Title Concept teaching in instrumental music education: A literature review

Author(s) Leonard Tan

Source Update: Applications of Research in Music Education, 35(2), 38-45

Published by SAGE Publications

Copyright © 2017 SAGE Publications

This is the author's accepted manuscript (post-print) of a work that was accepted for publication in the following source:

Tan, L. (2017). Concept teaching in instrumental music education: A literature review. *Update: Applications of Research in Music Education, 35*(2), 38-45. http://dx.doi.org/10.1177/8755123315604455

The final, definitive version of this paper has been published in *Update: Applications of Research in Music Education, Volume 35, Issue 2, February 2017* by SAGE publishing. All rights reserved.

Concept Teaching in Instrumental Music Education A Literature Review

Leonard Tan

Abstract

This article is a review of research literature on the teaching of concepts in instrumental music education. It is organized in four parts: (a) the value of concept teaching in large instrumental ensembles, (b) time spent teaching concepts during rehearsals, (c) approaches to concept teaching, and (d) implications for music education. Research indicates that there is value to teaching conceptually. Time invested into teaching concepts does not detract from performance goals; on the contrary, performance may be enhanced. Musical concepts may be taught via positive and negative instances of concepts, musical terms and descriptions, modeling, and musical literature. More research on concept teaching in instrumental music is warranted.

Keywords: Concept teaching, instrumental music education, time use in rehearsals, rehearsal strategies, performance

Concept Teaching in Instrumental Music Education: A Literature Review

A concept may be thought of as a person's organized information about objects, events, ideas, or processes that enables the individual to discriminate the particular entity and relate it to other entities (Klausmeier, 1961). A chain of facts creates a concept; hence, a concept is different from a fact in that it has "a recurring quality that gives it a very special power, called generalizability," which allows the possibility for the transfer of knowledge from one situation to another (Henson, 1995, p. 107). In turn, concepts can be synthesized to form even more powerful mental tools such as theories and models that provide explanations to phenomena (Kerlinger, 1973). Conceptual learning occurs in three stages: (a) awareness of the concept, (b) understanding of the concept, and (c) the potential to apply (transfer) the concept to other situations (Blocher, Greenwood, & Shellahamer, 1997). For example, when there are accents notated in a clarinet part, the director may draw attention to the concept of accents, facilitate understanding of the concept, and then teach in such a manner that the student is able to apply the concept to other musical situations. One possibility might be to begin by modeling the psychomotor execution needed to understand the whole of the concept, followed by sequential instruction of the psychomotor skills to perform the concept, concluding with formative assessment by the teacher and peers to check for understanding. This contrasts with a nonconceptual approach, where the director may simply give instructions on how the part should be played without making any reference to the concept of accents. Clearly, while the nonconceptual approach limits the transfer of knowledge of accents to other musical contexts, the conceptual approach empowers students for lifelong musicianship.

Concept teaching has roots in the writings of John Dewey. According to Dewey (1910/1985), concepts enable "continuity, freedom, and flexibility of transition in passing from

any fact and meaning to any other" (p. 285). With the Woods Hole Conference that inspired Bruner's (1960) *The Process of Education*, an approach to education based on concept teaching was born. Bruner's landmark educational theory emphasized in particular, that any subject can be taught effectively and honestly to any child at any stage of development via a spiral curriculum where the child continually revisits fundamental ideas and builds upon them. Bruner's theory became the driving force of several concept-teaching methodologies, with various writers calling for conceptual teaching strategies to be integrated into the school curriculum (e.g., Hunt, 1962; Tyson & Carroll, 1970; Woodruff, 1966). In music, interest in concept teaching started in the second half of the 20th century. For example, Gary (1967) posited studying each of the constituent elements of music (i.e., rhythm, melody, harmony, form, tempo, dynamics, and timbre) separately before understanding how they interact with one another, so as to enable students to compare, discriminate, organize, generalize, and apply concepts to new situations. By the turn of the century, Boardman (2001) declared that a simple, linear approach to music education was no longer acceptable: teachers should teach for conceptual understanding.

