoding fa patterns) so it really put it to me to say you need to do more actual listening. So, the activity we did today with them, isn’t something I do with them often—really connecting what they are hearing to what it actually is. I think that has been an ‘ah hah!’ In the past, if they have read it, they can sing it, let’s move onto something else. I think I pushed it a little bit far that way in the past but this year I have been trying to focus more on that (aural practice). Today was one of the first times I really did some of that in the poly spot activity. I guess I was happy to see that most of them did as well as they did. I’m thinking maybe I’m doing a better job than I really thought I was, on the experiences I build for them. I hadn’t isolated it (aural practice) enough or realized what they had been doing (Interview with Prowell, January 28, 2011).

Baumgartner commented on the aural skills of her young students with the following statement. “As I said earlier, I am always surprised when kids can just look at something and hear it in their head and know what it is before I even—you know—they get to step 4 before I have even asked the question to step 1” (Interview with Baumgartner, April 30, 2011).
Journal Data

The following is from an entry in my research journal. This was written at the very beginning of the data collection process. At the time, it was clear that the teachers were certainly designing activities that reached all learners.

I am pleasantly surprised to see many instances of aural work serving as preparation for reading, naming, and practicing a musical element. As a pedagogy instructor, I try to stress the importance of aural work in preparation and practice, but I often wondered whether it really “stuck” with my students. Yesterday Mrs. Prowell was working with fa and dynamics with her students. A large portion of her lesson was designed to work on aural recognition of dynamics as well as repertoire containing fa.

Mrs. Smith designed her activities for the aural preparation of tim-ka, as well as activities for the students to practice major and minor scales. In one portion of the lesson, the students listened to her sing major and minor motives. They would then echo them by playing them on barred instruments. I was amazed at the speed with which the students were able to aurally process and transfer the patterns to the instruments (Journal Entry, January 6, 2011).

Summary

The students in all three classrooms experienced success in all aural activities designed by the teachers. This success can be attributed to the careful design and sequencing of the activities; one activity preceded the next more difficult activity.

All three teachers introduced the aural activities by first singing core repertoire with their students. This approach allowed the students time to aurally process and hear the elements within its musical context—a context that was familiar to them. The teachers then extracted core motives from the repertoire and used them in high concentration preparation or practice activities. The students were required to identify the musical elements during these activities.

In addition to the implications for the students, the reflective statements made by the teachers indicate they were thinking about the process of aural learning while designing their lessons. Smith recognized that aural processing should begin in the primary grades, leading to
advanced work in the upper grades. Prowell realized she needed to provide more aural practice for her third graders, and Baumgartner recognized that when aural activities are present, even the youngest students develop advanced skill in aural processing.

**Kinesthetic Learning**

**Sub-Question #2:** What are the pedagogical characteristics and implications for the teacher and, by extension, the learner when kinesthetic activities are presented in the preparation or practice of a musical element?

**Class Observations Data**

In all classes observed, kinesthetic activities were incorporated into the preparation and practice of musical elements. The activities in the classes varied; both fine and gross motor movement activities were present. The following are examples of kinesthetic activities as they relate to the preparation or practice phase of the instructional sequence.

**Smith**

Smith incorporated both fine and gross motor movement activities into the practice of tim-ka. She presented tim-ka notation during the class period prior to the second observation lesson. As the students entered the class, they formed a circle in the movement area and immediately joined the teacher in singing *I Love the Mountains*. Next, the students sang and stepped the rhythms of the song. They transitioned to their seats, singing the song in a two- and three-part round. Smith then asked the students to name the new rhythm, to which they replied “tim-ka.” She instructed them to sing and tap (with rhythm fingers) the text of each motive. The students repeated this process, but replaced the text with rhythmic language. As they did this,
the teacher wrote the rhythms of the song on the board. When finished, the students checked their work by singing and tapping the rhythms one last time.

The closing activity of this lesson was “The Zombie Game” (see Appendix G for game directions). For this game, a student is secretly chosen to be the “zombie,” and another student is chosen to play a rhythmic ostinato on the temple blocks. The class listened and stepped the ostinato, while at the same time, moving to get away from the “zombie” who attempts to tag everyone. One by one, the students were tagged and had to sit down on the floor. In addition, if the students did not step the pattern correctly, Smith would “call them out.” This game continued until two girls remained in a standoff. This went on with the “zombie” chasing the other girl for about two minutes. The game ended when the “zombie” failed to maintain the rhythm in her feet.

Prowell

Prowell designed numerous activities incorporating the use of Curwen hand signs while singing Tonic Sol-fa syllables (see Appendix H for illustration of Curwen hand signs). Her third grade students were in the practice of phase of reading fa. In the first observation session, the students began practicing fa by singing Kaeru No Uta (The Frog Song) (see Appendix I for notation of song). They sang the song in unison and a two-part round.

After singing the song with text, Prowell walked to the Tonic Sol-fa tone ladder on the board. The students sang the song on Tonic Sol-fa with hand signs while the teacher pointed out the melody. Prowell then stepped away from the ladder and asked the students to sing with hand signs from memory. They were able to do this with ease, and they finished the activity by singing the song in a round on Tonic Sol-fa with hand signs.
Baumgartner

The first grade students in Baumgartner’s class practiced steady beat and reading *ta* and *ti-ti* while singing the song *Lucy Locket* (see Appendix J for notation of song). The students sat in a circle formation, and they practiced beat by singing and pointing to every student, one by one, around the circle. When successful, Baumgartner handed a “pocket” to a student in the circle. The students passed the pocket around the circle on the beat; those without the pocket continued to point to each person as they received the pocket. After each repetition, the last student to hold the pocket would take a rhythm card from inside it and tap and say a four-beat motive containing *ta* and *ti-ti*. The activity continued for four or five repetitions.

In the kindergarten class, the students practiced *faster/slower* by singing and moving to known repertoire. The students pumped their arms back and forth as they chanted *Engine, Engine, Number 9* (see Appendix K for notation of rhyme). They pretended to travel up a steep hill, chanting and moving slowly. Next, they pretended to travel down a steep hill, performing the chant with a fast tempo. Baumgartner then had them transition into large motor beat movement. The class sang *Hey, Betty Martin* while tiptoeing, running, and “hop scotching” around the circle (see Appendix L for notation of song). With each movement, the class naturally adjusted the tempo to match the movement.

**Interview Data**

During the interviews, the three teacher participants reflected on the incorporation of kinesthetic activities in their teaching process. Smith noted:

> I always start my classes with some kind of movement. The longer I teach the more I realize the value of movement and the importance of having kids move right away in the lesson. Often when kids come into my music room, they read the sign at the door and come into the large movement area and do whatever it says, and we get going right away. Most of that movement usually involves large body, large muscle—a chasing game or a
hand jive or something like that. I feel that incorporating movement is really important to my teaching, and I think it has been successful for the kids and their learning.

**Researcher:** I observed that they didn't go to the flip forms right away, they go to the back of the room and move right away.

**Smith:** Yep, I really don't like them to do a sitting activity, even in the circle, unless they just absolutely have to. I really want them up and moving. Usually that movement, of course, is something we already had going. It's a review of something; it's something they are familiar with. If it is early in the year, then it is just something easy they can catch on to. Otherwise, it is something very familiar to them and it is fun and energizing, and gets them moving (Interview with Smith, April 18, 2011).

Prowell commented about how she introduced *The Frog Song* in the preparation phase for learning *fa*.

I actually started *The Frog Song*, but didn’t do anything written (show the notation) for a long time. I just told them (the students) that *fa* was in there (the song), and used the tone ladder instead. I have one little boy who is pretty intense, and he asked, “When do we get to see this (*fa*)?” He was ready, he was so ready (Interview with Prowell, January 28, 2011)!

Baumgartner commented on the importance of incorporating kinesthetic activities in lessons, further reflecting on how it reinforced the steady beat work with her first grade students.

I think most students need—even if the kinesthetic activity is not directly related to the musical element, even if it is just a game—most of them need something to do with each song. There are some songs that they just like to sing but I feel like I have a much easier time getting them engaged in the musical content if there is a kinesthetic piece to it, which sometimes can just be clapping, but sometimes it needs to be the game that goes with it. In the passing of the steady beat for example, I have noticed a much higher success rate with being able to pass the pocket around (the circle), or for the person in the middle to be pointing with a star if everybody points along with them.

**Researcher:** How did you come to that decision?

**Baumgartner:** I think just trial and error.

**Researcher:** You just discovered that based on trial and error.
Baumgartner: But, it reinforces everybody who is not passing because they are doing it so when it is their turn, they usually get it right and it helps whoever is doing it (passing on the beat). If they are struggling, they can see everybody else doing it. So, that is a kinesthetic thing that I have noticed (Interview with Baumgartner, April 30, 2011).

Journal Data

The journal entry below was written after my first observation session in Baumgartner’s classroom. In it, I address her careful planning and implementation of a kinesthetic activity. The students were practicing passing an object on a steady beat. Later in the lesson, motives from the song Valentine were extracted and decoded by the first graders (see Appendix M for notation of song).

