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Verbal rehearsal methods and their effects on expressive music performance: A comparison of verbal explanation and transformational verbal imagery

Leonard M. Upham
University of Northern Iowa

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transformational verbal imagery**

Upham, Leonard Michael, Ed.D.

University of Northern Iowa, 1993

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VERBAL REHEARSAL METHODS AND THEIR EFFECTS ON EXPRESSIVE
MUSIC PERFORMANCE: A COMPARISON OF VERBAL EXPLANATION AND
TRANSFORMATIONAL VERBAL IMAGERY

A Dissertation
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

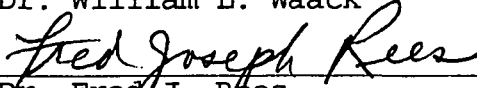
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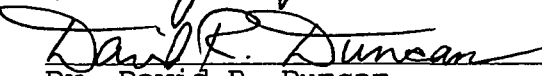

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December 1993

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There are several people who must be acknowledged for their support of and influence on my career in instrumental music education. For every person, there are important people who touch your spirit and inspire you to continually grow and mature as an individual and a professional.

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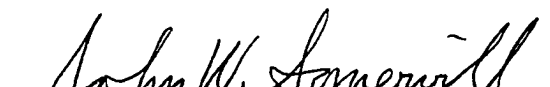
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An Abstract of a Dissertation
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved:


Faculty Advisor


Dean of the Graduate College

Leonard M. Upham
University of Northern Iowa
December 1993

ABSTRACT

VERBAL REHEARSAL METHODS AND THEIR EFFECTS ON
EXPRESSIVE MUSIC PERFORMANCE: A COMPARISON OF
VERBAL EXPLANATION AND TRANSFORMATIONAL VERBAL IMAGERY

Leonard M. Upham

Under the supervision of
Professors Charles Dedrick,
H. Marcus Yoder, and Carmen Montecinos

The purpose of this study was to determine if use of transformational verbal imagery rehearsal methods, when compared to use of methods based on verbal explanation, resulted in (a) higher levels of expressive performance by wind quintets and (b) greater appreciation of the composition by quintet members.

The study used a posttest-only control-group design. Thirty high school brass and/or woodwind quintets were randomly assigned to experimental groups ($n = 15$) or control groups ($n = 15$). A composition rich in expressive aspects of music was used. Each quintet had three rehearsals. The first rehearsal dealt with the technical aspects of performance. Treatment which focused on the expressive aspects of performance occurred during the second and third rehearsals. An audio recording of the performance was made at the end of the third rehearsal. A questionnaire designed to measure appreciation of the music was completed by subjects at the end of the third rehearsal.

To test the null hypothesis regarding expressive performance level, two independent adjudicators scored the final performance tape on two measures, (a) the level of technical performance, and (b) the level of expressive performance. A one-way analysis of covariance was used, with level of technical performance serving as the covariate. The questionnaires were analyzed using a t test for independent samples to test the null hypothesis regarding level of appreciation of the music. Significance was tested at the .05 level. No statistically significant differences were found between the treatment groups on these two measures.

Subjects involved in the experimental treatment completed an additional questionnaire to provide data regarding the perceived effect of the transformational verbal imagery procedure. Results of a descriptive analysis of the data indicated that over 90% of the subjects perceived verbal imagery as easy to use and helpful in completing learning tasks. Subjects' perceptions of verbal imagery suggested that its use in rehearsals helped motivate them and helped them complete learning tasks effectively and efficiently.

CHAPTER 1

INTRODUCTION

The unique contribution of wind/percussion instrumental music in the public education system relates to the values of the expressive, affective aspects of the art. Frequently the band director fails to teach such aspects of music performance adequately. Effective rehearsal/teaching strategies which result in more expressive, affective musical performances and greater appreciation of the composition for the ensemble members can be a valuable contribution to the art of wind/percussion instrumental music and its purpose in public education.

The purpose of this study was to determine if the use of transformational verbal imagery rehearsal methods, when compared to the use of methods based on verbal explanation, resulted in (a) higher levels of expressive, affective performance by brass and woodwind quintets and (b) greater appreciation of the composition by members of the quintets.

The Problem and Its Setting

As a conductor/teacher, the band director has a multitude of educational objectives for which he or she is responsible. He or she teaches each student the technical elements of performance on the instrument of his or her choosing: executant skill; good tone quality and intonation; how to read musical notation; what constitutes good balance

and blend; and symbols involved of musical expression. This instruction is typically given in a variety of school settings: the private lesson, the small group, and the large group.

Several teacher preparation textbooks (Colwell & Goolsby, 1992; Garofalo, 1976; Hovey, 1976; Janzen, 1985; Kinyon, 1975; Kohut, 1973) for band directors dealt with the instruction of the technical elements of group performance listed above. For most musical objectives, the teaching approach espoused by many authors is largely an analytical, direct-prescriptive method. Most rehearsal and practice session instruction, based on behaviorism, uses instructional techniques intended to produce correct behaviors--"a good strategy entailing the isolation of specific tasks and stamping them in until well conditioned, using reward as reinforcers of desired behaviors" (Reimer, 1989, p. 188). This is particularly true for those band directors of wind ensembles who concentrate on what Copland (1970) referred to as "a well-rehearsed performance, well-rehearsed in the sense that nothing can be expected to happen except what was studiously prepared in advance" (p. 52).

The band director sometimes fails to address the expressive aspects of his or her discipline (Garofalo, 1976). Kohut (1973), in writing about the importance of musicianship

as it deals with the expressive aspects of musical performance, stated:

The word "musicianship" means a variety of things to different people. Most agree that it includes a person's ability to read music accurately, to sing or play with good tone quality and intonation, to perform technical passages with accuracy and finesse, etc. All of these are important, but the essence of musicianship is one's sensitivity to the expressive qualities of music, to the nuances of phrasing, interpretation, and style--in brief, all of those elements which make musical performance an art as well as a skill. (p. 6)

All the elements of musical performance are active during the performance and require constant evaluation and adjustment by the performers. The band director cannot interject during a performance; the students must be able to use problem-solving skills instantaneously as the performance unfolds, if that performance is to be truly exceptional (Reams, 1986). Reams also stated that unless one teaches with a method that develops problem-solving skills in the young musicians, one relegates the performances to the level of rote memorization, devoid of exceptional intonation, balance, blend, and emotional content.

Frequently the band director fails to teach the affective aspects of music performance adequately; for example, the emotional involvement in the performance by the student performers (DeYoung, 1976). "For the student not only must perceive and understand the workings of the expressive elements of music but must also experience them"

(DeYoung, pp. 34-35). The emotional involvement in communicating the spirit of a composition is what is referred to in this study as the affective aspects of music performance.

Approaches to Teaching Music Performance

The direct teaching approach and the problem-solving approach usually deal with the cognitive and psychomotor aspects of the wind ensemble performance, including musical expression symbols/markings (Colwell & Goolsby, 1992; Reams, 1986). One exception to this instructional scenario is the use of modeling, an approach which is the basis for the renowned Suzuki method of instruction (Kohut, 1985). Modeling can deal effectively with the technical and expressive, affective aspects of music performance (Davidson, 1989). There needs to be, however, investigation of other teaching techniques, in addition to modeling, that deal with the expressive, affective aspects of music performance, particularly in the group instructional setting.

One such teaching technique is an imagery-based method. Rehearsal pedagogy that involves the use of transformational imagery delivered through figurative language may help in teaching the expressive, affective aspects of music performance. Transformational imagery "reflects the role imagery plays in active memory enhancement, in acquiring a

clear and full understanding of nature, character, or functioning of phenomena" (Speidel & Troy, 1985, p. 33). The transformational function of imagery is used in problem solving and other higher cognitive processes (Speidel & Troy), in the metaphorical use of language and thought (Broudy, 1987), and in the use of virtual transfer of learning to a new situation from a previous experience that did not really happen (Edwards, 1988).

From these perspectives, it became evident that research which focused on the instructional strategies used in rehearsals was needed to determine the effectiveness of different strategies for teaching the factors which result in the expressive, affective performance of a music composition. Specifically, studies were needed to determine whether, in fact, the use of rehearsal/teaching strategies involving transformational imagery resulted in (a) a higher level of expressive, affective performance by wind/percussion groups and (b) a greater appreciation of the composition by the group members.

Research Questions and Hypotheses

There were two questions proposed for this study:

1. Does a transformational verbal imagery-based method used to rehearse a brass or woodwind ensemble composition result in higher ratings in the category of interpretation/

musicianship, after adjustment for ratings in technical performance, compared to a verbal explanation method used to rehearse the same composition?

a. Research Hypothesis: The adjusted means of the transformational verbal imagery-trained wind ensembles are higher in the category of interpretation/musicianship, as determined by the ratings of independent adjudicators, than the adjusted means of the verbal explanation-trained wind ensembles.

b. Null Hypothesis: There is no significant difference in the adjusted means of the transformational verbal imagery-trained wind ensembles in the category of interpretation/musicianship, as determined by the ratings of independent adjudicators, and the adjusted means of the verbal explanation-trained wind ensembles, as determined by the ratings of independent adjudicators.

