

# Orchestra Chair

## *Interpretation of the New National Core Music Standards: A Conceptual Approach*

The overall purpose of this article is to help music teachers get acquainted with the content of the recently proposed National Core Music Standards (NCMS). More directly, this article hopes to provide teachers with a theoretical framework that may help them interpret and apply some of the learning objectives described in the new standards. Additionally, this article intends to offer a framework for understanding why it is important to incorporate these new standards into music teaching. An abbreviated overview of two educational psychology theories will serve to partially address these purposes: Jean Piaget's "Theory of Cognitive Development," and Jerome Bruner's "Theory of Conceptual Learning." It is the intention of this writer that every student in America be touched by the student-centered and well-balanced education that the comprehensive nature of NCMS seems to suggest.

### **New National Core Music Standards (NCMS)**

Written by a team of music educators and ratified through a two-year inclusive public review process, the new National Core Music Standards (NCSM) were released on June 4th, 2014 (NAfME with National Coalition for Arts Standards). Unlike the previous national standards, which emphasized factual knowledge and basic skills, the new core standards are more focused on music literacy and conceptual understanding, as well as on connecting music learning with artistic processes that are used by real practicing musicians.

The main intention of NCMS is to generate and further develop four specific artistic processes. These processes include *creating, performing, responding, and connecting*. Each of these processes, also known as *core standards or categories*, is articulated through several Anchor Standards for a total of eleven *Anchor Standards*. Additionally, each of the Anchor Standards are further subdivided into "steps," and explained in full-sentence statements called *Enduring Understandings*. To guide assessment designs, an *Essential Question* is offered for each Anchor Standard.<sup>1</sup>

Standards are provided for each grade level from pre-kindergarten to eighth grade, as well as for three distinct music education settings or "strands" typically found in music education programs at American high schools: *Ensemble, Music Composition/Theory, and Harmonizing Instruments*. Standards are presented at five levels of proficiency: *Novice* and *Intermediate* levels for elementary and early middle school students, and *Proficient, Accomplished, and Advanced* for high school students. The *Model Cornerstone Assessment* document is used to guide teachers on how to assess each student's progress on the standards.

I will argue that this new way of thinking, which places more of an emphasis on creative processes and conceptual understanding, rather than on factual knowledge and basic technical skills, is more in tune

with a long-recognized need to engage students in higher levels of thinking, conceptual understanding, and the creative processing of music.

### **Proposed Theoretical Framework for Interpreting and Understanding NCSM Jean Piaget's Theory of Cognitive Development**



Swiss psychologist Jean Piaget proposed a *Cognitive Development Theory* in which he described how human thinking processes evolve from birth to maturity. According to Piaget, all humans go through four stages of cognitive development: *Sensorimotor Stage* (ages birth–2), *Preoperational Stage* (ages 2–7), *Concrete Operational Stage* (ages 7–11) and *Formal Operational Stage* (approx. ages 11–16). He proposed that in the formal operational stage, upper-grade middle and high school students are capable of articulating more than just facts, and can restate information in their own words. Teenagers can think abstractly and hypothetically, and can analyze, evaluate, synthesize, and solve problems – all of which are considered *higher levels of thinking* (Piaget, 1971).

While Piaget and other psychologists agree that during the first three stages of cognitive development children may exhibit homogeneous thinking behaviors, in the fourth stage, most young adults (and adults) are able to use formal operational thinking in only a few areas and only sparingly (Piaget, 1974). Kuhn, Langer, Kohlebrg, and Haan (1977) found that only 30 to 35 percent of high school seniors attained this stage of cognitive development, and Berk (2011) found that about 50 percent of undergraduate students failed to exhibit thinking reflecting Piaget's formal operational level.

It appears that the typical child's biological maturation points to a unified progression through Piaget's first three stages of cognitive development, but that a special learning/teaching environment that aims at the development of higher levels of thinking are required for most adolescents and young adults to attain the formal operational stage (Beyer, 2008). One of the teaching strategies that may support students' cognitive development is *conceptual teaching* (McClain, 2005).

### **Jerome Bruner's cognitive perspective on learning**

In the late 1950s, a group of cognitive educational psychologists, led by American educational psychologist Jerome Bruner, began challenging behavioristic learning theories because of their focus on memorizing facts, which placed students in the role of passive learners and encouraged only the development of so-called "lower-level" thinking skills. Bruner introduced educators to discovery learning processes, so that students could become active participants in their learning. His inductive reasoning approach, that is, the formulation of general principles based on knowledge and understanding of details and

<sup>1</sup>For more information on the NCMS, see <http://musiced.nafme.org/musicstandards> and <https://www.youtube.com/watch?v=RISF56tkueA>

examples into small organizational units known as “concepts,” opened the way to what is known as conceptual learning.

