



The National Core Music Standards and Conceptual Understanding of Playing Skills

by Dijana Ihas

The overall purpose of this article is to acquaint readers with the content of the new National Core Music Standards (NCMS). Its more specific aim is to provide bowed string instrument teachers with a theoretical framework for the interpretation of the standard labeled Performing, as the new standards seem to be proposing a distinct, conceptual view on what music students need to know when it comes to performing a piece of music. Several sound string pedagogy approaches, namely those of Ivan Galamian, Carl Flesch, Simon Fisher, Paul Rolland, Shinichi Suzuki, Kato Havas, and George Bornoff, have served as resources for the development of a comprehensive summary of the main ideas and core processes that are central to string-playing skills. This broad synthesis is intended to serve as a starting point for string teachers in deciding what their students need to learn in order to “understand their own technical skills” and to “perform expressively, with appropriate interpretation and technical accuracy” as the NCMS propose. As a result of such learning, students will develop enduring understanding,

National Music Standards (NCMS)

Written by a team of music educators and ratified through a two-year inclusive public review process, the new standards were released on June 4, 2014 by the National Association for Music Education (NAfME) with National Coalition for Arts Standards. Unlike the previous National Standards for Music Education (NSME) that were published in 1994 by MENC with Consortium for Arts Education and which emphasized factual knowledge and basic understandings and skills, the new core standards place an emphasis on musical literacy and conceptual understanding. The main intention of NCMS is to foster in students the artistic processes that dedicated musicians have cultivated in themselves and their societies for generations. Three artistic processes proposed in NCMS are: Creating, Performing, and Responding, and they are in close relationship with a fourth artistic process labeled Connecting. For more complete information on new NCMS, read and watch:

* <http://www.nafme.org/my-classroom/standards/core-music-standards/>

* <https://www.youtube.com/watch?v=RISF56tkueA>

This article provides string teachers with a point of reference for interpreting the meaning of two propositions within NCMS, the “conceptual understanding” and “understanding of technical skills.” A review of Jerome Bruner’s Cognitive Learning Theory will serve as a theoretical framework to interpret what “conceptual understanding” could mean when it comes to teaching music performance. Likewise, a comprehensive summary of conceptual units of playing skills, based on a synthesis of major string pedagogy approaches, will serve as a theoretical groundwork for interpreting “understanding of technical skills.”

Jerome Bruner’s Cognitive Perspective on Learning

Bruner’s studies of how children learn led him to understand that learning is an active process in which learners build new knowledge on what they already know through the pedagogical process of a Spiral Curriculum. This process is predicated on the belief that children can understand even the most complex concepts in any academic subject if concepts are presented in a properly structured way. Bruner introduced educators to the idea of inductive reasoning; that is, the

formulation of general principles based on knowledge and understanding of details and examples into small organizational units known as concepts.

A concept may be defined as “a general category of ideas, objects, people or experiences whose members share certain properties” (Woolfolk 286). Grouping similar ideas, knowledge, experiences, or skills into concepts generates in learners conceptual understanding, often referred to as an enduring understanding, which includes higher levels of thinking and is an essential cognitive process for productive use of knowledge and skills in new situations and across a lifetime. In their seminal work *Understanding by Design*, Wiggins and McTighe (1998) state, “Enduring refers to the big ideas, the important understandings, that we want students to ‘get inside of’ and retain after they’ve forgotten many of the details... Enduring understandings go beyond discrete facts and or skills to focus on larger concepts, principles, or processes” (10).

Second Artistic Process: Performing

Among the three artistic processes upon which the NCMS are contextualized, the one that addresses the importance of students’ “understanding of their own technical skills,” is the second artistic process labeled as Performing. Because this article is particularly interested in providing string teachers with an understanding of what “understanding of technical skills” could mean from a conceptual point of view, this artistic process will be illustrated in more detail.

The Performing artistic process is conveyed to music teachers through five Anchor Standards or steps they need to teach to their students: (a) Select, (b) Analyze, (c) Interpret, (d) Rehearse, Evaluate and Refine, and (e) Present.

“Understanding of Technical Skills”

An enduring understanding statement for the anchor standard Select suggests “performers’ interest in and knowledge of musical works, understanding of their own technical skill, and the context for a performance influence the selection of repertoire.” Further down, a conceptual objective for the Anchor Standard Present suggests that the goal for students’ performance is to “perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.”