2. Does the transformational verbal imagery-based method used to rehearse a brass or woodwind ensemble composition result in greater appreciation for that composition by the ensemble members compared to the appreciation levels for those students who were rehearsed using the verbal explanation method for the same composition?

a. Research Hypothesis: There is a significant positive difference in appreciation for the composition as

expressed in questionnaires of wind ensemble members involved in transformational verbal imagery-trained performances versus appreciation for the composition as expressed in questionnaires of wind ensemble members involved in verbal explanation-trained performances.

b. Null Hypothesis: There is no significant difference in appreciation for the composition as expressed in questionnaires of wind ensemble members involved in transformational verbal imagery-trained performances versus appreciation for the composition as expressed in questionnaires of wind ensemble members involved in verbal explanation-trained performances.

Importance of the Study

The unique contribution of wind/percussion instrumental music in the public education system relates to the values of the affective aspects of the art (Broudy, 1988; Langer, 1957; Leonhard & House, 1972; Reimer, 1989). This unique contribution is a primary reason for the inclusion of instrumental music as well as the other fine and performing arts in public education. "Briefly, educated exposure to fine arts should (a) refine and (b) intensify emotional life" (Broudy, p. 42).

Man is unique among all creatures in the extent and quality of his potential. He has physical, intellectual, ethical, and aesthetic potentials. If any aspect of his potential is neglected and

undeveloped, he never attains his true stature as a human being. (Leonhard & House, p. 114)

The elementary, secondary, and collegiate levels of wind/percussion instrumental music education tend to emphasize the technical aspects of skills and content in performances (Green & Gallwey, 1986). Reimer (1989) stated that as elementary, secondary, and collegiate students, most performing arts educators are not exposed to a curriculum which included emotional elements of affective education. In addition, he noted that teacher preparation programs for performing arts educators include many instructional methods courses dealing with the cognitive aspects of the content of the discipline and performance skills development, but they rarely include instructional methods courses related to teaching the affective aspects of the discipline. As a result, most performing arts educators are untrained in the realm of affective education as it relates to their respective disciplines.

This study dealt with the teaching of expressive, affective aspects of wind/percussion instrumental music performance. Effective rehearsal/teaching strategies which result in more expressive, affective musical performances and greater appreciation of the composition for the ensemble members can be a valuable contribution to the art of

wind/percussion instrumental music and its purpose in public education.

Music has unique qualities that make it the most desirable medium of organized aesthetic education. Human beings are universally responsive to music and can find satisfaction and meaning through experience with it. (Leonhard & House, 1972, p. 115)

Definition of Terms

The following terms were operationally defined as they related to this study:

1. Verbal explanation method. The verbal explanation method is a direct, prescriptive approach involving the use of lecture and specific directions to students in pursuing desired expressive, affective performance outcomes (Colwell & Goolsby, 1992; Hovey, 1976).

Example dealing with phrase endings: "When you get to the end of the phrase, do not end too abruptly."

2. Verbal imagery-based method. Verbal imagery-based method involves the function of transformational imagery expressed through the use of figurative language.

Example dealing with phrase endings: "Image this situation: Someone enters the room where you are and visits with you. The person is very complimentary and you feel good about what is being said. How do you feel? The person leaves, slamming the door loudly. How do you feel? Please do not slam the door on the end of the phrase."

3. Expressive, affective performance of a wind music ensemble. The level of expressive, affective performance of a wind ensemble was measured by the average score given by a panel of two professional music adjudicators of the wind quintet's performance. The adjudication form for this scoring procedure used the five subcategories (style, phrasing, tempo, dynamics, and emotional involvement) of the interpretation/musicianship category of the National Federation Music Adjudication Form for Small Ensembles.

4. Technical performance level after treatment. The level of technical performance of a wind ensemble was measured by the average score given by a panel of two professional music adjudicators of the wind quintet's performance. The National Federation Music Adjudication Form for Small Ensembles was used in this scoring procedure. This form included the categories of tone quality, intonation, rhythm, balance/blend, technique, and articulation. This score was used as the covariate to adjust the mean scores of the expressive, affective performances.

5. Level of appreciation for the composition. Ensemble members' level of appreciation for the composition was measured by a questionnaire which used Likert scale responses. The questionnaire was designed to measure the subjects' enjoyment of the composition. The instrument also

required subjects to make a judgment of the composer's effectiveness in capturing the spirit of each movement as indicated by the titles "Sadness," "Reflection," and "Elation."

6. Brass quintet. The standard instrumentation for a brass quintet is two trumpets, one French horn, one trombone, and one tuba.

7. Woodwind quintet. The standard instrumentation for a woodwind quintet is one flute, one oboe, one soprano clarinet, one bassoon, and one French horn.

Assumptions

The following assumptions for this study were acknowledged:

1. Student questionnaires and audio tape recordings can provide the necessary data to test the hypotheses of the study.

2. The expressive, affective performance level of the ensembles participating in the study can be determined by an independent panel of two adjudicators from audio tape recordings.

3. There is a relation between technical adequacy and the interpretation/musicianship scores.

Limitations

The following limitations for this study were acknowledged:

1. Voluntary participation was required of the schools, students, and band directors involved in the study.
2. The number of treatment sessions in the research design would be determined after assessing the amount of contact time with the subjects which could be realistically provided by band directors.

Delimitations

The following delimitations for this study were acknowledged:

1. The study was limited to brass and woodwind quintets involving students in grades 9 through 12.
2. The school districts included in the study were located within a 70 mile radius of Cedar Falls, Iowa.
3. The study was conducted only in the State of Iowa.
4. The writer conducted the treatment sessions for both groups to assure standardization of treatment. The treatment sessions of the control groups were audio taped and evaluated by an independent auditor to check for bias and to determine similarity and purity of treatments.

CHAPTER 2

REVIEW OF LITERATURE

The review of related literature for this research study has five major sections. First, the philosophical foundation for the importance of the topic of this study was examined. Second, the role of imagery in teaching and learning was examined, an historical background was traced, and a description of the nature and functions of imagery and imagination in instruction was presented. Third, the use of figurative language to evoke transformational imagery was examined. Fourth, current rehearsal pedagogy in wind/percussion instrumental music education was examined. Finally, related research of verbal imagery in music rehearsals was surveyed and support for further research in the use of verbal imagery in the rehearsal setting was provided.

Philosophical Considerations

To underscore the importance of the topic of this study in the curricular area of instrumental music education, it was necessary to provide a philosophical foundation that embraces all aspects of the music education program and lends support to the need for rehearsal techniques that are effective when teaching the expressive, affective aspects of a music ensemble performance. A philosophical base is important, for it provides a system of basic beliefs which

underlies the entire operation of instrumental music in an educational setting and supports its inclusion in the public school curriculum.

A philosophy should serve as a source of insight into the total music program and should assist music teachers in determining what the musical enterprise is all about, and how it should operate. A definitive philosophy is useful, even essential, for an operation as complex and as important as music education because concepts, theory, and practice rely on one another. (Leonhard & House, 1972, pp. 83-84)

Meyer (1956) presented three related aesthetic theories: referentialism, absolute formalism, and absolute expressionism. It is helpful to describe each so that comparisons can be made. The words "absolutism" and "referentialism" refer to the place one goes to find the meaning and value of an art work. The absolutist finds the meaning of an art work by attending to the internal qualities of the artistic creation. "In music, you would go to the sounds themselves--melody, rhythm, harmony, tone color, texture, dynamics, form--and attend to what those sounds do" (Reimer, 1989, p. 16). According to the referentialist's view, however, the meaning and value of an art work lies outside of the work itself; "music communicates meanings which in some way refer to the extramusical world of concepts, actions, emotional states, and character" (Meyer, p. 1).

A further distinction must be made between the terms "formalist" and "expressionist." If the formalist and the expressionist were absolutists, they both would find meaning within the music itself. The formalist would argue that the musical meaning "lies in the perception and understanding of the musical relationships set forth in the work of art and that meaning in music is primarily intellectual" (Meyer, 1956, p. 3). The expressionist, however, contends that "these same relationships are in some sense capable of exciting feelings and emotions in the listener" (Meyer, p. 3).

It would be easy to confuse the position of the expressionist and the referentialist. "For although almost all referentialists are expressionists, believing that music communicates emotional meanings, not all expressionists are referentialists" (Meyer, 1956, p. 3). One could divide expressionists into two groups: referential expressionists and absolute expressionists. The referential expressionists would maintain that the emotional expression of music is dependent upon one's understanding of the referential content of the music. The absolute expressionists, however, believe "that expressive emotional meanings arise in response to music and that these exist without reference to the extramusical world of concepts . . ." (Meyer, p. 3).

Both the aesthetic theory of referentialism, with its undue emphasis on extramusical understanding, and the aesthetic theory of absolute formalism, with its intellectual emphasis on meaning in music and elitist belief that most people are incapable of this understanding, are inappropriate for the public school setting. However, the aesthetic theory of absolute expressionism is well suited to the educational system, supporting the uniqueness of music as justification for inclusion in the school curriculum (Leonhard & House, 1972).

Based on the work of Dewey, Langer, Meyer, and others, Reimer (1989) developed a cogent discussion of absolute expressionism and its suitability to the American educational system. In the language process (reading and writing), humans have transformed the inner process of thought into an outer symbolic system. So closely does this symbolic system correspond to the "dynamic interrelations that previously existed only inwardly as to seem to us to be identical with what transpired within us" (Reimer, p. 30). The outer system and the inner process become inseparable. Through this process of writing and reading, humans are able to clarify, organize, broaden, deepen, concentrate, refine, sensitize, and discipline their thinking and reasoning.