One of the activities she planned for her students struck me. Baumgartner taught a passing game to her first graders, which is not an easy thing to do. My first impression was “wow, passing games are very difficult for young children.” My reservations were put to rest by watching her carefully prepare this activity with her students. First the students sang Valentine, pointing to each person around the circle on a steady beat. She asked them to identify where the silent beat fell. The students were able to name the placement of the silent beat every time! Baumgartner then handed a student a paper valentine. The valentine was passed around the circle while the students continued to point (following the valentine heart) and sing. They had success in sustaining and passing the object on a steady beat (Journal Entry, February 17, 2011).

Summary

All three teacher participants consciously designed kinesthetic activities for the preparation or practice of musical elements. Smith asked her students to step known rhythm patterns preceding an activity in which the students decoded and tapped the same rhythms. Her instructional sequence led the students from gross motor movement to fine motor movement, which was incorporated into the high concentration portion of the lesson. When the students were asked to apply their knowledge of tim-ka, the students were able to decode known patterns with ease.
Prowell used the tone ladder and asked her students to decode, sing, and use Curwen hand signs to represent Tonic Sol-fa pitches. Specifically, the students used hand signs to reinforce intervallic relationships, ultimately singing *The Frog Song* in multiple parts. It is clear that the use of hand signs reinforces the aural work, allowing for cultivation of skills such as part-work and singing in tune.

Baumgartner designed a sequence of kinesthetic instruction working on passing a steady beat. She carefully prepared the final passing activity by asking all the students to point the beat when they were not directly involved in the passing of an object. Asking all students to point while singing increased focus and participation and provided more opportunities for the students to practice their steady beat skills. When an object (the pocket or valentine heart) was introduced into the activity, the students were able to successfully pass it while sustaining a steady beat.

**Oral Learning**

Sub-Question #3: What are the pedagogical characteristics and implications for the teacher and, by extension, the learner when oral activities are presented in the preparation or practice of a musical element.

**Class Observations Data**

Each teacher participant in this study crafted activities in which the students would orally express and apply the characteristics of a musical element. Further, the oral activities served a specific purpose when embedded in the preparation and practice phases of the instructional sequence.
Smith

In the first observation session, the fifth grade students were asked to sing major and minor scales while the teacher pointed to tone ladders projected by an overhead projector. The students sang both a major and minor scale using hand signs. Next, Smith posted absolute note names next to the Tonic Sol-fa of the major scale. She asked the students, “Where should I place the sharp or flat?” The students responded, and she placed the sharp in front of the F note. She asked the students to tell her what the absolute note name of low la would be if the major scale was in the key of G. The students answered “E.” She filled in the rest of the minor scale with absolute note names. The students checked their work by singing each scale, verbalizing the intervallic relationships (i.e., do-re, major second).

In the second observation session, Smith questioned the students again about the characteristics of major and relative minor. She then transitioned into asking the students to sing a la, based canon from memory on both Tonic Sol-fa syllables and absolute note names (see Appendix N for notation of song). The students then transitioned to barred instruments, while Smith asked what key the class was working on. They answered, “e minor,” set up their instruments accordingly, and promptly played the e-minor scale while singing the absolute note names. Finally, the students played a la, based canon while singing in Tonic Sol-fa and absolute note names.

Prowell

During the initial observation sessions, the third grade students were practicing performing and labeling familiar repertoire with dynamic markings. Prowell began one activity
by asking the students to sing *The Frog Song*. They sang the song in unison and in a two-part round. She then displayed the song in staff notation that was projected by an overhead projector, while asking the students, “Do you remember what dynamic markings we talked about in our last class?” A student immediately answered, “crescendo and decrescendo.” Prowell placed a crescendo sign under the opening phrase of the song, and a decrescendo mark under the following phrase. She performed both phrases, following the dynamic markings, and the students echoed. Prowell next marked the third phrase with a *p*. The students identified which phrase should be performed softly. Prowell then asked a student to choose a dynamic marking for the fourth phrase. The student chose crescendo, and the teacher promptly marked the score. The activity culminated with the students singing the song following all dynamic markings.

**Baumgartner**

Baumgartner provided numerous opportunities for her students to orally label musical elements. During a lesson on reading rhythmic motives containing *ta* and *ti-ti*, the teacher displayed the symbols for *ta* and *ti-ti* on the board, asking the students “What are the two rhythms we discussed during our last cycle? Take a couple of seconds and turn to your neighbor and discuss your answer.” The students immediately turned to their partners and discussed the names of the rhythms, and the characteristics of being “one sound for each beat” and “two sounds for a single beat.”

During another lesson, the students practiced reading *sol-mi* patterns on a three-line staff. In the introduction of this activity, Baumgartner posted a four-beat melodic motive on the board and asked, “What notes do you see? Turn to your partner and talk about it.” The students did so, and a little boy responded, “The top one is *sol*, and the bottom one is *mi*.” The class checked this
answer by singing the pattern on Tonic Sol-fa with hand signs. They decoded another pattern, constructing a known song. Once the children identified the song, they immediately stood in the circle and began to play the corresponding game.

**Interview Data**

In the open-ended interviews, two of the three teacher participants commented about oral learning activities in their lessons. Smith stated, “According to my training, everything that I do with first grade students that I have never seen before is aural: with the ears and oral first. We are experiencing music that way first” (Interview with Smith, April 18, 2011). Her comments were made in an effort to illustrate that the aural and oral processes begin at an early age and follow a sequential curricular structure designed for grades K through 5.

Baumgartner was asked to comment on the oral activities she implemented for her first grade students.

**Researcher:** Tell me about oral learning in your class. Obviously kids are singing which is oral, but I observed in your lessons that you have students turn to each other and discuss something before an answer is given when you have addressed the large group with a question. Talk to me a little bit about the philosophy you draw from when you engage students in this manner, and how that activity evolved or how it works as a teaching strategy in your classroom.

**Baumgartner:** I love it. That was what I learned about from the facilitators—the Professional Learning Community (PLC) facilitators that come observe us twice a year. I think it is just a means of getting a high rate of participation or a high response rate. It is a way to get everybody to respond and usually that teaching technique only takes 15-30 seconds.

**Researcher:** Yes, they (the oral activities) don't take long.

**Baumgartner:** That way everybody is participating, even if you don’t call on them, or if they don't know the answer, then they have somebody tell them the answer so they are engaged. If neither of them knows the answer, they figure it out together.
**Researcher:** So, another colleague suggested you pair students to share answers?

**Baumgartner:** I think it is called “Think, Pair, Share.” What I’ve noticed since I have been doing that (“Think, Pair, Share”) and since I have been intentional about it, especially with the older kids, although it does work even with the little guys, I feel like they have a much better understanding of why we are doing what we are doing. The students are able to articulate the essential characteristics of a musical element. For instance, we call *ta* its name because it has one sound in it and that picture only has one leg where *ti-ti* has two sounds and two legs. Now they can articulate the characteristics of the rhythms (Interview with Baumgartner, April 30, 2011).

**Journal Data**

In the journal entry corresponding to the prior discussion, I commented about Smith’s process for aurally reviewing the intervallic relationships in major and minor scales. When her students transferred the aural work to performing on barred instruments, I was impressed with the addition of oral work as well.

I was amazed at how she (Smith) demanded the students sing and play at all times. They did not play any patterns without oral work being done at the same time. This process for including oral work with the instrumental work can only serve to strengthen the musical skills of the fifth grade students in her class. It is a consistent form of oral review (Journal Entry, January 6, 2011).

I further remarked about the oral activities after the observation process was complete. I was pleased with the fact that all three teacher participants had consciously incorporated oral activities into their lessons.

Today I observed Baumgartner for the last time. She worked on the introduction of staff notation with the first grade students. In so doing, she was clear in her direct questioning of the students when identifying the rules and characteristics of reading and notating *sol* and *mi* on the staff. Prior to individual students answering her questions, she consistently asked the students to share their answer with a neighbor or partner first.

Reflecting upon the oral activities in the other classrooms, I was pleased to observe Smith and Prowell incorporate direct questioning in the preparation and practice phases of the instructional sequence. In the final observation, Prowell asked
her students to identify fa patterns. They were instructed to orally express whether certain patterns were the same or different from each other. Smith had the entire class singing Tonic Sol-fa pitches as she wrote them below the note heads on the board. All the students were engaged in giving the answers she wanted.

As a pedagogy teacher, I have my students actually script their questions in their lesson plans. Questioning is a skill that must be intentionally taught in pedagogy classes. It must be practiced and rehearsed by teachers in order for the process to be efficient and clear for young musicians (Journal Entry, March 1, 2011).

**Summary**

The design and implementation of oral activities in a music lesson is a critical process as it relates to preparing and practicing musical elements. The teacher participants in this study were intentional in crafting oral activities in which students verbalized the characteristics and functions of musical elements.

Smith asked her students to sing the intervallic relationships of major and minor scales in addition to singing the scales in an ascending and descending progression. When applied to the performance of familiar repertoire, the students were able to easily identify the placement of whole and half steps, the primary characteristics for which major and minor are identified. Further, Smith required her students to sing pitches on absolute note names or Tonic Sol-fa syllables while playing barred instruments, providing further repetition and practice of major and minor tonalities. Moreover, by asking the students to sing while playing, all students are involved and accountable for their own understanding of scale structures.