In instrumental music education, the teaching of musical concepts was particularly advocated through the Comprehensive Musicianship movement, an integrated approach that provided students with instructions in musical concepts, history, theory, style, composition, and improvisation (Grashel, 1993). The *Teaching Music through Performance in Band and Orchestra* series continues to take a conceptual approach to teaching right until this present day. In this series of books, strategies for teaching the various elements of music, in particular, melody, harmony, rhythm, timbre, and form, are presented for instrumental music educators. These emphases on teaching conceptually in large instrumental ensembles beg the following questions: (a) What has research indicated about the value of concept teaching and learning in

large instrumental ensembles? (b) What is the reality of actual time invested into teaching concepts in school instrumental ensembles? (c) What are some approaches to concept teaching evident in the research literature? and (d) What are the implications for music education in light of the research evidence? Accordingly, this paper is divided into four sections: (a) the value of concept teaching, (b) time spent teaching concepts during rehearsals, (c) approaches to concept teaching, and (d) implications for the music education.

The Value of Concept Teaching

The value of concept teaching has been examined in a number of studies. In a pioneering experimental study on concept teaching in ensemble rehearsals, Noble (1971) studied the effects of a concept teaching curriculum on performance achievement in elementary beginning bands. Participants were 253 fifth-grade students who met for two 50-minute periods of band class per week. None of the participants had prior training on their instruments, and they were not permitted to take private lessons during the experimental period of 12 weeks. All students learned performance skills using Weber's (1968) First Division Band Course, Book 1. However, participants in the experimental group were given seven basic instrumental concepts before any specifics of instrumental performance were taught: (a) physical design of the instrument, (b) tone production, (c) tone quality, (d) interval relationships, (e) correct note lengths, (f) rhythm, and (g) phrasing. The concepts were taught via verbal discussions of the overtone series, aural presentations of recordings by expert performers, singing of diatonic intervals, and a cognitive approach to rhythmic understanding. Results indicated that students in the experimental group showed greater understanding in musical concepts as measured by Gordon's (1965) Musical Aptitude Profile and Colwell's (1965) Elementary Music Achievement Test than the control group. Although less time was spent on performance skills in the experimental group, there were

no significant differences in the scores of performance abilities in both groups as measured by the *Watkins-Farnum Performance Scale* (Watkins & Farnum, 1962).

Whitener's (1982) study found that the implementation of comprehensive musicianship in beginning bands did not diminish but in fact improved performance skills in beginning bands. Participants were students from six junior high school beginning band classes randomly assigned to either the experimental or the control group. The control group underwent a performanceoriented approach using the Belwin First Division Band Method (Weber, 1964). By contrast, the experimental group was taught using a comprehensive musicianship approach created by the author. The classes met daily for 50 minutes, and the entire treatment period lasted 24 weeks. Student sensitivity to the basic elements of music and knowledge of musical structure was measured by Colwell's (1968) Music Achievement Test (MAT). Student performance skills were measured using *Test of Performance Skills* (TPS) developed by the researcher (Whitener, 1982), which consisted of five researcher-composed exercises and an excerpt of "Twinkle, Twinkle, Little Star" to measure students' abilities to improvise. The TPS had an interjudge reliability of .77, and content validity was established by the same panel of three judges, which consisted of three expert music educators. Findings indicated that the comprehensive musicianship program resulted in significant improvements in musical achievement by the experimental group. Despite spending less time on performance skills, the experimental group had slightly higher mean TPS scores. Furthermore, 63% of the students in the experimental group and none of the students in the control group improvised. The researcher concluded that directors should teach musical concepts in instrumental rehearsals.

Garofalo and Whaley (1979) compared two approaches for teaching music concepts and skills through school band performance: the Unit Study Composition model (Garofalo, 1976)

and the traditional rehearsal procedure. The Unit Study Composition model is a system of instruction that introduces basic musical concepts such as melody, harmony, rhythm, orchestration, dynamics, texture, form, and the historical context of music. The comparison was done via two secondary school bands in a parallel-group design. Both bands rehearsed one work from a piece they planned to perform. Students in each band were given pretests and posttests using two author-constructed tests: Conceptual Knowledge Test and the Aural Identification Test. One limitation of this study was that reliability and validity were not reported for both tests. After a 5-week treatment period, the researchers collected assessment data from each group. Findings indicated that students in the experimental group scored significantly higher on the Conceptual Knowledge Test than students in the control group. Furthermore, students in the experimental group also scored significantly higher on the Aural Identification Test than students in the control group. Ratings of performance achievement similarly favored the experimental group. The researchers concluded that students taught with the Unit Study Composition model acquired conceptual knowledge, aural skills, and performance proficiency to a significantly greater degree than students taught using the traditional model.