All these qualities of improved conceptual reasoning . . . stem from this process of writing and reading.

The higher quality of reasoning is a direct result of a process that enables thoughts to be precise, accurate, detailed, meticulous, subtle, lucid, complex, discriminating, powerful, meaningful. *In this profound sense, writing and reading educate reasoning.* (Reimer, p. 32)

The process for reading and writing described above is what Langer (1957) referred to as "symbolic transformation." "This capacity for symbolic transformation may be the most important distinguishing characteristic of the creature we call human" (Reimer, 1989, p. 30). According to Langer, this symbol-making function is one of humankind's primary activities and is essential to the thought process. The human brain is actively translating experiences into symbols, carrying on a constant process of forming ideas.

Langer (1957) likened the brain to "a great transformer" (p. 42). The experiences that pass through the brain are transformed in character, not through the sense by which the perceptions entered the brain, but by virtue of the primary symbolic uses which are made of them.

The fact that the human brain is constantly carrying on a process of symbolic transformation of the experiential data that come to it cause it to be a veritable fountain of more or less spontaneous ideas. As all registered experience tends to terminate in action, it is only natural that a typically human function should require a typically human form of overt activity; and that is just what we find in *the sheer expression of ideas*. This is the activity of which beasts appear to have no need. And it accounts for just those traits in man which he does not hold in common with the other animals--ritual, art, laughter, weeping, speech, superstition, and scientific genius. (Langer, p. 43)

One of the actions in which "registered experience" tends to terminate is the action of music. The meaning of music is not that of a stimulus to evoke emotions, nor that of a signal to announce them. Music has emotional content in the same symbolical manner in which language has conceptual content. "Music is not the cause or the cure of feelings, but their *logical expression*; though even in this capacity it has its special ways of functioning . . ." (Langer, 1957, p. 218).

All of human experience is infused with feelings, inseparable from everything we are and do. "The nature of the human condition is very largely a nature of organisms that have the capacity to feel and are aware that they are feeling" (Reimer, 1989, p. 46). Reimer called this "feelingful aspect of human life 'subjectivity'" (p. 46). The realm of human subjectivity can be categorized in large areas of feeling which are somewhat related to each other, but which are infinite in complexity and scope. For example, there is a large range of feeling possibilities in the categories of "hate" and "love."

As noted above, reading and writing educate human reasoning. In a similar way, creating and experiencing art educate human feeling. Through the process of the arts, including instrumental music, humans are able to clarify,

organize, broaden, deepen, concentrate, refine, sensitize, discipline, and internalize their feelings/human subjectivity.

All these qualities of improved subjectivity . . . stem from this process of creating and experiencing art. The higher quality of affective experience is a direct result of a process that enables feelings to be precise, accurate, detailed, meticulous, subtle, lucid, complex, discriminating, powerful, meaningful. In this profound sense, creating art and experiencing art educate feeling. (Reimer, 1989, p. 37)

The aesthetic theory of absolute expressionism maintains that the formed qualities of an art work externalize a set of dynamic, mutual relationships which are similar in quality to the feelingful quality inherent in all human experience. When humans share the expressive qualities of an art work, they also are sharing in the qualities of all created human experience. "In aesthetic experience the feelings blend with ideas to produce images of feelings. This cognitive feeling that is also feelingful cognition constitutes the realm of the aesthetic, that is, of knowledgeable feeling and feelingful knowledge" (Broudy, 1987, p. 11).

Summary

The importance of music education in the high school curriculum can be traced to a philosophical foundation, based on an aesthetic theory, that supports the expressive, affective aspects of music performance. The terms "absolutism" and "referentialism" refer to the place one goes

to find the meaning and value of an art work. The absolutist looks for the meaning and value in the art work itself, while the referentialist seeks the meaning and value outside of the art work. Two other terms, "formalist" and "expressionist," were defined. The formalist maintains that meaning in music is primarily intellectual, while the expressionist maintains that music is capable of arousing feelings and emotions in the listener. By combining the four terms, Meyer (1956) and Reimer (1989) described three aesthetic theories: referentialism, absolute formalism, and absolute expressionism. The absolute expressionist believes that expressive, emotional meanings can be an appropriate response to music. The aesthetic theory of absolute expressionism provided the philosophical base which supported the importance of the topic being investigated in this study.

The Role of Imagery in Teaching and Learning

A unique purpose of music education is the education of human feeling through the development of responsiveness to the intrinsically expressive qualities of sound (Leonhard & House, 1972; Reimer, 1989). But how does one teach music in order to help students realize its deepest value? Reimer listed four recommendations. First, the music used in the educational setting should be genuinely expressive music. Second, instructional opportunities should provide for the

expressive power of music to be felt and should not be obscured by methodology that concentrates on the technical details of the music. Third, students should be taught in a manner which helps them become progressively more sensitive to the elements of music. Finally, the language used by teachers should illuminate the expressive content of music; a language which is descriptive, but never interpretive. The use of transformational, heuristic imagery, delivered through figurative language, may be able to illuminate the expressive, affective content of music in a descriptive manner.

The role of imagery in teaching and learning was discussed in two parts: (a) an historical background of the use of imagery in teaching and learning and (b) a description of the nature and functions of imagery and imagination. Before proceeding, it is important to provide definitions which distinguish between imagery and imagination. Gardner Murphy (cited in Sommer, 1978) defined imagery as an experience similar to sensory experience, but arising in the absence of the usual external stimulus. Imagination is the power of forming pictures (imagery) in the mind of things not present to the senses (Barnhart & Barnhart, 1987).

Historical Background

The role and nature of imagery in thought has been a speculative topic since classical times and a controversial subject, beginning during the Protestant Reformation and continuing to our time (Speidel & Troy, 1985). Speidel and Troy effectively summarized this historical background, highlights of which follow.

Plato did not believe images to be important in human cognition. Rather, he thought of images as counterfeits of knowledge. True knowledge did not derive from these sense impressions but was latent in memory. For Plato, true knowledge occurred when the image from the sense impression fit onto its corresponding imprint of the idea in the mind.

Aristotle, Plato's student, believed that the only way to knowledge was by abstraction from sense impressions. In Aristotle's theory, memory was similar to imagination--it was a collection of mental pictures based on sense impressions, but with a time element added. Memory and reminiscence were distinct. Memory was part of perception and reminiscence was part of intellect.

The basic principles are that perceptions brought in by the five senses are first processed by the faculty of imagination and that images formed in this manner become the material for the intellectual faculty. All knowledge and thought, therefore, are derived inductively from memory images formed from sensations. (Speidel & Troy, 1985, p. 13)

The use of mnemonic devices, particularly by orators, was widespread in the ancient world. The mnemonics were based on images. In the method of loci or mnemotechnics, one constructed an image to represent each separate topic in a speech, arranged them in an orderly fashion usually by imagining them in familiar places (loci), and then retrieving the images during the course of the speech by taking a mental stroll through the loci.

During the Middle Ages, Thomas Aquinas adopted the main points of Aristotle's theory of reminiscence, association, and order. Abstract concepts, according to Aquinas, were made memorable through the use of imagery. A prudent person learned from past experiences and used what was learned to deal with the present or plan for the future. "Not only can we recognize in this a theory of associative learning, but we also can see the functional role attributed to imagery in the learning process" (Speidel & Troy, 1985, p. 18).

During the Renaissance, new concepts of cognition developed. Imaging was elevated to the status of a divine, magically-powerful mental faculty. Imaging was key to facilitating learning and memory and became a means of creating new knowledge. "Renaissance man believed that through this divine and magical faculty and with the aid of

organized magical memory systems, he could understand the entire universe" (Speidel & Troy, 1985, p. 18).

The use of imagery fell into disrepute during the Protestant Reformation. The educational methods introduced by Peter Ramus (1515-1572) emphasized verbal relationships rather than imaginal relationships. Ramus objected to the use of imagery, labeling it deceitful, irrelevant, and frivolous. The educational reforms of Ramus "contained the seeds of educational practices that emphasize verbal transmission of information, logical categorization, and linear styles of cognitive processing, and that attribute few, if any functions to mental images" (Speidel & Troy, 1985, p. 20).

The use of imagery has continued to be viewed with disfavor since the time of Ramus. Even education of this century reflects Ramism in its reliance upon words to transmit knowledge and in its neglect of imagery. "In the 16th century . . . imagery was viewed as primitive, prelogical, and childish; and this orientation has prevailed among educators ever since" (Sheikh & Sheikh, 1985, p. 7). Behaviorists, with their belief in measurement and quantification of data, found the use of imagery to be unacceptable. Since imagery cannot be measured quantitatively, it does not exist. "Thus it was that dreams,

emotions, and images were banished from academic psychology (Sommer, 1978, p. 45).

Rudolf Steiner, Maria Montessori, and Jean Piaget recognized the inadequacy of predominantly verbal education and brought about variations of the typical teaching practices of our century. The translation of their philosophies into educational practices stressed the importance of real experience with objects and events. This emphasis on education through experience provided the necessary conditions for the development of rich mental imagery. Even though their beliefs about imagery differed, Steiner, Montessori, and Piaget realized that abstract concepts cannot be taught through verbal interaction, but that mental images are required for their full understanding.