Prowell created oral activities in which students reviewed the vocabulary required for dynamic markings in music. While performing familiar repertoire, students were asked to identify dynamic markings by name and subsequently choose markings to be applied later to the performance of the piece. It was clear that Prowell was intentional about creating an activity
where the oral practice of vocabulary was immediately applied to performance, bringing what could be a very abstract concept (dynamics) to life for the third grade students.

Both Baumgartner and Smith crafted oral activities that included the participation of all students. Baumgartner used “Think, Pair, Shares” when she directly questioned the students about the characteristics of known rhythms and melodic motives. Through the process of pairing students in order to share and understand answers, all students were given the opportunity to think of answers to questions. This intentional oral engagement of learners allows the teacher to assess the progress of the entire group in an efficient manner, further informing the teacher whether it is appropriate to move on in the instructional sequence.

**Visual Learning**

**Sub-Question #4:** What are the pedagogical characteristics and implications for the teacher and, by extension, the learner when visual activities are presented in the preparation or practice of a musical element?

**Class Observations Data**

A wide variety of visual activities were present in each of the teacher participants’ lessons. The following examples outline the characteristics and purposes for incorporating visual learning in the preparation and practice of musical elements.

**Smith**

Smith’s fifth grade students were in the immediate practice of tim-ka during the second observation session. The teacher prepared a visual activity by asking the students to sing *Billy, Billy* (see Appendix O for notation of song). The students were standing in the back of the room. They began singing as they walked to their seats located in front of the overhead screen. Once
seated, they sang the song one more time, tapping the rhythms with their fingers on their palms. Smith followed this activity by asking the students to repeat, tap, and sing the rhythms in the song as she filled in the rhythms on the note heads displayed on the board. The students did so while Smith dictated the rhythms. When finished, the students assessed their progress by reading, tapping, and singing the rhythms from the board. Smith commended them for their work and directed them back to the movement area to play the game.

The students played an imitation game in which boys stand in a line facing a line of girls. To begin, the class sings the song while a girl travels down the set improvising movements. A boy must follow, imitating the movements of the girl. The fifth grade students moved through the set by walking on their hands, doing summersaults, walking while pretending to brush hair and put on lipstick, and many other comical stunts.

Prowell

In the first observation session, the third grade students were assessed on singing a short pattern containing fa (drmfmrd). This pattern was extracted from the opening phrase of The Frog Song. Prowell began the assessment, asking the students to sing through The Frog Song, while she picked up a toy microphone from her table. She sang the motive (drmfmrd) and the students, as a group, echoed the motivic pattern.

Next, Prowell called the names of individual students. She sang the motive and the students would echo, while she quickly marked scores on her clipboard. The first two students had difficulty with the Tonic Sol-fa, thus their pitches were inaccurate. Intuitively, Prowell stood up and wrote the Tonic Sol-fa syllable on the board, providing visual reinforcement for the students. The rest of the students completed the assessment. When finished, Prowell went back to the first two students and gave them another chance to sing the pattern. Both did so while
referring to the pattern written on the board. Each student sang the pattern with much more accuracy than the first time.

**Baumgartner**

Baumgartner’s kindergarten students were in the very early preparation of rhythmic notation (*ta* and *ti-ti*). They were aurally decoding and identifying long and short sounds in familiar songs, chants, and rhymes. In the final observation session, the students were instructed to sing *Apple Tree* with text while tapping the “way the words go” of the song with their fingers on their palms (see Appendix P for notation of song). The students sang and tapped the song twice.

Next, the teacher isolated the first motive of the song. Baumgartner and the students sang and tapped the first motive. She then asked the students to decode the short and long sounds of the first motive. The children sang and tapped once again. Baumgartner walked to the white board and orally isolated each beat. The students were able to decode the short and long sounds for each beat, as the teacher placed long and short dashes on the board. The students assessed their work by reading the entire pattern using “short” and “long” language.

The activity was completed as students practiced part-work skills. Half the class sang *Apple Tree* and tapped a steady beat on their laps, while the other half sang and tapped the words. On the final repetition, the two groups switched parts.

**Interview Data**

The teacher participants in this study all commented about the purpose, characteristics, and placement of visual activities within the instructional sequence. Smith reflected on how she constructs her lessons: the placement and purpose of visual activities. In this interview excerpt, she was talking about the order in which the students conduct the established classroom routine.
To follow my (Kodály) training, the highest concentration work comes next (in the lesson), something that’s brand new—we are either preparing a new concept or presenting something but it comes right then. The highest concentration comes right then, and it’s almost always on the risers where they need a visual to support whatever they are learning.

I find that when everything is prepared in all the learning styles first, there is just instant success with a presentation lesson. When my students have prepared a concept kinesthetically, aurally, orally, and visually—they might do something visually with their bodies (in preparation) but visual is the last thing that comes for them. Yes, it's visual last. It's just amazing how successful they are then (Interview with Smith, April 18, 2011).

Prowell discussed her need to make sure sufficient preparation occurs before presenting the written notation of a musical element. She then provided an example of how she more thoroughly prepared fa with her third grade students.

Sometimes I have to back myself up to say “hey, you didn’t even do that (certain preparatory activities) yet,” you need to make sure they have used it somehow before you actually show them what it is.

Usually it becomes something we sing or play first that contains it (the musical element), and we do some activities with it first and read it rhythmically, and then there were a couple of other songs that we probably had done before too. It was a rhythmic exercise first and then, we were able to come back to it a little later, this time we are going to look at the song on the staff (with the fa missing). Then they have to listen and find the one note (fa) that is different from anything they have done before (Interview with Prowell, January 28, 2011).

Another teaching technique for introducing visual activities was discussed with Baumgartner. She explained how she uses icons in the preparation phase of teaching rhythmic and melodic elements to kindergartners.

**Researcher:** I saw you using icons. Explain the purpose of that activity.

**Baumgartner:** I assume you are referring to short and long? Well, (I) just (use icons) as an introduction to notation, ending with high and low, too. Before getting on the big staff, we just do one line. I don't feel like that stuff is terribly unique to my teaching. That's pretty standard, with training.

**Researcher:** The use of icons came from your training?
**Baumgartner:** Yes

When asked how she reinforces visual learning beyond the use of icons, Baumgartner described a number of strategies.

Well, I think (I use) icons or notation in various forms, whether it is having them construct it, or my asking them to read something. With the little kids especially, I exclusively have them work with partners, which helps when they can point out things to each other. You know, another kinesthetic and visual thing that I have started doing this year is with melody—having them draw the melody in the air. I have seen a huge change in their understanding of being able to describe things accurately, you know, telling which sound was high and which one was low, when they can see each other drawing or describing, did it go up or did it go down. That's kinesthetic and visual I would say (Interview with Baumgartner, April 30, 2011).

**Journal Data**

In the following journal entry, I had just finished observing and interviewing Prowell. I reflected on how she, with 26 years of experience, maintains a reflective attitude about her area of expertise. She specifically spoke about adjusting her approach in preparing her students for reading notation.

I have just finished observing and interviewing Mrs. Prowell. I was struck by her candor in the interview. She was quite frank about how her teaching is always a process. She labeled herself a “life-long learner!” In one portion of the interview, she revealed how in the past she would rush the preparation phase of instruction, progressing too quickly to the visual or written notation.

In the past couple of years, she has been pushing herself to vary the preparatory activities to ensure she is reaching the majority of her students. I found this discussion fascinating. From what I observed in her room, her work has “paid off.” Her students were practicing *fa* with the use of dynamics. The students had no problem with any of the tasks she created for them. From my experience, if the preparation of conceptual learning is insufficient, the students will struggle in the practice phase. Her students worked with confidence and needed little remediation (Journal Entry, January 29, 2011).
Summary

The visual activities of the teachers and students previously discussed varied in purpose and function. Smith asked her fifth grade students to decode known rhythms in a familiar piece of repertoire and subsequently assess their work by reading and tapping the rhythmic notation written on the board. She prepared the visual activity by directing the students to sing and tap the rhythms of the song first. The students then decoded the rhythms from aural memory while the teacher wrote them on the board. The actual reading of the notation served as an informal assessment of the student work.

Prowell employed a visual of the Tonic Sol-fa syllables to aide in a vocal assessment. When the teacher sensed the children were struggling with the Tonic Sol-fa syllables, she promptly wrote the pattern on the board. This reinforcement helped the students to sing the melodic pattern with accuracy. When the struggling students were given another chance to sing while looking at the pattern, they sang much more accurately than the first time when they did not have a visual in front of them.

Baumgartner constructed activities in which the kindergarten students read iconic representations of rhythmic and melodic motives. Dashes placed on the board represented short and long sounds, a developmentally appropriate step in preparation for reading formal rhythmic notation. Similar to Smith, Baumgartner prepared the visual activity with aural and kinesthetic work first. The students then decoded the short and long sounds while the teacher placed them on the board. The students checked their progress by reading and tapping the pattern dictated by the teacher.
CHAPTER 5

Analysis: Learning Modalities in the Elementary Music Classroom

According to Creswell (2007, p. 57) “A phenomenological study describes the meaning for several individuals of their lived experiences of a concept or phenomenon.” It provides a rich description of what participants have in common. He further states, “The basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence” (Creswell, 2007, p. 58).

