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A study of the effects of movement instruction adapted from the theories of Rudolf von Laban upon the rhythm performance and developmental rhythm aptitude of elementary school children

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Temple University, 1991

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A STUDY OF THE EFFECTS OF MOVEMENT INSTRUCTION
ADAPTED FROM THE THEORIES OF RUDOLF VON LABAN
UPON THE RHYTHM PERFORMANCE AND
DEVELOPMENTAL RHYTHM APTITUDE OF
ELEMENTARY SCHOOL CHILDREN

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by
Nadine C. Cernohorsky

May 1991



by

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1991

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CHAPTER 1

PURPOSE OF THE STUDY

Introduction

Music educators use a variety of movement-based activities in the teaching of rhythm. The contributions of Laban, Dalcroze, Orff, and Kodaly have influenced the work of current researchers (Gordon, Jordan, and Weikart) who have an interest in the effectiveness of specific movement techniques upon rhythm performance. A need exists to acquire objective evidence about which theories and techniques of movement are most effective for rhythm performance.

According to Gordon, the learning of rhythm is dependent upon the ability to audiate consistent tempo and meter.¹ Students learn to audiate consistency of tempo and meter by moving to music that represents a variety of styles and meters. Gordon believes "kinetics is a basic skill that must be developed as a readiness for, and in conjunction with, the acquisition of an understanding of meter."² Through informal movement instruction, the music teacher helps students to develop a sense of steady beat, meter, and a vocabulary of movements that may be sequentially recalled in audiation when performing or listening to music.

A comprehensive music program which includes informal movement instruction combined with formal rhythm instruction is most beneficial to young children and students

¹Edwin E. Gordon, Learning Sequences in Music: Skill, Content and Patterns (Chicago: G.I.A. Publications, Inc. 1987), p. 190.

²Gordon, Learning Sequences in Music: Skill, Content and Patterns, p. 190.

in elementary school. That is true for two reasons. First, the level of a child's music aptitude (a measure of his potential to learn music) fluctuates after birth. Unless a child's music environment and early experiences in rhythm and movement are rich and varied, his level of music aptitude will continually decrease until age nine, at about which time it stabilizes.³ It is evident that the quality of music instruction in the elementary school is important. Second, young students are more willing and less inhibited than older students to experiment with new types of movement. According to Rudolf von Laban, "movement might be most effectively used during the early school years because children of that age group had not yet formed inhibitions to movement."⁴

It has been stated that students in elementary school may benefit more from informal movement instruction and formal rhythm instruction (in terms of developmental music aptitude and freedom to creatively explore movement) than older students. Students of varying ages within the elementary school, however, may not all benefit to the same extent from the same informal movement and formal rhythm instruction. If the same instruction in movement is given to students in kindergarten and students in grade two, will it have the same effect upon all students with regard to developmental rhythm aptitude and rhythm achievement? Gordon has found that the older the student is, the less that student's aptitude will increase as a result of instruction in general music. The younger the student is, the more his aptitude will develop with effective instruction.⁵ It would seem to follow that if the same instruction in movement were given to students in kindergarten and

³Edwin E. Gordon, Learning Sequences in Music: Skill, Content and Patterns (Chicago: G.I.A. Publications, Inc., 1987), p. 9.

⁴Maristela de Moura Silva, "Rudolf Laban's Theory of Modern Educational Dance: Implications for Program Development in Elementary School" (unpublished Ed.D. dissertation, Temple University, 1983), p. 75.

⁵Edwin E. Gordon, The Manifestation of Developmental Music Aptitude in the Audiation of "Same" and "Different" as Sound in Music (Chicago: G.I.A. Publications, Inc., 1981).

students in grade two, that instruction would have more of an effect upon the aptitude of kindergarten students. Furthermore, a student's rhythm achievement is dependent upon the level of his rhythm aptitude. In other words, a student cannot achieve at a level higher than that which his rhythm aptitude will allow. Thus, if movement instruction influences rhythm aptitude, it should have a direct influence upon a student's rhythm achievement.

Rudolf von Laban believed that the elements of movement are derived from the physical factors of time, weight, space, and flow, and that movement consists of a combination of those elements, known as effort.⁶ Laban does not address the issue of movement in music education, but he does consider movement as it relates to expression in any task or everyday activity. According to Laban, a student needs to master many patterns of movement so that he can make the best use of them when performing through dancing, singing, chanting, and playing an instrument.⁷ Those movements may be performed consciously or recalled unconsciously.⁸ Students need to visually, physically, and internally experience the energy of movement and develop the ability to sequentially recall those movement experiences in their performance of rhythm.⁹ It would seem that the music teacher should provide students with experiences in the components of movement, i.e., space, weight, time, and flow.

Emile Jacques-Dalcroze, a Swiss music educator, developed eurhythmics, an approach to teaching rhythm based upon the natural rhythms of the human body. The study of eurhythmics is based upon large muscle movement, physical coordination, bodily

⁶Rudolf von Laban and F. C. Lawrence, Effort (Boston: Plays, Inc., 2nd edition, 1974), p. 11.