Since the 1960s, a new and dramatic re-evaluation of imagery has occurred (Sheikh & Sheikh, 1985). Prior to the 1970s, however, the relationship between imagery and the educational process had not been explored systematically. By the middle of the 1970s, a fair amount of research had been accomplished. "The data indicated that imagery aids in learning and retaining the material in most and perhaps all subjects" (Sheikh & Sheikh, p. 8). Research has continued since the mid-1970s, but the acceptance of the use of imagery in the educational setting has been difficult to obtain.

There is still a strong domination of literacy and numeracy in our education system.

Imagery is in the unfortunate position of being too subjective for the behaviorist and too sensual for the idealist. Its constituency is found among those who look upon sensory thought as a vital mediating process between the inner and the outer worlds. (Sommer, 1978, p. 47)

Nature and Functions of Imagery and Imagination

Nature

There are several characteristics which describe the nature of imagery. Most researchers believe that imagery is a universal, human capacity (Sheikh, Sheikh, & Moleski, 1985). Although there may be a few individuals who are incapable of imagery, they are a distinct minority. Under appropriate conditions, however, "even so-called nonimagers can produce visual and auditory images" (Sommer, 1978, p. 53).

Images can vary in quality, some being more vivid than others. Vivid images tend to be emotionally arousing. Information that is organized with vivid imagery is easily remembered by humans (Egan, 1989; Sommer, 1978).

Caine and Caine (1991) stated that the brain is designed to perceive and generate spatial patterns, meaningfully organizing and categorizing information. Isolated pieces of information lack meaning. "We understand and remember best

when facts and skills are embedded in natural, spatial memory" (Caine & Caine, p. 86). Specific items of learning are given meaning when embedded in ordinary experiences, an understanding grasped by Steiner, Montessori, and Piaget. Included in these ordinary experiences are visual imagery and metaphor (Caine & Caine).

Images are sensory patterns (Broudy, 1987). Out of the sensations of the eye, ear, and our other senses, the mind can form patterns of feeling. Broudy stated that imagination can endow inanimate objects with qualities that, strictly speaking, belong only to persons. Once imagination loosens the tie of a symbol to that for which it stands, images can be combined in other ways. This allows humans to use language figuratively or metaphorically and can lead to creativity (Ley & Kaushansky, 1985).

"Those who interpreted the cerebral asymmetry research and suggested educational applications of it, . . . agreed upon the importance of imagery as a means of facilitating new, whole-brain learning" (Ley & Kaushansky, 1985, p. 99). In every mode of learning, the image has a central role, springing from the deepest roots of meaning. "These images of feeling connect the cognitive and emotional aspects of life and learning--whether it be learning of language skills or appreciation of value" (Broudy, 1987, p. 51).

Imagination is an inner experience, difficult to observe and therefore difficult to describe. Through the practice of imagination, "meanings are given to appearances, emotions intertwine with thoughts, and the mind finds a satisfying occupation" (Egan & Nadaner, 1988, p. xiv). "The relationships of the imagination to thinking and intelligence are multiple, not singular" (Sutton-Smith, 1988, p. 21). Reichling (1990) identified four facets of imagination-- intuition, perception, thinking or cognition, and feeling. Intuition was defined as an immediate rather than a mediated mode of knowing. Reichling referred to it as an insight in which one leaps from the known to the unknown or from the unknown to the known. Perception, a mediated mode of knowing, occurs when knowledge is obtained through the mediation of the five senses: hearing, seeing, touching, smelling, and tasting. Thinking or cognition includes deductive thinking, inductive thinking, and analogical reasoning. Feeling was assigned a cognitive dimension in which feelings are characterized as personally-owned thoughts.

Reichling (1990) described three levels of imagination which reflect varying combinations of the four facets-- intuition, perception, thinking, feeling--explained above. The first level was fantasy or magical imagination associated

with child pretend-play. This level reveals a high degree of feeling compared to the other three facets. The second level of imaging was the reproductive or literal imagination typically associated with middle childhood. This level relies heavily on perception and thinking in that objects are imagined as they exist in concrete reality, not magically transformed as in the first level; intuition and feeling are either absent or functioning in a limited manner. The third level of imaging was metaphorical imaging and is usually associated with adolescence and adulthood. It was characterized as having all four facets involved in the process of imagination.

Functions

The historical account provided earlier identified two different functions of imagery in teaching and learning. The first function, called representational imagery, involves the use of imagery to represent in the mind information obtained through our senses, particularly the visual sense. It reflects a conceptualization of the manner in which factual knowledge is stored in specific concrete images. The second function, called anticipatory or transformational imagery, involves the use of imagery in problem solving and in understanding unobservable relationships among observable events. Transformational imagery "reflects the role imagery

plays in active memory enhancement, in acquiring a clear and full understanding of nature, character, or functioning of phenomena" (Speidel & Troy, 1985, p. 33).

Howard (1988) used the term "heuristic imagination" to identify the use of imagery in teaching and learning, regardless of function. The use of mnemonic devices to aid in memorization, the use of visualization or mental rehearsal to improve motor skills (Sommer, 1978), and the use of guided-imagery activities to teach basic subject matter or to increase awareness of inner feelings (Galyean, 1985) are examples of applications of imagery to learning utilizing primarily the representational function of imagery.

The transformational function of imagery is used in problem solving and other higher cognitive processes (Speidel & Troy, 1985), in the metaphorical use of language and thought (Broudy, 1987), and in the use of virtual transfer of learning to a new situation from a previous experience that didn't really happen (Edwards, 1988).

Summary.

Imagery in teaching and learning has been used since classical times. Acceptance of imagery in learning reached its height during the Renaissance era. The use of imagery in teaching and learning fell into disrepute during the Protestant Reformation and has continued to be viewed with

disfavor until the middle of the 20th century. Since 1960, interest in the use of imagery and imagination in the instructional setting has increased and acceptance of its use has become more prevalent. "Imagination is not some desirable but dispensable frill . . . it is the heart of any truly educational experience" (Egan & Nadaner, 1988, p. ix).

The nature and functions of imagery and imagination in teaching and learning were discussed. Of interest to this study is the function of transformational imagery which "reflects the role imagery plays . . . in acquiring a . . . full understanding of nature . . . or functioning of phenomena" (Speidel & Troy, 1985, p. 33). In the pedagogical setting, this type of imagery can be evoked through the use of figurative language. It was the type of imagery involved in this research.

Figurative Language

In the following discussion, definitions of figurative language were provided, the nature of metaphors was presented, and the use of metaphors in pedagogy was outlined.

Definitions of Figurative Language

Pollio, Barlow, Fine, and Pollio (1977) used the term figurative language for language that is used in a poetic or nonliteral manner, contrasted with language that has literal meaning. Pollio et al. further defined two types of

figurative language: frozen and novel. Frozen figurative language represents those nonliteral instances which have become clichés in our language; an example would be the "mouth" of the river. Novel figurative language represent "new linguistic creations developed or applied specifically to or for a given situation and never (or rarely) before encountered by a group of native speakers in that context . . . " (Pollio et al., p. 7). Emotional word pictures, similes, metaphors, and verbal imagery would be included in the category of novel figurative language.

Smalley and Trent (1988) equated the term "emotional word picture" with extended metaphor, but preferred the term "emotional word picture" because it is a more descriptive term. "An emotional word picture is a communication tool that uses a story or object to activate simultaneously the emotions and intellect of a person. In so doing, it causes the person to experience our words, not just hear them" (Smalley & Trent, p. 17).

Simile and metaphor, as noted above, are novel forms of figurative language. Both can be defined "more formally as linguistic devices which make an explicit or implicit conjunction or comparison between two ideas; ideas that share some common, though often highly imaginative, feature" (Pollio et al., 1977, p. 37). A simile is an explicit

comparison between two objects or situations signaled by words such as "like" and "as." Metaphors are "linguistic devices which make an . . . implicit conjunction or comparison between two ideas; ideas that share some common, though often highly imaginative feature" (Pollio et al., p. 37).

Verbal imagery is another form of novel figurative language. Langer (cited in Funk, 1982) stated that figures of speech such as metaphor and simile create imagery as a natural by-product of their sense. "Because of the element of imagery, figures of speech are often referred to as verbal imagery" (Funk, p. 5).

Scheffler (1991) discussed four types of language used in the educational setting: technical, narrative, evaluative, and pedagogical. Technical language is used in teaching science and mathematics; narrative language is used in settings involving language arts, literature, and history; evaluative language is used in courses on civics or in moral education. Pedagogical language is "clearly descriptive... literally false . . . metaphorical lore of the craft" (Scheffler, p. 123).

Figurative language, then, includes terms like emotional word picture, extended metaphor, simile, metaphor, verbal imagery, and pedagogical language. In the discussion that

follows concerning the nature of figurative language, the term "metaphor" will be used as a generic term to include all of these terms because "it most clearly exhibits the combinatorial nature of such usage" (Pollio et al., 1977, p. 37).

Nature of Metaphors

Metaphors are compelling, ornamental, or interesting, thereby providing the condition by which they work (Pollio et al., 1977). This condition captures a person's attention by "simultaneously engaging a person's thoughts and feelings" (Smalley & Trent, 1988, p. 9). "Linguistic beauty and function are not incompatible . . . the two come together to complement one another" (Pollio et al., p. 17).