As with phenomenological methods, grounded theory studies approach this method by “examining processes, making the study of action central, and creating abstract interpretive understandings of data” (Charmaz, 2006, p. 9). The analysis and creation of theoretical structures occur as the data are being collected (Charmaz, 2006). Strauss and Corbin (1998, in Charmaz, 2006, p. 127) define theory as “a set of well-developed concepts related through statements of relationship, which together constitute an integrated framework that can be used to explain or predict phenomena.”

In this chapter, theoretical assertions for the above methods serve as the framework for analyzing and interpreting the lived-experiences of the teacher participants in this dissertation. Moreover, this form of analysis and interpretation serves as a foundation for the creation and presentation of theoretical structures as they relate to learning modalities employed in a Kodály-inspired music classroom.

Aural Learning

The teacher participants in this study all designed and implemented learning experiences which develop aural skills that serve as a pathway to aural learning. Based upon the comments
made in the interviews, the classroom observation data, and data from the research journal two theoretical structures emerged:

• educators must develop aural learning experiences that lead to aural literacy. The pedagogical aural activities that lead to these experiences are rooted in and extrapolated from a sequential curricular structure; and

• teachers must design aural learning experiences in which the students are asked to rely on information embedded in their aural memory to identify known and unknown musical information e.g., melodic and rhythmic elements and/or musical elements.

The literature and studies presented in chapter 2 demonstrate a cognitive compatibility with the assertions nested in the above theoretical statements. According to Piaget’s work, the students in this study are either in the preoperational or concrete operational stages of development (Piaget, 1970). In the preoperational stage, young children are able to carry out tasks based upon memorization and modeling. In the concrete operational stage, students are able to carry out the act of conservation, in which they can recognize changes in the property of objects and concepts. In these stages, children are able to process only what is familiar to them. Thus, it can be concluded that aural literacy is a product of the processes of memorization, imitation of modeling, and conservation.

The work of Jerome Bruner further supports the cultivation of aural skills in children. Bruner proposes the notion that any material can be taught to children as long as the teacher provides developmentally appropriate activities that are embedded in the sequential curricular structure whereby children rely on previous knowledge to build upon more complex structures of the material (Bruner, 1966). The teacher participants in this study all indicated that they begin
cultivating aural skills as early as possible; this process is carried out within a carefully constructed instructional sequence.

Edwin Gordin’s theory of audiation supports the notion that aural literacy instruction must begin as early as possible. Audiation occurs “when one hears and comprehends music silently when the sound of the music is no longer or never has been physically present” (Gordon, 1997, p. 9). Listening and recall within musical performance are integral to the process of audiation. Moreover, Gordon writes that children learn music and language through the initial process of listening. This process of listening, according to Gordon, prepares the learner for identifying unknown melodic and rhythmic material, subsequently comparing what is unknown to what is already known.

According to Barbe and Milone (1981), preschool-age children learn best through the auditory modality. By the age of six, the modality strengths of children shift to the visual mode. Strengths in auditory learning re-emerge in children in the upper elementary grades. This shifting of modality strengths is attributed to the nature of instruction in subjects such as reading.

The findings of Barbe and Milone, when tested in a music setting, support the notion that music educators must provide activities for aural learning. According to Cummings and Persellin (1992), many auditory preparatory activities must be provided within the instructional sequence when teaching rhythm to young children. The work of Miller (2002) concurs with this notion, recommending implementation of activities working on aural skills first.

The aforementioned studies about aural learning in the music classroom are consistent with Kodály’s methodological principle that musical material should be taught using a
progression of sound before symbol. The teacher participants in this study applied this principle to the process of creating and implementing lessons. Moreover, students were asked to rely on their aural skills in both the preparation and practice phases of the instructional sequence. When working in the preparation phase, students actively listened and identified the unknown musical element, comparing what was unknown to known material. This same process occurred in the practice phase; however, the students were able to derive the new element aurally, compare it to known material, and further apply it in the performance of new materials and repertoire.

When observed in their teaching settings, the Kodály-inspired music educators who participated in this study were all working within either the preparation or practice phases of an instructional sequence. In both phases of the instructional process, the teachers led students through learning experiences that cultivated aural skills, subsequently leading the children to the understanding and practical application of melodic and rhythmic elements. Although the three teachers’ processes for developing aural literacy varied, the basic principle of developing aural skills in their students was apparent. It is evident from the data collected in this study that the cultivation of aural learning in a Kodály-inspired instructional sequence is a key component in the students’ abilities to cognitively process musical material.

**Kinesthetic Learning**

The data collected during the observational, interview, and journaling process revealed that kinesthetic activities play an important role in the students’ abilities to cognitively process known and unknown musical elements. Based upon these findings, the following theoretical structures are offered:
• physical movement in the teaching/learning process is a pathway to the cognitive processing of subject matter; and

• teachers employ physical movement as a pathway to achieving students’ musical expression, performance, and demonstration of an overall knowledge of the subject of music.

Literature reviewed in chapter 2 provides substantial material to support the above theories. John Dewey writes that subject matter should be an outgrowth of primitive, intuitive learning derived from the social setting of the child (Dewey, 1897). The societal norms that shape a child’s emotional growth should also guide the method in which subject matter is presented. Societal context provides the child with the ability to develop organic emotions and true interest in subject matter. Since these emotions are a reflex of actions, Dewey recommends that active learning precede passive learning. More specifically, muscular learning should precede sensory learning. The kinesthetic activities presented in the current study were created to provide the muscular activities that Dewey suggests. Active learning, through movement of the body served as a preparation for working with musical elements.

Additionally, Dewey presents the idea of co-ordination, which is a process in which movement of the body is followed by a sensation. The sensation provides value to the movement experience, which can then be processed and ultimately contextualized in the brain (Dewey, 1896). Rousseau (in Dewey, 1916) echoes Dewey’s theory for cultivating the moral health and development of young children. He believes that movement exercises both the body and mind and recommends that educators be observant of the natural tendencies of young children. Spontaneous play should be the foundation upon which the learning process is built.
Dewey’s idea of co-ordination played out in the classrooms of the teacher participants. Within the instructional sequence of the lessons observed, the teachers led students through physical movement activities in which the students were able to perform and express musical material containing the musical element the class was studying. This instructional sequencing is a direct application of Dewey’s theory that cognitive processing is reinforced by kinesthetic experiences.

In his writings about child development, Lev Vygotsky concurs with Dewey’s point of view. He claims that concept formation in children occurs when they acquire concepts from the environment in which they live. This acquisition is done through social interaction and the physical manipulation of objects (Hedegaard, 2007). Children later formulate scientific concepts within a school setting—again by direct interaction with peers, adults, and the manipulation of objects. In the current study, Vygotsky’s theory plays out through the presence of physical movement throughout the music lessons. The teacher participants deliberately selected appropriate repertoire that elicited and fostered the natural play tendencies of young children. Moreover, the students had numerous opportunities to work with classroom props and manipulatives such as flashcards, puzzle cards, and vocabulary cards.

The theory of bodily-kinesthetic intelligence, as postulated by Howard Gardner, is an outgrowth of the work previously discussed in this section. According to Gardner, bodily-kinesthetic intelligence “entails the potential of using one’s body or parts of the body (such as a hand or the mouth) to solve problems or fashion products” (1999, p. 42). In essence, movement of the body is in direct relation to cognitive processing in the brain. The observational and subsequent interview data in the current study indicate that the purpose of implementing movement in the instructional process was to foster the connections between cognitive
processing and movement to reach the ultimate goal of having students understand musical elements. Furthermore, Gardner states that based upon Piaget’s developmental stages, movement sequences exhibited by children increase in complexity as their cognitive processing matures and develops. This theory manifested itself when the various grade levels observed in this study were examined. The movement experiences provided for first grade students were appropriate for the physical development of the children. When older children were observed, their movement sequences such as intricate clapping games, tapping rhythms in multiple parts, and sustaining *ostinati* through physical movement demonstrated that when movement is implemented in a sequential and purposeful manner, the complexity of the activities increases as children mature and develop both physically and cognitively.

The aforementioned developmental theories serve as a foundation for Edwin Gordon’s theory of music audiation, which also supports the idea of integrating kinesthetic activities in the instructional process. Gordon (1980) observes that audiating rhythm is primarily accomplished through kinesthetic activity. He recommends that kinesthetic activities be integrated into the instructional process. Essentially, movement serves as a conduit through which students audiate sound. All three teachers in the current study constructed learning experiences in which the students were asked to listen to musical material and demonstrate their knowledge of the material through physical movement. Some examples from the data include stepping the rhythms of familiar songs, signing the Tonic Sol-fa of a known song, or tapping short rhythmic motives.

The above methods for using movement can only assist in reaching the ultimate goal of students’ development of conceptual and theoretical understanding of musical material. The research of Barbe and Milone (1981) supports the concept that inclusion of kinesthetic activities
is critical to the cognitive processing of school-age children. By the age of six, most children
develop modality strengths in both visual and kinesthetic learning. The authors believe this
development occurs because a traditional school curricula place an emphasis on reading (visual)
and writing (kinesthetic). Dunn (1988) claims that the majority of kindergarteners possess
greatest modality strength in kinesthetic learning. She concurs with Barbe and Milone that as
children begin formal instruction in reading and language, their modality strengths shift to visual
processing which becomes more prominent. Although the work of Barbe and Milone and Dunn
is rooted in the investigation of modality strengths in the general classroom setting, their
theoretical structures cross over into music instruction as well. As stated by the teacher
participants in this study, the creation and implementation of kinesthetic experiences must be
applied to the instructional sequencing for all age levels. Acknowledging that some students
might not possess strengths in kinesthetic learning, the teachers expressed the importance of
developing those skills in every student, as they are critical in the cognitive processing of
musical material.

