M J R M E

MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION

NUMBER 37
2000

PUBLISHED BY THE
MISSOURI MUSIC EDUCATORS ASSOCIATION

Missouri Journal of Research in Music Education

BUSINESS OFFICE

Missouri Music Educators Association
1113 East Meadowlark Lane
Springfield, MO 65810

EDITORIAL OFFICE

Conservatory of Music
University of Missouri-Kansas City
4949 Cherry
Kansas City, MO 64110-2229

Missouri Journal of Research in Music Education

CONTENTS

Number 37 **2000**

FEATURE ARTICLES

MISSOURI STUDENT AND FACULTY ABSTRACTS

MISSOURI STUDENT AND FACULTY ABSTRACTS (continued)

Missouri Journal of Research in Music Education, No. 37, 2000, 3-18

A Comparison of Unilateral, Coordinated, and Aural Model Practice Procedures in Learning Piano Music

Mary J. Tollefson
University of Wisconsin-La Crosse

This investigation compared the effectiveness of unilateral (one-hand) versus coordinated (both hands) practice procedures on learning piano music. The effectiveness of an aural model during unilateral practice also was investigated. Results suggested that unilateral and coordinated practice procedures may contribute to learning piano music in different ways. There was a significant difference between practice procedures, with fewer trials used in coordinated practice conditions, indicating greater efficiency than unilateral practice. However, fewer trials were used for pieces with difficult right-hand parts in the coordinated practice condition than for all other combinations of hand-piece and practice conditions. Performance accuracy was significantly different between unilateral and coordinated practice conditions. Performances were more accurate following unilateral practice than following coordinated practice for all combinations of pieces and conditions. Pieces with difficult right-hand parts practiced unilaterally were rated higher in musical expression than all other combinations of hand-piece and practice conditions, although no overall differences between practice procedures on judged musical expression were found. The aural model during unilateral practice did not affect efficiency, accuracy, or musical expression ratings.

This article is based on the author's doctoral dissertation, "A Comparison of Unilateral, Coordinated, and Aural Model Practice Procedures in Learning Piano Music," accepted by The University of Texas at Austin, 1993. A summary of this research was presented at the National Conference on Piano Pedagogy, 1994.

In traditional piano lessons, music learning is achieved primarily through the development of piano performance skills. Pianists acquire a particular set of fine motor skills, specifically involving the fingers and hands. These skills (in terms of music performance) are developed with the aid of various procedures and methods conceived by pianists and pedagogues and passed on through tradition. Some of these procedures include practicing hands separately, slowing down the tempo, working with a metronome, and repeating a small section several times with a set criterion level (e.g., to repeat a phrase three times in a row with no errors). Such techniques devoted to learning and performing piano literature often are considered to be a primary aspect of practice. The specific procedures in effective piano practice have been difficult to determine.

Optimal procedures for learning piano music have been discussed in pedagogical literature. Practice is a topic often included in articles and books concerned with the development of piano technique. Annotated bibliographies of texts concerning the development of piano performance skills have been included in pedagogical compendiums, such as *The Well-Tempered Keyboard Teacher* (Uszler, Gordon, & Mach, 1991). Essays and books on traditional piano teaching were brought about by performers, but their pedagogical writings were dedicated more to the development of piano technique and stylistic considerations, and not to procedures for learning music within an efficient schedule (C.P.E. Bach, 1753, 1762; Clementi, 1802; Couperin, 1717; Czemy, cited in Uszler, Gordon, & Mach, 1991; Hummel, cited in Uszler, Gordon & Mach, 1991; Matthay, 1913, 1947; Ortmann, 1925, 1929). Many twentieth-century pedagogues addressed what are now known as traditional practice procedures, including mental practice, slow practice, and setting goals for the practice session in learning music (Gat, cited in Uszler, Gordon, & Mach, 1991; Kochevitsky, cited in Uszler, Gordon, & Mach, 1991; Leimer & Gieseking, cited in Uszler, Gordon, & Mach, 1991; Matthay, 1913, 1947; Neuhaus, cited in Uszler, Gordon, & Mach, 1991; Newman, 1974; Uszler, Gordon, & Mach, 1991).

Modeling has improved performance and has shown effectiveness in learning music in a single practice session (Rosenthal, 1984; Rosenthal, Wilson, Evans, & Greenwalt, 1988). In a single monitored study session for learning a new piece, listening to a model was almost as effective as practicing in terms of rhythm, phrasing and tempo, but not in terms of notes or articulation (Rosenthal, Wilson, Evans, & Greenwalt, 1988). In individual practice the use of aural models has been found to improve performance on the same repertoire (Rosenthal, 1984; Zurcher, 1975). The most effective aural models are similar to performance task goals, such as having the ensemble listen to a recording of the performance piece (Clinesmith, cited in Duerksen, 1972). On the other hand, when tape-recorded models were prepared for take-home practice, performance and sight-reading skills did not appear to be affected (Anderson, 1981). Using an aural model during band rehearsal did not help individual learning, although it provided ideal performances of the etude for each instrument (Hodges, 1989). No research was found on the scheduling of physical practice with modeling for learning effectiveness.

Gruson (1988) found that the frequency of repeating sections was the best measure for improvement in performance skills. Subjects with no previous keyboard reading experience indicated that "the part method" was superior to "the whole method" (Ash & Holding, 1990). With advanced pianists learning equally difficult music scores, whole-learning and part-learning methods resulted in no differences in learning (defined as memorized flawless performance) and also in relearning of several piano selections (Rubin-Rabson, 1940b).

Brown (1928) found that "the whole method" was demonstrated to be superior in two of the three piano excerpts used for the study, but the most difficult piano score was learned more efficiently with a combination of whole and part practice. Efficiency in Brown's study was demonstrated by the elimination of errors in each trial, and the number of trials used in the learning process to perform the excerpt at a final tempo. Brown noted that the difficulty of the music influenced the effectiveness of the performances. A single study of

massed versus distributed practice sessions for pianists indicated that, as time increased between the distributed practice sessions, more learning trials were needed to perform each excerpt to one smooth, flawless performance (Rubin-Rabson, 1940a). While the learning of separate hand parts was completed in fewer trials during massed practice, no differences were found between massed practice and distributed practice for hands-together learning trials.

Practicing the right hand and left hand separately versus practicing the hands together is of interest specifically in learning and memorizing piano music. The procedures are referred to as unilateral (one hand) and coordinated (both hands) practice procedures. These procedures, perhaps unique to keyboard learning and performance, apparently have been investigated only in two early studies. Brown (1933) concluded that coordinated practice was more efficient in learning piano music in terms of speed and the number of learning trials required. Brown also noted that subjects enjoyed practicing coordinated trials more than unilateral trials, as well as the perception that the automated performance of single hand parts interfered with coordinated performance of the music. Rubin-Rabson (1939) found no differences between unilateral and coordinated practice on the number of learning trials required to learn piano music. The unilateral practice procedure defined by Rubin-Rabson was the attainment of one flawless performance of the right hand alone and of the left hand alone before coordinated learning trials began.

The purpose of the present study was to investigate the differences between unilateral and coordinated practice. The limited research previously completed suggests that there is no difference between unilateral and coordinated practice (Rubin-Rabson, 1939) and that coordinated practice is more efficient than unilateral practice (Brown, 1933) in terms of the number of learning trials required. Both studies were conducted with advanced pianists. Based on a survey conducted by Barry and McArthur (1994), most teachers recommend separate hands practice as a useful practice procedure. Since there seems to be a strong perception that separate hand practice is important,

the intent of this study was to try to measure how unilateral practice contributes to learning effectiveness, specifically the number of learning trials, accuracy, and musical expression.

This study was similar to previous research in that it used advanced pianists. Advanced pianists rather than beginners were selected for several reasons. The primary reason was the availability of a homogeneous population of subjects. Adults (N = 32), with a minimum of 13 years of learning piano repertoire, were at a similar experience level for learning standard classical repertoire. Based on their admission into an undergraduate or graduate piano performance program, it was assumed that subjects had acquired an advanced level of technical mastery and were able to make decisions about interpreting various musical styles. In addition, the paucity of evidence that unilateral practice has a measurable effect on learning seemed worthy of investigation. Since the effect of unilateral practice on learning has only been measured in terms of the number of learning trials and retention, this experiment added the dependent measures of accuracy and musical expression.

Method

The purpose of this study was to investigate learning to perform piano literature with unilateral and coordinated practice techniques and an aural model. The independent variables included unilateral and coordinated practice procedures: (a) coordinated practice only, (b) unilateral left-hand practice preceding coordinated practice, and (c) unilateral light-hand practice preceding coordinated practice. Excerpts were chosen from less familiar solo piano literature. These excerpts were used in representative learning contexts in which a pianist was likely to practice the difficult hand part unilaterally and would then practice the hands together. The presence or absence of an aural model during unilateral practice constituted an additional independent variable. The aural model presented one hand part while the other hand part was practiced unilaterally.

The dependent variables included measurement of efficiency, performance accuracy, and musical expression. Efficiency was defined as the number of practice trials required to learn each excerpt to final performance. A practice trial consisted of playing one or both hands of the excerpt from beginning to end. Performance accuracy scores were the total number of correct beats with correct notes and rhythms. Musical expression was rated by expert judges on a five-point scale.

Thirty-two pianists at a large comprehensive university school of music served as subjects in this study. Of the participants in the study, 25 subjects were graduate piano majors and 7 subjects were undergraduate piano majors. All subjects had a minimum of 13 years of piano study, with 17.8 years the average length of piano study. There were 20 female students and 12 male students. The mean age of the subjects was 25.3 years, with the youngest subjects being 19 years old. The youngest participants had almost completed their first year of piano study in college at the time of the experiment.

Thirty-two subjects learning the same four piano excerpts were assigned to one of two groups. The Left-Hand-Piece group (LHP) practiced the predominantly active left-hand parts of Liszt's *Etude in C Minor* (1826) and Hummel's *Etude*, Op. 125/5 alone before proceeding to coordinated practice. The LHP subjects learned the Pinto *Sonata in E-flat Minor* (1st movement) and Kirchner's *Prelude*, Opus 9/3 excerpts in the coordinated only practice condition. The Right-Hand-Piece group (RHP) practiced the predominantly active right-hand parts of the Pinto and Kirchner excerpts alone before proceeding to coordinated practice. The RHP group learned the Liszt and Hummel excerpts in the coordinated only practice condition.

When pianists practiced unilaterally, a simultaneous aural model of the other hand part was presented for one of the two pieces within the unilateral practice condition. The aural model was included to determine if the model would affect learning efficiency, accuracy, or musical expression.

For a number of reasons (limited number of subjects,

fatigue of subjects, nature of the selected music excerpts [pieces with right-hand difficulty vs. pieces with left-hand difficulty], and realistic practice conditions) the independent variables of interest were not fully crossed but were counterbalanced across subjects. Therefore, not all of the combinations (interactions) of factors could be isolated in analysis. The four pieces were counterbalanced to control for possible order effects across the performances. Each subject heard an aural model of one hand's part while learning the other hand's part simultaneously for one of the four pieces learned. Every subject performed all four excerpts.

The order of presentation for each condition-excerpt combination was determined by *a priori* random assignment. Each subject practiced the testing procedure with an example excerpt, before proceeding to the experimental excerpts. The subject was permitted to mentally study the first piece. The subject was then aurally instructed to not stop for errors during practice trials, since the use of the aural model would prohibit stopping for errors. Because subjects were instructed to practice the excerpt from beginning to end, learning trials in which the subject stopped after more than one measure of the excerpt had been performed (and the subject went directly back to the beginning) were counted as individual learning trials.

For the coordinated practice condition, the subject practiced the piece at 60% of the final performance tempo, then 80% and then the final performance tempo. For the unilateral practice condition, the subject practiced one hand part at 60%, followed by trials at 80% and the final performance tempo. When the subject then began to practice hands together, the piece was again practiced at 60%, 80%, and then the final performance tempo. Tempo was increased only when the subject verbally indicated readiness to do so. If the subject requested to slow the tempo back down, the tempo was moved back to one of the two slower fixed tempi. When the subject declared learning complete, a final performance of the piece was recorded without the metronome. The recorded performance was counted as another coordinated practice trial. The experimenter kept a record of the number of practice trials used

during each learning period. The same procedure was followed for the other three excerpts.

Following the experiment, each subject was asked the following questions concerning habits for learning new piano literature:

1. Do you practice hands separately?
2. How often do you practice hands separately?
3. How long do you practice hands separately?
4. Do you use a metronome when beginning new piano literature?
5. What was your impression of hearing an aural model playing the other hand part simultaneously with unilateral practice?

Three expert judges rated musical expression of subjects' final recorded performances. A performance rating form was created for the study (see Table 1). The form included a 5-point global rating scale, with descriptions of representative performances for each point of the scale. Musical attributes in the description included dynamics, phrasing, rhythmic precision, and tone quality. The performed consistency of these attributes was considered important in the rating scale. Each pianist was rated four times, once for each excerpt.

The experimenter (Judge #1) completed performance accuracy scores and musical expression ratings for all performances of all subjects. One reliability observer (Judge #2) assessed performance accuracy for all four performances of eight randomly selected subjects (a total of 32 performances). The same reliability observer also gave musical expression ratings for all four performances of eight different randomly selected subjects. The second reliability observer (Judge #3) judged musical expression only of one performance selected randomly from each subject (a total of 32 performances).

Interjudge reliability was computed using the Pearson product moment correlation. The reliability for performance accuracy was .95 between the experimenter and the reliability

observer. Expression rating reliability between the experimenter and one reliability observer (Judge #2) was .75.

TABLE 1

Musical Expression Rating Scale

Rating	Description
1	**Poor:** No musical expression to any extent Usually the performance is so inaccurate that no expression can be perceived, or the performance is extremely mechanical with no attention to dynamics and the rhythm is unsteady as well.
2	**Fair:** Some expressive elements, but no consistent patterns Hesitations in the performance or significant mistakes in accuracy, which keep the performance from having the expressive elements consistently present.
3	**Good:** One or more than one expressive element(s) is consistently present and effective in the performance Attention to expression markings in the music, although effects of unifying the phrasing and the timing are less certain.
4	**Very Good:** Expressive elements are consistently present, with more subtle variations in dynamics Good tone quality with attention to overt expression markings, but also including more subtle nuances in phrasing.
5	**Superior:** Expression is unified and enhances the performance to the greatest extent Everything in 4, but as good as possible, where all the effects enhance the performance to the greatest extent.

Reliability with the second observer (Judge #3) was .78. The experimenter and the reliability observers did not differ by more than one point on the expression rating scale, with the exception of three performances.

Results

This experiment was designed to investigate the effectiveness of separate hand practice as opposed to coordinated practice. The results suggested that unilateral and coordinated

practice procedures may contribute to the learning of piano music in different ways. Table 2 presents the mean number of learning trials required, mean accuracy scores and mean expression ratings for each piece learned under the two specified practice conditions. The presence or absence of an aural model of the other hand part did not significantly affect any of the dependent measures in this experiment ($p > .05$), and therefore was not included in Table 2.

TABLE 2

Mean Number of Learning Trials, Accuracy Scores and Expression Ratings Across Practice Conditions for Each Piece

	Liszt+		Hummel+		Pinto++		Kirchner++	
	Unil.	Coord.	Unil.	Coord.	Unil.	Coord.	Unil.	Coord.
Trials	21.88	19.75	18.50	19.00	21.25	13.81*	20.81	13.13*
Accuracy	53.13	49.38	50.56	47.00	51.56	50.13	52.13	49.19
Expression	2.81	2.75	2.81	2.81	3.31*	2.88	3.50*	3.00

Note. + indicates pieces with difficult left-hand parts. ++ indicates pieces with difficult right hand parts. *indicates significant difference from all other combinations of pieces and practice conditions.