The essence of metaphor is understanding and experiencing one kind of thing in terms of another. Metaphors are grounded in our experiences. "In actuality . . . no metaphor can ever be comprehended or even adequately represented independently of its experiential basis" (Lakoff & Johnson, 1980, p. 19).

The most general property of a metaphor is that it partly creates and partly discloses unguessed aspects of reality, implying something beyond itself; this conceptual play explains the appeal and function of a metaphor (Pollio

et al., 1977). This conceptual play is brought about by the use of images in the human mind (Broudy, 1987).

Allan Paivio (cited in Broudy, 1987) explained that, based on neurological and psychological research, the brain stores information in at least two different modes--imaginal and verbal--which allows the learner, through the use of imagery, to elaborate verbal input into the more concrete imaginal one. The imaginal mode allows humans to loosen the tie between a symbol and its usual denotation, to highlight certain features of a concept of symbol while suppressing others, and make it possible for humans to combine images almost at will (Broudy; Lakoff & Johnson, 1980). This "ability to play with ideas and concepts is basic to problem solving and creativity" (Williams, 1983, p. 80). Out of this same kind of "mental" play which involves of the function of transformational imagery, "the mind can form patterns of feeling" (Broudy, p. 14). This last aspect of forming patterns of feeling in the mind is important in the use of metaphor for teaching the expressive, affective aspects of music performance.

Use of Metaphor in Pedagogy

The use of metaphor is evidence in those situations in which the speaker is attempting to teach or learn, to convince or sell, or intending to solve a problem (Pollio et

al., 1977). All of these uses could be applied to the educational setting. Referring to the use of pedagogical language, Scheffler (1991) stated "examples abound in the training of skills and performance, whether in sports or in the arts, but are by no means restricted to these spheres" (p. 123).

Summary

Figurative language may be either frozen or novel. Frozen figurative language represents those nonliteral instances which have become clichés in our language. Emotional word pictures, metaphors, verbal imagery and pedagogical language would be included in the category of novel figurative language. The term "metaphor" has been used as a generic term to include the novel uses of figurative language. The nature of metaphors was discussed as was the use of metaphor in pedagogy.

The topic of this study was the training of expressive, affective performance in the instrumental music setting. Present uses of metaphor in that setting were provided as part of the discussion of the current rehearsal pedagogy in wind/percussion instrumental music.

Current Rehearsal Pedagogy in Instrumental Music

Rehearsal pedagogy which deals with the content factors of expressive, affective performance is presented in this

portion of the review of related literature. First, a definition of "expressive, affective performance" was developed. In the process of developing that definition, the content factors of expressive, affective performance were presented. Second, research regarding current practice related to rehearsal pedagogy intended to result in expressive, affective performances was summarized.

Throughout the remainder of this literature review, "instrumental music ensemble" was referred to as "ensemble." The role of the band director is that of a conductor/teacher (DeYoung, 1976). Through the remainder of this literature review, therefore, the term "conductor" was used to refer to this complex role.

Expressive, Affective Performance

It is the conductor's responsibility to interpret the composer's score and rehearse the ensemble to a performance of the music true to that interpretation. The content factors of music involved in the conductor's interpretation "includes everything that is not strictly technique--tempo, rhythm, tone, balance, line dynamics, phrasing, attacks and releases-in short, that which makes notation musical" (Colwell & Goolsby, 1992).

Janzen (1985) discussed the elements of musical expression, listing them as follows:

1. Correct style through the application of characteristic tempo, correct rhythm, and appropriate note length and weight for each tone.
2. Correct dynamic levels and application of the traditional expressive marking that dictate the kind and strength of each sound.
3. Control of the breath for the proper interpretation of each phrase to achieve the musical effect intended by the composer. (p. 126)

Even though all these factors must be attended to by the conductor, "the composer . . . is concerned not so much with technical adequacy or quality of tonal perfection as with the character and specific expressive nature of the interpretation" (Copland, 1970, p. 48). In addition to the content factors listed above, until the conductor is "equally aware of and concerned with the subjective realm of the art, which is its essence, music cannot be said to have been made" (DeYoung, 1976, p. 36).

Music gives form to the subjective area of our being, our inner being--that area concerned with our innermost feelings. Composer Warren Benson (cited in DeYoung, 1976) stated this idea succinctly:

As a composer, my process goes from the area of my *feelings* to the area of my mind to the area of my score page. And for you, the . . . performers . . ., the process goes from the point, that score, back through the cycle out into the area of *feelings*. And that is where we meet! (p. 36)

The task of the conductor, then, is to "intuit, through study of the score, what the composer is saying on the imaginative or 'feelingful' level and to communicate this to

the students in an ensemble along with the necessary technical instructions to help them accurately realize the composer's intentions" (DeYoung, 1976, p. 36).

Noble (cited in Shrock, 1991) referred to the imaginative or feelingful level of the composition as the "spirit of the composition--the key to the creation and communication of the essence of that particular piece of music" (p. 10). When the conductor has successfully identified this spirit of the composition and helped the ensemble members communicate that spirit in the performance, then an expressive, affective performance has been achieved and the performers and audience have had what Noble described as a truly musical experience:

Each one of us has experienced entering into a special world. Time and space seem to be revived and readapted. We seem to breathe a new and special air. We may enter this world in varying degrees of intensity, but we know when we have experienced it. . . . It seems an unidentifiable part of us becomes reality. We become aware of a part of us that easily could go unnoticed --yes, even unaware of its existence. What has been the vehicle for this experience? The arts--and most specifically music--a musical experience! It is our spirit that has been touched. (Shrock, p. 13)

Copland (1970) stated that the performer who really communicates with an audience is the performer "who is deeply moved, and who without a shadow of embarrassment can openly appeal to what is warmest and most human in man's psyche . . ." (p. 52). A live performance should be just that--live to

all the nuances of emotion (Copland). "The virtuoso performance that is breathlessly exciting, to my mind, always implies this almost-but-not-quite out-of-control quality, the antithesis of the well-rehearsed execution" (Copland, p. 53).

Summary

An expressive, affective performance involves observing all the content factors outlined above--tempo, rhythm, tone, balance, line dynamics, phrasing, attacks, releases, style--and, additionally, expressing emotion through the music. This involves a discipline of the emotions to learn how to use and explore them through the music (Howard, 1988, p. 34).

Research of Current Rehearsal Pedagogy Related to Developing Expressive, Affective Performances

The Crane School of Music at Potsdam College of the State University of New York held a symposium during June, 1986, in celebration of its centennial. The Crane Symposium, in discussing the teaching and learning of music, "was limited to the acquisition of performance skills" (Fowler, 1988, p. viii). The symposium publication consisted primarily of reports by various authors based on reviews of literature concerning the teaching and learning of various aspects of music performance skills. In addition to textbooks and journal articles, the publication of the Crane Symposium revealed the current research and practice in

instrumental music performance. The following information dealing with the teaching of expressive, affective music performance was obtained from the review of these sources.

Implicit and Explicit Learning

For the Crane Symposium, Cziko (1988) reviewed literature relating to implicit and explicit learning, and the implications and applications to music teaching. "It seems clear that most music performance depends on both implicitly and explicitly learned components and that music teachers would benefit from distinguishing which components of music can best be learning implicitly, which explicitly" (Cziko, p. 95). It is doubtful that explicit learning alone would be sufficient for a truly expressive, affective performance since such a performance requires a sophisticated use of elements involving nuances of dynamics, rhythm, pitch, and phrasing which would be difficult if not impossible to teach by explicit learning alone.

While it is difficult to characterize all the components of an expressive performance, such a performance must go well beyond what is written on the page as it is impossible to notate all of the subtle variations in intensity, tempo, and tone that are essential ingredients of the expressive performance. (Cziko, p. 96)

This statement is reminiscent of the thoughts and comments of Copland (1970) and Benson (cited in DeYoung, 1976) cited

earlier regarding the conductor's interpretation of the musical score.

The Role of Transfer in Teaching and Learning of Music

Shuell (1988) reviewed literature related to the role of transfer in the learning and teaching of music for the Crane Symposium. Shuell described types of knowledge that are relevant to music education: (a) propositional knowledge, (b) procedural knowledge, (c) psychomotor/physical knowledge, (d) imagery knowledge--"knowledge involving visual and spatial relationships, e.g., knowing the feeling and motion that the composer wants to convey from the visual representation on the written page" (p. 151), (e) aural knowledge, and (f) emotions--"visceral responses to various sounds, images, and situations" (p. 151). Shuell stated that "learning to perform a particular piece of music may involve all the types of learning identified above" (p. 151). The process of learning to perform a new piece of music involves thinking about the best way to utilize what one already knows in this new and novel situation. This thinking process is referred to as metacognition (Shuell).

Edwards (1988) also reviewed literature related to transfer and performance instruction. Edwards cited Underwood's general definition of transfer as the "influence of previous experiences on current performance" (p. 121).

One of the types of transfer discussed was virtual transfer-- transfer in which the previous experience did not really happen--which was identified as "almost synonymous with... heuristic imagination" (Edwards, p. 127).