In another experimental study that utilized a sample of high school band students (*n* = 76), Culbert (1974) randomly assigned students to two groups. The experimental group was taught skills to describe music; lessons were designed such that they developed students' abilities to identify and describe the musical elements in the music they were playing. The control group rehearsed in the traditional performance-centric manner. Findings indicated that students in the treatment group scored significantly higher on two of the four Music Achievement Tests (Colwell, 1968) compared to students in the control group. In addition, there was no significant difference between the performance levels of both the experimental and the control groups,

suggesting that the conceptual approach at the very least did not hinder the technical progress of the experimental group.

Similarly, Gleason (1995) found that the inclusion of whole music concepts (i.e., history, multicultural knowledge, and music theory) in beginning band instruction did not hamper technical progress. Participants were 134 sixth graders who were evenly and randomly assigned to the experimental and control groups. The experimental group received comprehensive music instruction using Pearson's (1993) Standard of Excellence. In addition to technical exercises for the beginning band, Pearson's method book included historical, multicultural, and theoretical knowledge on the musical excerpts. The control group, which was taught by the same director, also received instruction from Pearson's (1993) Standard of Excellence, but without its comprehensive components. After 8 months of treatment, 35 randomly selected participants were tested on their performance skills. There were no significant difference between group means on the measure of individual performance skills as measured by the Watkins-Famum Performance Scale (Watkins & Famum, 1962). All participants were also tested using researcher-constructed music history, music theory, and general knowledge tests. Content validity of these tests was established by instrumental, general, and social studies teachers (reliabilities not reported). Findings indicated that the means of the experimental group were higher than the means of the control group for all three tests; however, there were no significant treatment effects. According to the author, the treatment group did not score significantly higher that the control group in the areas of theory, history, and general knowledge. He speculated this might have been due to the manner in which the musical concepts were presented in the selected method book.

Carpenter (1988) analyzed relationships between verbal behaviors of teacher–conductors and ratings of selected junior and senior high school band rehearsals. A panel of expert judges

listened to 56 rehearsals taught by 14 teachers and rated qualitative aspects of teacher behavior (i.e., personal qualities, procedures/organization, pedagogy, and error detection) during rehearsals, while two additional judges categorized and counted the comments of the directors. Results indicated that although only 0.70% of total instructional time on music elements was spent teaching music theory, this variable was strongly and positively related to rehearsal ratings by the expert judges. In addition, the judges were more likely to rate rehearsals highly when directors commented on the following musical elements: (a) style/articulation, (b) dynamics/expression, (c) tone, (d) intonation, (e) theory, and (f) correct notes. Even though directors overwhelmingly used verbal—technical directions in their rehearsals, this was not significantly related to rehearsal ratings, suggesting that for the panel of expert judges, it was crucial for directors to teach musical elements in the rehearsal hall.

Whitaker (2008) found that students rate conceptual teaching highly. The researcher analyzed high school band students' and directors' perceptions of verbal and nonverbal teaching behaviors. Participants were (a) six successful high school band directors and (b) their students who were enrolled in the top ensembles. Rehearsals were video recorded and analyzed. The students viewed and rated video excerpts of their directors by responding to statements representing a range of criteria for rehearsal teaching which were aligned with a 10-point Likert-type scale. Participants then completed a 22-item questionnaire, and selected students and all directors participated in interviews. Results indicated that the highest rated excerpt contained one of only two concept rehearsal-type excerpts. On the contrary, excerpts containing drill, all strict conducting, and more teacher talk than student response were rated lowest by the students.

Hendricks (2010) taught high school string quartet students two movements from Schubert's "Death and the Maiden" Quartet (D810) using two different approaches. The first

movement was taught using performance-based instruction, while the second movement included music theory and history lessons in addition to performance-based instruction. In particular, the students learned affective concepts that related to death in the second movement. Based on observations and the students' written comments, Hendricks found that the approach used in the second movement was motivational to students. In addition, comments and ratings by an independent adjudicator indicated that the students performed more expressively and were more technically secure in the second compared to the first movement. The researcher concluded that the time invested into teaching musical concepts was well worth it.

In summary, research indicates that the teaching of musical concepts in school instrumental ensembles can yield positive outcomes in terms of students' musical understanding and attitudes. Time invested into teaching concepts has not been found to detract from performance goals; on the contrary, performance may be enhanced.