Other music education researchers including Hair (1977) presented parallel research to
that of Barbe and Milone, and Dunn that would support the statements made by the teachers in
the current study. Hair examined the discrimination skills of first grade students when material
was presented using various modalities. The students were asked to determine the tonal
direction of patterns, doing so verbally, in written format, and by playing resonator bells. The
results indicated that the children scored highest when performing on the bells. The next highest
scores were attained when children were asked to write their response, and the lowest scores
were in the verbal category.
The findings of Hair’s study are supportive of the inclusion of kinesthetic learning activities in music instruction as demonstrated by a teacher participant in the current study who was working with fifth grade students on major and minor tonalities. Smith asked her students to first sing repertoire in major and minor tonalities, and then follow by singing the Tonic Sol-fa of major and minor scales. The final step in the instructional process was to play known repertoire in major and minor tonalities on barred instruments. The students were able to follow and cognitively process major and minor motivic material within the context of known repertoire with ease.

In addition to the kinesthetic activity of playing barred instruments, all the teachers in the current study utilized the fine motor work required when using Curwen hand signs with the intent of kinesthetically representing relationships of pitches. When working with melody, students were asked in every classroom to reinforce their vocal experiences with hand signs.

The presence of the kinesthetic experiences just outlined is supported by the results of two studies. Apfelstadt (1986) examined the relationship of modality strengths and vocal accuracy in second grade students. The results indicated that the majority of the students were visual learners, and the remaining students were kinesthetic learners. Therefore, the researcher recommended that because music is an aural art, visual and kinesthetic activities must be incorporated into music instruction. She also avers, “The use of hand signs as in the Kodály system, stair step resonator bells, and line drawings to show the melodic contour of patterns are all suggestions seemingly used to make the aural impression of melodies more accurate” (Apfelstadt, 1986, p. 4).
The use of hand signs and its relationship to singing accuracy in the instructional processes of the teachers in this study were examined by Martin (1991). Student participants were divided into three groups and asked to “echo sing” patterns provided by the teacher. The results of the examination indicated that those who received kinesthetic reinforcement (Curwen hand signs or a combination of kinesthetic and visual reinforcements) scored significantly higher than those who did not, lending additional credence to the idea that kinesthetic activities in music instruction are critical to the processing musical subject matter.

There are known benefits of kinesthetic activities when incorporated in melodic learning experiences. The teacher participants also used movement as a vehicle in teaching rhythm to children. The observational data presented in chapter 4 indicated numerous instances when students used fine and gross motor movement to perform rhythmic motives or ostinati. Two examples were tapping rhythms with fingers on their palms and stepping the rhythms of known songs. These examples align with Cummings Persellin’s research (1992), which showed that the success of short-term recall of rhythm patterns is linked to modality strengths in children. She found that when students are presented with rhythmic material through auditory, visual, and kinesthetic means, maturation plays a role in how students process rhythmic information. As discussed in chapter 2, the highest scores for the first grade students were in the auditory and kinesthetic tests. The third grade students scored highest in the mixed modality tests utilizing visual, auditory, and kinesthetic activities. The fifth grade students’ mean scores were split between the visual-auditory and the kinesthetic-auditory, and overall, were highest when compared to the first and third grade students.
The above results led Cummings Persellin to recommend that music educators include kinesthetic and auditory activities in the preparation phase, prior to introducing symbolic representation of a musical element. Also, when symbolic representation is introduced to primary-age children, it is critical that this process be reinforced through kinesthetic and auditory learning activities. Cummings Persellin stated, “Teachers who prefer to teach using a Kodály presentation are to be encouraged to continue to involve their children in auditory and kinesthetic rhythmic activities before introducing the children to the printed page [of music]” (1992, p. 314).

The above recommendation was illustrated in a first grade lesson observed in this study. The teacher prepared the children to pass an object around a circle to a steady beat. She asked the students to point to each person who received the object as it was passed. This kinesthetic reinforcement provided consistent practice and remediation of steady beat skills, which contributed to the successful passing on the object.

The writings of Houlahan and Tacka (1994) and Gault (2005) are in accord with the pedagogical decisions made by the teachers participating in this study. The researchers recommended that in order for Kodály-inspired music educators to meet the needs of the majority of students, children must first experience music through physical movement and then progress to aural and oral processing of the material (Houlahan & Tacka, 1994). Gault writes that Kodály-inspired teachers, who embrace Jerome Bruner’s modes of representing learning—enactive representation, iconic representation, and symbolic representation—are likely reaching aural, oral, kinesthetic, and visual learners (2005). Specifically, in the phase of enactive representation, students experience musical activities through singing, moving, aurally perceiving, and manipulating icons, which are all highly kinesthetic in nature.
The previous research in kinesthetic learning and the creation and implementation of kinesthetic activities by the teacher participants in this study are grounded in two of Kodály’s pedagogical principles. The first states that active participation in music activities is the best way to fully comprehend musical material. The second states that song and movement should be united in the practice of popular folk games (Szönyi, 1973, pp. 12-17). The observational data in this study revealed that the teachers crafted and implemented kinesthetic learning activities such as folk dancing, play parties, singing games, tapping and walking rhythms, using Curwen hand signs, instrument playing, and writing. Their interview comments about kinesthetic activities suggest they are a critical component to the preparation and practice of musical elements when nested in a Kodály-inspired instructional sequence.

**Oral Learning**

As indicated by their presence in the observational and interview data collected for this study, oral learning activities serve as a critical component in the instructional process. The following are two theories that evolved from the data:

- oral learning experiences created by teachers serve to help students verbally articulate their ability to process cognitively the nature of music material; and

- teachers implement oral learning experiences with the intent to elicit students’ cognitive abilities to process the symbolic function of language executed through performance of the subject.

When designing learning experiences within the preparation and practice phases of the instructional sequence, the teachers participating in this study led students through various oral
activities. All participants used singing as a basis for oral expression of musical material. In addition, they all employed methods of questioning students with the intent of eliciting verbal responses that demonstrated their cognitive ability to process the nature of musical elements.

Constructing musical knowledge through oral processing has a strong correlation to John Dewey’s explanation of how habits are formed in humans. According to Dewey, habits are formed from humans’ direct interaction with the environment. This interaction creates thought processes that are expressed through the use of language (Dewey, 1922). Therefore, customs and habits are formed through verbal communication. The interactive use of questioning between the teachers and students in this study are an example of the application of Dewey’s theory regarding the instructional process.

Dewey notes that artists perform habits to develop their craft (1922). Feeling and thought are two components of the creative process and subsequently provide meaning to that process. The cultivation of meaning in the creative process is done through the use of language. In this study, the building of musical understanding was established when students performed and verbally expressed their thought processes individually and as a group. This is illustrated in the following example:

One teacher participant constructed oral learning activities for her students that provided meaning within the artistic process and the acquisition of musical elements. She asked the students a direct question and then asked them to turn to a classmate and discuss the answer before the group discussed the answer. The process she implemented was effective and parallels the work of Piaget and Vygotsky. According to Piaget, children who are in the preoperational stage of development are increasingly able to form semiotic processes such as language (Piaget,
Vygotsky’s theory suggests that children learn through direct interaction with their social and cultural environment. For example, children do this through the development and use of language (Smidt, 2009). The students in the previous example processed musical information within their cultural context through verbal communication. The verbal communication was not always teacher directed since the students were given the opportunity to discuss the material with peers.

As illustrated in the above example, the theories of Howard Gardner and Edwin Gordon include oral processing within the instructional sequence. Musical intelligence, according to Gardner, emerges early in a child’s development and is nurtured and developed through social contexts. Musical intelligence is also most closely related to linguistic intelligence (Gardner, 1993). Gordon’s findings illustrate this relationship. He states that aural and oral processing through musical performance are preparatory activities for verbal association (Gordon, 1980). The first step in this process is accomplished singing, which is an aural and oral experience. Once children have been provided with multiple opportunities to sing musical material, a solid foundation has been established from which they can then describe their experiences using verbal association.

In the current study, singing is the foundation from which the teacher participants teach musical elements. The observational and interview data revealed that singing (oral performance) followed by instruction through direct questioning was the sequence in which students were led to process musical elements cognitively. In a study by Hair (1981), singing was not used as the preparatory activity for verbal association. Instead, children were asked to listen to musical examples and verbally identify the musical characteristics of the performances. The results
indicated that those who lack musical experience and instruction are less likely to accurately label musical characteristics of a performance reinforcing the need for adequate oral preparatory experiences with musical material.

In the current study, the teacher participants developed oral learning activities for two main pedagogical purposes. First, they all commented that the Kodály-inspired methodological principle of using singing as a basis for music instruction was at the forefront of their philosophy for effectively teaching music in the elementary classroom. Another methodological principle, deriving rhythmic and melodic material from known repertoire, was also a priority in their teaching. The repertoire that the children sang contained musical elements that were nested in a sequential curricular structure. Once a solid repertoire of song material was learned, the teachers asked the students to articulate their cognitive processing of the musical material. Accordingly, the students were led through two oral processes: the act of singing, and the act of articulating the characteristics of musical elements.