There was a significant difference between unilateral and coordinated practice techniques on the number of learning trials required to learn piano excerpts ($F[3, 84] = 9.72$, $p < .01$). Fewer trials were used in the coordinated practice conditions for all four pieces, indicating that it was a more efficient way to practice than in unilateral practice conditions. However, the effect of practice conditions on the number of learning trials was not independent of the hand-piece combination ($F[3, 84] = 3.32$, $p < .05$). Pieces with difficult right-hand parts in the coordinated practice condition were learned in significantly fewer trials (13.81 for the Pinto excerpt and 13.13 trials for the Kirchner excerpt) than in all other combinations of hand-piece and practice condition, which ranged from 18.50 to 21.88 mean learning trials.

Performance accuracy was found to be significantly different between unilateral and coordinated practice only conditions ($F[3, 84] = 3.54$, $p < .05$). Performances were

found to be more accurate following unilateral practice conditions than following coordinated practice conditions for all four pieces.

No overall differences between unilateral and coordinated practice procedures on musical expression were found in this study, although the interaction between hand-piece combination and practice condition was significant ($F[3, 84] = 2.93$, $p < .05$). Pieces with difficult right-hand parts practiced unilaterally were rated higher in musical expression (3.31 for the Pinto excerpt and 3.50 for the Kirchner excerpt) than all other combinations of hand-piece and practice procedure, ranging from 2.75 to 3.00 ratings.

Informal Data

After the subjects completed the formal part of the experiment, a series of questions were asked about specific aspects of the procedures. In response to the use of unilateral practice in beginning new piano literature, 27 (84%) of the subjects affirmed that unilateral practice was a part of their practice routine. Over a third of the subjects (38%) said that they almost always used unilateral practice to learn new music whatever the context, while the majority of the subjects (59%) said that other factors would determine the use of unilateral practice. Six pianists (19%) said that they use unilateral practice sometimes. An additional six subjects (19%) specified that the use of unilateral practice depended upon the piece (texture, difficulty, etc.), which might also be associated with using "unilateral practice sometimes." Seven other pianists (22%) indicated that unilateral practice was used more for spot practicing, rather than as a primary technique for learning new music.

In regard to the amount of practicing with one hand before using coordinated practice, 10 subjects (32%) said that the criterion for putting hands together would be a flawless performance of the one hand part. The range of responses by the other 22 subjects included the following answers: Nine subjects (28%) considered putting the hands back together when

the musical gesture of the figure was realized, while eight others (25%) said the acquisition of high performance accuracy would be the primary reason to continue unilateral practice. Other answers to how long a single hand was practiced included a specific number of times (five subjects, or 16%), until accurate at a certain tempo (four subjects, or 13%), miscellaneous (three subjects, or 9%) and until fingering was secured (two subjects, or 6%).

Subjects also had the opportunity to comment on aspects of the procedure. Twenty-five subjects (78%) said that they do not use a metronome in initial learning of new piano literature. Twenty-three subjects (72%) said that the aural model was helpful. Furthermore, only three subjects (9%) said that the model was distracting, while six subjects (19%) felt that the model had a neutral effect during the practice procedure. While no specific question regarding spot practicing was asked, 11 pianists (34%) commented that it was an important part of their procedure in learning new piano music. Five subjects (16%) commented specifically that they did not like the piano used in the experiment.

Discussion

The results suggested that unilateral and coordinated practice procedures may contribute to the learning of piano music in different ways. Most of the difference in learning efficiency can be attributed to the LHP Group (Left-Hand Piece combination). The LHP Group practiced the pieces with difficult right-hand parts in the coordinated practice condition, requiring fewer trials to perform the Pinto and Kirchner excerpts (13.81 and 13.13 trials respectively). The mean numbers of learning trials were much lower than all other combinations of hand-piece and practice conditions, ranging from 18.50 to 21.88 trials. While performance accuracy was not used as a dependent measure in previous studies comparing unilateral and coordinated practice (Brown, 1933; Rubin-Rabson, 1939), results of this study suggested that there was a difference in the accuracy of performances between unilateral

and coordinated practice. While the effect of practice conditions on performance was shown to be significantly different, the range of the mean accuracy scores (a difference of less than five correct beats) for the practice conditions appeared to be very small (less than 8%). However, the accuracy scores in the unilateral practice conditions were consistently higher than the accuracy scores in the coordinated practice conditions for both groups.

Because of the individual practice habits of pianists, the ability to achieve flawless or higher accuracy may have been partially impeded by the practice procedures used. The practice procedures did not allow for "spot" (or short-section) practice, practicing the excerpt at less than 60% of the final tempo, and the option of not using a metronome in initial learning of piano literature. Future research should consider learning situations more like those advanced pianists normally encounter.

One also might speculate that musical expression was more dependent upon the musical ability of the subjects than on specific aspects of the practice procedures and/or pieces. Subjects able to attain accuracy quickly also seemed more likely to incorporate musical expression in their performances. Subjects with low reading ability did not attend to musical expression as readily. A close inspection of individual data revealed that similar expression ratings were frequently given to each subject across the four pieces. For example, Subject 6 received an expression rating of 1 for all four excerpts, while Subject 19 received an expression rating of either 4 or 5 for all four excerpt.

There may be a more optimal practice procedure, which combines unilateral and coordinated practice techniques. Measuring the accuracy of a hand part following unilateral practice may provide evidence for how long to continue practicing with one hand only. Coordinated practice trials interspersed within unilateral practice trials may be one example of a practice schedule, which should be examined. Pieces where both hands were practiced unilaterally versus pieces where only one hand part was practiced unilaterally might be

compared in future research.

No research regarding the effectiveness of unilateral versus coordinated practice techniques on the learning of piano music with beginning pianists has been found. This study found unilateral practice to be significantly different from coordinated practice in terms of consistently higher accuracy. Because there is now evidence that unilateral practice is an effective practice procedure for an advanced level of experience, this practice procedure should be suggested and studied with beginners as well. Because most advanced pianists (88%) indicated they use unilateral practice on a regular basis, but have already acquired many habits and routines for learning piano literature, research with beginning pianists may yield different results.

Because little research with recent technology has been conducted, the use of available technology to improve learning effectiveness seems worthy of increased attention. While the aural model was not found to make any difference on the dependent variables in this study, a majority of the pianists (72%) perceived the model to be helpful and enjoyable, aiding them in such ways as being able to hear the harmonic progression and tonality, and to attend to the dynamics. Continuous research in this area seems warranted. Other aspects which should be included in future research might be varying the experience levels of subjects, and different presentations of the model, such as one or both hand parts, and assessing practice conditions in different stages of learning.

References

Ash, D. W., & Holding, D. H. (1990). Backward vs. forward chaining in the acquisition of a keyboard skill. *Human Factors, 32*(2), 139-146.

Anderson, J. N. (1981). Effects of tape-recorded aural models on sight-reading and performance skills. *Journal of Research in Music Education, 29,* 23-30.

Bach, C. P. E. (1753, 1762). *Essay on the true art of playing keyboard instruments.* Translated and edited by William

J. Mitchell. New York: W. W. Norton, 1949.

Barry, N., & McArthur, V. (1994). Teaching practice strategies in the music studio: A survey of applied music teachers. *Psychology of Music, 22,* 44-55.

Brown, R. W. (1928). A comparison of the "whole," "part," and "combination" methods of learning piano music. *Journal of Experimental Psychology, 11,* 235-248.

Brown, R. W. (1933). The relation between two methods of learning piano music. *Journal of Experimental Psychology, 16,* 435-441.

Clementi, M. (1802). *Introduction to the art of playing the pianoforte.* (New York: Da Capo Press, 1973).

Couperin, F. (1717). *The art of playing the harpsichord.* Translated and edited by Margery Halford. California: Alfred Publishing Co., Inc., 1974.

Duerksen, G. L. (1972). *Teaching instrumental music.* Washington, D.C.: Music Educators National Conference.

Gruson, L. M. (1988). Rehearsal skill and musical competence: does practice make perfect. In J. A. Sloboda (Ed.), *Generative processes in music* (pp. 91-112). Oxford: Clarendon Press.

Hodges, D. H. (Ed.). (1989). *Human skills,* (2nd ed.). Chichester, Great Britain: John Wiley & Sons, Ltd.

Matthay, T. (1913). *Musical interpretation, its laws and principles, and their application in teaching and performing.* London: Joseph Williams.

Matthay, T. (1947). *The Visible and Invisible in Pianoforte Technique.* London: Oxford University Press.

Ortmann, 0. (1925). *The physical basis of piano touch and tone: An experimental investigation of the effect of the player's touch upon the tone of the piano.* London: Kegan, Paul, Tranch, Trubner, & Co.

Ortmann, 0. (1929). *The physiological mechanics of piano technique: An experimental study of the nature of muscular action as used in piano playing and the effects thereof upon the piano key and piano tone* (reprint). New York: Dutton and Co., 1962.

Rosenthal, R. K. (1984). The relative effects of guided

model, only, guide only, and practice only treatments on the accuracy of advanced instrumentalists' musical performance. *Journal of Research in Music Education, 32,* 265-273.

Rosenthal, R. K., Wilson, M., Evans, M., & Greenwalt, L. (1988). Effects of different practice conditions on advanced instrumentalists' performance accuracy. *Journal of Research in Music Education, 36,* 250-257.

Rubin-Rabson, G. (1939). Studies in the psychology of memorizing piano music. I: A comparison of the unilateral and the coordinated approaches. *Journal of Educational Psychology, 30,* 321-345.

Rubin-Rabson, G. (1940a). Studies in the psychology of memorizing piano music. II: A comparison massed and distributed learning. *Journal of Educational Psychology, 31,* 270-284.

Rubin-Rabson, G. (1940b). Studies in the psychology of memorizing piano music. III: A comparison of the whole and the part approach. *Journal of Educational Psychology, 31,* 460-476.

Uszler, M., Gordon, S., & Mach, E. (1991). *The well-tempered keyboard teacher.* New York: Macmillan Publishing.

Zurcher, W. (1975). The effect of model-supportive practice on beginning brass instrumentalists. In C. K. Madsen, R. D. Greer, & C. H. Madsen, Jr. (Eds.), *Research in Music Behavior* (pp. 125-130). New York: Teachers College Press.

Missouri Journal of Research in Music Education, No. 37, 2000, 19-36

A Comparison of the Musical Preferences of Undergraduate Nonmusicians and Baby Boomers

John A. Lychner
Western Michigan University

The purpose of this study was to investigate, describe, and compare the genre preferences of undergraduate nonmusic majors (n = 100) at a comprehensive university with the genre preferences of members of the "Baby Boom" generation (n = 100) who were from the Midwest and who are not professional musicians. Participants were chosen haphazardly to complete a brief survey regarding their musical genre preference. Potential participants were selected so that there would be only nonmusic majors or by profession to include only those who were not professional musicians and by gender so that there would be an equal number of females (n = 50) and males (n = 50) from each group. Results indicated that different genres of music were not equally preferred and that there was a significant relationship between gender and genre choice. Nonmusic major undergraduates preferred Rock, Popular, and Eclectic to other categories while Baby Boomers preferred Rock, Country, Other, and Eclectic. Forty-seven of the total responses (N = 200) were considered eclectic and 45 of the total respondents chose Rock as their "favorite" music. Thus nearly half of all responses fall in these two categories. Males preferred Rock most often and females preferred Pop or were more eclectic in their musical taste.

Introduction

Music has been recognized as a basic attribute of human cultures by scholars in a variety of fields. It appears that no recorded human culture has been or is devoid of music. Despite general agreement on this basic premise, scholars have

lacked agreement concerning the role and meaning of music in various cultures. The reason for choosing one form of aural stimulation over another is still a mystery. However, knowledge of the preferences of various cultures and/or subcultures is enlightening and promotes understanding. The purpose of this study is to investigate, describe, and compare the genre preferences of undergraduates not majoring in music with the genre preferences of members of the "Baby Boom" generation.

Review of Literature

Throughout recorded history people have preferred certain musical genres to others for cultural as well as personal reasons. The Greeks saw music as an important element of a complete education. They believed that the musical modes had a clear effect on the character of the listener -- some positive and others negative. In the *Republic*, Plato asserted that the Dorian and Phrygian modes were to be preferred along with performance on the lyre and cithara -- the instruments of the god Apollo. Other modes were believed to weaken the character and degrade society (Hamilton & Cairns, 1987).

Although many of the Church's scholars, including St. Basil, St. Jerome, and St. Augustine, wrote on the importance of music in worship, some of them were concerned, particularly St. Augustine, that pagan converts might be inappropriately reminded of their former rituals by music used in worship. In the end, he decided that the power of music to move and uplift outweighed the possibility of negative associations. The Church, and then later "Court," provided the setting for formal musical endeavor until the Romantic period. With the American and French revolutions and the rise of the middle class, education and particularly instruction in music became more readily available to the masses (Grout & Palisca, 1980; Seaton, 1991; Strunk, 1950).

Education became a cornerstone of American life as a result of the general belief of the founding fathers that people must be educated in order to participate in governance and

thereby maintain their freedom. Music was first included as a regular subject in the curriculum in 1838 as a result of Lowell Mason petitioning the Boston School Committee. This ushered in a period of growth for formal music education that, although occasionally problematic, provided the foundation for current philosophical viewpoints on music education (Mark, 1986). Wapnick's (1976) "Review of Research on Attitude and Preference" discussed the variety of approaches to preference and attitude and revisited the question of what should be taught in the music classroom. This question has sparked much public and private debate.

People respond to music in a variety of ways. Studies are equally varied in their approach and can be divided into two categories: preference and response. Preference studies are concerned with subjects' like/dislike reaction to a musical stimulus and the magnitude of the reaction, especially when compared with reaction to other musical stimuli. Studies in the more general category of response deal with a broader range of reactions and specifically consider the magnitude and timing of reactions during a piece of music.

Seashore (1938) went to great lengths to describe the process by which the physical characteristics of sound are transformed into cognition and reaction. In general, he discussed "perceiving," "processing," and "responding" as the three phases of interaction with music. Sloboda (1993) considered perception an internal representation of a stimulus. He stated that "the way in which people represent music to themselves determines how well they can remember and perform it." (p. 3). The activities involved in this process are all learned over time.

The processing of the perceived information begins at a basic level, with the listener attending to a specific component of the music (e.g., rhythm). Campbell (1991) noted that "as we become more adept in such activities we begin to process larger units of structure" (p. 36). This leads to more exacting discriminations and classifications. Bever (1988) suggested that during the processing phase, private emotions and previous experiences are aroused. This compounds the difficulty of

determining the effect that a given stimulus has in producing a response. Bharucha (1994) added yet another level of discrimination in discussing the familiar and surprising nature of music known to the listener, which involved two kinds of expectations -- the knowledge of standard practice and the knowledge of how the composer has deviated from standard practice. Following "processing," the reaction or response phase of Seashore's (1938) model involved a determination of preference or a personal response, either general or specific.

The area of music preference, also known as musical taste, has generated a great deal of interest. LeBlanc (1982) created a hierarchical, eight-level, graphic model demonstrating sources of variation in musical preference. He believed that "music preference decisions are based upon the interaction of input information and the characteristics of the listener, with input information consisting of the musical stimulus and the listener's cultural environment" (p. 29).

A variety of studies in music preference have investigated the effect of various elements in the music on the preference of the listener. Some of the elements studied included single tones differing in frequency, intensity, and wave form (Hedden, 1974); pitch and tempo as related to popular music (Geringer & Madsen, 1987); loudness or intensity of various frequency bands (Smith, 1989); and style, tempo, and performing medium (LeBlanc, 1981). In addition, Fung (1993) and Brittin (1994) examined non-Western styles and Hargreaves and Castell (1987) investigated the development of positive and negative attitudes toward familiar and unfamiliar melodies.

Musical preference studies have also examined the effect of a variety of listener attributes on preference. Some of the attributes studied included race (McCrary, 1993); age (Baker, 1980; Daniels, 1994; Gregory, 1994; LeBlanc, Sims, Malin, & Sherrill, 1992; Moore, Staum, & Brotons, 1992; Smith, 1988); Alzheimer's disease patients (Brotons & Pickett-Cooper, 1994); and degree of extroversion (Dollinger, 1993). Researchers have also studied the effect of educational programs on preference (Bradley, 1972; Flowers, 1988; Price & Swan-

son, 1990; Shehan, 1985; Zumbrunn, 1972) with results generally indicating an increase in knowledge of and preference for the music studied.