Time Spent Teaching Concepts

Given the value of teaching conceptually, a number of studies have examined time spent teaching concepts in the rehearsal hall. Findings suggest that exemplary and student-directed directors value the teaching of musical concepts and make it a priority during their rehearsals. For example, Pontious (1982) analyzed time use of five outstanding high school band directors. Results indicated that participants spent more than 50% of the verbal time addressing musical concepts. In addition, a different proportion of time was spent teaching the following musical concepts: (a) 25.9% of the teaching time was spent teaching phrasing and dynamics, (b) 24.90% on rhythm, (c) 15.30% on pitch, (d) 11% on balance, (e) 9.70% on articulation, (f) 8.50% on style, (g) 3% on tone quality, and (h) 1.80% on tone production.

The exemplary college band director in Buell's (1990) case study similarly demonstrated an awareness of the need to teach conceptually. The participant directed two ensembles: the wind ensemble and the symphonic band. Findings indicated that conceptual teaching took up 19% of the total teaching time for the wind ensemble and 21% of the total teaching time for the symphonic band. While the participant employed methods of behavioristic drill and practice for technique, several performance issues were converted to conceptual issues in attempts to teach for transfer. The participant expressed the need for more time on conceptual teaching. Time spent on various musical concepts differed between the two groups. For the wind ensemble, the greatest amount of instructional time was spent on precision issues such as rhythm and ensemble (42%), followed by phrasing and musical expression (27%), balance and blend (14%), articulation (14%), and sound and intonation (3%). For the symphonic band, although the greatest amount of time was also spent on precision (30%), balance and blend received the next highest amount of attention (20%), followed by articulation (18%), phrasing and musical expression (17%), and sound and intonation (15%).

In a study involving three middle school band directors identified as being student-directed in their teaching style, Bazan (2011) gathered data from rehearsal observations and qualitative interviews. Findings indicated that the three directors taught conceptually during rehearsals; they also valued (a) developing students' knowledge of musical concepts; (b) relating musical concepts to life and other subjects and disciplines; (c) teaching music theory; and (d) developing well-rounded, comprehensive musicians. However, when sampling across a wider range of directors, findings appear less consistent. In an earlier stage of the same study, Bazan administered a self-reported survey involving 49 middle school band directors from Ohio using a revised version of Gumm's (2004) *Music Teaching Style Inventory* (MTSI). Cronbach's alpha

for the MTSI was .80, indicating the inventory items were internally consistent. Findings also indicated that the directors adopt a music concept learning teaching style only *sometimes*.

Blocher, Greenwood, and Shellahamer (1997) investigated specific rehearsal behaviors of school band directors with a focus on the extent of their concept teaching. Participants were 18 middle school or high school band directors in Florida who prepared videotapes of two or three of their band rehearsals. Random 20-minute video extracts were analyzed by two trained observers who used the Continuous Response Digital Interface (CRDI) to measure the teaching behaviors they saw. Results indicated that, on average, directors spent only 2.79% of observed teaching time engaged in conceptual teaching behaviors. In addition, while high school directors taught conceptually for 3.29% of the time, their middle school counterparts taught conceptually for only 2.29% of the time. The researchers suggested that the reasons for this low frequency of concept teaching included the tendency for educators to teach the way they were taught, the absence of role models, and the lack of concept teaching methodology in music teacher training programs. They further indicated that based on the results of their study, there is a need (a) for additional investigation of conceptual teaching behaviors within band rehearsals, (b) to examine the extent of concept teaching taking into account variables such as directors' years of experience, and (c) to develop instructional models for music teacher training programs, which deal with conceptual teaching strategies within the band rehearsal setting.

In a replication of the Blocher et al. (1997) study, Ihas (2011) examined the rehearsal behaviors of 12 middle and high school orchestra directors in California, Oregon, and Washington. It was reported that only 5.30% of observed rehearsal time was spent on conceptual teaching. Although this was more often than the 2.79% reported by Blocher et al., this was still low compared to time spent on nonverbal instruction (28.15%) and verbal

instruction (27.76%). Furthermore, while Blocher et al. found that high school band directors taught conceptually more than middle school directors (3.29% versus 2.29%), Ihas found the reverse, with middle school orchestra directors teaching conceptually for twice the amount of time as high school directors (7.40% versus 3.21%). Ihas surmised that the low percentage of time spent on conceptual teaching was due to (a) the lack of sufficient training on how to teach conceptually in ensembles, (b) the lack of awareness of the value of concept teaching, (c) the lack of sufficient knowledge of learning theories, and most importantly, (d) the overemphasis on performance quality which leads to the belief that teaching conceptually may detract from performance goals.