**Visual Learning**

In a Kodály-inspired music classroom, visual representations of musical material are commonly integrated throughout all phases of the instructional process. In the current study, the observational and interview data indicate that the teacher participants provided numerous opportunities for their students to process and interpret visual learning experiences.

The teacher participants developed and led their students through various visual learning activities. Some examples include reading formal notation on the music staff, reading iconic representations of musical material, interpreting and imitating movement such as Curwen hand signs which represent a symbolic system for melody, and reading and creating rhythmic notation
written in stick notation. Visual representations were presented in the form of formal notation and in a more abstract format, such as students following the teacher as she drew a melodic contour in the air.

In addition to developing and implementing the visual activities mentioned above, the teachers commented on the importance of visual representations being the final step in the sequence of the instructional process. According to the cognitive research of Piaget, the sequence described by the teachers is appropriate for the capacities of children who are progressing through the preoperational and concrete operational stages of development. When preoperational children begin to form mental images of objects, they are also able to attach meaning to these images (Piaget, 1970). In the concrete operational stage of development, children follow a progression in which they are able to form mental images of objects and through conservation comprehend any physical changes made to the object.

In music instruction, the mental and physical images of musical material take on many forms. Therefore, it is imperative for the teacher to know which of her students are able to comprehend multiple representations of the same concept. An example from the current study follows: when the teachers asked the students to process melodic structures cognitively while reading the Tonic Sol-fa from a tone ladder, they then asked the students to read the same melody written on the music staff. Students processed the same melodic structure, but they processed it while looking at two distinctly different visual representations.

This example is an illustration of what Vygotsky would describe as the forming of scientific concepts. Children learn through social interaction, and at the same time, they use a system of symbols (Hedegaard, 2007). Bruner (1966) also supports this process by further stating that the acquisition of a system of symbols must be embedded within a spiral curricular
structure. The teacher participants demonstrated Bruner’s concept of spiraling instruction in their lessons. Moreover, they spoke of how this structure guided their sequencing and decisions to present visual representation last within instructional sequence.

Spatial intelligence and its relationship to musical intelligence play a role in how and when a teacher should introduce visual experiences in instruction. According to Gardner (1993), students who possess high musical intelligence generally struggle with spatial abilities and processing visual representations of subject matter. In addition, children who possess musical intelligence process subject matter in two distinct manners. With the figural approach children interpret and perform music in an intuitive nature, whereas with the formal mode, they use a formal symbolic system (Bamberger, 1982, as cited in Gardner, 1993). In the current study, students experienced musical material at an intuitive level through singing, moving, listening, and interpreting. The teachers used these experiences as preparatory activities that led to the introduction of a formal symbolic system such as reading formal music notation.

Edwin Gordon’s theories support the above structuring of musical instruction. He suggests that children acquire music much the same way they acquire language. Experiences in listening and speaking precede reading and writing. According to Gordon, the same sequence should be followed in music instruction (1997). This sequencing is accomplished through processes called discrimination and inference. Symbolic association is the fourth stage in the five-step sequence of discrimination. Interpretation of a symbolic system is preceded by experiences in aural and oral learning.

Research in the field of learning modalities embraces the theoretical structures about visual learning as outlined above. As children approach the age of six, the visual modality dominates (Barbe & Milone, 1981 & Dunn, 1988). When Saunders (1996) tested the modality
strengths of kindergarten students, fifty percent of the students were visual learners. According to the researchers, the dominance of visual learning is fostered by the teaching of reading and writing in the general school curriculum.

Because music is aural in nature, the teacher participants in this study were challenged to develop what is inherently an aural art and teach the formal symbolic system of music. The teachers were all in agreement that the symbolic structures of rhythm and melody must be preceded by preparatory activities that engage aural, oral, and kinesthetic learners. A study by Cummings Persellin (1992) reinforces the teachers’ comments. The researcher found that primary-age children struggle with interpreting visual representations of rhythm; therefore, she recommends that the presentation of symbolic representation be preceded by careful auditory and kinesthetic preparation.

The comments from the teacher participants are supported by current research about learning modalities in music instruction. Although the majority of children possess strengths in visual learning, these strengths play out differently in music than they do in the regular classroom. For example, Apfelstadt (1986) found that visual learners sing accurately because they are able to “picture” the contour of a melody in their heads as they sing patterns. This form of visual processing is quite different in nature from reading written musical notation. The researcher’s interpretation of this phenomenon challenges music educators to maintain a broader definition of visual learning, one that is more abstract than looking at written notation of music.

Another example of a more abstract definition of visual learning occurs when music educators use Curwen hand signs in the instructional process. When the teacher is singing and signing, the children are, in essence, reading pitches by processing the movements. A study by Martin (1991) is an illustration of Curwen hand signs being employed as a visual stimulus.
When tested for acquisition of tonal abilities, students in his study scored higher when provided with the visual stimulus of hand signs. A similar study by Cousins Youngson and Cummings Persellin (2001) also found that modeling of Curwen hand signs during vocal instruction positively impacts vocal accuracy of young children.

Teachers in the current study often used Curwen hand signs in their instructional process and implemented them in both the preparation and practice phases of the instructional sequence. These learning experiences, when included in the preparation phase, provided the students an opportunity to process a visual representation (by watching the signing of others) before they were asked to process the musical element in written format. In the practice phase, the students continued to process the modeling of Curwen hand signs as reinforcement to reading musical elements in written format.

Research in the field of Kodály-inspired pedagogy further supports the importance of integrating varied visual learning experiences within the instructional process. Although the presence of visual learning experiences is critical to the acquisition of musical material, they must be preceded by kinesthetic, aural, and oral learning activities (Houlahan & Tacka, 1994). According to the authors, visual learning experiences serve as foundational activities for writing, dictation, and compositional work.

The importance of the design and integration of visual learning as discussed by researchers in the field of music education and the teacher participants in this study are following key methodological principles of Kodály-inspired teaching. First, the teachers discussed the importance of selecting appropriate repertoire and activities and subsequently implementing the activities in a sequential manner. The sequencing of visual learning experiences is embedded in a larger, spiral curricular structure. Within this structure, the
methodological principle of teaching “sound before symbol” is present. The observational and interview data illustrate that although visual learning experiences are critical in processing musical elements, educators must also be cognizant of how and when these experiences are implemented in music instruction.

Extrapolating from the above narrative, the teaching/learning experiences lead to the following theoretical structures:

• leading students to unlock the symbolic language of music visually requires pedagogical aural, kinesthetic, and oral precursors in the acquisition of the visual understanding and music-making; and

• there is a symbolic relation among aural, kinesthetic, oral, and visual learning that combine to complement and reinforce each other to inform the teaching/learning process of music.

Accordingly, as a result of the findings of this study, the symbiotic relationship among aural, kinesthetic, oral, and visual learning propose the following paradigm, which is compatible with the linearity of the modality sequence Kodály-inspired teachers adhere to in their day-to-day teaching (see Figure 1.).

*Figure 1. Garner Paradigm: Musical/Pedagogical Modalities Sequence*
In the current study, the preparation and practice phases of instruction were examined. Within these phases, the data indicate that aural activities were provided first, followed by kinesthetic activities. Oral instruction was third—the last stage of modalities-based instruction was visual. Moreover, it can be concluded from the data that a similar sequence of modalities-based instruction should be provided in the make conscious and assessment phases of instruction as well.

Conclusions

The learning process is complex; it is a fluid process that is dependent on social constructs and the interactions of humans. Students approach this process with various abilities and channels in which they process information. Howard Gardner (1991) states:

Students learn in ways that are identifiably distinctive. The broad spectrum of students—and perhaps the society as a whole—would be better served if [academic and artistic] disciplines could be presented in a number of ways, and learning could be assessed through a variety of means (in Houlahan & Tacka, 1994, p. 36).

The observational, interview, and journal data generated for this study and the subsequent analysis and structuring of theories provide a basis for the following conclusions about aural, oral, kinesthetic, and visual learning.

Aural Learning

Music is by its very nature an aural art. In order to fully understand the essence of music, humans must possess abilities to listen to and process musical sounds. The teacher participants in this study indicated the importance of developing aural literacy skills in their students. The process of cultivating aural literacy is challenging for music educators because according to
research, children between the ages of six and eleven do not possess particular strengths in aural processing (Barbe & Milone, 1981).

    Aural learning is inherently abstract (Saunders, 1996). This abstraction poses challenges for children when they engage in processing musical sounds cognitively. The presence of these challenges suggests that music educators carefully and intentionally plan and lead students through various sequential aural learning experiences. According to Bruner (1966), if learning experiences are implemented in a sequential manner and are embedded in a spiral learning structure, all children are capable of processing subject matter cognitively.

    The Kodály-inspired educators in this study employed Bruner’s methodological principles of spiraling and sequencing in their instructional practices. The sequential manner in which the teachers presented musical elements cultivated aural processing skills in students of all ages. It is reasonable to conclude that experiences that develop aural literacy should be included throughout the Kodály-inspired instructional process. These experiences should provide an aural framework upon which students can process, acquire, and apply musical material.