Various methods have been used to obtain data on musical preference. Technological developments have allowed listeners to record their responses while listening to music with minimal interference. Brittin and Sheldon (1995) compared continuous reactions using the Continuous Response Digital Interface (CRDI) with conventional static ratings taken through 10-point Likert-type scales. They found no significant difference between the two methods, but found a significant interaction between college music majors and nonmusic majors with nonmusic majors rating listening examples higher when using the CRDI. LeBlanc, Jin, Simpson, Stamou, and McCrary (1998) compared pictoral and verbal rating scales with children in elementary school and found that they preferred to use the pictoral scale to record their music listening preferences. In 1980, Kuhn noted that printed response scales were "the most frequently employed of all preference measures" (p. 9) and while technology has provided new options for data collection, traditional "pen and pencil" methods continue to be popular.

A variety of research has been done in the area of genre categorization. Chalmers (1978) developed the "Music Style Attitude Profile" and tested it with Western Art Music. Deihl, Schneider, and Petress (1983) categorized musical genres and correlated them with three categories of musical taste: High brow/traditional, contemporary progressive, and middle brow/traditional. In addition, Brittin (1991) studied the effect of categorization of compositions as pop, rock, and jazz, on preference and her findings suggested that "preference may be independent of classification taxonomies" (p. 148). However, no studies were found investigating a wide range of genre classifications with regard to listener preference.

In general, studies have examined a single population with most looking at children and college students. This study investigates, describes, and compares the genre preferences of undergraduate students not majoring in music with the genre

preferences of members of the "Baby Boom" generation who are not professional musicians using a wide range of genre classifications with regard to listener preference. The "Baby Boom" generation was chosen because no studies were found describing their musical genre preferences. For this study "Baby Boomers" are defined as those born in the United States between 1946 and 1964 (Pendergast & Pendergast, 2000).

Method

Noting a lack of information on Baby Boomers and having determined a need for more information regarding a variety of musical genres, a brief survey was developed and a pilot study was done. The pilot study was distributed to undergraduate students, both music majors (n = 20) and nonmusic majors (n = 20), and to Baby Boomers, both professional musicians (n = 20) and others (n = 20). The survey instrument proved satisfactory for this study.

Results showed that music majors' tastes are eclectic and that they were either unable or unwilling to choose one favorite genre. Only 10% of the music major respondents chose a favorite genre and it was classical. In addition, they were generally unwilling to rank-order the variety of genres that they chose. Several indicated that their taste varied according to their mood or their work in the school of music. Results were similar for Baby Boomers who were professional musicians. Seventy-five percent of the Baby Boomer respondents who were professional musicians were unwilling or unable to choose a favorite genre or rank-order the variety of genres that they chose. Fifteen percent chose classical as their favorite genre and 10% chose jazz as their favorite genre. By contrast, nonmusic majors and those Baby Boomers who were not professional musicians had much less trouble choosing a favorite genre or rank-ordering their chosen genres. Approximately 20% from each group indicated difficulty in choosing. So, it was determined that the main study should focus on nonmusic majors and Baby Boomers who were not professional musi-

cians because it seemed probable that music majors and Baby Boomers who were professional musicians would have eclectic taste in music.

For the main study, undergraduate students (n = 100) at a comprehensive university were chosen haphazardly during their breaks between classes and asked to complete a brief survey regarding their musical genre preference. The participants were screened by major to include only nonmusic majors and by gender so that there would be an equal number of females (n = 50) and males (n = 50). In addition, Baby Boomers (n = 100) from the Midwest were chosen haphazardly -- contacted via telephone, e-mail, and in person -- and asked to complete a brief survey regarding their musical genre preference. The participants were screened by profession to include only those who were not professional musicians and by gender so that there would be an equal number of females (n = 50) and males (n = 50).

The survey included a space to indicate gender, a list of musical genres (see below), a space to report any previous music experience/participation, and a space for the students to confirm their undergraduate status and major. If a participant indicated having previous music experience, they were asked to describe the experience. The musical genres were randomly arranged in a block in the middle of the page and the participants were asked to circle their favorite type of music. In the event that the participant could not choose a single genre as their favorite, they were asked to rank order their choices. The following genres were included, as seen below, on the survey:

Rock Classical Country Jazz Folk
Popular Easy Listening Rap New Age
Gospel Contemporary Christian Rhythm & Blues
Other -- Please Specify _____

Upon completion of the survey, the participants were thanked for their time and input.

Results

The survey responses were compiled and entered onto two master spreadsheets -- one for undergraduates and one for Baby Boomers. Both groups were analyzed separately and then compared.

The undergraduate group was analyzed first. Two undergraduate participants indicated via a note on the side of the survey that, like the music majors, their tastes in music were not confined to a single genre nor could they rank their choices -- they "like all kinds of music." These participants, as well as those who simply circled a number of genres and did not choose a favorite genre or rank-order their choices, were considered eclectic and eclectic was added as the fourteenth genre or category. The survey results are summarized in the table 1.

TABLE 1

Undergraduate Nonmusic Majors' Favorite Musical Genres

Genre	Female	Male	Total
Rock	4	23	27
Classical	0	1	1
Country	4	1	5
Jazz	1	1	2
Folk	2	1	3
Popular	12	3	15
Easy Listening	3	0	3
Rap	0	0	0
New Age	1	0	1
Gospel	0	0	0
Contemp Christian	3	1	4
Rhythm & Blues	2	7	9
Other	2	3	5
Eclectic	16	9	25

Note. Eclectic was not a category in the survey, but rather represents a response pattern.

Pearson's chi-square indicated that the different genres were not equally preferred for females and males ($\chi^2 = 145.05$, $df = 13$, $p < .001$). There were clear preferences for specific genres. Rock was more strongly preferred by males while

Popular and *Eclectic* were more strongly preferred by females.

Five undergraduate participants indicated that they had previous experience in music -- three were female and two male. Three of the five were specific in their response, indicating participation in band. The other two simply indicated that they had been involved in music, but were not specific as to the type of participation. As a result of the pilot study, one might assume that those with previous musical experience would have eclectic taste, but this was not the case. Two of the five did have eclectic taste, but the other three had distinct preferences with *Rock* and *Popular* heading the list. Due to the extremely small number of participants with previous musical experience and the nature of their responses, it appears that previous musical experience had no effect on the undergraduate respondents.

In addition, Pearson's chi-square test of independence was run to determine if there was a relationship between undergraduates' gender and genre choice. The results ($\chi^2 = 31.84$, $df = 13$, $p = .001$) indicated that there is a significant relationship between gender and choice.

The Baby Boomer group was then analyzed. Twenty-two Baby Boomer participants were considered eclectic in their musical taste. Two of these did not rank their choices. The other 20 did rank their choices but not willingly and noted their frustration on the form. The survey results are summarized in the Table 2.

Pearson's chi-square indicated that the different genres were not equally preferred for females and males ($\chi^2 = 84.82$, $df = 13$, $p < .001$). There were clear preferences for specific genres. *Rock* was more strongly preferred by males while females were more strongly *Eclectic*. The most common category specified under "Other" was "Oldies."

Forty-three of the Baby Boom participants indicated that they had had previous experience in music -- 29 were female and 14 male. While the responses varied somewhat, most indicated that they were currently or had been, at some time, in a church choir. In addition, many indicated participation in

TABLE 2

Baby Boomers Favorite Musical Genres

Genre	Female	Male	Total
Rock	3	15	18
Classical	3	4	7
Country	4	7	11
Jazz	5	2	7
Folk	0	0	0
Popular	3	4	7
Easy Listening	5	1	6
Rap	0	0	0
New Age	0	0	0
Gospel	2	1	3
Contemp Christian	1	2	3
Rhythm & Blues	0	1	1
Other	8	7	15
Eclectic*	16	6	22

*Eclectic was not a category in the survey, but rather represents a response pattern.

high school vocal or instrumental ensembles. Once again, considering the pilot study, one might assume that those with previous musical experience would have eclectic taste, but this was not the case. Six did have eclectic taste, but the responses varied greatly. Due to the nature of these responses, it appears that previous musical experience had no effect on the Baby Boom respondents.

In addition, Pearson's chi-square test of independence was run to determine if there was a relationship between Baby Boomers' gender and genre choice. The results ($\chi^2 = 19.34$, $df = 13$, $p = .036$) indicated that, as with the undergraduates, there is a significant relationship between gender and choice.

Finally, undergraduates were compared to Baby Boomers and the specific gender responses for the two groups were also compared. Pearson's chi-square test of independence indicated that there is a significant relationship between the genre preference of undergraduates and Baby Boomers ($\chi^2 = 33.97$, $df = 13$, $p = .001$). In comparing the males of the two groups, Pearson's chi-square test of independence indicated that there is no significant relationship between the genre preference of undergraduate males and Baby Boom males ($\chi^2 = 18.49$,

$df = 13$, $p = .071$). In comparing the females of the two groups, Pearson's chi-square test of independence indicated that there is a significant relationship between the genre preference of undergraduate females and Baby Boom females ($\chi^2 = 23.31$, $df = 13$, $p = .025$).

Discussion

The purpose of this study was to investigate, describe, and compare the genre preferences of undergraduate students not majoring in music with the genre preferences of members of the "Baby Boom" generation who are not professional musicians using a wide range of genre classifications with regard to listener preference. Results showed that nonmusic major undergraduates preferred Rock, Popular, and Eclectic to other categories while Baby Boomers preferred Rock, Country, Other, and Eclectic to other categories. Forty-seven of the total responses ($N = 200$) were considered eclectic and 45 of the total respondents chose Rock as their "favorite" music. Thus nearly half of all responses fell in these two categories. It is, however, interesting to note that there were considerably fewer Baby Boomers than undergraduates who preferred Rock, and of those Baby Boomers, males far outnumbered females. It is possible that the groups and gender divisions of the groups define Rock differently or that female preference simply changes with age. This is speculative of course, since data from the Baby Boomers in their late-teens or early-twenties is not available.

Popular ranked second overall for undergraduates with 31 total responses and 15 "favorite" responses. Rhythm & Blues also had a relatively strong response with undergraduates while Rap and Gospel received no "favorite" responses. As no information was gathered regarding cultural background, it is difficult to speculate as to why this is the case. However, it must be noted that no category was left unchosen by undergraduates. Fourteen undergraduate respondents rank-ordered as many as six choices and 25 were unable or unwilling to choose a single "favorite" or rank-order their choices. It is

interesting to note that 16 participants included Classical in their responses, but only one considered it "favorite."

For Baby Boomers, Country ranked second overall with 24 total responses and 11 "favorite" responses. Folk, Rap, and New Age received no responses from Baby Boomers. This could be considered surprising because of the influence of Folk music in the Sixties and early Seventies. Although specific age data were not taken, the participants appeared to span the entire Baby Boom period. Therefore, one would expect Folk music to at least be included in a list for those with eclectic taste.

The results of this study show that undergraduate nonmusic majors have apparently widely varied interests in music. Although modern marketing techniques can be considered effective from the high response to the Rock and Popular categories, it is apparent from the variety of responses that this population is interested in exploring other genres as well. In the category Other-Specify, genres such as "80s Pop," "Techno-Industrial," "Funk," "Latin," "Christian Rock," and "Heavy Metal" were each listed once, but "Alternative" was listed five times. Most of these could be seen as sub-groups of other categories. For example, Funk and Latin could be seen as sub-groups of Jazz while Christian Rock, Alternative, and Heavy Metal could be seen as sub-groups of Rock. In any case, it appears that there is a small but strong following for Alternative in this population.

It appears that Baby Boomers have somewhat more narrow and specific music preferences than undergraduates. Baby Boomers found it much easier to choose a single "favorite" musical genre by a 2:1 ratio. Jazz and Classical have a much stronger following with Baby Boomers than with the undergraduate population. In the category Other-Specify, Baby Boomers included genres such as "Musicals," "Hip Hop," "Disco," and "Alternative Rock," but chose "Oldies" 10 times as their "favorite" genre. This strong response may provide an answer to the question of the lack of Folk genre responses. It is possible that the Baby Boom respondents folded Folk music into their definition of "Oldies."

Although there are several distinct differences between female and male respondents, most categories appear to have relatively similar overall response patterns in both genders. The most similar responses occur in the genres Classical, Jazz, Gospel, Contemporary Christian, and Other-Specify. All of these are seldom chosen as "favorite" genres. In the most chosen genre, Rock, there is a big difference in female/male preference. Thirty-eight males chose Rock as their "favorite" genre while only seven females considered it their "favorite." In contrast, 15 females chose Popular as their "favorite" while only 7 males considered it their "favorite." This could be a result of the more romantic nature of popular music and the more bombastic nature of Rock. Of course, this kind of inference could be considered stereotyping and would need to be substantiated through further research.

Comparisons of gender responses between groups indicated generally similar responses. Females differed substantially in the areas of Pop and Other-Specify. Undergraduate females had a much stronger preference for Pop music while Baby Boomer females had a stronger preference for Other-Specify where they listed "Oldies" most often. Males differed substantially in the areas of Country, Rhythm and Blues, and Other-Specify. Undergraduates had a stronger preference for Rhythm and Blues while Baby Boomers had a much stronger preference for Country and Other-Specify where they listed a variety of genres with "Oldies" appearing most often. It is interesting that while females have a similar preference level for Rock between groups, males differ by eight responses with undergraduate males having a stronger preference for Rock music than Baby Boom males. These differences in preference between males in the two groups clarify the statistical difference indicated by the Pearson chi-square test of independence.

The participants whose responses were Eclectic revealed great variety in their choices. Three of the 47 were exactly alike and included Rock, Country, and Popular. The other 44 Eclectic responses were unique. The only truly common responses were Popular for females and Rock for both females

and males.

This study reveals an apparently strong preference for Rock music in undergraduates not majoring in music and Baby Boomers who are not professional musicians. In addition, undergraduates demonstrated a strong preference for Pop and Baby Boomers demonstrated a preference for Country and "Oldies." Both groups had a strong contingent with eclectic taste. These genres contain many of the primary musical characteristics that Fung (1995) found to be preferred among listeners including regular rhythmic pulse, fast tempo, instrumental timbre, and consonance. While other characteristics may be present, those listed are strongly represented. So, these findings should come as no surprise.

Further research should be done to determine the possible reasons behind the choices made by these groups. If marketing is the primary reason for preferring these genres, then parents and schools should take a more proactive role in "marketing" other genres to children. As noted earlier, researchers have found that educational programs generally provide increased knowledge of and preference for the music studied (Bradley, 1972; Flowers, 1988; Price & Swanson, 1990; Shehan, 1985; Zumbrunn, 1972). However, it is important to note that Russell (1987) found that familiarity and likeability are not linked when dealing with popular music. While contradictory, Russell's study dealt specifically with undergraduates and popular music and the findings may or may not transfer to other groups or genres. This is not to say that Rock and Popular music should be discouraged, but rather that a "well-rounded" approach should be encouraged. Music in both education and industry would benefit from a greater number of consumers with eclectic tastes.

In the end, knowledge of the musical genre preferences of various groups and their relationship to each other can be beneficial by helping those planning curriculum and public events to understand their "audience." For musicians/music educators with generally eclectic taste, it is then possible to use a preferred music to bridge a gap to another less-preferred or unknown music. In addition, it helps the musician plan pro-

grams for mixed audiences. While this may not always promote likeability for the "new" music, it is certainly a more accessible place to begin.

References

Baker, D. (1980). The effect of appropriate and inappropriate in-class song performance models on performance preference of third- and fourth-grade students. *Journal of Research in Music Education, 28*, 3-17.

Bever, T. (1988). A cognitive theory of emotion and aesthetics in music. *Psychomusicology: A Journal of Research in Music Cognition, 7*(2), 165-175.

Bharucha, J. (1994). Tonality and expectation. In R. Aiello and J. Sloboda (Eds.), *Musical perceptions.* New York: Oxford University Press.