The main purpose of this article is to provide readers with a comprehensive summary of the main ideas and core processes that are central to “technical skills” that will, for the sake of commonly used terminology among string players, be labeled as “playing skills” in the remaining portion of this article. The heart of this article presents string teachers with a starting point for connecting their students with the second standard labeled as Performing in a more complete and enduring manner.

Playing Skills Explained: A Conceptual Approach

Below is the summary of conceptual units of common playing skills that string players engage in while performing a piece of music. Each unit is explained using the points of view of several sound string pedagogy approaches, with the hope that such an eclectic explanation may provide string teachers with a more complete understanding of what epitomizes playing skills and may enable teachers to teach for conceptual understanding.

The Left-Hand Playing Skills

In order to understand the essence of left-hand playing skills, string students need to know and experience the four components of this broad concept: (a) placement and shape of the left hand, (b) shifting, (c) vibrato, and (d) intonation.

Placement and Shape of the Left Hand

There are several considerations when it comes to placement and shape of the left hand on a bowed string instrument. Students need to be aware of placement of the thumb and the base of the index finger (violin and viola), position of other fingers in relation to the thumb, the shape of the left-hand wrist, and elbow movements.

When it comes to the placement of the left-hand thumb in relationship to the other fingers, most pedagogical approaches suggest that on violin, the thumb should be right across from the index finger; on viola, between the index and middle finger; and on cello and double bass, right across from the middle finger. The general rule is, if the length of the student’s pinky is on the shorter side, the thumb should move closer to the upper fingers.

Additionally, bowed string instrument students need to be taught that in lower positions the left wrist needs to be straight

PERFORMING	
Select	
<i>Select varied musical works to present based on interest, knowledge, technical skill, and context.</i>	
Enduring Understanding: Performers’ interest in and knowledge of musical works, understanding of their own technical skill, and the context for a performance influence the selection of repertoire.	Essential Question: How do performers select repertoire?
Analyze	
<i>Analyze the structure and context of varied musical works and their implications for performance.</i>	
Enduring Understanding: Analyzing creators’ context and how they manipulate elements of music provides insight into their intent and informs performance.	Essential Question: How does understanding the structure and context of musical works inform performance?
Interpret	
<i>Develop personal interpretations that consider creators’ intent.</i>	
Enduring Understanding: Performers make interpretive decisions based on their understanding of context and expressive intent.	Essential Question: How do performers interpret musical works?
Rehearse, Evaluate and Refine	
<i>Evaluate and refine personal and ensemble performances, individually or in collaboration with others.</i>	
Enduring Understanding: To express their musical ideas, musicians analyze, evaluate, and refine their performance over time through openness to new ideas, persistence, and the application of appropriate criteria.	Essential Question: How do musicians improve the quality of their performance?
Present	
<i>Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.</i>	
Enduring Understanding: Musicians judge performance based on criteria that vary across time, place, and cultures. The context and how a work is presented influence the audience response.	Essential Question: When is a performance judged ready to present? How do context and the manner in which musical work is presented influence audience response?

with the forearm. When it comes to the position of the left elbow, pedagogical views differ slightly. Suzuki, Rolland, and Bornoff all agree that the elbow needs to be under the violin, while Havas proposed the left elbow swinging away from violin. For cello and double bass players, the left elbow needs to be well out from the body. All pedagogues, however, agree that the left elbow should change positions as the player crosses strings or moves from one position to another, and students need to develop awareness of this important principle of left-hand playing skills.

Shifting

Many string pedagogues consider shifting to be the most challenging of left-hand techniques, possibly because there are multiple variables that influence the accuracy of moving from one position to another. When it comes to understanding the mechanics of shifting movements, students need to experience and become aware of three important points: (a) measuring the distance between two positions involved in the shift, (b) deciding which intermediate finger will guide the transfer from one position to another, and (c) knowing the fingering pattern (tonal pattern on cellos and basses) in the new position before arriving to it.

According to Galamian, there are four possible intermediate or leading fingers when changing positions: (a) same finger shift, (b) old finger shift, (c) new finger shift (when shifting occurs across the strings it will still be one of these three shifts), and (d) “retarded shift” (when one finger goes before the rest of the fingers). Another very important consideration that students should be aware of is lightening up the weight of the finger that leads the shift before shifting starts and preparing the level of the left elbow for the next position.