    Designing and implementing aural learning experiences is a challenging but critical task for Kodály-inspired music educators. In the interview data, the teachers maintain that if aural preparatory activities are not carefully and thoroughly implemented, students will encounter great difficulties in processing musical elements when presented in traditional notation. Therefore, the implementation of aural learning experiences should begin in the earliest stages of the preparation phase of instruction. Aural identification of musical elements should occur through performance and listening experiences in many pieces of repertoire containing motivic material from which the musical elements can be extracted.
In addition to the careful planning of aural learning experiences in the preparation phase of instruction, Kodály-inspired teachers should sequentially thread these experiences into the practice phase as well. The preparatory aural activities naturally serve as a foundation for students when they are asked to process musical elements aurally in new repertoire. If students are able to apply their aural literacy skills to new material with success, it follows that the preparatory process was thorough and effective. Students’ abilities to process musical sounds aurally in new repertoire also indicate their readiness to apply their knowledge to more complex music activities such as improvisation and composition.

**Kinesthetic Learning**

The research and data presented in this study indicate that kinesthetic learning activities play a critical role in a Kodály-inspired instructional process. According to Edwin Gordon (1980), physical movement serves as a conduit through which students audiate sound. The teacher participants’ pedagogical thoughts and teaching behaviors align with Gordon’s theory. In their classroom settings, the teachers purposefully implemented movement activities throughout the preparation and practice phases of the instructional sequence.

These experiences, according to the teachers, serve two distinct purposes. First, kinesthetic learning experiences actively engage students in the learning process. Second, students are able to demonstrate cognitive processing of musical elements through movement. The purposes for which the teachers in this study employ kinesthetic activities are supported by research showing that school children possess strengths in kinesthetic learning (Barbe & Milone, 1981).
Based upon the above rationale and related research, it can be concluded that kinesthetic learning experiences should be included throughout the preparation and practice phases of the Kodály-inspired instructional process. Furthermore, a combination of fine and gross motor movement should be employed. Examples of fine motor movement include tapping rhythms, using Curwen hand signs to represent intervallic relationships of pitches, writing musical notation, and playing barred instruments. Examples of gross motor activities are stepping to a steady beat, stepping the rhythmic patterns in repertoire, folk dancing, and using body staff. These examples illustrate how artistic expression through movement is a method in which educators can assess the cognitive processing of musical material in their students.

In addition, it is imperative that educators acknowledge that the setting in which children process information and learn should be organic and representative of their social context (Dewey, 1897). In the music classroom, organic and intuitive process is fostered by the students’ natural play instincts. The Kodály-inspired teachers in this study engaged their students in natural play through the performance of singing games, play parties, folk dances, and free movement. From these movement experiences, the teachers were able to lead students to understanding and application of musical concepts.

**Oral Learning**

According to John Dewey (1925), the creative process has two components: thoughts and feelings. When combined in learning processes, thoughts and feelings provide meaning or give *essence* to the creative process. The essence of musical material, as stated in the data collected in this study, is cultivated through the use of language and the performance of song repertoire.
First, the teachers in this study commented on the importance of employing singing as a foundation for teaching musical elements. When asked what principles of Kodály-inspired teaching influence her teaching, Smith replied, “First and foremost, prepare, present, practice is absolutely and use of folk songs are at the core; art music, high quality art music is at the core, and beautiful singing is always my goal and is always emphasized” (Interview with Smith, April 18, 2011). The observational data also indicated that in addition to teaching singing skills, it is a priority to teach repertoire that contain motives used for teaching rhythmic or melodic elements. Essentially, the students were orally processing through the performance of musical elements that were embedded in the context of quality repertoire. The process just described follows two key principles of Kodály-inspired teaching: (a) the principal instrument is the singing voice; and (b) all rhythmic and melodic patterns are derived from the context of quality repertoire (Szőnyi, 1973, pp. 12-17). Based upon the above examples, it can be concluded that oral processing of musical elements should be accomplished through the performance of quality repertoire.

Implemented in the preparation and practice phases of the instructional sequence, oral processing through performance of repertoire establishes a context in which students can derive and verbally articulate characteristics of musical elements. The teachers in this study led students through oral experiences by asking them to respond to their questions. In addition, Baumgartner provided opportunities for children to respond to questions after discussing the questions with their peers. Dewey (1922) states that the habitual actions of children are based upon direct interactions with the environment. This direct interaction is mediated through the use of language. In the classes observed for this study, children using language in settings that fostered cooperative learning expressed the cognitive processing of musical elements. Both methods for eliciting oral processing—individually answering questions, and discussing answers
with peers—were effective. In many instances, the children were able to answer questions correctly; if not, the teacher was able to restate and clarify the question.

The singing of repertoire and subsequent oral processing of musical elements should take place in all phases of the Kodály-inspired instructional sequence. Through careful questioning, teachers should ask students to articulate verbally characteristics of musical material. The questioning process is critical to the pedagogical process; if the questions are unclear, students can have difficulty articulating the answers.

In addition to the challenge of constructing careful questioning, teachers should be cognizant of the different nature of questioning when it is implemented in various phases of the instructional sequence. In the preparation phase, this form of questioning would include asking students to identify “what is unknown” and its relation to what is “known” within familiar repertoire. Gordon (1980) defines this process as verbal association in which students are able to describe the characteristics of musical material. Verbal association is a preparatory phase for synthesizing and contextualizing the musical elements within known repertoire.

A similar process occurs in the practice phase of a Kodály-inspired instructional sequence. According to Gordon (1980), teachers should lead students through verbal association and synthesis in preparation for symbolic association, a phase in which students read and write musical notation. Therefore, in the practice phase, teachers should continue to ask students to identify the characteristics of musical elements within known repertoire by having the students articulate answers using musical terminology. Furthermore, when orally processing in the practice phase, teachers should also construct oral activities in which students process the musical element in repertoire unknown to them.
Finally, when oral learning experiences are effectively integrated into a Kodály-inspired instructional sequence, teachers are able to monitor the progress of their students. Oral responses serve as a channel for students to articulate verbally what is being aurally processed. From these responses, the teacher is able to determine when and how to progress into the next stage of the teaching sequence.

**Visual Learning**

According to research, as children reach school age, visual learning is the dominant modality through which they learn (Barbe & Milone, 1981; Dunn, 1988; Apfelstadt, 1986). In the field of music education, it is recommended that visual representations of musical material i.e., notation be introduced to young children last after they experience aural, oral, and kinesthetic learning (Gordon, 1980; Cummings Persellin, 1992; Houlanah & Tacka, 1994).

The above research answers the question of “when” visual representations of subject matter should be presented. Although the observational and interview data in this study concur with the research findings, the question to be asked might not be “when?” but rather “how?” The teacher participants in this study created and implemented visual learning experiences for their students that were threaded through all phases of the instructional process. This finding demonstrates, at least in this research, that despite whichever teaching/learning modality is the focus of the lesson, it is not mutually exclusive of the other teaching/learning modalities. From the data analyzed for this study, it is heuristically observed that the inherent dependence among aural, oral, kinesthetic, and visual learning, although incremental and progressive in nature, suggests that it is nearly impossible to isolate exclusively a learning modality and assume that the other modalities will not manifest themselves in varying degrees during the teaching/learning
process. This observation in no way alters the fact that a hierarchy of learning modalities has been established in the research and literature and corroborated by the data generated from this study.

Furthermore, the research presented in chapter 2 supports the theory that modalities, as in this case the visual modality, is not mutually exclusive when implemented in an instructional sequence. Students’ abilities to acquire singing skills that are inherently aural and oral in nature are enhanced when they are provided with visual and kinesthetic learning experiences (Apfelstadt, 1986). Cummings Persellin (1992) suggests that teachers should design and implement kinesthetic and auditory activities when teaching rhythm. In a subsequent study, data suggests that teachers should provide multi-modalities instruction when teaching preschoolers (Cummings Persellin, 1994). A study by Miller (2002) provides the same recommendations for multi-modality music instruction of second grade students.

In the current study, the teachers provided aural, oral, and kinesthetic learning experiences prior to providing visual learning experiences during the preparation phase of instruction. The characteristics of the visual representations presented in this phase were iconic in nature. Examples include reading icons, reading and interpreting movement such as Curwen hand signs, reading stick notation, and reading Tonic Sol-fa from a tone ladder. The design and subsequent implementation of these visual representations is supported by the research of Martin (1991). He concluded that when children use Curwen hand signs and look at iconic representations of melodic contour during singing instruction, they sing more accurately when compared to singing instruction that only employs rote echoing of patterns. The teachers in this
study agreed that various visual activities are crucial to the success of their students’ abilities to process and interpret formal notation in later phases of the instructional sequence.

In the practice phase of the instructional process, the teacher participants followed the same procedure to create and implement aural, oral, and kinesthetic learning experiences in an effort to prepare the students thoroughly for processing musical material that was presented in formal notation. The teachers indicated that in their experiences their students struggled with processing visual representations of musical elements if visual learning experiences were not prepared through experiences in aural, oral, and kinesthetic activities.