Bradley, I. (1972). Effect on student musical preference of a listening program in contemporary art music. *Journal of Research in Music Education, 20*, 344-353.

Brittin, R. (1991). The effect of overtly categorizing music on preference for popular music styles. *Journal of Research in Music Education, 39*, 143-151.

Brittin, R. (1994). *Measuring preference for various musical styles.* Unpublished manuscript, Syracuse University, Syracuse, NY.

Brittin, R., & Sheldon, D. (1995). Comparing continuous versus static measurements in music listeners' preferences. *Journal of Research in Music Education, 43*, 36-46.

Brotons, M., & Pickett-Cooper, P. (1994). Preferences of Alzheimer's disease patients for music activities: Singing, instruments, dance/movement, games, and composition /improvisation. *Journal of Music Therapy, 31*, 220-233.

Campbell, M. (1991). Musical learning and the development of psychological processes in perception and cognition. *Bulletin of the Council for Research in Music Education, 107*, 35-48.

Chalmers, B. (1978). The development of a measure of attitude toward instrumental music style. *Journal of Research*

in Music Education, 26, 90-96.

Daniels, R. (1994). Music listening preferences of preschool children. *Update: Applications of Research in Music Education, 12*(2), 4-8.

Deihl, E., Schneider, M., & Petress, K. (1983). Dimensions of music preference: A factor analysis study. *Popular Music and Society, 9*(3), 41-49.

Dollinger, S. (1993). Research note: Personality and music preference: Extraversion and excitement seeking or openness to experience? *Psychology of Music, 21*, 73-77.

Flowers, P. (1988). The effects of teaching and learning experiences, tempo, and mode on undergraduates' and children's symphonic music preferences. *Journal of Research in Music Education, 36*, 19-34.

Fung, C. (1993). A review of studies on non-Western music preference. *Update: Applications of Research in Music Education, 12*(1), 26-32.

Fung, C. (1995). Music preference as a function of musical characteristics. *The Quarterly Journal of Music Teaching and Learning, 6*(3), 30-39.

Geringer, J., & Madsen, C. K. (1987). Pitch and tempo preferences in recorded popular music. In C. K. Madsen & C. Prickett (Eds.), *Applications of Research in Music Behavior*. Tuscaloosa, AL: The University of Alabama Press.

Gregory, D. (1994). Analysis of listening preferences of high school and college musicians. *Journal of Research in Music Education, 42*, 331-342.

Grout, D., & Palisca, C. (1980). *A history of western music*. New York: W. W. Norton & Company.

Hamilton, E., & Cairns, H. (Eds.). (1987). *The collected dialogues of Plato, including the letters* (P. Shorey, Trans.). Princeton, NJ: Princeton University Press.

Hargreaves, D., & Castell, K. (1987). Development of liking for familiar and unfamiliar melodies. *Bulletin of the Council for Research in Music Education, 91*, 65-69.

Hedden, S. (1974). Preferences for single tone stimuli. *Journal of Research in Music Education, 22*, 136-142.

Kuhn, T. (1980). Instrumentation for the measurement of

music attitudes. *Contributions to Music Education, 8*, 2-38.

LeBlanc, A. (1981). Effects of style, tempo, and performing medium on children's music preference. *Journal of Research in Music Education, 29*, 143-156.

LeBlanc, A. (1982). An interactive theory of music preference. *Journal of Music Therapy, 19*, 28-45.

LeBlanc, A., Jin, Y., Simpson, C., Stamou, L., & McCrary, J. (1998). Pictoral versus verbal rating scales in music preference measurement. *Journal of Research in Music Education, 46*, 425-435.

LeBlanc, A., Sims, W., Malin, S., & Sherrill, C. (1992). Relationship between humor perceived in music and preferences of different-age listeners. *Journal of Research in Music Education, 40*, 269-282.

Mark, M. (1986). *Contemporary music education.* New York: Schirmer Books.

McCrary, J. (1993). Effects of listeners' and performers' race on music preferences. *Journal of Research in Music Education, 41*, 200-211.

Meyer, L. (1956). *Emotion and meaning in music.* Chicago: The University of Chicago Press.

Moore, R., Staum, M., & Brotons, M. (1992). Music preferences of the elderly: Repertoire, vocal ranges, tempos, and accompaniments for singing. *Journal of Music Therapy, 29*, 236-252.

Mursell, J. (1948). *Education for musical growth.* Boston: Ginn and Company.

Pendergast, T., & Pendergast, S. (Eds.). (2000). *St. James Encyclopedia of Popular Culture.* Volume 1: A-D. Detroit: St. James Press.

Price, H., & Swanson, P. (1990). Changes in musical attitudes, opinions, and knowledge of music appreciation students. *Journal of Research in Music Education, 38*, 39-48.

Russell, P. (1987). Effects of repetition on the familiarity and likeability of popular music recordings. *Psychological Research and Music Education, 15*, 187-197.

Seashore, C. (1938). *Psychology of music.* New York: McGraw-Hill.

Seaton, D. (1991). *Ideas and styles in the western musical tradition.* Mountain View, CA: Mayfield.

Shehan, P. (1985). Transfer of preference from taught to untaught pieces of non-Western music genres. *Journal of Research in Music Education, 33,* 149-158.

Sloboda, J. (1993). *The musical mind: The cognitive psychology of music.* New York: Oxford University Press.

Smith, D. (1988). The effect of enhanced higher frequencies on the musical preference of older adults. *Journal of Music Therapy, 25,* 62-72.

Smith, D. (1989). Preferences for differentiated frequency loudness levels in older adult music listening. *Journal of Music Therapy, 26,* 18-29.

Strunk, O. (Ed.). (1950). *Source readings in music history: From classical antiquity through the romantic era.* New York: Norton.

Wapnick, J. (1976). A review of research on attitude and preference. *Bulletin of the Council for Research in Music Education, 48,* 1-20.

Zumbrunn, K. (1972). A guided listening program in twentieth-century music for junior high students. *Journal of Research in Music Education, 20,* 370-378.

Missouri Journal of Research in Music Education, No. 37, 2000, 37-53

The History of The Band Program at Jackson High School, Jackson, Missouri (1920-1998)

Carol J. McDowell
Southeast Missouri State University

Jackson High School is recognized regionally for its outstanding band program. Named after General Andrew Jackson, Jackson is a small town in the Missouri boot heel whose citizens strongly support the school music program. The history of the band's success belongs not only to the community but also to the directors. Three directors, A. W. Roloff, LeRoy Mason, and Nick Leist, have played significant roles in the development of this music ensemble. No official record exists for establishing an exact date that band was introduced into the high-school curriculum. The Silver Arrow, *the yearbook of Jackson High School, states that 1924 was the first year a band was organized there. Other evidence documents that the band was an outgrowth of the municipal band, an ensemble organized in 1921 through the Chamber of Commerce and directed by Albert William Roloff. In 1928 Mr. Roloff issued a call for young boys interested in performing in a "kid" band and passed this "kid" band to Fred Reasoner on May 1, 1930, who then introduced it into the high school. Mr. Reasoner left Jackson at the end of the 1932-1933 school year, and two directors followed him until LeRoy Mason became the new band director in 1939. The band membership increased tremendously under Mason's leadership. Mason, who directed the municipal band, was the first director to invite women into the ensemble, and he also established the annual Band Festival in the Fall of 1944, an event that continues to this day. Mason continued at Jackson until 1957 when he joined the faculty at Southeast Missouri State University. After Mason's departure, three directors led the band for short stints. Nick Leist arrived to direct the band in 1968, and stayed there until his retirement in 1998. Leist re-*

ceived numerous awards from the community for his hard work and dedication to the band, and explains how his methods fostered growth and success for his students and for the community. The Jackson band program makes use of the advantages of a large suburban school, although it still exists within a small-town setting. Its success reflects the historic interest of the community, as well as committed teachers and administrators.

Jackson High School is recognized regionally for its outstanding band program. Named after General Andrew Jackson, Jackson is a small town in the Missouri boot heel whose citizens strongly support the school music program. Their support takes the form of concert attendance, donations to band fund drives, volunteer participation in band outings, appropriation of funds to the band by the school board, and parental encouragement (which leads to high student participation in the program). The history of the band's success belongs not only to the community but to the directors. Three directors, A. W. Roloff, LeRoy Mason, and Nick Leist, have played significant roles in the development of this music ensemble.

No official record exists for establishing an exact date that band was introduced into the high-school curriculum. *The Silver Arrow*, the yearbook of Jackson High School, provides one account of the band's beginnings.

The 1924 *Silver Arrow* states that this was the first year a band was organized in the high school. No picture appears, but the following explanation is given:

> The J. H. S. band is something new; as this is the first year a band was organized in the high school, no first-class band could be expected.
>
> Under the able direction of Mr. A. W. Roloff, a 12 to 15-piece band was organized. They played for some of the football games earlier in the season and wound up the basketball season with the band. Three members will be lost by graduation, but with new material a good band should be organized next year.

The band also headed the parade for the Spring Carnival and furnished music for the gayety both nights of the carnival.[1]

The 1925 *Silver Arrow* explains how the Jackson High School Band was reorganized that year with several new members. The excerpt that follows is from that book.

J. H. S. Band

Officers:
Director.....Mr. A. W. Roloff
President.....John Brase
Vice-President.....Clarence Neumeyer
Secretary.....Maple Dalton
Treasurer.....Leo Roloff

The J. H. S. band was reorganized this year with several new members. Under the leadership of Mr. Roloff it furnished music for the football and basketball games and helped the boosters of J. H. S. to instill "pep" and vigor in the hearts of the boys for their games. The band has sixteen members this year, all of whom are ardent supporters of the red and black.

Members:
Leo Roloff, Albert Tindall, Mr. A. W. Roloff, Director, Herbert Mayfield, Ruben Schade, Walther Bruening, Paul Bruening, Robert Friedrich, Roland Schnaare, John Brase, Frederick McFerron, Clarence Neumeyer, Maple Dalton, Truman Hahs, Pervis Seabaugh, Percy Poe and LeRoy McNeely.[2]

---

[1] *The Silver Arrow*, Vol. 7, No. 1, Jackson High School Yearbook (Jackson, MO, 1924), p. 69.

[2] *The Silver Arrow*, Vol. 8, Jackson High School Yearbook (Jackson, MO, 1925), p. 68. Reprinted with permission.

No yearbooks were published during the years 1930 to 1934 due to the Great Depression, but the growth and success of the young band were chronicled in the 1935 *Silver Arrow*.

J. H. S. Band

LEFT TO RIGHT – Truman Hahs, Paul Bruening, John Savers, Ruben Schade, Herbert Mayfield, Walther Bruening, Fred McFerron, Leo Roloff, A. W. Roloff (Director), LeRoy McNeely, John Brase. Not on picture – Robert Friedrich.[3]

[3]*The Silver Arrow*, Vol. 9, Jackson High School Yearbook (Jackson, MO, 1926), p. 59. Reprinted with permission.

Jackson High School Band

On March 31, 1930, Mr. F. K. Reasoner organized a Jackson High School Band with a membership of approximately twenty boys and girls. Under his direction and hard work this number was increased to fifty-three during the summer of 1930 and the school year of 1930-31.

Within three years time under the leadership of Mr. Reasoner the School Band won second place in Class B in the Band Contest held in Cape Girardeau, April 1931, and won first place in a Band Contest at Benton, Missouri, in October 1931. In this contest all the bands from Southeast Missouri could compete. The judges were members of the St. Louis Symphony Orchestra. Again in April 1932, the School Band won first in Class B in the Southeast Missouri May meet and fourth place in 1933 in the May meet.

In the year 1933-34 under the direction of Miss Lucille Nieberg, Bernard Looney was elected drum major. The band continued to progress.

Miss Jean Bridges was chosen music supervisor for this year. The band had thirty members. Bernard Looney continued to assume the duties of the drum major. Our school band attended all home games and furnished the music. They sponsored several assembly programs and entertainments for the student body, members of the faculty, and citizens of Jackson. The Band entered the Southeast Missouri May meet.

1935 PERSONNEL

Clyde Baugh	Richard Davis	Janice Hartle	Troy Kinder	Wilson Steck
F. O. Baugh	Bill Eakins	Robert Hartle	Paul Mueller	Robert Taylor
Alvin Bodenstein	Jerry Friedrich	Billy Cooper Hines	Laddie Mae Neff	W. G. Wilson
Edward Cracraft	Howard Hardy	Harriet Kies	Jack Obermiller	Hines Wolters
Gene Cracraft	Herman Lee Hardy	Miriam Kies	Janet Roberts	Robert Wright
Sherman Cracraft	Ann Hartlee	Vinyard Kies	Carl Sievers	Raymond Wyatt[4]

[4]*The Silver Arrow*, (Vol. number unknown), Jackson High School Yearbook (Jackson, MO, 1935), pp. 74 and 75. Reprinted with permission.

Although *The Silver Arrow* gives conflicting information concerning the high-school band's organization, there is evidence to document that the band was an outgrowth of the municipal band. The municipal band was organized in 1921 through the Chamber of Commerce and directed by A. W. Roloff.[5] The history of this ensemble will be examined to understand how it contributed to the development of the high-school band.

Albert William Roloff (1880-1972) was the first director of the Jackson Municipal Band. Roloff graduated from the Jackson Military Academy in 1902.[6] According to a local newspaper article, at the academy he received "thorough and modern instruction in music, art, and education,"[7] which indicates that the community perceived music as a valuable part of a student's education. It was at the academy that Roloff took lessons and learned to play most of the instruments. [8]

The Chamber of Commerce wanted a musical organization to represent the city at patriotic events and other activities in the area, and asked Mr. Roloff to form a community band. Charter member Paul Bruening gives the following historical account of what would become known as the Municipal Band.[9]

In September 1920, A. W. Roloff recruited 29 boys to become band members. The boys rented or borrowed instruments and met every week in the Roloff Wood Shop, a free-of-charge rehearsal hall where they sat on wooden horses, coped with the saw dust, and practiced. Here Roloff, their only teacher, gave individual and group lessons, and on November 11, 1921, the Jackson Junior Band (as it was called

---

[5] Katherine Hinchey Cochran, "A History of Jackson, Missouri" in *Jackson, Missouri Sesquicentennial Souvenir Historical Program* (Jackson, MO: Chamber of Commerce, 1965).

[6] "Jackson Civic Leader Dies," *Southeast Missourian* (Cape Girardeau, MO), 15 July 1972, page number unknown.

[7] J. R. Henderson, "Jackson Military Academy," n.p., n.d.

[8] Opal Roloff Tally, "Old Jackson Nostalgia Day Set for Sunday; Story of First Band Recalled," *News Guardian*, 1 November 1989, p. 5A.

[9] "Bruening Presents History of Muny Band," *Cash-Book Journal*, (Jackson, MO), 6 September 1989, p. 18.

then) gave its first performance. Mr. Bruening remembered performing two selections: a march entitled "The Captain" and a waltz called "Rustling Leaves."[10]

Although the band earned money ($10.00 for local events and $50.00 for out-of-town events),[11] band members still paid 25 cents in monthly dues to provide for music and other expenses. Mr. Roloff often gave money out of his own pocket when there was not enough money for necessary purchases, even though he received no salary for years. The group could not afford uniforms and they wore white shirts, white trousers and black ties[12] until 1938, when they purchased black pants, red coats, black caps, and Sam Browne belts.[13]

Jackson residents had become proud of their community band, and in 1930 voted for a special tax levy to provide funds for building a bandstand on the courthouse lawn. The bandstand was completed in 1932, and to this date Jackson still maintains a tax to support the community band (it is one of the few towns in the United States that maintains such a tax). The name of the band changed to Jackson Municipal Band in 1935,[14] and it now performs in a bandshell that was built for them in the city park in 1976 and dedicated to A. W. Roloff.

Many of the same people were involved in both the Jackson Municipal Band and the beginning of the Jackson High School Band. According to Paul Bruening, in 1926 School Superintendent R. O. Hawkins asked A. W. Roloff to organize a band for the high school.[15] The *Cape County Post* reported that in 1928 Mr. Roloff issued a call for young boys interested in performing in a "kid" band.[16] Roloff then passed this "kid"

---

[10]"Bruenning Presents History of Muny Band," ibid.