In summary, research indicates that while exemplary and student-directed directors value the teaching of musical concepts and make it a priority during their rehearsals, studies that sample across a wider range of teaching abilities suggest that directors spend only a small proportion of time teaching conceptually.

Approaches to Concept Teaching

A number of researchers have investigated approaches to concept teaching. Haack (1972) examined the use of positive and negative examples in teaching the concept of Romantic musical style. Participants were 224 junior high school wind instrumentalists randomly assigned to the positive instructional (control group) format and the positive-negative combination (experimental group) format. The control group learned the Romantic style exclusively via examples of Romantic music, while the experimental group spent one-fourth to one-third of their time listening to negative instances of the concept, including music from other eras. A measure was devised to evaluate students' concepts of the Romantic musical style both before and after the treatment period of one week. One shortcoming of this study, however, was that the

reliability and validity of this measure were not reported. During the pretest and the posttest, students were played 10 Romantic and 10 non-Romantic musical excerpts. They were then asked to identify each excerpt as *definitely Romantic*, *probably Romantic*, *probably not Romantic*, *definitely not Romantic*, or indicate the absence of an opinion. Results indicated significant test score gains in favor of the experimental group that experienced both positive and negative examples.

Another approach to teaching conceptually is the use of musical terms and descriptions. For band students taught conceptually in Culbert's (1974) study cited earlier, a rehearsal would begin with a traditional warmup, followed by the playing of a piece, which served as an introduction to the concept to be taught. The students would then be introduced to musical terms associated with the concept, taught how to identify and describe musical elements in the piece, and make connections to other pieces. Other activities included listening, writing, discussing, and performing to further enhance students' understanding, concluding with a written test. Culbert's study found that students in the experimental group (i.e., those who were taught conceputally) had higher musical achievement compared to students in the control group as measured by Colwell's (1968) Music Achievement Test. In a similar vein, Misenhelter (2000) found that the use of specific musical terms such as "terraced dynamics" were effective strategies for the instrumental director. The use of verbal descriptions to teach musical concepts in the instrumental rehearsal hall was also documented by Bazan (2011), who found that band directors who were student-directed in their teaching styles would ask questions about the music and task students to describe the music and explain musical concepts using their own words.

In addition to musical terms and descriptions, modeling appears to be an effective way of teaching musical concepts. Goolsby (1996) videotaped band rehearsals to examine the use of

rehearsal time by three groups of teachers. Rehearsals were equally divided among those conducted by experienced teachers, novice teachers, and student teachers at the middle and high school levels. Findings indicated that the experienced teachers made greater use of nonverbal modeling to convey musical concepts than the teachers in the other two groups (5.40% of total teaching time, compared to 2.40% by novice teachers and 3% by student teachers). Similarly, Goolsby (1997) found that expert teachers devoted more time to modeling (17.30 teaching segments by expert teachers, in comparison to 11.20 segments by novice teachers and 16 by student teachers). These findings echo Buell's (1990) case study of an exemplary college band director, whose predominant strategy of teaching musical concepts was demonstration (95% of conceptual teaching time).

While modeling seems to be a useful mode of teaching musical concepts, music educators may be uncertain about whether fundamental exercises or the literature are better suited to teach musical concepts. To this end, Price, Blanton, and Regena (1998) compared the effects of fundamental exercises and music excerpt approaches on 65 high school band students' sight-reading proficiency, music performance, and attitude. Students in a concert band and a symphonic band were randomly assigned to either a fundamentals exercise or music excerpt subgroup. In the excerpt subgroup, excerpts from the wind literature were used as the basis for instruction. For example, a passage that was rhythmically challenging would be used to teach rhythmic concepts through teaching for cognitive understanding, counting, clapping, playing in unison, before finally playing the isolated passage. In the fundamentals exercise subgroup, students learned via Fussell's (1954) *Exercises for Ensemble Drill* and Hovey and Walker's (1959) *Tipps for Bands*. Results indicated that students in the excerpts subgroup showed posttest gain scores that were significantly higher than concert band students in the fundamentals

exercises subgroup. Overall, students in the excerpts group had more positive attitudes towards their experience. Based on the findings, it seems that musical excerpts were more effective in teaching musical concepts than isolated technical exercises.