Whether we call these forms virtual transfer, mediated memory, cross-modal transposition, or just "teaching tricks" is irrelevant for the purposes of this discussion. For me, examining them as transfer clarifies and reinforces the idea that good teaching techniques are not just a set of mysterious "tricks." It tells me that such techniques are learnable skills that are within the capabilities of any teacher. (Edwards, p. 126)

One of the examples of virtual transfer provided in the discussion was the use of an extended metaphor (emotional word picture) to increase the students' awareness of the emotional content of the music being performed (Edwards).

Non-Verbal and Verbal Communication

The authors of one of the Crane Symposium reports, Baxter and Stauffer (1988), stated:

A review of the literature and observation of music classrooms and lessons at many levels and in a variety of settings reveal that the delivery and management of music instruction can be organized into several broad categories. Music teachers: (1) communicate with students both verbally and non-verbally; (2) set goals for student learning (plan); (3) structure learning time; and (4) discriminate, diagnose, and solve performance problems. (p. 51)

Of interest to this study is communication with students, particularly as it relates to discriminating, diagnosing, and solving performance problems.

Non-verbal communication in music consists of two basic means: musical performance and conducting. Two means of musical performance used by music teachers include modeling, in which the teacher provides an example of the musical behavior desired in the student's response, and accompanying, which provides a musical context in which student responses occur. Conducting includes physical gestures involving arm and hand movements, facial expressions, and body movement on the podium--all of which are non-verbal communication behaviors (Grechesky, 1985).

Verbal communication in the music teaching situation involves the use of direct, verbal explanations and the use of indirect, verbal imagery (Baxter & Stauffer, 1988). Many textbooks used in instrumental music teacher methods courses supported a diagnostic, prescriptive approach to the rehearsal situation and the primary importance of direct, verbal explanation as a pedagogical tool (Colwell & Goolsby, 1992; Garofalo, 1976; Hovey, 1976; Janzen, 1985; Kinyon, 1975; Kohut, 1973). Kohut supported the use of both modeling and analytical teaching, stating that "the best teachers are those who incorporate both approaches into their style of teaching" (p. 9). Most of the above authors, however, reflect the position stated by Hovey that if the conductor's "organization is to progress toward these goals, every

rehearsal should be a continuing process of diagnosing, prescribing, and motivating" (p. 10).

Verbal imagery has been used in rehearsals for the purposes of teaching technical and expressive, affective aspects of music performance (Baxter & Stauffer, 1988). In a telephone survey, Casey (1991) interviewed more than one hundred band directors throughout the United States and found that many of them use imagery in teaching both technical and expressive aspects of music performance. Funk (1982) descriptively researched the use of verbal imagery in the choral music rehearsal setting. He found that the 3 conductors included in his study felt that "the use of verbal imagery provides a means of establishing a relationship between the music, life's experiences, and the human being involved in making the music" (p. 124). Davidson (1989), in a descriptive study, observed Chinese music education in a various settings among every age group. After observing an individual music lesson, he noted two predominant features of that particular lesson: (a) The teacher's use of modeling and (b) the use of verbal imagery. Barten (1992), DeYoung (1976), and Fisher (1988) advocated the use of verbal imagery as a means of teaching the expressive, affective aspects of music.

There was evidence of support in the literature for the use of verbal imagery in teaching the expressive, affective aspects of music performance. Little evidence existed in the literature, however, supporting the effectiveness of verbal imagery in teaching the expressive, affective aspects of music performance. Grechesky (1985), when researching nonverbal and verbal conducting behaviors, did find that the use of verbal imagery "had a strong positive effect on ranking" (p. 114) of the bands in his study.

Summary

The role of implicit and explicit learning and the implications and applications to music teaching were discussed. Transfer in learning as it relates to music instruction was also discussed. Virtual transfer with its use of imagery was key to the transformational imagery-based method used in this study.

The use of communication, both non-verbal and verbal was discussed. Non-verbal communication for music teachers included conducting, modeling, and accompanying. Verbal communication included two distinct types: verbal explanation and verbal imagery. Verbal imagery and pedagogy that supports implicit learning as well as explicit learning are important to effective music instruction. There was evidence in the literature of the use of verbal imagery in

music instruction. Evidence of effectiveness of verbal imagery in music instruction, however, is lacking.

Related Research of Verbal Imagery

After a computer-based search of dissertation abstracts, only two doctoral dissertation research studies were found that related to the use of verbal imagery in the music rehearsal setting. Grechesky (1985) analyzed nonverbal and verbal conducting behaviors as they related to expressive musical performance. The use of verbal imagery was among 24 independent variables in the study. Grechesky found that the use of verbal imagery had a strong positive effect on the expressive performance ranking of the 11 concert bands included in the study. The research project was described as an exploratory field study whose primary aim, as stated by Kerlinger (cited in Grechesky), was to "seek what is; to discover significant variables; to discover relations between those variables; and to lay the groundwork for later and more rigorous testing of hypotheses" (p. 85).

Funk (1982), in a descriptive study, researched the use of verbal imagery in the choral music rehearsal setting. He interviewed three university choral conductors and observed them in rehearsals "to determine the extent of the use of verbal imagery and the circumstances under which verbal imagery was used . . ." (Funk, p. 1).

The study revealed that (a) creative verbal imagery played an important role in the rehearsal techniques of the three subjects, (b) verbal imagery may work well in the choral rehearsal situation because it shares many common characteristics with music, (c) the style of music is not a limiting factor in relation to the use of verbal imagery, and (d) verbal imagery was used with many different kinds of rehearsal activities. (Funk, p iii)

Funk's study dealt with the use of verbal imagery in the music rehearsal setting, but did not research the impact or effectiveness of the use of verbal imagery on level of expressive, affective music performance.

Summary

Grechesky (1985) found in his study that the use of verbal explanation and the use of verbal imagery had a positive effect on the final performance rankings of the bands. Because none of the behaviors observed by Grechesky operated in an independent fashion from any of the other variables, further research is needed which will control for more of the factors found in his study. Funk (1982) made 11 recommendations for further study, three of which give impetus to the present research project:

Recommendation #2: A study which compares the expressive musical results of rehearsals involving a minimal use of verbal imagery with the expressive musical results of rehearsals involving a maximal use of verbal imagery. (p. 126)

Recommendation #7: A study to determine the correlation between high verbal imagery use and performers' interest and motivational levels throughout the rehearsal process. (p. 127)

Recommendation #11: A study to determine the effectiveness of the use of verbal imagery with instrumental ensembles. (p. 127)

It is important to continue to research music rehearsal pedagogy in an effort to assist the music teacher, in the role of conductor, in his or her quest for expressive musical performances. Such performances result in truly musical experiences for students, conductor, and audience (Shrock, 1991).

Summary

In this review of literature, the philosophical foundation based on the aesthetic theory of absolute expressionism has been presented to support the importance of the topic of this study. The use of imagery in teaching and learning has been presented. Imagery has been used in instructional settings since Classical times. Using imagery in the classroom expands the experiential base for learning. Frozen and novel figurative language were explained. Novel figurative language evokes images in the human mind. The aspect of forming patterns of feeling in the mind is important in the use of metaphor for teaching the expressive, affective aspects of music performance.

Both implicit and explicit learning are important in teaching music performance. When learning to perform a new piece of music, transfer of learning from previous experiences is important. One of the types of transfer

discussed was virtual transfer--transfer using imagery in which the previous experience did not really happen. Baxter and Stauffer (1988) stated that music teachers communicate with students both verbally and non-verbally in their efforts to discriminate, diagnose, and solve performance problems. Verbal behavior involved the use of direct, verbal explanations and the use of indirect, verbal imagery.

Two doctoral dissertation research studies dealing with the use of verbal imagery in rehearsing music performance were found. The findings of both studies supported the use of verbal imagery in the music rehearsal setting. The findings of one of the studies dealt with the effectiveness of the use of verbal imagery. The recommendations of both studies for further study gave impetus to this study of a comparison of verbal rehearsal methods and their effect on expressive, affective music performance.

CHAPTER 3

DESIGN AND METHODOLOGY

This study, which was designed to compare the relative effectiveness of two different rehearsal techniques on the expressive, affective aspects of a wind quintet's performance, utilized a posttest-only control-group design. The two rehearsal techniques were (a) a transformational verbal imagery-based method (i.e., experimental group) and (b) a verbal explanation method (i.e., control group). After completing 3 rehearsal sessions, each quintet's performance of the composition was audio recorded and later rated by 2 adjudicators. Subjects in both groups were administered a questionnaire designed to measure the level of appreciation for the musical composition used in the study. Additionally, subjects in the experimental group were also asked to complete a questionnaire designed to help (a) measure attitude toward transformational verbal imagery and (b) determine the extent the subjects implemented transformation verbal imagery, i.e., treatment fidelity.

Subjects

Data for this study were collected from 30 wind ensembles. The wind ensembles, either brass quintets or woodwind quintets of standard instrumentation, were randomly assigned to the experimental group ($n = 15$) or the control group ($n = 15$). The ensembles were selected from 14 school

districts within a 70 mile radius of Cedar Falls, Iowa, that met the following criteria: (a) high school enrollment in the top three grades of at least 190 students, (b) sufficient enrollment of wind instrument students in the band program so that at least two quintets could be formed in each school, and (c) agreement to participate in the study. The participating band directors assigned students to the quintets so that there was a heterogeneous mix of intermediate and advanced technical level performers.