[11]"A. W. Roloff, Veteran Musician, Honored With Surprise Dinner," n.p., n.d.

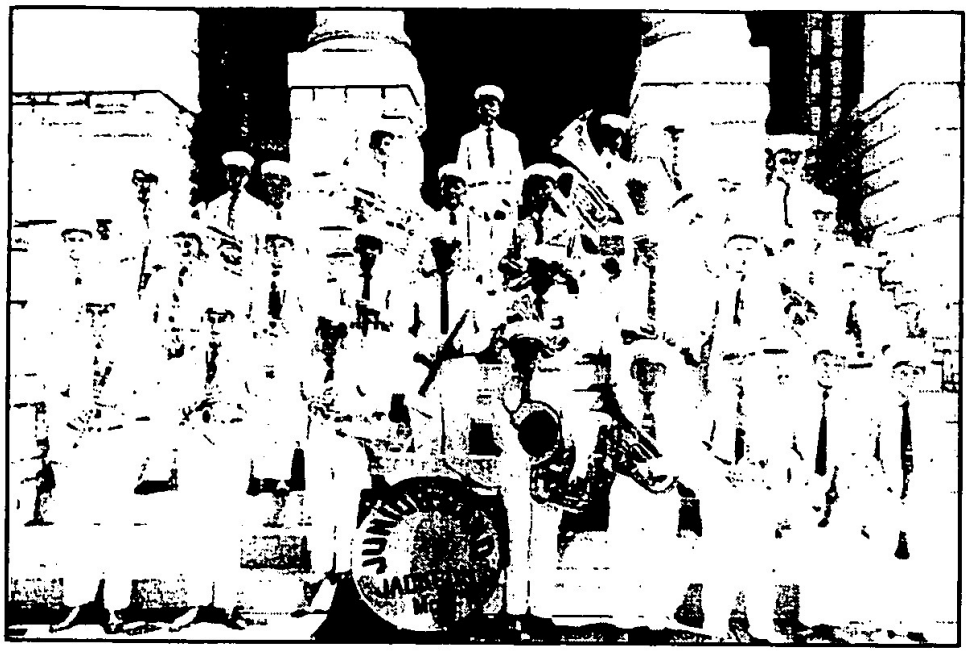
[12]"Bruening Presents History of Muny Band," ibid.

[13]"A. W. Roloff," ibid.

[14]Kay Lamb, "Charter Member of Municipal Band Keeps on Tootin'," *The Cash-Book Journal* (Jackson, MO), 1 June 1983, p. 8.

[15]"Charter Member of Municipal Band Keeps on Tootin'," ibid. This account contradicts the establishment of 1928 as recorded by the high-school yearbook.

[16] "History of the Jackson Municipal Band," *Cape County Post* (Cape Girardeau County, MO), 2 April 1931, page number unknown.



The Municipal Band of Jackson was organized in 1921 by A. W. Roloff, assisted by John Sachse. Members were: Clarinets, Ed Medley, Paul Medley, Walter Bruening, Paul Bruening, Lewis Schrader; Cornets, Fred Sander, Maple Dalton, Paul Poe, John Savers, Bill Wise, Walter A. Kasten, Willard Mabrey; Saxophones, Casper Schwartz, Theodore Ade; Alto Horn, Ben Ruff, George Penzel; Bass Horn, Wilson Ruff, Jacob Loose, Rueben Schade; Trombone, Leo Roloff, Albert Tindall, John Hoots; Drums, Percy Poe, Ervin Reisenbichler, Joe Milde, Edwin Vogues and John Casten.[17]

band to Fred Reasoner on May 1, 1930, who then introduced it into the high school.

The recollections of Otto and Della Seabaugh, in addition to those of Paul Bruening, provide valuable information about the story of Jackson High School's band. The Seabaughs were members of the "officially first" Jackson High School Band, organized in Spring 1930. The school had had a small orchestra during the 1929-1930 school year, but several members then graduated (including the only violinist); the

[17] *A Pictorial History of Jackson, Missouri* (Jackson, MO: *The Cash-Book Journal*, 1993), p. 55. Reprinted with permission.

group became a band for the 1930-1931 school year.[18] The *Silver Arrow* therefore contains pictures of an orchestra for the years 1920 to 1924, 1926, and 1930, but none after 1930.

The Seabaughs reported that the Conn Instrument Company used to send salesmen to small towns to help them organize bands. Conn assisted Jackson in organizing a band and also arranged for a band director to come and teach the new group of 46 musicians. Mr. F. K. Reasoner, a retired member of the United States Army Band, came to Jackson from Kansas.[19]

Like the municipal band, the high-school band had no operating budget the first year. Each student paid a monthly fee of $1.50. The city and Rotary Club donated funds, and the Board of Education purchased two instruments along with band music. After six weeks of rehearsal, the group performed a concert on May 9, 1930, consisting of "America," "The Kid Band" by Clark and Sievers, "An Old Song," a *schottische* entitled "Elkwood," and a "Sailing waltz."[20]

The band continued to rehearse through the summer of 1930 and gave concerts on July 17 and August 22. The school agreed to support a band for the 1930-1931 school year and conducted a subscription drive in the late summer in order to pay Mr. Reasoner's first-year salary of $1,350.00.[21]

The group rehearsed during the school year for one hour every day plus two evenings a week. Della Seabaugh remembers Mr. Reasoner's drumstick baton. On September 25, 1930, the high-school band performed its first concert in uniforms consisting of sweaters and overseas caps purchased by the members themselves. This new band also participated in a district music contest in the spring of 1931 and placed second only to Maplewood, a St. Louis suburb. The two compositions required for this district contest were the "William Tell"

---

[18] "Depression Provided Impetus for First Jackson School Band," *The Cash-Book Journal* (Jackson, MO), 20 July 1983, p. 18.

[19] Ibid.

[20] "Depression Provided Impetus for First Jackson School Band," ibid.

[21] Ibid.

and the "Poet and Peasant" Overtures.[22]

The years 1929 and 1930 were significant for the development of music in public schools throughout Missouri. *The Eight-First Report of the Public Schools of the State of Missouri for the School Year Ending June 30, 1930* reports that "in 1929-1930, 328 schools offered music for credit, making an increase of 83 schools in three years,"[23] so Jackson High School was growing musically with the rest of the state.

The growth of Jackson's music program was due in part to its personnel. Mr. Reasoner left Jackson at the end of the 1932-1933 school year. Lucille Nieburg directed the band for one year (1933-1934), and Jean Bridges took over as director from 1934 to 1939.[24]

LeRoy Mason (1912-1976) became the new band director in 1939. Mr. Mason had taught from 1936 to 1939 in the School District of Riverview Gardens in St. Louis County, where he started the band and choral programs. He also served as the elementary-music supervisor.[25] Mr. Mason was influential not only in Riverview, but also contributed to the growth of the Jackson and Southeast Missouri State University bands.

Mr. Mason directed both the band and choral ensembles at Jackson High School. The band membership increased tremendously under his leadership, from 55 members in 1940-1941 to 94 in 1956-1957 when he left.[26] The announcement on the following page is a sample of Mason's recruitment efforts. The band and choral groups kept busy performance schedules and participated in numerous music contests and festivals, as

---

[22] Ibid.

[23] Chas A. Lee, *Eighty-First Report of the Public Schools of the State of Missouri for the School Year Ending June 30, 1930* (Jefferson City, MO: State Superintendent of Public Schools), p. 87.

[24] *The Silver Arrow* (Vol. numbers unknown), *Jackson High School Yearbooks* (Jackson, MO), 1933-1939.

[25] "Nationally acclaimed band director, LeRoy French Mason, dies," *Southeast Missourian* (Cape Girardeau, MO), 17 July 1976, page number unknown.

[26] *The Silver Arrow* (Vol. numbers unknown), *Jackson High School Yearbooks* (Jackson, MO), 1940-1957.

well.[27] Mason was also very influential in the community. He conducted the Choral Club and the Jackson Municipal Band.

SCHOOL BAND NEW CLASS TO BE ADDED[28]

Beginning classes for students in the fifth grade or above who wish to enroll in the school bands will be held again this fall as part of the regular instrument instruction. Parents of students who will wish to begin on instruments when school starts should see the music director, Mr. Mason, at the high school (call 355) and make arrangements to have the instrument, instruction book and music stand by the time school begins. Beginners are particularly needed on flutes, trombones, baritones, basses, alto and bass clarinets, and french horns (not mellophones). However, if students wish to begin on some other instrument, instruction will be given on that instrument also.

Forty-three students began work last fall and twenty-three this summer. There are now about eighty-five students studying instrumental music in the public schools. Free instruction is available for at least thirty more this next term. Parents of students who will come from rural districts and enter Jackson High School for the first time are particularly urged to make these arrangements at the time of regular school enrollment or before that time if possible.

A new class in Tonette instruction will be organized this fall. The Tonette is a very small instrument, black, and made of bakelite with a very mellow, flutelike tone. This instrument is not a toy, but a real musical instrument. Its chief use in our school system will be that of talent finder for our school bands.

Since the Tonette is fingered and played like a flute or clarinet, students who learn on the Tonette may easily make the transition from the Tonette will apply to any instrument whether brass, reed or percussion. By the end of the year the parents of every child who begins on the Tonette can tell very definitely how the child will progress on a band instrument and can then rent or purchase a band instrument with the assurance that the child will make a successful player.

The cost of the Tonette and instruction book will be one dollar and twenty-five cents. This instruction will be given to fourth grade students only. However, if less than forty enroll for the course, the class will be opened to fifth grade students.

LEROY F. MASON

He was the first to invite women into the latter,[29] and he also initiated the Band Festival in the fall of 1944, an event in which area high-school bands performed individually, for each other, and together. Mason's efforts to establish an annual Band Festival led to the formation of the Southeast Missouri Band Association in 1945.[30]

Mason continued at Jackson until 1957, when he joined the faculty at Southeast Missouri State University's Department of Music. Dr. Mark Scully, principal from 1938 to 1942 at Jackson High School, persuaded Mason to come to the university

---

[27] *The Silver Arrow* (Vol. number unknown), *Jackson High School Yearbooks* (Jackson, MO), 1940-1957.

[28] "Enroll in School Band-New Class to be Added." *Cape County Post*, 1940 Souvenir Edition (Cape Girardeau, MO), an insert to *The Cash-Book Journal*, 15 August 1990, p. 3C.

[29] Kay Lamb, "Charter Member of Municipal Band Keeps on Tootin'," *The Cash-Book Journal* (Jackson, MO), 1 June 1983, p. 8.

[30] "J. H. S.: Eighteen Bands Participate," *The Squawler*, Jackson High School Newspaper, Vol. 11, no. 3 (Jackson, MO), 31 October 1950, p. 1.

when he (Scully) became university president in 1956. Dr. Scully responded to the writer's inquiries about LeRoy Mason in a 1997 interview.

Scully's knowledge of Mason gives good insight into his character and his leadership skills. He describes Mason's teaching philosophy very simply: hard work from his students as well as himself. The students were inspired enough by Mason to do their best, and they were proud to be band members, according to Scully.

Jackson High School sponsors an annual Band Festival in the fall. Scully explains that Mason was able to develop the festival because "he was able to make friends with other band directors in Southeast Missouri and they readily accepted him as their leader. He started by having one or two bands sharing the program with the Jackson crowd until eventually it involved all schools in Southeast Missouri."

When asked about Mason's major contribution to the Jackson High School band program, Scully responded "LeRoy Mason knew what he wanted to do. His contributions were clear. He developed all the routines that his band practiced. He moved small leaden soldiers representing students around in every position in going through a routine. I would say that his major contribution was to make the band so good that the community looked upon the band as a community asset and they supported him without let or hindrance. When I came to Southeast Missouri State in 1956, I knew whom I wanted as Band Director. . . .I wanted Mason." (Scully was able to persuade Mason to leave Jackson High School for a position at Southeast Missouri State University in 1957.)

One of the band's trademarks was the marching marquee. Mason conceived this idea when he saw lighted letters moving across an advertising display in a Cape Girardeau jewelry store. His first marquee show took 30 hours to plan. He commented that:

> Poring over diagrams, selecting music, and planning theme shows are very much a part of being a band director. I don't think there is ever an hour any day that a band direc-

tor isn't thinking about what he's going to do next year. Preparation on programs operates a full year in advance.[31]

Mason continued by saying that "old, familiar tunes are the most popular ones, and appearing before a stadium crowd calls for 'entertainment, pure and simple'."[32] This "entertainment, pure and simple" and "hard work" philosophy entertained crowds in the Jackson and Cape Girardeau communities for 37 years. Mason's flair for showmanship earned him respect from his students and built a common bond through a love for music.[33]

After Mason's departure from Jackson High School in 1957, two directors (Ed Carson and Richard Partridge) led the band for three years each, followed by Allen Rowland in 1963. Nick Leist took over the directorship in 1968 and taught for 30 years, until his retirement in 1998.[34] Mr. Leist had been a student under Ed Carson and was one of Mr. Mason's first recruits to Southeast Missouri State University, following in the same line of teaching. Mason had been instrumental in Leist's decision to study music (instead of architecture) as well as his decision to teach music instead of performing it. Just prior to his retirement, the writer spoke with him about his teaching career at Jackson High School. Following is a transcript of portions of that 1997 interview.

Carol McDowell (author): When did the Jackson Municipal Band begin? Has the high-school band director always directed this community band?

Nick Leist: The municipal band began in the early 1920s and the school band was an outgrowth of the municipal band. The community asked the director, A. W. Roloff, to start a munici-

---

[31] Sally Wright Brown, "Old Master Stepping Down," *Southeast Missourian*, (Cape Girardeau, MO), 2 November 1975, p. 7.

[32] Ibid.

[33] Brown, ibid.

[34] *The Silver Arrow* (Vol. number unknown), *Jackson High School Yearbooks* (Jackson, MO), 1958-1968.

pal band and Roloff used the school kids to do it. The group started practicing, and eventually began practicing during school time. Mr. Roloff passed it on to Mr. Mason, Mr. Mason passed it on to Mr. Carson. The band decided to let the high-school director then become the municipal-band director. Mr. Carson passed it on to Mr. Partridge, who was arrested for robbing a bank. Al Roland took over the municipal band after that, so the municipal band and the high-school director have not always been the same. The municipal band operates under a whole other entity. Mr. Mason directed the band for seventeen years. I passed him up – I have been directing it for twenty-nine years. [1997]

CM: When did the Jackson Band Festival begin?

NL: LeRoy Mason started the festival back in the early 1940s. (The Board of Education records show that the possibility of holding a band festival was discussed at the September 9, 1945, meeting.) Jackson just had our 53rd (in 1997) and we now have four sites. It used to be that the bands would come, march across the field, and we stood and cheered for them. One year, the bass drummer in one band got sick, and the band director played the drum and marched across the field with his kids. Before we split into four sites, we had fifty bands participate and the show would still be going on at midnight. We then split into two, then three, and now four sites: Kennett, Missouri, which has 10 to 15 bands; Poplar Bluff, Missouri, which also has 10 to 15 bands; Jackson, which has 20 to 25 bands; and Perryville, Missouri.

CM: How has Jackson supported the band program all these years?

NL: Community support and me being open and listening to people have all helped the band program. So many people do not move off; they graduate from high school, go off to college, and come back to Jackson to live.[35]

---

[35] Nick Leist, interview with author, 5 March 1997.

The Jackson area has shown its appreciation for Leist's hard work. He received the Otto Dingeldein Award (1994), the Charles Emmons Band Director of the Year Award (1996), and the Apple for the Teacher Award (1996). With the help of teachers like Nick Leist, the support from the community, and the election of strong administrative personnel who support the arts (the current superintendent [1998] is a former art instructor), the Jackson band should carry on its tradition.

The success of the Jackson Band program results from the historic interest of the community, as well as committed teachers and administrators. It is the writer's hope that this account detailing the history of one small American town's high-school band program will highlight the necessity of building and retaining strong music programs throughout the country.