A concept may be defined as “a general category of ideas, objects, people or experiences whose members share certain properties” (as cited in Woolfolk, 2012, p. 286). Grouping similar main ideas, knowledge, experiences, or skills into concepts generates learners’ conceptual understanding. This deliberate identification of guiding principles leads students to conceptual understanding and allows them to transfer what they previously learned into new situations.

Knowing the basics of these two educational theories, as will be proposed later in this article, may help music teachers in their interpretation and understanding of the objectives stated in the new National Core Music Standards.

### **Performing Core Standard Explained**

Among the four core standards (*Creating, Performing, Responding and Connecting*), the one that could prompt a music teacher’s interest most immediately is core standard # 2, *Performing*. While performing has been and will probably remain what music teachers and students engage in most readily, the new core standards present performing in a different and innovative way. The former music education standards discussed performing in terms of psychomotor skills such as singing and playing instruments. The new core standards propose that performing be viewed as an artistic process that combines cognitive and psychomotor efforts in equal proportion. Students are asked to first select, analyze, and interpret a musical work (cognitive components of the artistic process), and only then to rehearse, evaluate, refine, and present (psychomotor components of the artistic process) the work. This change in thinking may not be easily understood by music teachers, and a further examination of what is expected from students when it comes to performing as proposed in the NCMS seems worthy. Because of the limited scope of this article, only one narrow objective of the core standard for performing will be reviewed in greater detail; the objective of understanding technical skills.

The new performing core standard has three anchor standards: Anchor Standard #4: *Select, Analyze and Interpret* (artistic work); Anchor Standard #5: *Rehearse, Evaluate and Refine* (artistic work); and Anchor Standard #6: *Present* (artistic work).<sup>2</sup>

The first “step” of Anchor Standard #4 (*Select*) is further explained to teachers and students through the statement of the *Enduring Understanding*: “Performer’s interest in the knowledge of musical works, *understanding of their own technical skills* (emphasis added), and the context for performance influence the selection of repertoire.” Additionally, the step *Rehearse, Evaluate and Refine* asks students

to “Develop strategies to *address technical challenges ...*” (emphasis added) while the step *Present* suggests that students should be able to “Demonstrate *attention to technical accuracy...*” (emphasis added).

### **Interpreting and Teaching the “Understanding Technical Skills”**

#### **Outcome: A Conceptual Approach**

Music teachers have always dealt with strategies that address technical skills. General music teachers teach their students to hold mallets correctly while playing Orff instruments so that they may produce pleasing and resonating sounds. Choir teachers teach students how to use lower abdominal muscles to support breathing in long melodic lines. Band teachers teach students how to use their tongue so that they can produce desired articulations. Orchestra teachers teach students how to use the upper part of the bow, the part that is most conducive to soft playing, so that they can play soft dynamics. With the new performing standard as proposed in NCMS, future generations of students will be expected not only to perform these skills, but also to understand as well as to address technical challenges verbally. Furthermore, students will be expected to develop a high level of respect for technical skills so that they can demonstrate attention to technical accuracy.

So, how can teachers help their students achieve these learning expectations? This article proposes incorporating some of Bruner’s Cognitive Learning Theory strategies as a means to help new generations of students achieve these outcomes. For instance, music teachers could consider using Bruner’s conceptual learning strategies, and adjust them to teach technical skills. These teaching strategies would involve having students work on technique through modeling and rehearsing psychomotor components, paired with verbal explanations of the conceptual properties that relate to each skill. Using meaningful verbal explanations should enable students to have a cognitive understanding of the skills they are learning. If simultaneously, teachers provide students an opportunity to analyze their own performances, along with their peers’ performances, (critical examination), this could help students learn to address technical challenges more effectively. In addition, this comprehensive approach to teaching technical skills should develop in students a high level of regard for technical precision, helping them demonstrate more attention to technical accuracy.

For example, in addition to modeling how to play *piano* in the upper part of the bow, orchestra teachers could explain how the three elements of tone production (bow speed, contact point of the bow from the bridge, and the weight of the bow and right arm), interact to affect the quality of the *piano* dynamic. Such teaching could provide students with a deeper understanding of the skills they are learning, along with providing students the opportunity to practice critical examination skills that will enable them to address future technical challenges. Finally, this comprehensive approach to teaching dynamics may develop students’ appreciation for details, making them more likely to attend to technical accuracy in the future.