Trimborn (1984) classified wind band compositions according to the concepts of rhythm, melody, harmony, and texture for conceptual teaching purposes, and developed Model Instructional Units (MIUs) to teach musical concepts to high school band students. He created a sample survey that examined the consistency with which certain compositions were selected by 43 Illinois high school band directors as exemplifications of rhythmic, melodic, harmonic, and textural concepts. The survey also measured the reliability of the directors' assessment. Findings indicated that band directors could perceive differences between the musical elements within specific compositions that best exemplify rhythm, melody, harmony, or texture. The MIUs were then created to demonstrate how each musical concept could systematically be studied. The researcher concluded that band compositions could be classified according to the musical concepts to be taught and be used to teach for conceptual understanding. Likewise, Misenhelter (2000) showed how concepts such as the Chaconne form and repetition could be extracted from pieces such as Holst's First Suite in E-flat for Military Band.

In summary, a survey of the research literature suggests that musical concepts may be taught via positive and negative instances of concepts, musical terms and descriptions, modeling, and musical literature. Having presented the various studies, this paper will now summarize the major themes that emerged and suggest implications for practice and research.

Implications for Music Education

In broad strokes, research suggests that there is value to teaching conceptually in school instrumental ensembles. Although it may seem counter-intuitive, time invested into teaching

concepts does not hamper performance achievement; on the contrary, performance may even be enhanced. Although exemplary directors have been shown to value conceptual teaching and do so in their rehearsals, studies that sample across a wider range of teaching abilities suggest that directors spend only a small proportion of time teaching conceptually. In light of the research literature, the following implications are provided.

First, instrumental directors may consider seeing themselves not just as performance teachers and conductors, but as music teachers who teach musical concepts to instrumental ensembles. While preparing students for performances is important, directors can make deliberate attempts to teach conceptually in their rehearsals. Ensemble directors are not merely mechanics whose jobs are to make sure that all parts are working; they are conductor–educators with responsibilities to teach students lifelong concepts about music. Instrumental directors cannot model their teaching practices solely on those of professional conductors. For example, while professional conductors may simply ask for *staccato* articulation from their ensembles, school directors have the added responsibility of explaining and demonstrating the concept of *staccato* as a musical style and the means for achieving it technically (Labuta, 1976). In so doing, time invested into teaching may reap dividends in the future; it also avoids the problem of directors being "condemned to reteach" every time similar concepts reappear (Price & Byo, 2002, p. 343). Performance goals and the teaching of musical elements are not mutually exclusive; they reinforce each other.

Second, the lack of sufficient time invested into teaching concepts can suggest implications for teacher training programs. It may be beneficial for teacher-training programs to create awareness of the value of conceptual teaching; courses in learning theories are useful in this regard. Student teachers may also be exposed to role models skilled in teaching conceptually

in large instrumental ensembles; in particular, opportunities can be created for them to observe fine directors teaching conceptually in authentic teaching situations. In addition, student teachers may be guided by mentors on how to teach conceptually during their student teaching. This may take the form of writing lesson plans that explicitly incorporate the teaching of concepts, making conscious attempts to teach conceptually during student teaching, and reviewing videos of teaching to evaluate the extent and effectiveness of concept teaching.

Third, directors may consider using the practical strategies unpacked in this article. These are: teaching through positive and negative instances of concepts, musical terms and descriptions, modeling, and extracting concepts from musical literature. When teaching the concept of a dotted eighth-sixteenth rhythm, for example, directors may present both an accurately performed one, and one where the subdivision is more akin to a triplet; the use of both positive and negative instances enables students to compare and understand the right rhythm more effectively than if only the positive instance is used alone. Directors can also define the concept clearly as "dotted rhythm," and ask students to describe the musical effect of that rhythm. While descriptive words are effective, directors may also model the performance of the dotted rhythm in its musical context, either by singing, sizzling, or demonstrating on an instrument. Finally, directors can consider creating awareness of the dotted rhythm each time it reappears in musical literature that students are learning; indeed, an infinite number of musical concepts can be extracted from well-chosen literature—the repertoire itself can be the curriculum.