A people's culture, ideas, and feelings can be communicated through music – this is clearly evident in Jackson, Missouri. Music educators deal with a powerful subject matter and must be prepared to instill these musical values in their students, who, in turn, will pass them on to a new generation.

Bibliography

"A. W. Roloff, Veteran Musician, Honored With Surprise Dinner." n.p., n.d.

Brown, Sally Wright. "Old Master Stepping Down." *Southeast Missourian* (Cape Girardeau, MO), 2 November 1975.

"Bruening Presents History of Muny Band." *Cash-Book Journal* (Jackson, MO), 6 September 1989, p. 18.

Cash-Book Journal, The. *A Pictorial History of Jackson, Missouri*. Jackson, MO: *The Cash-Book Journal*, 1993.

Cochran, Katherine Hinchey. "A History of Jackson, Missouri." In *Jackson, Missouri Sesquicentennial Souvenir Historical Program*. (Jackson, MO Chamber of Commerce), 1965.

"Courthouse Bandstand Has Final Municipal Band Concert, Began There in 1932." *Post and Cash-Book* (Jackson, MO), 14 July 1976, p. 1.

"Depression Provided Impetus for First Jackson School Band" *Post and Cash-Book* (Jackson, MO), 20 July 1976, p. 18.

Dougan, Alberta Macke. "A Brief History of Jackson, Missouri." In *Celebrating 175 Years of Tradition, 1814-1989,* Jackson, MO: Chamber of Commerce, 1989.

"Dr. Mark Scully Named New President of State College." *Southeast Missourian* (Cape Girardeau, MO), Vol. 52, no. 180, 2 May 1956, p. 1.

"Enroll in School Band –New Class to be Added." *Cape County Post, 1940 Souvenir Edition of the Cash-Book Journal* (Cape Girardeau, MO), an insert to *The Cash-book Journal* 15 August 1990, p. 3C.

Fonder, Mark. "Discover Your Band and Orchestra's Roots." *Music Educators Journal, 77,* (September 1990): 40-45.

"History of the Jackson Municipal Band." *Cape County Post* (Cape Girardeau, MO), 2 April 1931, page number unknown.

Henderson, J. R., "Jackson Military Academy." n.p., n.d.

"J. H. S.: Eighteen Bands Participate." *The Squawler,* Vol. 11, no. 3, (Jackson High School Newspaper: Jackson, MO), 31 October 1950, p. 1.

Jackson, Missouri. Board of Education for the Jackson R-2 Public School. Martin H. Wagner. *Minutes of the Meeting,* 10 September 1945.

"Jackson Band Shell Dedication Thursday." *Cash-Book Journal* (Jackson, MO), 28 July 1976, p. 1.

"Jackson Civic Leader Dies." *Southeast Missourian* (Cape Girardeau, MO), 15 July 1972, page number unknown.

Kridelbaugh, Julia A. "R-2 District Focusing on New Buildings." *The Cash-Book Journal* (Jackson, MO), 12 March 1997, p. 1F.

Lamb, Kay. "Around Town." *The Cash-Book Journal* (Jackson, MO), 4 February 1981, page number unknown.

_____. "Charter Member of Municipal Band Keeps on Tootin'," *The Cash-Book Journal* (Jackson, MO), 1 June 1983, p. 8.

Lee, Charles A. *Eighty-First Report of the Public School of the State of Missouri, School Year Ending June 30, 1930.* Jefferson City, MO: 1929-1930.

Leist, Nick. Band director at Jackson High School. Interview by author. Tape recording. (Jackson, MO), 5 March 1997.

Mason, LeRoy F. "Enroll in the School Band—New Class to be Added." *Cape County Post, 1940, Souvenir Edition in the Cash-Book Journal.* (Jackson, MO), 15 August 1990, page number unknown.

Mattingly, Arthur H. *Normal to University: A Century of Science.* Cape Girardeau, MO: Southeast Missourian Litho and Printing Co., 1979.

Mayers, Scott. "Nick Leist's Opus." *The Southeast Missourian* (Cape Girardeau, MO), 11 February 1996, sec. Jackson U. S. A., p. 1.

McNeely, LeRoy. 65-Year Member of the Jackson Municipal Band. Interview with Erma McDowell, 9 July 1997.

"Municipal Band—Community Pride." *Cash-Book* (Jackson, MO), 15 May 1941, page number unknown.

"Nationally acclaimed band director, LeRoy French Mason, dies." *The Southeast Missourian* (Cape Girardeau, MO), 17 July 1976, page number unknown.

Sagamore. Yearbook for Southeast Missouri State College, Vol. 54. Cape Girardeau, MO: Foreword-Dedication to Mr. LeRoy Mason, 1967.

Scully, Dr. Mark F. President of Southeast Missouri State University. Cape Girardeau, MO: 1956-1975. Questionnaire by author, 2 June 1997.

Silver Arrow, The. Jackson High School Year Book (Jackson, MO), 1920-1930; 1935-1998.

Talley, Opal Roloff. "'Old Jackson Nostalgia Day' set for Sunday: Story of first band recalled." *News Guardian,* 1 November 1989, p. 5A.

Vinson, Joel. "Nick Leist wins prestigious art award." *The Southeast Missourian* (Cape Girardeau, MO), 6 November 1997, sec. Jackson U. S. A., p. 1.

Missouri Journal of Research in Music Education, No. 37, 2000, 54-72

Effect of Moodstates on Listeners' Response to the Music of Pat Metheny

Wayne Everett Goins
Kansas State University

The purpose of this study was to examine the effect of moodstates on listeners' response to the music of Pat Metheny. Subjects (N = 144) were randomly divided into 3 equal groups. To indicate pre and posttest moodstates, subjects used a modified version of the Hevner Adjective wheel, which was limited to 24 words (3 words per cluster) from the original 61 words. Subjects in Group A (n = 48) were given a pretest and asked to indicate their present moodstate by circling a word cluster. Subjects were then asked to indicate their responses to six 90-second excerpts while listening to the music of Pat Metheny by using the modified version of the Hevner Adjective wheel to circle word clusters that best represented their perceived moodstate. Ten seconds of silence elapsed between each excerpt. After the final excerpt was heard, subjects were given a posttest identical to the pretest. Subjects in Group B (n = 48) were given the pretest and also heard the same excerpts as Group A, but were not *asked to indicate their responses to the six 90-second excerpts. Subjects were then given a posttest identical to the pretest and asked to indicate their perceived moodstates after the listening experience. Subjects in Group C (n = 48) [control group] heard no musical excerpts and were only asked to indicate their perceived moodstates prior to and after a period of silence, which lasted a total of 10 minutes. Results revealed no significant difference in pre and posttest scores across all groups. It appears that regardless of group treatment, moodstates are not affected by exposure to musical excerpts. Results further revealed significant differences among zone choices within each of the 6 excerpts for Group A. Without exception, group responses were clustered around either single or neighboring word clusters. There were no responses*

simultaneously demonstrating high percentages of cluster preferences located on opposing ends of the Hevner adjective circle. There were no significant differences among excerpts, nor were there any significant differences found within or between groups.

Listening to music is one the most common behaviors among humans. Not surprisingly, we find that many of us react in the same manner when exposed to certain types of music. The idea that music has the capability of eliciting like responses among a most diverse population is both fascinating and unique. The elusive nature of affective response -- and the manner in which researchers have struggled to find a way to provide universally-accepted definitions to adequately describe the relationship between mind and music -- exposes the absence of a singular method or theory about how to "correctly" interpret our reactions to organized sound. In past studies, the terms "aesthetic," "emotional," "mood," "affect," "character," "tension," and others have been used interchangeably. This has created ambiguity and confusion for the researcher as well as the layperson (Lychner, 1995; Madsen & Gregory, 1995; Miller, 1992; Price, 1986). For the purposes of this study, *moodstate* is defined as "a particular state of mind, feeling, or attitude toward the action or state expressed" (Webster, 1966, p. 155).

The notion that music is capable of altering one's mood has been well documented (Pignatiello, Camp, & Rasar, 1986). Variables which affect the manner in which individuals react to musical stimuli include previous learning experience (Swanwick, 1973), age (Terwogt & Van Grisven, 1991), personality traits (Lewis & Schmidt, 1991) prior exposure (Eagle, 1971; Wheeler, 1985), musical training (Coffman, Gfeller, & Eckert ,1995), and cognitive ability (Demorest, 1992; Stratton & Zalanowski, 1991; Zalanowski, 1986).

Although research results have shown similarities in emotional responses to music for both children and adults (Flowers, 1990; Kratus, 1993), other studies provide evidence

that all moods are not equally demonstrable (Dolgin & Adelson, 1990). *Fear* and *anger* appear to be more difficult to perceive when experiencing music compared to other moods such as *happiness* or *sadness* (Crowder, 1984).

Some research has shown that cultural identity of listeners has a significant influence on the manner in which listeners respond (Cutietta & Foustalieraki, 1990; Hargreaves & Colman, 1981; Hoshino, 1996; Sloboda, 1991). The communication of moodstates from performer to listener appears to be a growing concern among researchers (Behrens & Green, 1993; Gabrielsson & Juslin, 1996; Kendall & Carterette, 1990).

Numerous definitions exist to explain the manner in which individuals interact with music. Some researchers suggest that those who attempt to describe responses to music should proceed with caution; the interpretive language used by any music educator inserts itself between music and the perceiver (Colwell, 1970; Madsen, 1997; Reimer, 1989; Schwadron, 1967).

Clearly, there are many factors which affect how we react to music. There is yet another aspect, which has relevance to understanding why we respond the way we do to music: the composer's intent. This leads to the question of whether or not there is something inherent in the music specifically designed to invoke a particular response. How might the composer manipulate musical elements to facilitate an encounter with emotions?

The music of Pat Metheny, guitarist and composer, has been considered by many to be "cinematic" in quality. 'Secret Story' was designed, by Metheny's own admission, to take the listener on an emotional journey. To what extent might various internal (program music) or external (musical experience, culture, age, cognitive skills, perception, etc.) aspects influence the listening experience? Also, might one be able to demonstrate the 'correct' emotional response (compared to Metheny's intent) after listening to an excerpt from any one of the selections, without ever knowing the musician, the song's title, or the story line?

The primary purposes of this study were to investigate the

effect of moodstates on listeners' response to program music, and to examine the degree to which music is capable of altering preexisting moodstates. Secondary purposes are (a) to examine the relationship between emotional response and moodstates, (b) to construct a general inference regarding the degree to which the composer's intent was correctly perceived by the listener, and (c) to examine the effectiveness using non-Western music in regard to its ability to elicit moodstates and emotional responses from the listener as compared to the use of traditional western music for the same purpose.

Method

Participants (N = 144) were undergraduate and graduate students at a large comprehensive university. Excerpts from the CD *Secret Story* by Pat Metheny were chosen as the stimulus. The Grammy Award-winning CD *Secret Story* recorded in 1992 by Pat Metheny (Geffen GEFD-24468) was chosen specifically for its programmatic nature as indicated by the composer (Associated Press, 1993). Each excerpt was selected from the CD with the intent of representing a wide variety of moods as Metheny intended. The music featured present and past members of the Pat Metheny Group, studio musicians, and members of the Pinpeat Orchestra of the Royal Ballet, the Choir of the Cambodian Royal Palace, and the London Philharmonic Orchestra, conducted by Jeremy Lubbock.

Each selection was recorded to tape in the same sequence as presented in the CD format to examine whether subjects' responses would roughly correspond with the 'cinematic effect' intended by Metheny (see Table 1 for excerpt presentation order).

Excerpts of each tune were selected from various locations in the music. Specific excerpts were chosen for two reasons: They represented a wide variety of moods, which served to reflect Metheny's intent, and they contained material believed to be appropriate for inducing various levels of moodstates and aesthetic response from listeners. Prior research showed

highly consistent listener response (Goins, 1998).

TABLE 1

Excerpt presentation order

Excerpt #	Title	Length
1	*Above the Treetops*	1'50"
2	*Facing West*	1'35"
3	*Finding and Believing* [a]	1'50"
4	*Finding and Believing* [b]	1'42"
5	*Finding and Believing* [c]	1'31"
6	*As a Flower Blossoms [I am Running to You]*	1'45"
7	*The Truth Will Always Be*	1'40"
8	*Not To Be Forgotten [Our Final Hour]*	1'40"

The apparatus used was a modified version of the Hevner adjective wheel, which was narrowed down from the original 61 adjectives to 24 (see Figure 1). The work of Kate Hevner (1937) has had a significant degree of influence over various related studies throughout the past few decades. Indeed, Hevner has recently been cited as one of the top 25 most influential researchers from 1953 through 1992 (Brittin & Standley, 1997).

The decision to alter the wheel was partially based on evidence found in previous studies that indicated various alterations to the original Hevner wheel did not significantly deter from the effectiveness of the tool when investigating moodstates (Giomo, 1993; Gregory & Varney, 1996; Hair, 1995/1996; Holbrook & Anand, 1990; Namba, Kuwano, Hatoh, & Kato, 1991; Senju & Ohgushi, 1987). The specific adjectives used in the study were selected after an earlier pilot study revealed that subjects (n = 15) selected those adjectives as the three most descriptive words within each of the original Hevner clusters, which ranged in number from 6 to 11 descriptors.

Procedure

Subjects in Group A (n = 48) were asked to listen to ex-

cerpts from tracks #2, #4 [a] and [b], #10, 12, and 14 from Pat Metheny's album *Secret Story*. Subjects were presented with a listener response packet, which contained the following instructions:

> You will be listening to eight short musical excerpts. You may indicate your response during or immediately after the excerpts end. There will be a few seconds of silence between each excerpt to allow for your response. After indicating your response, please turn the page and get ready for the next excerpt. After the final excerpt is finished, please indicate your mood by circling one word on the last page. Thank you for your participation.

Subjects were then given a pretest and asked to indicate their present moodstate by circling one word out of the entire selection of words on the modified Hevner Adjective Wheel.

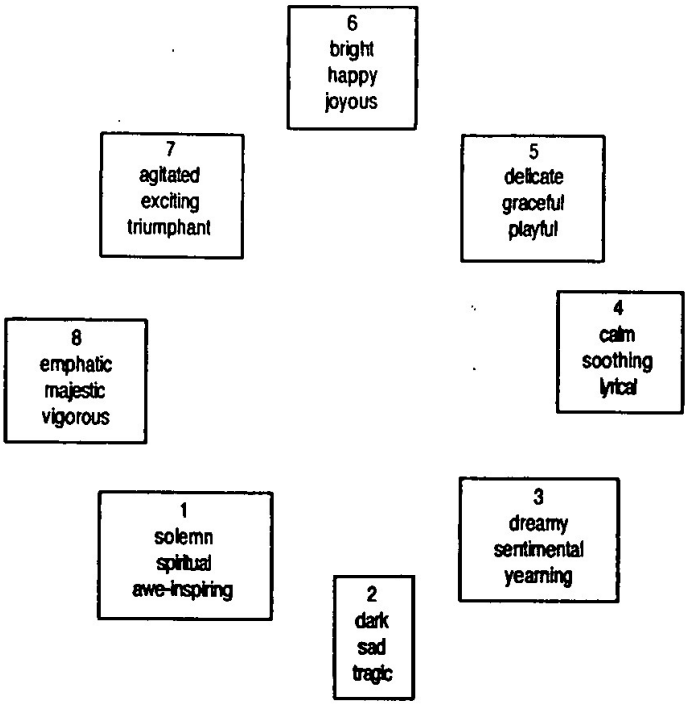


FIGURE 1.
Modified Hevner adjective wheel.

Subjects were next asked to indicate their responses to six 90-second excerpts while listening to the music of Pat Metheny by using the modified adjective wheel to circle word clusters that best represented their perceived moodstate. The word clusters were designated as follows: 1. *solemn, spiritual, awe-inspiring*; 2. *dark, sad, tragic*; 3. *dreamy, sentimental, yearning*; 4. *calm, soothing, lyrical*; 5. *delicate, graceful, playful*; 6. *bright, happy, joyous*; 7. *agitated, excited, triumphant*; 8. *emphatic, majestic, vigorous.* Ten seconds of silence elapsed between each excerpt.