⁷Rudolf von Laban, The Mastery of Movement, 3rd edition, edited and revised by Lisa Ullmann (Boston: Plays, Inc., 1971), p. 75.

⁸Laban, The Mastery of Movement, p. 23.

⁹James M. Jordan, "Music Learning Theory Applied to Choral Music Performing Groups," in Readings in Music Learning Theory, ed. Darrell Walters and Cynthia Crump Taggart (Chicago: G.I.A. Publications, 1989).

interpretation of rhythm and music, freedom of creative expression, and kinesthesia (the integration of body, mind, and emotion).¹⁰ Eurhythmics is defined in terms of rhythmic performance. Students move their bodies with muscular energy in time and space to specific rhythm patterns in order to develop aural perception and muscular senses. The role of eurhythmics in music education is to enable the student to experience music (movement and sound) within his own body through motor and aural sensations and then to express himself rhythmically.

Carl Orff, a German-born composer, was influenced by Dalcroze. The roots of Orff-Schulwerk can be traced back to Orff's love of dance. His elemental approach to music instruction is based upon rhythm, which he considers to be the basic element of all music. Students are encouraged to explore and experience the elements of music and rhythm through bodily movement, rhythmic speech, instrument playing, and singing. Orff's techniques derive from the effort elements of time and space.

Zoltan Kodaly, a Hungarian composer, recognized the importance of movement as it was derived from Hungarian folk dances. The Kodaly Method places emphasis upon singing and folk songs, and the Hungarian folk songs are frequently taught in conjunction with folk dances. Kodaly's rhythm activities and his system of rhythm syllables emphasize the effort elements of time and space.

In order to study objectively the influence of movement upon rhythm skills, exercises in movement techniques might best be performed without a connection to specific musical patterns. Perhaps students should receive training in all the elements of movement (time, weight, space, and flow) in order to develop a complete vocabulary of movements and physical sensations. Students also should possibly receive training in the elements of rhythm (steady beat, consistent tempo, meter, melodic rhythm, rests) in order to develop a

¹⁰Elsa Findlay, Rhythm and Movement: Applications of Dalcroze Eurhythmics (Evanston, Illinois: Summy-Birchard, 1971), p. 2.

vocabulary of rhythm patterns that may be recalled in audiation. Music educators who partake of sequential movement instruction adapted from the theories of Rudolf von Laban, combined with sequential rhythm instruction found in Gordon's music learning theory, might be prepared best to help students develop their rhythm performance capabilities through the use of movement.

The quality of movement instruction in the music class is important to the development of movement ability, rhythm understanding, and rhythm aptitude. Through informal movement instruction and formal rhythm instruction, students may develop the ability to sequentially recall physical sensations in their performance of rhythm patterns. How well might such informal instruction in the elements of movement influence a student's performance of rhythm patterns in different meters? To what extent might such informal movement instruction affect the developmental rhythm aptitude of students in kindergarten and students in grade two? With the intent of improving music pedagogy, the purpose of this research was to gain information about the influence of movement-based instruction upon rhythm performance and developmental rhythm aptitude.

Problems of the Study

The specific problems of the study were 1) to determine the comparative effects of movement instruction adapted from the theories of Laban upon the rhythm performance of children in kindergarten and children in grade two, and 2) to determine the comparative effects of movement instruction upon the developmental rhythm aptitude of children in kindergarten and children in grade two.

CHAPTER 2

REVIEW OF RELATED RESEARCH AND LITERATURE

Introduction

Studies in the techniques of teaching rhythm, in the techniques and theories of teaching movement, and in the relationship of music aptitude to rhythm and movement have been undertaken in an effort to investigate the relationship between rhythm, movement, and music aptitude. A review of the research that relates movement instruction to rhythm and music aptitude revealed no other studies that are parallel in purpose, procedure, and design to this one. There are several studies, however, that are indirectly related. They can be divided into three categories: 1) studies dealing with rhythm and movement, 2) studies dealing with the relationship between music aptitude and rhythm and movement, and 3) studies dealing with the movement theories of Rudolf von Laban.

Studies Dealing with Rhythm and Movement

Several studies have been designed to measure the effects of movement instruction versus no movement instruction on rhythm skills. According to a study by Cheek, students in the fourth grade who received systematic psychomotor experiences (clapping, snapping, knee slapping, tapping, hand gestures, and creative movement) in their music classes obtained significantly higher test scores in meter discrimination, music reading skills, and rhythmic response than did students in the fourth grade who received no psychomotor experiences.¹¹ Boyle found movement instruction (foot tapping and hand

¹¹Helen Yvonne Cheek, "The Effects of Psychomotor Experiences on the Perception of Selected Musical Elements and the Formation of Self-Concept in Fourth Grade General Music Students" (Ph.D. dissertation, The University of Michigan, 1979).

clapping) to have a significant effect on the ability of junior high school band students to sightread music.¹² Lewis found that movement-based instruction (tapping, clapping, stamping, snapping fingers, patschen, and locomotor and axial movements) influences music listening skills of students in the first and third grades.¹³