Fourth, more research on concept teaching in the rehearsal hall is warranted. For example, the Blocher et al. (1997) study may be replicated and extended to ascertain if the extent of concept teaching in instrumental groups across a large number of ensembles varies as a function of as a function of (a) directors' years of teaching experience, (b) age, (c) teaching

levels, (d) educational and musical qualifications, and (e) ensemble performance achievement. More in-depth qualitative studies of exemplary directors can possibly uncover useful strategies of concept teaching in large instrumental ensembles. The strategies discussed in this paper may also be tested empirically to determine their precise effectiveness in actual teaching situations.

From the theoretical to the practical and research literature, it is clear that concept teaching in the rehearsal hall is not only possible, but also desirable. With a change in mindset to see directors not just as conductors but also as teachers of musical concepts, improvements in music teacher programs, deliberate attempts to incorporate practical strategies to teach conceptually in the rehearsal hall, and greater attention to research on concept teaching, students can reap the manifold benefits of a conceptual approach. School programs can thereby develop students into "highly skilled" musicians who are able to "make music rapturous" (Price & Byo, 2002, p. 343).

References

- Bazan, D. (2011). The use of student-directed instruction by middle school band teachers.

 *Bulletin of the Council for Research in Music Education, 189, 23–56.

 doi:10.5406/bulcouresmusedu.189.0023
- Blocher, L., Greenwood, R. & Shellahamer, B. (1997). Teaching behaviors of middle school and high school band directors in the rehearsal setting. *Journal of Research in Music Education*, 45, 457–469. doi:10.2307/3345539
- Boardman, E. (2001). Generating a theory of music instruction. *Music Educators Journal*, 88(2), 45–53. doi: 10.2307/3399742
- Bruner, J. (1960). The process of education. Cambridge, MA: Harvard University Press.
- Buell, D. S. (1990). *Effective rehearsing with the instrumental music ensemble: A case study*(Unpublished doctoral dissertation). University of Wisconsin Madison. Available from ProQuest Dissertations and Theses database. (UMI No. 9025698)
- Carpenter, R. A. (1988). A descriptive analysis of relationships between verbal behaviors of teacher–conductors and ratings of selected junior and senior high school rehearsals.

 *Update: Applications of Research in Music Education, 7(1), 37–40.

 doi:10.1177/875512338800700111
- Colwell, R. (1965). *Elementary music achievement tests*. Chicago, IL: Follet.
- Colwell, R. (1968). Music achievement test. Chicago, IL: Follett.
- Culbert, M. (1974). The effects of using a portion of the rehearsal time for developing skills in describing music on the performance level and musical achievement of high school band students (Unpublished doctoral dissertation). Temple University. Available from ProQuest Dissertations and Theses database. (UMI No. 7428259)

- Dewey, J. (1910/1985). *How we think*. In J. A. Boydston (Ed.), *The middle works of John Dewey*, *vol. 6* (pp. 182–356). Carbondale, IL: Southern Illinois University Press.
- Fussell, R. G. (1939). Exercises for ensemble drill. Melville, NY: Belwin-Mills.
- Garofalo, R. (1976). Blueprint for band: A guide to teaching comprehensive musicianship through school band performance. Portland, ME: J. Weston Walch.
- Garofalo, R., & Whaley, G. (1979). Comparison of the unit study and traditional approaches for teaching music concepts and skills through school band performance. *Journal of Research in Music Education*, 27, 137–42. doi:10.2307/3344964
- Gary, C. I. (1967). The study of music in the elementary school—a conceptual approach.

 Washington, DC: Music Educator's National Conference.
- Gleason, B. P. (1995). The effects of beginning band instruction using a comprehensive, multicultural, interdisciplinary method on the knowledge, skills, attitudes, and retention of sixth grade students (Unpublished doctoral dissertation). University of Iowa. Available from ProQuest Dissertations and Theses database. (UMI No. 9614606)
- Goolsby, T. W. (1996). Time use in instrumental rehearsals: A comparison of experienced, novice, and student teachers. *Journal of Research in Music Education*, 44, 286–303. doi:10.2307/3345442
- Goolsby, T. W. (1997). Verbal instruction in instrumental rehearsals: A comparison of three career levels and preservice teachers. *Journal of Research in Music Education*, 45, 21–40. doi:10.2307/3345463
- Gordon, E. (1965). *Musical aptitude profile*. Boston, MA: Houghton Mifflin.
- Grashel, J. (1993). An integrated approach: Comprehensive musicianship. *Music Educators Journal*, 79(8), 38–41. doi:10.2307/3398596