<sup>2</sup>To view PDF of Core Music Standards Ensemble Strand visit:  
<http://musiced.nafme.org/files/2014/06/Core-Music-Standards-Ensemble-Strand1.pdf>

Why would music teachers consider such teaching? This article proposes that in addition to promoting NCMS, music teachers should keep in mind that research-based findings inform us that most middle and high school students (as well as college students and adults), do not always operate at Piaget's formal operational stage of cognitive development. Music teachers should also keep in mind research suggesting the need for incorporating instructional strategies that focus on developing of higher levels of thinking, such as conceptual teaching, as a way of helping students to progress into Piaget's fourth level of cognitive development.

Music educators recognized the need for using teaching strategies that help promote cognitive development many decades ago. An important book, *The Study of Music Education in the Elementary School-A Conceptual Approach*, edited by Gary, discussed the importance of experiencing and learning musical concepts such as rhythm, melody, harmony, form, and expressive elements, as the vehicle for a student to "discover for himself what is in the music" (as cited in Mark, 1996, p. 69).

The Manhattanville Music Curriculum Project (MMCP, Manhattanville College, 1966–1970), adopted one of Bruner's major ideas in their advocacy for a "spiral curriculum," the idea that any fundamental concept, regardless of its complexity, should be taught to students from the earliest stages of instruction using developmentally appropriate cycles. The project also proposed the use of critical evaluation, described as oral discussion in which students evaluate themselves after the performance takes place (Walker, 1984).

While Bennett Reimer's landmark book, *A Philosophy of Music Education* (1970), is best known for establishing the idea of aesthetic education, the book also advocated that music should be taught to students in a comprehensive manner. Reimer's aesthetic view on music education has continued to develop through approaches such as *Comprehensive Musicianship* (CM). In this approach, students have an opportunity to experience and learn music in three ways: (a) performance, (b) perceptive listening, analysis, and evaluation, and (c) compositional and improvisational processes and techniques (Choksy, Abramson, Gillespie, Woods, & York, 2001).

While comprehensive musicianship may appear to be the most complete and satisfying of a student's cognitive needs, this approach may be of limited use to music teachers hoping to instill in students a deeper understanding of technical skills. The purpose of this article was not to advocate for any particular approach, but to make music teachers aware of the content of the NCMS, as well as to offer teachers some ideas on how to interpret, embrace, and teach some of the objectives in the new core standards.

"Music for every child. Every child for music"(McConathy, 1919, as cited in Mark, 2008, p. 93) is a quote that has kept inspiring American music teachers for many decades. The comprehensive nature of the new core standards should compel music educators to re-examine their interests in a student-centered and well-balanced music education approach that will enable students to think about themselves and the world in creative and responsive ways.

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- Dijana Ihas is an Assistant Professor of Music Education at Pacific University in Forest Grove, OR, where she teaches undergraduate and graduate courses in music education, serves as an applied viola instructor, and supervises student teachers. She is a Founding Director and Master Teacher of the String Project, the first program of its kind in the state of Oregon.*
- Prior to her position at Pacific University, Dr. Ihas taught general music and elementary choir in addition to elementary and middle school string classes. During her tenure at Sprague High School, its advanced string orchestra won the Oregon State Championship for the Orchestra Division for three consecutive years, as well as winning the selective national competition known as the Mark of Excellence. In her final year of teaching in the public schools, Sprague's full symphony orchestra, co-directed by Dr. Ihas, won the state championship also.*
- Her research interests revolve around instructional strategies, learning and development, and music teacher education. Just recently, she was accepted as a 3-year participant in Elon University's Center for Engaged Learning Research Seminar/Research project on Excellence in Mentoring Undergraduate Research.*
- While in Bosnia, Dr. Ihas was mainly a performer and was for eleven years employed as a viola player in Sarajevo's four professional orchestras. She was also the viola player of the Sarajevo String Quartet - a professional group who, for its unprecedented efforts in preserving human dignity during the Bosnian War, captured international attention and received the most prestigious honors awarded by the Bosnian government.*
- Dr. Ihas' educational background includes a Ph.D. in Music Education from the University of Oregon, a Masters Degree in Music Education from the University of Arizona, a Masters of Fine Arts in Viola Performance from the University of California in Irvine, and a Bachelors Degree in Viola Performance from the University of Sarajevo, Bosnia and Herzegovina.*