Vibrato

According to Flesch, vibrato is considered to be the most “personal” playing technique because its character, liveliness, and duration have the propensity to vividly depict a player’s personality. A completely satisfying vibrato involves combining the motions of finger, hand, and forearm, and students need to know and experience three types of vibrato and their combination: finger, hand, and forearm vibrato.

It is important to teach students to avoid two faulty vibrato habits that even many advanced string players need to remedy: (a) “delayed vibrato,” that is, starting the vibrato after the note has sounded, and (b) “non-continuous vibrato,” stopping the vibrato before the end of the note.

Intonation

Careful listening for the “ringing sound” between finger and adjacent open string (octaves and fourths) will cultivate students’ ability to make instantaneous adjustments in pitch, which might be the most important concept when it comes to teaching intonation. Additionally, according to Galamian, there are two important “physical” contributors for development of good intonation on upper string instruments: left-hand frame and double contact.

The Right-Hand Playing Skills

In order to understand the essence of right-hand playing skills, students need to know and experience the three components of that broad concept: (a) bow strokes (bow styles), (b) bowing patterns, and (c) three principles of tone production.

Bow Strokes (Bow Styles)

Bow stroke is the term that refers to the character of the movement of the bow-hair on the string. Learning to produce quality bow strokes is a life-long process for string players and is related to development of a mechanical skill that Galamian calls the System of Springs, which refers to flexibility and the connectedness of all joints in the arm, hand, and fingers.

String pedagogy literature offers several classifications of bow strokes and this article takes the liberty to organize bow strokes into the following subcategories: (a) biting bow strokes, (b) connected bow strokes, (c) disconnected bow strokes, and (d) coloring bow strokes. In order to understand the character of bow strokes, students will need to know the English translation of the stroke name as well as be able to correctly interpret symbolic representation of bow strokes and articulations.

Biting bow strokes: There are three bow strokes that involve the action of “biting” the string by: (a) press-release action such as in *martelé* (French for “hammer”), (b) “pinching” the string with a very fast extension-contraction movement of right-hand fingers such as in *pique* (French for “spurred”), and (c) *collé* (French for “glued” or “sticky”). These three bow strokes are notated in music by using a dot, or with a dot and accent marking.

Connected bow strokes: The bow strokes that belong to this subcategory are considered to be the “bread and butter” of string playing, *détaché* bowing. Whether the music prompts a player to use *détaché* (French for “separate”) in its singing or German *détaché* form (usually no markings), or more articulated form such as in *détaché porte* or articulated *détaché* (with tenuto markings), students will need to be instructed to use the weight of the entire arm and movements of the forearm and wrist, with some action from the fingers in order to produce this deeply “in string,” yet smooth bow style that often requires concealed bow changes.

Disconnected bow strokes: After students learn the movements of “biting bow strokes” and they experience the deep, “in string” bow *détaché* sensation, the disconnected bow strokes, namely *staccato* (Italian for “discontinued” or “separate”) and *loure* or *portato* (Italian for “to carry”), shall be introduced. There are two types of *staccato* bow style: (a) connected *staccato*, which is a succession of several short and clearly separated bow movements performed using one bow direction, and (b) simple *staccato*, in which each movement requires a different bow direction. The symbolic representation of this bow stroke consists of a dot above or below the note head. Students should understand that, unlike the *martelé* stroke where weight (pressure) of the arm and bow stick is applied and released at the beginning of each bow movement, in simple *staccato* the weight is evenly applied onto the string throughout the bow movement.

Loure or *portato* is a series of slurred, slightly separated *détaché porte* bow movements in which bow never fully stops. Students will need to understand that, while connected *staccato* is usually used in fast and virtuosic passages, *portato* finds its place in pieces with a cantabile character.

Off-string bow strokes: There are three kinds of “off-string” bow styles that string students need to conceptually understand in order to maximize benefits that each bow stroke provides for musical expression. Those are: *spiccato*, *sautillé*, and *ricochet*. *Spiccato* bowing (Italian for “with a sense of humor”) is a bow stroke used in more advanced etudes and literature. Nevertheless, it should be taught from the early stages of instruction because of its pedagogical importance in developing a good bow hold and the System of Springs. This is a short, off-the-string bowing executed at the balance point of the bow stick with individual

drops and lifts. Spiccato bow style may have markings, dots above or below the note heads. The tempo and character of the music will determine whether dots imply spiccato or staccato.