- Gumm, A. (2004). Music teaching style inventory. Mount Pleasant, MI: Alan Gumm.
- Haack, P. (1972). Use of positive and negative examples in teaching the concept of musical style. *Journal of Research in Music Education*, 20, 456–461. doi:10.2307/3343803
- Hendricks, K. S. (2010). Investing time: Teacher research observing the influence of music history and theory lessons upon student engagement and expressive performance of an advanced high school string quartet. *Bulletin of the Council for Research in Music Education*, 184, 65–78.
- Henson, K. T. (1995). Curriculum development for education reform. New York, NY: Harper Collins.
- Hovey, N. W., & Walker, M. (1959). Tipps for bands. Melville, NY: Belwin-Mills.
- Hunt, E. B. (1962). *Concept learning: An information processing problem*. New York: John Wiley and Sons.
- Ihas, D. A. (2011). *Teaching behaviors of middle and high school orchestra directors in the*rehearsal setting (Unpublished doctoral dissertation). University of Oregon. Available from ProQuest Dissertations and Theses database. (UMI No. 3481230)
- Kerlinger, F. (1973). Foundations of behavioral research (2nd ed.). New York, NY: Holt, Rinehart, & Winston.
- Klausmeier, H. J. (1961). *Learning and human abilities: Educational psychology*. New York, NY: Harper & Row.
- Labuta, J. A. (1997). A guide to teaching comprehensive musicianship through school band performance by Robert J. Garofalo. *Music Educators Journal*, *64*(2), 86–87. doi: 10.2307/3395340

- Misenhelter, D. D. (2000). Conceptual teaching in instrumental rehearsals: Examining scripted strategies. *Update: Applications of Research in Music Education*, 18(2), 12–18. doi:10.1177/875512330001800204
- Noble, R. F. (1971). Effects of a concept teaching curriculum on performance achievement in elementary school beginning bands. *Journal of Research in Music Education*, *19*, 209–15. doi:10.2307/3343825
- Pontious, M. F. (1982). A profile of rehearsal techniques and interaction of selected band conductors (Unpublished doctoral dissertation). University of Illinois. Available from ProQuest Dissertations and Theses database. (UMI No. 8302966)
- Price, H., Blanton, F., & Regena, T. (1998). Effects of two instructional methods on high school band students' sight-reading proficiency, music performance, and attitude. *Update:*Applications of Research in Music Education, 17(1), 14–20.

 doi:10.1177/875512339801700104
- Price, H., & Byo, A. (2002). Rehearsing and conducting. In Parncutt, R. & McPherson, G. (Eds.), *The science and psychology of music performance: Creative strategies for teaching and learning* (pp. 335–351). New York, NY: Oxford University Press.
- Tyson, J. C., & Carroll, M. A. (1970). *Conceptual tools for teaching in secondary schools*.

 Boston, MA: Houghton-Mifflin.
- Trimborn, T. J. (1984). The classification of compositions for the development of model instructional units for the purpose of teaching the musical concepts of rhythm, melody, harmony, or texture to high school band students (Unpublished doctoral dissertation).

 Northwestern University. Available from ProQuest Dissertations and Theses database. (UMI No. 8502447)

- Watkins, J. G., & Farnum, S. E. (1962). *Watkins-farnum performance scale*. Winona, MN: Hal Leonard.
- Weber, F. (1964). First division band method. Rockville Center, NY: Belwin.
- Weber, F. (1968). First division band course, book 1. Rockville Center, NY: Belwin..
- Whitaker, J. A. (2008). Analyses of high school band students' and directors' perceptions of verbal and nonverbal teaching behaviors (Unpublished doctoral dissertation). Louisiana State University.
- Whitener, W.T. (1982). Comparison of two approaches to teaching beginning band. *Journal of Research in Music Education*, 30, 229–35. doi:10.2307/3345296
- Woodruff, A. (1966). Concept Teaching in Music. In Kowall, B. (Ed.), *Perspectives in Music Education: Source Book III* (pp. 219–233). Washington, DC: Music Educators National Conference.