“Creative Thinking and Music Education: Encouraging Students to Make Aesthetic Decisions”

PETER R. WEBSTER
School of Music, Northwestern University,
Evanston, Illinois, USA
I would like to begin by thanking ESCOM and especially Professors Deliege and Melen for this wonderful opportunity and for the decision to devote this meeting to the subject of musical creativity. In addition to the many studies of music perception, memory, and other basic aspects of music cognition that have served us so well in the past, today we see additional and complementary interests in more holistic topics of musical development, affect, expressivity, and interpretation. Chief among these higher-order sets of mental operations is the topic of musical creativity—or what I believe is better termed, “creative thinking in music.” (Webster, 1990) As scholars in music cognition study this topic and ones like it, they mirror similar interests in other fields such as music theory, performance study, and music education. This interdisciplinary trend that I note at my own university and at others around the world is perhaps the most exciting development in music scholarship today.
Importance of Musical Creativity for Music Education

I believe that creative thinking in music must be at the center of professional activity for the contemporary music educator. There are forces within and outside of the profession that lead me to this conclusion.

When the history of music education is written many years from now, there will be mention made of the time period represented by the end of the 20th century and the beginning of the new millennium as a critical point in the profession’s history. It will be noted that practical, theoretical, and research-based writings focused attention on both product and process in the teaching and learning of music. Rather than just product (largely music performance), the processes involved in the creation of music are becoming import as well. In addition to the nurturing of fine solo and ensemble performances, a more comprehensive approach to music education is emerging which embraces the study of composition, improvisation, music listening, cultural context, and relationships to other arts. In the United States, this trend began in the sixties with the Comprehensive Musicianship Project and the Manhattanville curriculum project and continued by the Yale, Tanglewood, and Ann Arbor symposia in following years. In more recent times, the National Voluntary Standards in the Arts have come to mark a more comprehensive approach. In other countries such as the United Kingdom and Australia, attention to music composition as a curricula focus has been long established. It is clearly the case that no longer can a music teacher expect to be successful by only teaching children how to perform the music of others in a dictatorial fashion, paying little attention to the development of aesthetic decision-making and musical independence of students.

Outside of music but within the scope of educational philosophy, constructionist views of teaching and learning prevail. Although not really new to educational theory with roots that can be traced to Piaget and Dewey, constructionistic thinking has been given focus in writings on school reform (Gardner, 1991). The basic goal of constructionism is to place emphasis on creativity and to motivate learning through activity. Learning is seen as more effective when approached as situated in activity rather than received passively (Kafai and Resnick, 1996). At the heart of these ideas is the shift away from thinking about education as begin centered solely in the mind of the teacher and more as partnership between teaching and student with the teacher as the major architect of learning. Project-centered learning is celebrated with students working to solve problems. Affect is seen as part of and as an aide in the learning experience. The teacher assumes more the role of a “guide on the side” as opposed to a “sage on the stage.”

Another critical contextual issue for the importance of creativity in music education is the powerful presence of music technology as an aid to instruction and the support given to music teaching by Internet resources (Williams and Webster, 1999). Notation, sequencing, and digital audio software running on powerful, affordable personal computers with MIDI instruments provide important resources
for music education practice and research. Specially written software packages designed to encourage composition and improvisation are now readily available for use in schools and at all levels of instruction. (1) Internet resources serve as an increasing rich reservoir for teachers to challenge students to solve musical problems and to distribute and gather examples of creative thinking in music.

The remainder of this address will focus on 1. a few “givens” about music, music education, and creative thinking in music, 2. a section on definition of creative thinking of music and some concepts about creative process in music, 3. important research trends within the music education literature, and 4. end with some thoughts on research in the future.

**Basic Tenants**

Music education as a sub-field of music is ultimately concerned with the most effective teaching and learning of music as art. Most musicians today teach and, as a result, are music educators. However, the term “music education” has come to mean the application of teaching techniques to primary and secondary school children. The concepts developed here about creativity and music education are applicable to the wider context than just the teaching of music to the young.

There are three fundamental ways that humans engage in musical behavior: 1. listening (by far the most common of behaviors), 2. composition (perhaps the least common), and 3. performance. Performance is really divided into the reproduction of music written by others and the creation of music “in the moment” within a context—often referred to as “improvisation.” Although there are settings where teaching and learning is focused primarily on one or the other, each behavior is mutually supportive of the other in our quest as music educators to teach about music. Good music teaching usually involves all three types of behaviors.

Music teachers design environments that help learners construct their personal understanding of music. There are thousands of ways to do this and our authentic assessment of learning is the gage of our success. One obvious gage of how successful we are as teachers is the extent to which our students can make aesthetic decisions about music as listeners, composers, and performer/improvisers and to develop a sense of musical independence. Such independent thinking does not happen if each decision is dictated. Teachers must teach for independent thought.

Most music teachers agree that student decision-making (perhaps all of “musicianship”) is predicated on the ability to hear musical possibilities without the actual presence of the sound—being able to “think in sound.” Active listeners need to hold musical structures in memory as a piece unfolds. Composers need to imagine sound combinations. Performers/improvisers must have a target performance in mind. Music teachers must help students gain this ability to hear music in their heads and manipulate these sounds in increasingly more abstract ways.
All of this is possible only if students are encouraged to “create” music through all the available behaviors. Some will be more successful with one type of behavior over another, but each is critical for the development of music cognition in the grandest sense. For all these reasons, it makes sense to think of creative experience in music as a central focus of music education.