It may be concluded that movement-based instruction in the music classroom influences rhythm skills and that it is better than no movement instruction. It is not clear, however, which movement activities influence specific rhythm skills. The psychomotor experiences used by Cheek consisted of creative movement, body rhythms, and hand gestures. The movement activities were not based upon any particular method or theory of movement education. The movement instruction in the Boyle study consisted of clapping and tapping precise rhythm patterns used in the training material in order to develop rhythm accuracy in instrumental performance. Lewis based her movement lessons on the Silver Burdett Music Curriculum.¹⁴

Two important differences exist between the aforementioned studies and the present study. First, the present study investigates the effects of specific movement activities on rhythm performance. The instruction in movement is based upon Rudolf von Laban's theory of movement. Movement activities in the aforementioned studies are not based upon a specific theory of movement. In the present study, students receive instruction in the effort elements of weight, space, time, flow, and body awareness in order to develop a vocabulary of movements that can be recalled kinesthetically in rhythm performance. The second difference is that the present study does not investigate the effects of movement

¹²John David Boyle, "The Effect of Prescribed Rhythmical Movements on the Ability to Sight Read Music" (Ph.D. dissertation, University of Kansas, 1968).

¹³Barbara Emma Lewis, "The Effect of Movement-Based Instruction on the Aural Perception Skills of First- and Third-Graders" (Ph.D. dissertation, Indiana University, 1986).

¹⁴E. Crook, B. Reimer, and D. Walker, Silver Burdett Music (Morristown, NJ: Silver Burdett Company, 1981).

instruction versus no movement instruction. Since the aforementioned studies conclude that movement instruction has more of an effect on rhythm skills than no movement instruction, it was not included in the design of the present study. Instead, the present study investigates the comparative effects of movement instruction upon the rhythm performance of students in kindergarten and students in grade two.

Several studies have investigated the effectiveness of specific theories of movement. In a fourth-grade Kodaly program, Zemke used dance to strengthen concepts of rhythm and form, to teach basic dance forms as a basis for understanding the composer, and to provide children with dance experience.¹⁵ The Kodaly-adapted sequence of instruction influenced students' basic auditory achievement. Joseph investigated the effects of Dalcroze eurhythmics training on the rhythmic responses of kindergarten students.¹⁶ Students who received music lessons that incorporated eurhythmics were more proficient in recognizing and responding to familiar rhythm patterns in unfamiliar music than were students who did not receive eurhythmics instruction. In a study by Fardig, a program of Dalcroze eurhythmics was used as the experimental treatment in conjunction with a control group which included music lessons without movement activities.¹⁷ Significance was not obtained for the rhythm discrimination factor. That may be the result of the criterion measure, an adapted version of the Seashore Rhythm subtest.

¹⁵Sister Lorna Zemke, "The Kodaly Method and a Comparison of the Effects of a Kodaly-Adapted Music Instruction Sequence and a More Typical Sequence on Auditory Musical Achievement in Fourth-Grade Students" (D.M.A. dissertation, University of Southern California, 1973).

¹⁶Annabelle Sachs Joseph, "A Dalcroze Eurhythmics Approach to Music Learning in Kindergarten Through Rhythmic Movement, Ear-Training and Improvisation" (D.A. dissertation, Carnegie-Mellon University, 1982).

¹⁷Sheldon P. Fardig, "Effect of a Kinesthetic-Rhythm Activity to Music on Selected Aspects of Behavior" (Ph.D. dissertation, Northwestern University, 1966).

Weikart defines rhythmic movement as patterns of body movements that combine the elements of time and space.¹⁸ Rhythmic movement consists of two levels: 1) basic level of rhythmic competency, and 2) basic comfort with movement. Weikart developed a Rhythmic Competency Analysis Test to determine if students in grades one through three could identify an underlying beat in music and walk to that beat. The results indicate that walking to the beat is difficult, that boys have more difficulties than girls with rhythmic movement tasks, and that success decreases as coordination tasks become more difficult. Weikart administered the same test to students in grades four through six and achieved similar results. Rhythmic movement and coordination get better with age, and girls achieve more success. Weikart concluded from her research with students, those in pre-school and adults, that rhythmic coordination does not develop naturally in all individuals by the adult years. It is necessary for students to experience a sequence of increasingly complex rhythmic coordination activities.

Studies Dealing with Rhythmic Movement and Music Aptitude

Beteljeski investigated the relationship between observed physical rhythmic movement ability and developmental rhythm aptitude of kindergarten children.¹⁹ Several weeks of informal music instruction (songs, chants, games, movement activities) preceded the study in order to familiarize the researcher with the students. The rhythm aptitude for each child was measured using the Rhythm subtest of the Primary Measures of Music Audiation (PMMA). The rhythmic movement ability of each child was determined with Weikart's Rhythmic Coordination Screening Test and a rating scale constructed by the researcher. Each student's performance was videotaped as Beteljeski administered the five

¹⁸Phyllis S. Weikart, Teaching Movement and Dance (Michigan: The High/Scope Press, 1982).

¹⁹Linda T. Beteljeski, "The Relationship Between Movement Ability and Developmental Rhythm Aptitude of Kindergarten Children" (Masters Thesis, Temple University, 1987).