It can be concluded then that visual learning experiences can and should be created and implemented in all phases of a Kodály-inspired instructional sequence. The characteristics of the visual learning experiences vary dependent upon the phase of instruction being employed; however, any visual processing of musical material should be preceded by experiences in aural, oral, and kinesthetic learning.

From the outset of this study, the problem statement was to identify and analyze learning modalities—aural, oral, kinesthetic, and visual—and determine to what extent they are linked to and function in the teaching of music elements when nested in a Kodály-inspired instructional sequence. Methods for data gathering and analysis were rooted in phenomenological and grounded theory traditions with the intent of developing theoretical structures based upon a rich description of the nature of teaching to specific learning modalities in a Kodály-inspired classroom.
The observational, interview, and research journal data presented in chapter 4 revealed that the teacher participants intentionally employed various methods for teaching aural, oral, kinesthetic, and visual learners. Moreover, their training in Kodály-inspired teaching and adherence to the philosophical, pedagogical, and methodological principles learned during their training provided them with a solid foundation for teaching students with various learning styles. It was evident in the observational data that students in this study are able to process musical elements cognitively throughout the preparation and practice phases of the instructional sequence. This observation is a testament to the teachers’ thoughtful planning of aural, oral, kinesthetic, and visual learning experiences.

When implemented in a sequential teaching process, it can be concluded that aural, oral, kinesthetic, and visual learning experiences are critical for students when cognitively processing musical material. The effects of modality-based instructional practices in the elementary music classroom support the following Kodály-inspired philosophical tenet. “Music education contributes to the many-sided capabilities of a child, effecting not only specific music aptitudes but general hearing, his ability to concentrate, his conditional reflexes, his emotional horizon, and his physical culture” (Szönyi, 1973, pp. 12-17). It is clear from this principle that Zoltán Kodály intended to develop the whole child through a comprehensive practice of music instruction. It is important that Kodály-inspired teachers continue to employ this philosophy, designing learning experiences based upon the most important factor in the educative process—the individual and collective needs of the students.
Implications for Educators

The data and subsequent outcomes of this study provide a theoretical and pedagogical framework for all educators. Although the observational data were collected in an elementary music classroom setting, modalities-based activities have relevance and should be implemented in the secondary vocal and instrumental classroom as well.

Jaccard and Richards (2010) developed and piloted a Kodály-inspired curriculum for string players. Through their experiences teaching young instrumentalists, the researchers concluded that there is a widespread misconception that the musicianship and music conception of students relies solely on technical proficiencies with an instrument. They found that the opposite was true; the initial and ongoing development of aural skills is a critical component to successful instrumental study. The authors also provide a structured sequence for singing, reading, and playing music notation, all of which are supported by the theoretical structures for modalities-based learning provided in this study.

In addition to instrumental instruction, there is substantiated evidence that modalities-based activities be employed in the secondary choral setting as well. Clay (2009, p. 26) states, “My goals (for my middle school choral students) were the same as any Kodály educator: to develop independent and healthy singing, music literacy, aural skills, and enjoyment of music.” Bayt Bradford (2005) offered three main goals for secondary choral music programs: (a) use of moveable do, Curwen hand signs, and a system for reading rhythm syllables; (b) use of the instructional process of prepare, present, and practice; and (c) use of high quality repertoire. Thus, if secondary choral educators are implementing the three phases of the Kodály-inspired
instructional sequence, the modalities-based sequence offered in this study could easily be adapted to choral rehearsal setting.

Finally, the outcomes of this study have implications for reading instruction in the general education classroom. A study by Gransee (2005) found that the philosophical principles of teaching a Kodály-inspired music curriculum are similar to the principles of teaching balanced literacy in the general classroom. First, both believe that literacy (music or reading) is for all. Second, highly trained educators serve as primary decision-makers in the classroom. Teachers are charged with providing high quality authentic literature and songs that are of intrinsic value to students (p. 5). The findings in the current study provide commonalities between the Kodály-inspired instructional sequence and the sequence of reading instruction. Additionally, this study illustrates the effectiveness of implementing modalities-based activities in music instruction. It is reasonable to postulate then that the implications of the results of this study support the notion that modalities-based instruction can be adapted and integrated into the instructional process of teaching secondary choral and instrumental music and in elementary reading instruction.

**Recommendations for Further Research**

The current study investigated the nature of aural, oral, kinesthetic, and visual activities when nested in a Kodály-inspired instructional sequence. The observational data were collected in an elementary music classroom setting. Although a body of research about modalities-based learning in the general classroom exists, there is very little written on the subject in the music classroom setting. The following are some recommendations for further research:
• conduct a longitudinal study following the progress of music students in a Kodály-inspired music program;

• investigate the presence and phenomena of modalities-based learning activities in the secondary choral or instrumental classroom;

• study the commonalities and differences of modalities-based instruction in the elementary music classroom and elementary reading classroom; and

• conduct research similar to the current study, but with a larger population of teachers from a more diversified background in Kodály-inspired training.
Appendix A: Site and Background Information

Teacher Name:
Chosen Pseudonym:
Name of School:
City/Town Name:
Number of Students in School:
Socio-Economic Background of School Population:
Ethnic Background/Demographics of Student Population:
Number of Grade Levels in School:
  Number of Students/Sections in Each Grade Level:
General Schedule (# of times and length of lessons each week):
Number of Concerts performed each year:
Established District or Teacher Curriculum:
Established System of Assessments: How Often?
University or Institution of Kodály Studies:
Year of Completion of Three Levels and/or Certificate:
Pedagogy Teachers:
Favorite Kodály or Music Teaching Resources:
Do you use Series Textbooks in your teaching?
Appendix B: Interview Questions

1. Tell me a little bit about the lessons I observed. How do you go about constructing activities for the children?

2. What methodological and pedagogical Kodály-inspired principles inspire or are integrated into your lessons?

3. Do these principles guide your teaching of aural, oral, kinesthetic, and visual learners? How?

4. Based upon the lessons I’ve observed, reflect a bit on how some of the principles and strategies for aural, oral, kinesthetic, and visual learners played out. Did anything occur in either your teaching or the student responses that surprised you?

5. Tell me bit about your student population. How do you approach their individual needs as musician learners?

6. What are some key indicators you receive from your student responses that influence or drive they way you teach or design lessons?

7. How has your background in music and teacher training influenced you as a teacher?

8. Is there anything you would like to add to any of your previous comments? Do you have any questions for me?
Appendix C: *As I Look Into Your Eyes*

As I look into your eyes I behold a great surprise, there is some body waiting for me. There is some body waiting, there is some body waiting, there is some body waiting for me.

Appendix D: *I Love the Mountains*

I love the mountains, I love the rolling hills,

I love the flowers, I love the daffodils;

I love the fireside when all the lights are low.


Appendix E: *Poly Dot Game*

**Game Directions:** The teacher places rubber dots in random formation on the floor. The number of dots used is based upon class size. There should be fewer dots than the total number of students. The students start the game by standing in between the dots. One Tonic Sol-fa pattern is designated as the “magic pattern.” The teacher begins by singing various solfa patterns while the students walk in between the rubber dots. When the “magic pattern” is sung, all students must quickly find a dot and stand on it. The game continues with all those on a dot remaining there and those not on a dot walking amongst the dots. When the “magic pattern” is sung again, those on a dot must go to a new dot and those not on a dot have an opportunity to steal a dot.


Conference session presented at the Minnesota Music Educators Mid-Winter Clinic, Minneapolis, MN.
Rita Baumgartner collected this song from an elementary music colleague. The original source is unknown.
Appendix G: Zombie Game

Game Directions: Players (X) stand in random formation. While the players close their eyes, a “zombie” (O) is secretly chosen. The teacher or a student plays a rhythmic ostinato on temple blocks; all players must step this ostinato as they move about the room. The “zombie” tags students as they move. When tagged the students must sit down as they are eliminated. If players or the “zombie” fail to maintain the rhythmic ostinato with their feet, they can also be “called out” and eliminated. The last player remaining wins the game.

Lucy Smith learned this game from other music colleagues in her school district during a professional development session.
Appendix H: Curwen Hand Signs

Appendix I: Kaeru No Uta (The Frog Song)

Japanese Folk Song

Ka eru no u ta ga,

Ki ko e te ku ru yo.

Gwa, gwa, gwa, gwa,

Ge - ro, ge - ro, ge - ro gwa, gwa, gwa.

Appendix J: Lucy Locket

Lucy Locket lost her pocket, Kitty Fisher found it.

Not a penny was there in it, only ribbon round it.

Rita Baumgartner collected this rhyme during her Kodály levels training. Original source is unknown.
Appendix L: Hey, Betty Martin

Hey, Betty Martin, Tip-toe, tip-toe,

Hey, Betty Martin, Tip-toe, fine;

Hey, Betty Martin, Tip-toe, tip-toe,

Hey, Betty Martin, Tip-toe, fine.


New Jersey: Prentice-Hall, Inc.
Appendix M: Valentine

Lucy Smith collected this canon at a Kodály workshop in 1998. Original source is unknown.
Appendix O: Billy, Billy

Here's the way we Billy, Billy, Billy, Billy, Billy, Billy,

Here's the way we Billy, Billy, all night long.
Appendix P: *Apple Tree*

Apple tree, apple tree, Will your apples fall on me?

I won't cry, I won't shout, if your apples knock me out!

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