What is Creative Thinking in Music and What is its Process

Creative thinking is really a term that has its base in what most of us understand to be “creativity.” In my own work, I have found that “creativity” is not a useful term because it is so misused. For example, Mom and Dad may marvel at the “creativity” of their five-year-old daughter Maria because she can “read” music. Uncle John might think Maria has “creativity” for music because she can draw perfectly proportioned quarter notes on a drawing pad. Maria’s piano teacher might conclude (perhaps mistakenly) that Maria exhibits “creativity” in music because of the flawless performance of her recital piece on Sunday afternoon. Each of these achievements may be impressive and of great importance to the musical development of Maria, but none of them has anything to do with what creativity in music really is: the engagement of the mind in the active, structured process of thinking in sound for the purpose of producing some product that is new for the creator. This is clearly a thought process and we are challenged, as educators, to better understand how the mind works in such matters -- hence the term creative thinking (Webster, 1987)

Creative thinking is not a mysterious process that is based on divine inspiration or reserved only for those that are labeled as genius. It can be defined and identified in us all. Creative thinking also occurs at various levels, from the spontaneous songs of the very young child to the products of the greatest minds in music.

A careful study of the various definitions in the literature reveals five common elements: 1. a problem solving context, 2. convergent and divergent thinking skills, 3. stages in the thinking process, 4. some aspect of novelty, and 5. usefulness of the resulting product. Regardless of the discipline, most experts agree that creative thinking is driven by a problem and a need for its solution. In music, the activities surrounding (a) composition, (b) performance/improvisation and (c) analysis (listening to music or studying written scores) present specific problems to be solved for the creator that demand the use of musical knowledge and musical imagination.

The search for aesthetically acceptable answers is made possible by strategies that include movement between divergent and convergent thinking skills -- in other words the ability to generate a number of possible solutions and then arrive at the single best. It is troubling that the majority of private studio music teachers seem far better at teaching convergent skills than encouraging divergent thinking abilities with young children (or older children for that matter).

Studies in many disciplines have revealed that creative thinking generally progresses through stages: preparation, incubation, illumination and verification. Artists have reported movement from stage to stage
different ways and at different speeds, but the descriptions seem to follow the pattern of initial work, periods rest followed by insight, and a final phase of major work and refinement.

All definitions of creative thinking include some reference to novelty. This may take the form something new to the artist (or the child), but perhaps not to society or to the world of art. Words such "unique" or "original" seem common. This sense of the novel is balanced by the concept of usefulness suitability that also exists in most definitions. In other words, a truly creative work includes a sense of newness but within the confines of artistic reason.

Finally, the result of the creative thinking process must always be represented by some form of product. This separates real creative thinking from day dreaming or fantasy. Musical products take the form of written compositions, performances of music both pre-composed and improvised and analyses both written and mentally represented during listening. (2)

Promising New Research

Ten years ago, I published a review of the literature on creative thinking in music education (Webster, 1992). The organizational model included studies in three major categories: 1. *theoretical*, works based on philosophical or psychological arguments; 2. *practical*, writings designed to inform praxis but not based on empirical evidence; and 3. *empirical*, studies of product and process across composition, performance/improvisation and listening and studies that examined cause and effect and relationship. Studies that were psychometric in nature were included in this last category, as were writings that included a focus on personality and the conditions for creative thinking.

This early analysis was based on less than 200 writings. A similar review of this literature for the purposes of this talk resulted in a bibliography over twice the size of the 1992 listing. Much of the new published sources have come in the empirical section, with scholars electing to study this topic in a wide variety of qualitative and quantitative approaches. A partial listing of the new trends are noted below:

- Adopting the post-modern tendency to question the assumptions made by previous generations and to be concerned more completely with social context, many scholars have questioned older theories and models. (Barrett, Hargreaves, Burnard) (3)
- A heighten interest in the young child and invented music notation and their discussion of it as a window to understanding the child’s knowledge (Barrett, Gromko, MacGregor)
- New approaches to assessment, including 1. consensual techniques (Hickey), 2. peer assessment (Freed-Garrod), and 3. novice evaluation (Mellor)
- Attention to the role of collaboration (Kashub, Wiggins, MacDonald/Miell)
• New speculation and experimentation on the role of music technology (Hickey, Stauffer, Ellis)
• Emergent thinking on the pedagogy of composition teaching (Odam)
• New work on cause/effect and relationship (Auh, Hagen, Fung)
• Compositional strategies (Auh, Folkestad)
• Thought processes while composing (Younker/Smith, Kennedy)
• New studies on how various musical behaviors (composition/improvisation/listening) relate to one another (Swanwick/Franca, Savage/Challis, Burnard)
• Developmental patterns of creative thinking (Marsh, Barrett, Younker, Swanwick)
• Creative performance (Dalgarno)
• New work on improvisation: 1. empirical (McMillan) and 2. conceptual (Elliott, Kratus, Booth)
Address for correspondence:
PETER WEBSTER
Northwestern University
John Beattie Professor of Music Education and Technology
School of Music
Evanston IL  60208 USA

E-mail: pwebster@northwestern.edu
Notes

(1) Examples of outstanding software will be shown.
(2) In the full presentation I will show this model graphically and, after a short discussion of new research work in the last 10 years, present an extension and refinement of this model as an encouragement for new research. This will also establish a basis for new research suggestions which will end the talk.
(3) Complete citations are not included here in the interest of space but will be noted in the full talk).
References