Selection Procedure

The 30 wind ensembles included in the study came from a pool of 14 school districts located in the specified geographical area. The selection process involved the following steps:

1. The band directors in each of the 43 school districts meeting the enrollment criteria within a 70 mile radius of Cedar Falls, Iowa, were contacted to obtain information regarding the instrumentation of the high school concert band, the technical proficiency level of each student in the concert band, and the time of rehearsals (Information form in Appendix A). The purpose of this step was not to explain the study or ask permission, but only to gather information. Thirty-five directors responded with the requested information, an 81% positive response.

2. From the band programs of the 35 school districts that had instrumentation for at least two quintets, a pool was created. The major selection criteria in this step were (a) availability of standard instrumentation for each quintet and (b) the technical proficiency level of students. Each quintet was to have a heterogeneous mix of intermediate and advanced technical performance levels among the student members. Seven of the 35 programs identified in Step 1 were unable to provide the quintets due to lack of standard instrumentation.

3. The band directors of the 28 school districts remaining in the pool were contacted to request their participation in the study. After the study was explained, permission to participate in the study was obtained from the school districts, band directors, and the students (Information forms in Appendix B). Four directors declined to participate, leaving a pool of 24 band programs with a total of 52 quintets (26 woodwind and 26 brass).

4. The quintets from each of the school districts that agreed to participate were assigned to sets of two quintets for scheduling purposes. The sets were listed on cards, placed in a box, and randomly drawn to obtain the 34 quintets involved in the study.

5. An additional backup pool of 4 quintets was arranged at the same time as the basic pool of 30 quintets. These quintets would be used if any of the quintets in the basic pool needed to be eliminated because of (a) inadequate technical performance, (b) inability to be involved after agreeing to participate, or (c) inexact treatment procedure due to unforeseen circumstances. The intent was to insure a total of 30 quintets for the final research analysis. As a result of the random draw, the 34 quintets came from 15 different band programs. All 34 quintets were included in the research treatment phase although four quintets were eliminated from the statistical analysis (see step 8).

6. Scheduling of the quintets for treatment was arranged by geographical location and rehearsal time so that at least two rehearsals per day could be completed with a minimum of travel. Scheduling was arranged through the band directors. Data were collected during a two month period in the Spring of 1993.

7. Adequate technical performance level was a concern in the selection process. To insure a minimum technical performance level, an audio recording was taken at the beginning of the second rehearsal in the treatment procedure. The score obtained from the evaluation of this performance recording was used to determine the technical performance

level of the quintets prior to treatment. Any quintet whose score on the selection performance recording was at or below 12 points would be considered an outlier on the low end and would be eliminated from the analysis of collected data. The score of 12 or lower indicated that the quintet had basic weaknesses in the technical categories of the adjudication form (tone quality, intonation, rhythm, balance/blend, technique, and articulation) and would be concentrating primarily on technical elements in performing the composition. The students in those quintets, therefore, would not be as able to deal with the expressive, affective aspects of the performance as would the students in those quintets who had mastered the technical elements of the performance. None of the 34 quintets, however, had a score of 12 or lower on the selection performance recording.

8. Four quintets were eliminated from the group of 34 leaving a total of 30 quintets, 15 brass quintets and 15 woodwind quintets. One student chose not to participate after the first rehearsal, eliminating that quintet. Another student became ill between the second and third rehearsals and was not able to continue, eliminating that quintet. The last two quintets involved in the research had to be scheduled after the Memorial Day break. Commencement had occurred during that holiday weekend. The climate in the

school and the band program was not conducive to either the instructional process or the research process. As a result, the required research procedures could not be followed and these two quintets were excluded from the study.

Instrumentation

Variables

There were two dependent variables in this study. The first dependent variable was the level of expressive, affective performance achieved by the wind quintet. Performance level was measured by the average score given by a panel of two professional music adjudicators on an adjudication form developed by the writer based on the National Federation Music Adjudication Form for Small Ensembles. The five categories used on this adjudication form were the five subcategories (style, phrasing, tempo, dynamics, and emotional involvement) of the interpretation/musicianship category on the National Federation Music Adjudication Form. Points from 1 (poor) to 5 (superior) were assigned to the five categories. Total scores, therefore, could range from 5 to 25 points. The categories used on the adjudication form are the major elements considered in interpretation and musicianship. By using those categories, the writer determined face validity of content based on common practice (Borg & Gall, 1989, p.

250). Interrater agreement, based on a one point range in category scores, was 89% when using this adjudication form. The adjudication form developed for use in measuring this variable is found in Appendix C.

The second dependent variable was the level of appreciation of the composition performed. The appreciation effect measure was a questionnaire developed by the writer with assistance from the University's Center for Social and Behavioral Research (see Appendix D). The appreciation questionnaire included seven multiple choice items using Likert scale responses. By using questions patterned after other appreciation instruments, the writer determined that the questionnaire had face validity based on common practice (Borg & Gall, p. 250). The subjects were asked to identify the degree to which they enjoyed each of the three separate movements of the composition as well as the entire composition itself. The subjects were also asked to express their judgments regarding how effectively they thought the composer had captured the appropriate spirit of "sadness," "reflection," and "elation" in each of the respective movements of the composition.

A second portion of the questionnaire, administered only to the experimental group, was designed to check for a subject's attitude toward and implementation of the

transformational verbal imagery method, i.e., treatment fidelity. Using a 5 point Likert scale, subjects were asked to report (a) the ease of use of the verbal imagery, (b) their enjoyment of the use of verbal imagery, (c) the helpfulness of verbal imagery in completing the learning task of performing the music with more expression/more feeling, and (d) their enjoyment of the rehearsals. Additionally, short answers were required regarding the ease of use of the verbal imagery and the helpfulness of verbal imagery in completing the learning task. The subjects in the control group did not complete a second portion of the questionnaire. The writer determined through conversations with the band directors involved in the study that all the subjects in the study were rehearsed using the verbal explanation method. The writer, therefore, decided there was no need for a questionnaire to determine treatment fidelity for the control group.

The instrument was used during the pilot test of the research procedure conducted in a school with similar characteristics to the schools involved in the study. No reliability statistics exist for the questionnaire. The responses were converted to numerical values with the most negative response assigned a value of 1 and the most positive

response assigned a value of 5; the possible total range was 7 to 35 points.

The covariate of the study was the technical performance level of the quintets after treatment as measured by the average score given by a panel of two professional music adjudicators on the National Federation Music Adjudication Form. Points from 1 (poor) to 5 (superior) were assigned to six categories (tone quality, intonation, rhythm, balance/blend, technique, and articulation) of the National Federation Music Adjudication Form. The seventh category of interpretation/musicianship was not included when determining the technical score. The technical performance score was obtained by averaging the scores from the two adjudicators across the six categories. Total scores could range from 6 to 30 points. The adjudication form is used by eight states in high school music contests. The writer determined that this adjudication form had face validity with regard to content based on common practice (Borg & Gall, p. 250). Interrater agreement, based on a one point range on category scores, was 95% when using this adjudication form. The same adjudication form was used to determine technical proficiency level for the selection process referred to above. The interrater agreement, based on a one point range on category scores, was 88% when using this adjudication form for the selection

process. The adjudication form used in measuring the technical performance level for the selection process and for use as the covariate is found in Appendix E.

Selection of Adjudicators

An independent panel of two adjudicators was selected from band directors whose schools were members of the Iowa High School Music Association. The pool consisted of those directors (a) who were on the Iowa High School Music Association list of approved adjudicators, (b) who lived within a 100 mile radius of Cedar Falls, (c) who had similar judging histories with respect to the percentage of Division I ratings given at Class 3A solo/ensemble contests, and (d) who showed the highest level of interrater agreement. None of the adjudicators had students involved in the study.

Judging records at the office of the Iowa High School Music Association were examined by the writer. A list of adjudicators who had similar judging histories with regard to the percentage of Division I ratings awarded at Class 3A solo/ensemble contests during the previous 5 years was created from the judging records. Classification of schools by the Iowa High School Music Association is organized by enrollment levels. Class 3A was chosen because it included the majority of the schools included in the study. The percentage of Division I ratings was averaged over the 5 year

period to obtain one number for comparison purposes. The average percentages for all adjudicators living within a 100 mile radius of Cedar Falls, Iowa, were totaled and a mean percentage score was determined. The five adjudicators whose average percentage was closest to the mean and who agreed to participate were included in the test for interrater agreement. Tapes of five varied performances of small wind ensembles were sent to the five adjudicators. They were asked to score the tapes using the two scoring procedures for technical performance level and interpretation/musicianship explained earlier in this chapter. An interrater agreement procedure was used to analyze the results of this scoring. The two adjudicators who had the highest level of agreement were selected to score the performance tapes for this study. As shown in Table 1, Adjudicators Two and Four with an average of 44.34% agreement on exact performance category scores were selected. Adjudicators Two and Four had an average of 86.01% agreement based on a one-point range on performance category scores. The writer paid the adjudicators for scoring the audio tapes at the hourly rate for adjudicators set by the Iowa High School Music Association.

Table 1

Selection of Adjudicators: Interrater Percentage of Agreement
on Exact Performance Category Scores

Adjudicator #	T. Score	I./M. Score	Average
1 to 2	26.67	28.00	27.34
1 to 3	20.00	20.00	20.00
1 to 4	16.67	16.00	16.34
1 to 5	50.01	36.00	43.01
2 to 3	33.34	20.00	26.67
2 to 4	36.67	52.00	44.34
2 to 5	36.67	20.00	28.34
3 to 4	36.67	40.00	38.34
3 to 5	36.67	12.00	24.34
4 to 5	30.01	24.00	27.01

Note. T. Score = Technical Score.