After the last excerpt was heard, subjects filled out a posttest (identical to the pretest form) which asked them to place a circle around one word on the adjective checklist that best represented their current moodstate after the listening session. The listening packets were then collected, as subjects were thanked for their participation in the study.

Participants in Group B (n = 48) also heard the same excerpts, but were only asked to perform the pre and posttest, in the same manner as Group A; they indicated their perceived moodstate prior to and after the listening experience by circling one word from the entire set of adjectives. Participants in Group C (n = 48) heard no musical excerpts, and were only asked to indicate their perceived moodstate (as in Groups A & B) prior to and after a period of silence, which lasted a total of 10 minutes.

Results

A Chi-square was performed to see if there would be any significant differences found in cluster choices among groups. Results showed no significant difference in pretest cluster choices between all three groups ($\chi^2 = 14.38$, $df = 14$, $p < .05$).

In a second analysis, a Chi-square was performed to identify any significant differences among cluster choices. Results revealed a significant difference between pretest cluster choices for all three groups ($\chi^2 = 88.1$, $df = 7$, $p < .05$), as is shown in Table 2.

The posttest was identical to the pretest and was completed

TABLE 2

Distribution of Cluster Selection for Pre and Posttests for All Participants

Group		Cluster							
		1	2	3	4	5	6	7	8
A	pre	2	3	3	20*	6	8	6	0
	post	6	1	4	18*	6	5	6	2
B	pre	2	3	6	15*	5	9	7	1
	post	5	4	4	18*	6	2	4	5
C	pre	7	4	3	17*	1	8	6	3
	post	2	5	7	19*	0	4	8	3
Total	pre	11	10	12	52*	12	25	18	4
	post	13	11	15	55*	12	11	18	10

Note. Numbers with asterisks denote highest total among clusters.

after the treatment condition to which the participant was randomly assigned. A Chi-square was performed to identify any significant differences found among cluster choices. Results showed a significant difference among posttest cluster choices for all three groups ($\chi^2 = 89.78$, $df = 7$, $p < .01$). Note that in Table 2 each group shows a central tendency toward the fourth cluster (calm/soothing/lyrical) in both pre and posttest indication of perceived moodstate. Almost identical group means in both pre and posttest scores were found among participants in Group A, B, and C. Therefore, it appears that regardless of group treatment, moodstates indicated in Group A or B were not directly affected by exposure to musical excerpts.

An analysis of variance (ANOVA) for repeated measures revealed no significant differences in premood among the three treatment groups, F (2, 141) = .56, p = .573. There were no significant differences in postmood among the three treatment groups, F (2, 141) = .05, p = .951. There were also no significant differences between pre and postmood among the three treatment groups, F (2, 141) = .49, p= .614. Finally, a multivariate of analysis (MANOVA) revealed no significant interactive effects among the three groups, F (2, 141) = .639, p = .529.

Reliability for this study was established through a test/

retest format for two sets of participants per group (n = 48). These participants returned after 7-10 days and were subjected to the identical procedures that they experienced in the first setting. Reliability was computed in two phases: Reliability for the six cluster responses as participants listened to the excerpts, and the reliability for the pre and posttest.

Reliability for responses to musical excerpts was quite *high*, r = .90. This indicates that even after 7-10 days, participants' responses were very similar when compared to their responses during the initial session. However, results revealed *low* levels of reliability across all three groups on both the pretest and posttest. The correlation between pretest clusters was r = .38, and the correlation between posttest clusters was r = .27. These low levels of reliability for the pre and posttest suggest that moodstates are highly idiosyncratic. Overall, results revealed no significant differences between pre and posttest scores among participants in Group A, B, or C. Therefore, there were no significant differences in pre and posttest scores collectively across all 144 participants.

Analysis of Musical Excerpts by Pat Metheny

After taking the pretest, participants in Group A were presented with six musical excerpts by Pat Metheny. After each excerpt, participants indicated via the same adjective wheel their moodstate to each separate excerpt. Results are presented in Table 3. A Chi-square test was performed to identify distribution of cluster selection among Group A participants. Results revealed significant differences among zone choices within each excerpt. There were no excerpts simultaneously demonstrating high percentages of cluster preferences located on opposing ends of the Hevner adjective circle. Without exception, group responses were clustered around either single or neighboring word clusters.

Based on participants' responses, the primary and secondary moodstate choices which best represent each Metheny excerpt were consistently adjacent to each other, except for the third excerpt. Some clusters had an n of 0, which led to vary-

TABLE 3

Group A Distribution of Cluster Choices across Excerpts

Clusters	Excerpts					
	1	2	3	4	5	6
1	0	1	9	1	3	5
2	0	0	5	0	1	3
3	0	1	20*	9	8	15
4	2	0	2	23*	1	21*
5	4	0	5	15	1	4
6	34*	3	1	0	2	0
7	6	32*	0	0	22*	0
8	2	11	6	0	10	0

Note. Numbers with asterisks denote primary cluster; underlined numbers denote secondary cluster.

ing degrees of freedom and critical values among excerpts. All excerpts were statistically significant at the .01 level.

Based on the distribution of cluster choices for each excerpt across all participants in each order, results indicated that participants perceived specific moodstates for each selection, and particular descriptors were circled to represent them. Note that in Table 4, Excerpt #4, "As A Flower Blossoms," subjects chose more than three clusters to describe their perceived moodstates for this selection. However, it is also interesting to note that the participants' responses were clustered around *fewer* excerpts in regard to distribution.

Overall, these results indicated remarkable similarities among the responses gathered from two previous pilot studies (Goins, 1998). Collectively, the 48 participants in Group A submitted similar responses to the Metheny excerpts in all categories except for Excerpt #3, where participants found "Finding and Believing" [b] to be *dreamy, sentimental, yearning* and *solemn, spiritual, awe-inspiring* instead of *dreamy, sentimental, yearning*; and *dark, sad, tragic.*

In an attempt to ascertain whether or not the order of excerpt presentation influenced listeners' emotional responses, data were analyzed to investigate possible order effect as a result of the six taped sequences of excerpts in Group A. An

TABLE 4

Adjective Selections by Excerpt for Group A

Excerpt	Title	Adjective Cluster
1	"Facing West"	*bright, happy, joyous* *agitated, excited, triumphant*
2	"Finding and Believing" [a]	*agitated, excited, triumphant* *emphatic, majestic, vigorous*
3	"Finding and Believing" [b]	*dark, sad, tragic* *dreamy, sentimental, yearning*
4	"As a Flower Blossoms"	*dreamy, sentimental, yearning* *calm, soothing, lyrical* *delicate, graceful, playful*
5	"The Truth Will Always Be"	*agitated, excited, triumphant* *emphatic, majestic, vigorous*
6	"Not To Be Forgotten"	*dreamy, sentimental, yearning* *calm, soothing, lyrical*

ANOVA computed across individual excerpts for all subgroups in Group A indicated no significant difference among musical stimuli ($F < 1$, $df = 5, 42$, $p = .496$), nor was there any significance found within or between groups ($F < 1$, $df = 5, 42$, $p = .620$).

Discussion

Overall, the results of Group A's responses are interesting not only for the "clumping patterns" found within each excerpt, but also because participants were not given any indication of who the composer was, what the titles of the excerpts were, nor the name of the album and its concept. Still, most of the participants' responses to the stimuli indicated word clusters that appear to be appropriate corroborators (based on song titles and published interviews) for Metheny's self-described themes on the album.

Whether a coincidence or a result of Metheny's treatment of musical elements, one point should not be overlooked: Whatever the phenomenon was, it did occur in three separate

studies (each under different conditions), wherein none of the participants were given any information that might suggest how to "appropriately" respond to musical stimuli.

Most participants were certain enough about their decision regarding cluster choice that they entered their response well within the 90-second time span. This leads one to wonder if the decisions regarding listeners' responses may be made consistently in 60 seconds or even less. Furthermore, none of the subjects involved in this study had the option of "undecided," as they did in the previous two studies. Based upon the degree of consistency found in their responses, it appears that the category of "undecided" was unnecessary.

Group B received similar treatment to Group A, except they did not select word clusters during or after each excerpt. Still, their pre and posttest responses were almost identical, which suggests that the act of rating had no significant effect on listeners. The fact that there was no significant difference in pre and posttest scores within Group B suggests that the musical stimuli had no significant effect on the mood before or after the listening experience. These data suggest that the popular notion that music can be used to initiate or extinguish moodstates whenever desired is not necessarily so. Furthermore, it appears that varying moodstates are highly specific to time and place, as well as to unique musical environments.

In spite of the fact that Group C received no musical interaction whatsoever, their pre and posttest mean scores were remarkably similar to both Group A and B. These data suggest that the mere passage of time itself may have led to whatever differences were found within participants in Group C, as well as those changes noted in Groups A and B. On the other hand, if the musical stimuli did, in fact, have a visible effect on participants' posttest scores, one might expect consistent changes in moodstate found within and between orders in terms of direction and distance from the previously indicated moodstate.

It appears that external factors may have influenced this study. One might expect that over the passage of time--in this instance, the passage of days--an individual may not enter a

study in the identical mood as before. There are any number of factors that might lead to the alteration of any given moodstate from a previous one, be it the time of the day, the weather, food or sleep deprivation, mental preoccupation with other matters, or physical exhaustion, to name but a few. Perhaps the most parsimonious explanation might be that moodstates are highly variable and specific to any given situation.

Implications

Previous research has shown that while composers such as Metheny strive to elicit an emotional response through structuring an entire album as program music, this does not necessarily mean that the listener will "receive the message." It is known that some listeners, believing that a certain type of music is "supposed" to elicit some specific moodstate, enter the listening experience with a bias. The listener believes the music will make him or her feel whatever the experience is expected to be, and, as would be expected, it usually does. The prophecy is fulfilled, and the music behaves as the listener believed it would.

In this study, it was observed that listeners' self-report held very low levels of reliability, which might be addressed as an indication of the issues mentioned above. Indeed, the "precision" found in listeners' consistency regarding self-assessment is at best dubious. Still, there may be no better way to extract such data from participants. Therefore, as a methodology for future studies, this process of self-report may be used as an appropriate technique to assess the effect of external influences on listeners' perception. The "cause-and-effect relationship" involved in influencing listener's perception of certain stimuli is an idea that is certainly worthy of pursuit, yet continues to be problematic when assessing predictability of the outcome.

Still, there are a few important issues for music educators. First, the use of the Hevner Wheel is fairly easy in classroom situations if instructors are interested in how students perceive a given piece of music. This is particularly valuable when

trying to assess whether students "get it" as *listeners*, which, in turn, has a direct impact on whether they can accurately convey the correct mood as *performers* through musical manipulation of harmony, melody, rhythm, timbre, and dynamics.

Secondly, the whole notion of program music can be used as a relevant topic of discussion for every piece of music studied in the class or ensemble room. If ensemble directors and classroom teachers take the time to discuss the emotional content of the literature they select, they allow students to express their particular reaction to the piece, which can sometimes be more rewarding than listening to the music itself. Providing a few minutes for feedback from students can have a major impact on listening skills, as well as increasing the level of performance.

With regard to Metheny's influence as a composer, his entire body of work serves as a wealth of valuable resources for educators in search of sublime manipulation of musical material. There seems to be something in his music that strikes a chord with most people who are exposed to it. During the study, it was observed that participants involved in the two pilot studies and main study came from a wide variety of cultures, backgrounds, and experiences. Much to my surprise, practically every one of them asked if they could get a copy of *Secret Story*, the CD from which the listening excerpts were taken. Results of this study seem to hint at the idea that no matter whether one is particularly a jazz musician, a guitarist, or musician at all, almost anyone, it appears, can appreciate his approach to composition and performance.

Finally, the results of this study should encourage music educators to consider the cultural backgrounds of every student. With the ever-increasing focus on multiculturalism in the classroom, educators clearly benefit from the knowledge that different cultural backgrounds *can* have a major influence not only on how a particular student may react emotionally to any piece of music, but also whether they would value that music to begin with. Indeed, research indicates that although *preference* has been shown to have some influence on lis-

tener's response, in turn, *age*, *gender*, *ethnicity*, *musical training*, *familiarity*, and *musical styles* have an influence on preference. A recent study by Shah (2000) showed that ethnicity and musical training, as well as familiarity, were significant predictors for music preference decisions. However, studies from Pecore (1999) and Stratton and Zalanowski (2000) suggest that it is not only familiarity with music one *knows* that develops preferences, but the lack of familiarity with music one *does not* know.

When looked upon from this prospective, it is easy to see how both cultural and race issues play a significant role on the way listeners respond to music as players and listeners, as well as the degree to which they may or may not value a particular genre (McCrary, 1993; Morrison, 1998, 1993; Lee, 2000). Undoubtedly, this issue has a direct influence on the way music educators impart knowledge in the classroom. It is, therefore, wise to consider these areas when choosing literature, as well as when assessing whether or not we are truly creating and maintaining a musically stimulating environment that is wholesome for each and every student.

References

Associated Press. (1993, March 2). Musical world traveler rooted in the Heartland. *Boston Telegraph*, B-7.

Behrens, G. A., & Green, S. B. (1993). The ability to identify emotional content of solo improvisations performed vocally and on three different instrument. *Psychology of Music, 21*, 20-23.

Brittin, R. V., & Standley, J. M. (1997). Researchers in music education/therapy: Analysis of publications, citations, and retrievability of work. *Journal of Research in Music Education, 45*, 145-161.

Coffman, D. D., Gfeller, K., & Eckert, M. (1995). Effect of textual setting, training, and gender on emotional response to verbal and musical information. *Psychomusicology, 14*, 117-136.

Colwell, R. (1970). *The Evaluation of Music Teaching and*

Learning. Englewood Cliffs: Prentice Hall, 129-130, 134-135.

Crowder, R. G. (1984). Perception of the major/minor distinction: I. Historical and theoretical foundations. *Psychomusicology, 4*, 3-12.

Cutietta, R. A., & Foustalieraki, M. (1990). Preferences for select band and non-band instrument timbres among students in the United States and Greece. *Bulletin for the Council for Research in Music Education, 105*, 72-80.

Demorest, S. M. (1992). Information integration theory: An approach to the study of cognitive development in music. *Journal of Research in Music Education, 40*, 126-138.

Dolgin, K. G., & Adelson, A. (1990). Age changes in the ability to interpret affect in sung and instrumentally-presented melodies. *Psychology of Music, 18*, 87-98.

Eagle, C. T. (1971). *Effects of existing mood and order of presentation of vocal and instrumental music on rated musical responses to that music.* Unpublished doctoral dissertation, University of Kansas, Lawrence, KS.

Flowers, P. J. (1990). Listening: The key to describing music. *Music Educators Journal, 77*(4), 21-23.

Gabrielsson, A., & Juslin, P. N. (1996). Emotional expression in music performance; Between the performer's intention and the listener's experience. *Psychology of Music, 24*, 68-91.

Giomo, C. J. (1993). An experimental study of children's sensitivity to mood in music. *Psychology of Music, 21*, 141-162.

Goins, W. E. (1998). The effect of moodstates: Continuous versus summative responses. *Journal of Music Therapy, 35*, 242-258.

Gregory, A., & Varney, N. (1996). Cross-cultural comparisons in the affective response to music. *Psychology of Music, 24*, 47-52.

Hair, H. (1995/1996). Mood categories of lines, colors, words, and music. *Bulletin for the Council of Research in Music Education, 127*, 99-105.

Hargreaves, D. J., & Colman, A. M. (1981). The dimensions

of aesthetic reactions to music. *Psychology of Music, 9,* 15-20.

Hevner, K. (1937). The affective value of pitch and tempo in music. *The American Journal of Psychology, 49,* 621-630.

Holbrook, M. B., & Anand, P. (1990). Effects of tempo and situational arousal on the listener's perceptual and affective responses to music. *Psychology of Music, 18,* 150-162.