Sautillé bowing (French for “little bounce”) may be described as “uncontrolled” or “natural spiccato.” Its rapid speed eliminates the individual drops and lifts that are characteristic of spiccato. This bowing usually does not have a marking, but the tempo and style will determine whether a passage should be played with spiccato or sautillé.

Ricochet bowing (French for “rebound”) consists of a series of two or more fast bouncing notes caused by only one down-bow impulse. It is executed in the upper two-thirds of the bow with the stick directly above the non-tilted bow hair. This bow stroke is usually symbolically represented with the slur and dots above or under note heads or just with word *ricochet*.

Coloring bow strokes: To expand students’ expressive palate of right-hand techniques, they need to be instructed in coloring bow strokes such as *sul tasto*, *sul ponticello*, *tremolo*, *con legno* and *Bartok pizzicato*. *Sul tasto* bowing (Italian for “fingerboard”) requires the bow to be over the end of fingerboard, producing a soft and gentle sound. *Sul ponticello* bowing (Italian for “bridge”), on the other hand, requires the bow to be very close to the bridge, producing a characteristic glassy sound. *Tremolo* bowing (Italian for “to shake”) consists of rapid repetitions of a pitch and is executed by quickly waving the wrist while the bow is positioned in the upper middle or tip area of the bow stick. *Col legno* bowing (Italian for “the wood”) is a bow stroke that produces a characteristic percussive sound. It is executed by striking the string with the wood part of the bow. *Bartok pizzicato* also produces a percussive sound and it is executed by the right-hand finger pulling the string up high so that when the string is released it hits the fingerboard with a loud, percussive sound.

Bowing Patterns

Bowing patterns might be defined as the meaningful organization of bow space in accordance with rhythmic patterns and slur markings. For students to gain conceptual understanding of bowing patterns they will need to become familiar with what Fisher calls “four important places on the bow” (119): (a) the heel (or frog), (b) balance point, (c) square, and (d) point (or tip) of the bow. In order to connect these “four important points,” students need to be instructed in “drawing the straight bow,” which according to Galamian is the “foundation of all bow techniques” (51).

The guiding principle with drawing the straight bow is to learn to transform circular motions into straight-line motions through combination of vertical and horizontal motions of wrist and upper arm in addition to the open-close and rotating motions in the forearm (pronation and supination). Finally, students need to become aware that the beginning and ending of each note and phrase, if they are to have musical meaning, will need to be considered, planned, and practiced in regard to bow placement, bow speed, and bow distribution, a process labeled by Fisher as choreography of the bow.

Tone Production

When it comes to producing sound on bowed string instruments, there are three interdependent elements that need to be taken into consideration: (a) bow speed, (b) bow/arm weight, and (c) sounding point. Students need to be instructed in the intricacies of each of these three elements of tone production independently

through exercises that focus on each element, but also they need to understand the interplay among the three. For instance, bow speed affects the weight and sounding point, while the sounding point affects the volume of the sound. A link to an excellent assessment tool for interplay of tone production elements is supplied on Fisher’s webpage: <http://www.simonfischeruk.com/tone%20quiz.pdf>.

Conclusion

The purpose of this article was to acquaint teachers of bowed string instruments with the content of the NCMS as well as to offer a theoretical framework for interpretation of two distinct propositions within new core standards: “conceptual understanding” and “understanding of technical skills.” No particular string pedagogy approach was emphasized, as this author’s intent was to synthesize multiple pedagogical views, allowing teachers to find their own ways to connect students with the Performing artistic process.

“Music for every child. Every child for music.” (Gehrken, 1922, as cited in Mark, 2008, p. 93) is the motto that has kept inspiring American music teachers for decades. The conceptual nature of the NCMS suggests that music students should gain “understanding of their technical skills,” which, in turn, may help them to “perform expressively, with appropriate interpretation and technical accuracy.” Because conceptual thinking has generalizable quality, a conceptual approach to playing skills may enable more string instrument students to reach their full potential not only in the realm of performing music, but also in the domain of higher levels of thinking and productive use of knowledge and skills across a lifetime.

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