I./M. Score = Interpretation/Musicianship Score.

Scoring Procedure

Two separate recordings for each quintet were produced:
(a) The selection performance at the beginning of the second rehearsal and (b) the final performance at the end of the

third rehearsal. The panel of two adjudicators listened to the tapes, each working independently. Each adjudicator listened to each performance twice before scoring the performance on the five-point scale in each of the listed categories. The results from the two adjudicators were averaged for each quintet to obtain one score for the selection performance and two scores for the final performance--a technical performance score and an interpretation/musicianship performance score. To avoid any order effect in the scoring, each adjudicator was provided with three random orders for listening to the tapes--one for each scoring procedure.

The adjudicators used the National Federation Music Adjudication Form for Small Ensembles when determining the score for the selection performances and the technical score for the final performances (see Appendix E). Points from 1 (poor) to 5 (superior) were assigned to the performance categories (tone quality, intonation, rhythm, balance/blend, technique, articulation). Scores from the two adjudicators were averaged to obtain one score for each quintet which was used in the data analysis. Scores could range from 6 to 30 points.

For the second evaluation of the final performance, the adjudicators used the adjudication form described earlier

(see Appendix C). Points from 1 (poor) to 5 (superior) were assigned to the five performance categories (style, phrasing, tempo, dynamics, emotional involvement). The scores from the two adjudicators were averaged to obtain one score for each quintet which was used in the data analysis. The scores could range was 5 to 25 points.

Procedure

A pilot test of the experimental treatment procedure was conducted by the writer with students from a school with similar characteristics to the schools to be included in the study. The quintet consisted of 3 intermediate technical level and 2 advanced technical level performers. The purposes of the pilot test were (a) to help determine and standardize the treatment procedure and (b) to test the student questionnaire. The pilot test results revealed no major concerns with the treatment procedure or the student questionnaire.

Treatment Procedure

A brass quintet composition, Three Moods by Edward S. Solomon, published by Southern Music Company, was used in this study (see Appendix F). This composition is not technically difficult, but it is rich in the expressive, affective aspects of music. The technical level of the composition helped facilitate the study because performers'

concerns regarding the technical performance of the composition were minimized. The expressive aspects of the piece appeared to set up an affective response and helped facilitate the study in this regard. Additionally, none of the quintets had performed the composition prior to the study.

In order to use the same composition with all quintets, permission was obtained from the publisher to arrange the composition for a woodwind quintet (see Appendix F). Because the availability of enough brass quintets was questionable, the writer arranged the composition for woodwind quintet to insure an adequate number of wind ensembles for the study. The music was brought to the school on the first day of the treatment procedure. None of the subjects, therefore, had access to the music prior to treatment. Subjects were allowed to practice the music independently between treatment sessions and were instructed not to seek help from the local band director or any other person.

Subjects were randomly assigned to experimental and control treatments. The quintets were numbered from 1 to 34, placed on separate cards in a box, and randomly drawn. The treatment for the first quintet drawn was decided by the flip of a coin: heads for the experimental treatment and tails for the control treatment. The second quintet drawn was then

assigned the opposite treatment. The assigned treatment then alternated, beginning with the third quintet drawn which received the same treatment as the first quintet drawn.

The research process consisted of three 45 minute rehearsals on consecutive days. During the first rehearsal, the first five minutes were used for introductions and an explanation of the study (see Appendix G), and the remaining 40 minutes were used to rehearse the technical aspects of the performance. During the second rehearsal, the first five minutes were used to record the selection performance tape, and the remaining 40 minutes were used to rehearse the expressive, affective aspects of the performance using the assigned treatment method. During the third rehearsal, the first 35 minutes were used to rehearse the expressive, affective aspects of the performance using the assigned treatment method, and the last 10 minutes were used to record the final performance tape and complete the appreciation effect questionnaire. Because the writer conducted all treatment sessions, the two rehearsal sessions for the control groups devoted to the expressive, affective aspects of the performance were audio recorded and evaluated as a check for bias.

Scheduling of the quintets did not allow the writer to conduct all of the first rehearsals in which the technical

aspects of the performance were taught, so two retired band directors were hired to conduct this first rehearsal on the day prior to the beginning of the treatment method. This arrangement involved 7 of the 34 quintets, 4 quintets in the experimental group and 3 quintets in the control group. The writer met with each of the two retired band directors prior to the research project to standardize the first rehearsal procedure. The two retired directors were paid by the writer at the same hourly rate as the two adjudicators. Additionally, travel expenses were reimbursed by the writer.

All quintets were audio taped at the beginning of the second rehearsal by the writer to obtain a selection performance recording. The same audio recording equipment was used for all of the performance tapes and the rehearsal sessions with each quintet. The recording equipment consisted of a PZM-style Crown microphone and a JVC Model TD-W707 cassette deck.

Treatment Standardization and Fidelity

Five procedures were implemented to insure treatment standardization and fidelity:

1. An instructional framework for each treatment method was developed to insure standardization of treatment (see Appendix G). An example: Students were asked to imagine a scene in which a young person their age, in love with a

school mate, experienced a break in that relationship. Students were asked to focus on the feelings of hurt and sadness that person would feel and try to project those feelings into their playing.

2. The imagery-based method was explained to the subjects in the experimental group. A check for understanding was accomplished through discussion with the subjects before proceeding with the treatment.

3. Those subjects involved in the experimental groups completed the additional questionnaire designed to obtain information regarding the perceived effect of the use of imagery on their performance (see Appendix D). This was done to check the validity of the strategy and to ascertain whether the subjects did follow the strategy. This imagery-treatment effect questionnaire was descriptively analyzed.

4. The subjects in the control group did not complete an additional questionnaire to ascertain the perceived effect of the use of verbal explanation on their performance. The use of verbal explanation is common practice in most rehearsal settings. The writer determined through conversations with the band directors involved in the study that all the subjects in the study were rehearsed using the verbal explanation method. The writer, therefore, decided there was no need for a questionnaire to check the validity

of the strategy or to ascertain whether the subjects did follow the strategy, i.e., treatment fidelity.

5. Each of the treatment sessions of the control groups conducted by the writer were audio taped. The audio tapes of the sessions were evaluated by an independent auditor to determine similarity and purity of treatment, and to check for bias on the part of the writer. The auditor determined that treatment similarity and purity existed and that the writer did not show bias when working with the control groups (see the letter in Appendix H).

The rationale for the design of this study was predicated on the following assumptions, limitations, and delimitations:

Assumptions

1. Student questionnaires and audio tape recordings can provide the necessary data to test the hypotheses of the study.

2. The expressive, affective performance level of the ensembles participating in the study can be determined by an independent panel of two adjudicators using audio tape recordings of the performances.

3. There is a relation between technical adequacy and the interpretation/musicianship scores.

Limitations

1. Voluntary participation was required of the schools, students, and band directors involved in the study.

2. The number of treatment sessions in the research design would be determined after assessing the amount of contact time with the subjects which could be realistically provided by band directors.

Delimitations

1. The study was limited to brass and woodwind quintets involving students in grades 9 through 12.

2. The school districts included in the study were located within a 70 mile radius of Cedar Falls, Iowa.

3. The study was conducted only in the State of Iowa.

4. The writer conducted the treatment sessions to assure standardization of treatment. The treatment sessions of the control groups were audio taped and evaluated by an independent auditor to check for bias and to determine similarity and purity of treatments.

Data Analysis

To test the hypothesis regarding the effect of treatment method on interpretation/musicianship, a one-way analysis of covariance was used to analyze the data from the study. A .05 level of significance was used in making decisions regarding the null hypothesis for this research question.

To test the hypothesis regarding the effect of treatment method on the level of appreciation of the composition by the quintet members, a t-test for two independent samples was used to analyze the data from the questionnaire. A .05 level of significance was used in making decisions regarding the null hypothesis for this research question.

As part of the check for treatment standardization and fidelity, a descriptive analysis of the questionnaire completed by subjects involved in the experimental treatment was conducted. This analysis provided information regarding student reaction to the transformational verbal imagery rehearsal technique and its perceived effect on their performance.

Summary

A randomly selected sample of 34 quintets from 15 schools within a 70 mile radius of Cedar Falls, Iowa, were included in the study. Quintets were randomly assigned to treatment. Of the 34 quintets, 30 completed their participation in the project.

The treatment process consisted of three rehearsals. The objective of the first rehearsal was to prepare the technical performance aspects of the composition. An audio recording was made at the beginning of the second rehearsal to identify ensembles that needed to be dropped because of

inadequate technical performance. All of the quintets met the technical performance standard. The remainder of the second rehearsal was devoted to the expressive, affective aspects of the performance using the assigned treatment method. This process continued in the third rehearsal, culminating in an audio recording of the quintet's performance of the composition. This final recording was used in the adjudication process to acquire the scores to test the hypothesis regarding the treatment effect on level of expressive, affective performance. The students completed a questionnaire at the conclusion of the third rehearsal. The results of the questionnaire were used to test the hypothesis regarding treatment effect on level of appreciation.