Hoshino, E. (1996). The feeling of musical mode and its emotional character in a melody. *Psychology of Music, 24,* 29-46.

Kendall, R. A., & Carterette, E. C. (1990). The communication of musical expression. *Music Perception, 8,* 129-164.

Kratus, J (1993). A development study of children's interpretation of emotion in music. *Psychology of Music, 21,* 3-19.

Lee, S. (2000). *Listeners' emotional preferences for music of other cultures.* Paper presented at Research Poster Session of the 2000 Kansas Music Educators Association State Conference, Wichita, Kansas.

Lewis, B. E., & Schmidt, C. P. (1991). Listener's response to music as function of personality type. *Journal of Research in Music Education, 39,* 311-321.

Lychner, J. A. (1995). *An empirical study concerning terminology relating to aesthetic response to music.* Unpublished doctoral dissertation, The Florida State University, Tallahassee, FL.

Madsen, C. K. (1997). Focus of attention and aesthetic response. *Journal of Research in Music Education, 45,* 80-89.

Madsen, C. K., & Gregory, D. (1995). Use of technology in understanding aesthetic response in music. In *Transatlantic Roads of Music Education: World Views. Proceedings of the Third International Symposium of RAIME (Research Alliance of Institutes for Music Education)* (pp. 28-33). Tallahassee, FL: CMR Press.

Metheny, P. (1992). *Secret Story* [CD]. Geffen Records (GEFD-24468).

Miller, R. F. (1992). Affective response. In R. Colwell (Ed.),

Handbook of Research on Music Teaching and Learning (pp. 414-424). New York: Schirmer Books.

McCrary, J. (1993). Effects of listeners' and performers' race on music preference. *Journal of Research in Music Education 41*, 200-211.

Morrison, S. J. (1993). Toward a black aesthetic. The effect of race on preference and perception of selected popular music. *Missouri Journal of Research in Music Education 30*, 26-37.

Morrison, S. J. (1998). A comparison of preference responses of white and African-American students to musical versus musical/visual stimuli. *Journal of Research in Music Education, 46*, 208-222.

Morrison, S. J., & Yeh, C. S. (1999). Preference responses and use of written descriptors among music and nonmusic majors in the United States, Hong Kong, and the Peoples Republic of China. *Journal of Research in Music Education, 47*, 5-17.

Namba, S., Kuwano, S., Hatoh, T., & Katoh, M. (1991). Assessment of musical performance by using the method of continuous judgment by selective description. *Music Perception, 8*(3), 251-276.

Pecore, J. T. (1999). New perspectives through music: The experience in one Japanese high school. *Update 16*(1), 29-32.

Pignatiello, M. F., & Camp, C. J. & Rasar, L. (1986). Musical mood induction: An alternative to the Velten technique. *Journal of Abnormal Psychology, 95*, 295-297.

Price, H. E. (1986). A proposed glossary for use in affective response literature in music. *Journal of Research in Music Education, 34*, 151-159.

Reimer, B. (1989). *A philosophy of music education.* Englewood Cliffs: Prentice-Hall.

Schwadron, A. (1967). *Aesthetics: Dimensions for Music Education*. Washington, DC: MENC.

Shah, S. M. (2000). *The effects of age, gender, ethnicity, musical training, familiarity, and musical styles on the musical preference of Malaysian students.* Paper presented

at the 2000 Southeastern Music Education Symposium, Athens, Georgia.

Senju, M., & Ohgushi, K. (1987). How are the players' ideas conveyed to the audience? *Music Perception, 4*, 311-324.

Sloboda, J. A. (1991). Music structure and emotional response: Some empirical findings. *Psychology of Music, 19*, 110-120.

Stratton, V. N., & Zalanowski, A. H. (2000, March). *Focus of attention to elements of culturally familiar and unfamiliar music: Effect of repeated listenings.* Paper presented at Research Poster Session of the 2000 MENC National Conference, Washington, DC.

Stratton, V. N., & Zalanowski, A. H. (1991). The effects of music and cognition on mood. *Psychology of Music. 19*, 121-127.

Swanwick, K. (1973). Musical cognition and aesthetic response. *Psychology of Music, 1*, 7-13.

Terwogt, M. M., & Van Grisven, F. (1991). Musical expression of moodstates. *Psychology of Music, 19*, 99-109.

Webster, D. (1966). *Webster's New World Dictionary of the American Language*. World Publishing Company, New York.

Wheeler, B. L. (1985). Relationship of personal characteristics to mood and enjoyment after hearing live and recorded music and to musical taste. *Psychology of Music, 13*, 81-92.

Zalanowski, A. H. (1986). The effects of listening instructions and cognitive style on music appreciation. *Journal of Research in Music Education, 33*, 43-53.

Beginning Clarinet Instruction: A Survey of Pedagogical Approaches

Christine Mary Damm, DMA – Clarinet Performance
University of Missouri - Kansas City, MO
August 2000
Committee Chairperson: Jane Carl

Doctoral Research Project Abstract

Beginning band directors in the Kansas City area were surveyed in order to determine if there was a common approach to clarinet instruction and if there were common trouble areas for beginning clarinet students.

The results of the survey indicate that although most directors teach the same topics within the course of the first year of clarinet instruction, the methods and approaches to instruction vary greatly.

This produced variance in areas in which students struggled. This study shows that there is a need for a specific pedagogical approach to beginning clarinet so that teachers can provide the most effective method of instruction and thereby produce higher quality clarinet sections.

The Effect of Differentiated Levels of Conductor Eye Contact on High School Choral Students' Ratings of Overall Conductor Effectiveness

Matthew Chovine Harden, PhD – Music Education/ Education
University of Missouri - Kansas City
August 2000
Committee Chairperson: Randall G. Pembrook

Dissertation Abstract

The primary purpose of this study was to determine the effect of conductor eye contact on overall conductor effectiveness ratings. High-school choral students (N = 339) volunteered to serve as subjects for this study. Observers' responses were analyzed to determine how four different conditions of eye contact affected ratings of conductor effectiveness.

The four conditions of eye contact were: constant, nearly constant but not present at significant points (entrance cues and cadence points), moderate overall but present at significant points, and no eye contact. Their conductor ratings were analyzed to determine how various levels of eye contact related to each observer's overall evaluation. The study also examined how observer familiarity with the composition being conducted may affect one's rating of the conductor.

Results indicated significant differences ($p < .001$) in conductor ratings as a function of the eye contact condition. "Moderate overall" and "constant" eye contact conditions were rated significantly higher then the other two categories ($p < .001$). Subjects' written responses confirmed these findings, but the order was reversed with "constant" receiving a higher percentage of positive comments (74%) than "moderate overall" eye contact to (71%).

Results indicated that previous knowledge of the composition conducted produced significantly higher conductor effectiveness ratings (M = 7.14 Known vs. M = 6.38 Not Known). Pair wise comparisons found that significant differences in ratings known and unknown pieces existed only in the "constant" (p = .003) and "moderate overall" (p = .006) eye contact conditions.

When asked to name a factor which most affected their ratings, 193 out of the total 339 subjects responded. Seventy-eight (37%) of these responses mentioned eye contact as the factor that influenced them the most. Of the remaining responses, 50 (24%) listed facial expression, 44 (21%) gesture, and 37 (18%) other factors. Of those who listed eye contact as their primary influence, 63 (81%) also mentioned eye contact at least 50% of the time under best or worst aspect during the four presentations.

A Case Study of Schools of Music Operating in Baptist Churches

Althea R. Lindt, DMA – Piano Performance
University of Missouri - Kansas City
May 2000
Committee Chairperson: Randall G. Pembrook

Dissertation Abstract

The purpose of this dissertation was to investigate a unique educational establishment: the church music school. It was necessary to discuss the two trends that are, in part, responsible for the development of these new establishments: changes in public school education systems regarding the arts and changes in the church's role regarding education in society. This research project was conducted as a case study.

The first step in the process was to create the research questions from which a survey could be actualized. The second step necessitated finding a pool of schools from which to gather the information. This proved to be one of the most challenging processes in this project.

Fifteen schools of music that have been established in Southern Baptist Churches agreed to be part of the sample. These particular school represented various demographics, including church size, music program size, geographic location, and age of the program.

The survey was based on 6 research questions pertaining to administrative policies and guidelines concerning faculty, lessons, finances, and publicity. The analysis of the material, presented in detail in Chapter 4, provides insight into these programs. It would appear from the case studies that schools of music provide an alternate music education venue for the people in their communities. It also would appear that they seek to employ those with music degrees up to, and including a Masters' level of education. Finally, it is apparent that they have well-established business policies in place. However, it appears that they do not have universal approaches concerning publicity or the keeping of financial records. Results can be used to establish models for future schools. This analysis also serves as a model for investigating this type of institution and offers a basis for future research.

Student Impressions, Teacher Impressions, and Systematic Behavioral Observations in Applied Music Lessons of Novice and Experienced Teachers

Darcy Hope Maret, Master of Music Education
University of Missouri - Kansas City
May 2000
Committee Chairperson: William E. Fredrickson

Thesis Abstract

Research in the area of music instruction often pertains to the classroom setting with little research pertaining to the study of private music lessons. Yet, private applied music instruction has been the primary venue for developing a musician's skills. The purpose of this study was: (a) to compare private instructors' expectations and evaluations of their private students, (b) to analyze student evaluations of the private lesson, and (c) to measure the reinforcement rate of private instructors.

Subjects for this study were private instrumental teachers (n = 6) and 2 students from the private studio of each teacher (n = 12). Three lessons were observed for each student for a total of 36 observations. Lessons were videotaped and contained 45 intervals of recorded information based upon the following symbols: A = approval, D = disapproval, A = approval error, D = disapproval error, I = instruction, and O = other. Prior to the lesson the private teachers were given a form to mark their overall expectation for the lesson based on a 10-point Likert-type scale with "1" labeled worst and "10" labeled best. The private teacher was given another 10-point Likert-type scale with "1" labeled worst and "10" labeled best at the conclusion of each lesson to rate the overall evaluation of the lesson. At the conclusion of each lesson, each subject completed a brief questionnaire that posed 11 statements to which subjects responded using a four-point Likert-type scale ("strongly disagree," "disagree," "agree," "strongly agree").

Results indicate that both novice and experienced teachers spent the most lesson time in instruction. Novice teachers had an approval ratio of 53% and experienced teachers had an approval ratio of 28%. These results support previous research that novice teachers give more approvals and experienced teachers give more disapprovals. A high positive correlation was found between experienced teachers' expectations and evaluations. Years of training may help teachers in giving an expectation rating that is closer to the evaluation rating of the lesson. Further research in the area of applied music instruction is needed. A future study would include observing more novice and experienced teachers and observing more private students of these teachers over a longer period of time.

The Effect of Piano Lessons on Reading Recovery Students

Marilyn Carol Moore, Master of Music Education
Southeast Missouri State University
May 2000
Committee Chairperson: Marlin McCutchen

Thesis Abstract

The purpose of this study was to determine if Reading Recovery students taking one private piano lesson per week would make greater gains in their reading achievement than Reading Recovery students who have no piano lessons. Also included in the study were students who qualified for Reading Recovery but were not immediately accepted into the program.

Twelve subjects were paired based upon their scores on the Reading Recovery Diagnostic Survey. Ten of the subjects completed the study. In addition to the subjects' regular Reading Recovery lessons, 5 subjects received one 30-minute piano lesson each week, while the other 5 subjects did a special activity with a teacher during one 30-minute session each week.

After 12 weeks, the Reading Recovery Diagnostic Survey was again given to check for gain scores. The mean gain scores from the writing vocabulary, dictation, and reading text level subtests of each group were compared.

The results showed the experimental group received higher mean gain scores than the control group on all 3 subtests. A chi-square test indicated that the difference in the scores was insignificant at the .05 level.

Motivational Factors for Student Participation In Elementary School Choral Ensembles

Scott A. Roewer, Master of Music Education
University of Missouri - Kansas City
May 2000
Committee Chairperson: Randall G. Pembrook

Thesis Abstract

The purpose of this study was to determine the motivational factors for fifth grade students to participate in their elementary school choral ensembles. A second purpose was to determine students' perceptions regarding the most and least attractive aspects of choir. The study involved a beginning of the year survey (BYS) and the same survey completed again at the end of the year (EYS). Fourteen schools participated in the beginning of the year survey (N = 521) and 12 schools participated in the end of the year survey (N = 367).

Results indicated on the BYS and the EYS that "Friends decision to participate" was the strongest motivating factor. This was followed by "Parents encouragement" and "Previous singing experience."

Students anticipated their favorite parts of choir on the BYS. "Trips outside of the school with the choir" was first, "Concerts" was second, and "Being with certain choir members" was third. They also chose three least anticipated parts of choir. "Morning rehearsals" received the most responses. This was followed by "Comments from your parents and friends for being in choir" and "Being with certain choir members" second and third respectively.

A chi-square test revealed there was no significant difference between the males' and females' anticipated favorite aspects of choir. However, the results of a chi-square analysis showed a significant difference between the males' and females' anticipated least favorite part of choir on the BYS.

Students were surveyed at the end of the school year. They indicated their favorite parts of choir as "Trips outside of the school with the choir," "Concerts," and "Being with certain choir members." These were the same responses as the beginning of the year. Their least favorite parts of choir were "Morning rehearsals," "Comments from parents and friends for being in choir," and "Being with certain choir members." There was no significant difference in the genders' favorite parts of choir. However, there was significant difference in the genders' least favorite parts of choir.

NEWS BRIEFS

Call for Papers
American Orff-Schulwerk Association
NATIONAL CONFERENCE
Cincinnati, Ohio
November 14-18, 2001

The American Orff-Schulwerk Association will sponsor a research poster session at its national conference in Cincinnati, Ohio, November 14-18, 2001. Research reports dealing with any aspect of music learning through movement, speech, playing instruments, singing, improvisation, or composition in general music or music therapy settings are particularly appropriate.

A poster presentation format will be used. The author(s) of each paper accepted must be present at the conference poster session to discuss the research project with interested music educators. The author(s) must also furnish 100 copies of a report abstract or a summary of 2 pages or less, as well as 10 copies of the completed report.

The following guidelines will be in effect for the paper selection process:

1. Submit five copies of a 500-word research summary to:

   Timothy S. Brophy
   School of Music
   University of Florida
   Box 117900
   Gainesville, FL 32611-7900
   USA

2. The author's name, institutional affiliation, and address (including e-mail) should appear only on a separate cover page.

3. Papers submitted for the conference must comply with the "Code of Ethics" published in each issue of the *Journal of Research in Music Education*.

4. Submissions must be postmarked by May 15, 2001.

5. A qualified panel of reviewers will read the abstracts submitted. Notification will be mailed by July 1, 2001. Abstracts will not be returned.

INFORMATION TO CONTRIBUTORS

The editorial committee welcomes contributions of a philosophical, historical, or scientific nature, which report the results of research pertinent in any way to instruction in music.

Manuscripts should be addressed to William E. Fredrickson, Editor, Missouri Journal of Research in Music Education, University of Missouri-Kansas City, Conservatory of Music, 4949 Cherry Street, Kansas City, MO 64110-2229. Four copies of the manuscript must be submitted and must conform with the most recent style requirements set forth in the PUBLICATIONS MANUAL for the American Psychological Association (APA). For historical or philosophical papers, Chicago (Turabian) style is also acceptable. An abstract of 150-200 words should accompany the manuscript. All figures and tables should be submitted camera ready.

Manuscripts are reviewed by the editorial board in a blind review process. To assure anonymity during the review process, the author's name and affiliation should appear on a separate cover page only. Authors are also requested to remove all identifying personal data from submitted articles. The collective recommendations of the reviewers determine whether a manuscript will be accepted for publication. Manuscripts submitted for review must not have been published nor be under consideration for publication elsewhere.

The editorial committee subscribes to the **Research Publication/Presentation Code of Ethics** of the Music Education Research Council of the Music Educators National Conference and the National Research Committee of the American Music Therapy Association.

M J R M E

The oldest continuously published state journal
dedicated to music education research