

Technology is Essential To Accomplish Core Music Standards

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The newly revised national music standards are now an integral part of the music education profession. They are now better aligned with today's newer technology capabilities and learning strategies mainstreamed in contemporary education. National music standards have matured since their origination in 1994. They've become more useful, flexible, and comprehensive; no longer imposing specific skills and knowledge. Rather, they encourage the artistic processes, placing emphasis on students and their measurable growth as musicians. These instructional attributes will help foster an enriched learning environment that develops the whole musician. Technology is now recognized as an integral part of the standards process with its enhanced assessment capabilities. Today's advanced music technologies have opened up unlimited potential for the future of music education both in-and-out of the classroom with time-savings and long-term results. And meeting standards in exciting new ways can motivate and enable all students to achieve a happier, more fulfilling music experience. Creation rather than just recreating music is the goal.

As music educators, we recognize that teaching large groups of students and being expected to provide individualized instruction is a set-up for failure on many levels. How can you possibly explain the strengths, weaknesses, and progress of 60 students in a class when you don't see them individually? Many teachers feel that they barely have time to prepare their students for concerts and contests, and this is before unplanned changes in scheduling, standardized testing and a host of other interruptions conspire to make these tasks even more difficult.

To add to the challenge, revised National Core Music Standards were released on June 4, 2014. The standards include four artistic processes: creating, performing, responding, and connecting. As teachers are simultaneously asked to reinvent their curriculum to include core standards, the demands made upon them may seem overwhelming. How can anyone help their students become independent learners, play great concerts, and address core standards when there is barely time to rehearse?

With technology and a deliberate plan that you can manage effectively, it is possible to engage students in music making and accomplish your music education goals. There are many music technology tools available that can help. In this article I've shared a lesson plan to demonstrate how digital tools can be used to manage assignments, give personalized feedback and share and document student progress in ways that are not possible with pencil, paper and good intentions.

The first step is to create a deliberate plan. Yours should include:

1. Specific, achievable goals.

2. Expert instruction.
3. Tools that focus student practice.
4. A method to provide immediate, specific, and personal feedback.

The following sample lesson plan utilizes technology for the entire assignment process: teaching, scheduling, practicing, submitting, grading and posting.

Sample Lesson Plan Using Technology (see diagram below)

Core Standards: Ensemble Intermediate ☒ Performing Standard: MU:Pr4.1.E.8a

Teacher will:

1. Schedule lesson plan assignments digitally.
2. Use rubric for grading.
3. Post and share grading and comments with students.

Students will:

1. Complete each of the five assignment areas: select; analyze; interpret; rehearse, evaluate and refine; and present.
2. Self-assess using an assignment grading rubric.
3. Submit all assignments with supporting materials digitally, to online Gradebook, Google Docs, Dropbox or a Learning Management System (LMS).

Using technology to schedule assignments and grade students There are several online class management systems, including Google Classroom, Schoology, Canvas, Blackboard, Digital Chalk and others, that allow teachers to post and receive student assignments. In addition, Google Docs and school online gradebooks can both provide some elements for your solution. SmartMusic, however, offers a comprehensive music practice, assessment, and documentation solution, all within a single tool. SmartMusic digitally records student performances, provides performance assessment, and includes the world's largest digital sheet music library with accompaniment. Teachers can create rubrics, link standards, and send assignments to an entire class very quickly. Student recordings, scores, written assignments, and teacher comments are all automatically documented in the SmartMusic Gradebook. In addition, all data and comments can be exported from Gradebook as CSV files.

While every aspect of the assignments I've included can be done in SmartMusic, these assignments can also be completed using a variety of other digital tools. Some of these technology options are listed in the Other Tools column in the lesson plan.

Lesson Plan: Review the information listed for the Core Standard listed below. Use the resources listed in this lesson plan to complete assignments 1-5.

Core Standards: Ensemble Strand Performing (Proficient)

Select varied musical works to present based on interest, knowledge, technical skill, and context.

Resources: (listening & performing): SmartMusic, Band-in-a-Box, Web Search Engines (Google), Spotify, iTunes, CDs and other technology as appropriate.

Resources: (notation & text documents): Finale NotePad, MuseScore, Noteflight, Sibelius, ScoreCloud or other notation products. Word, Google Docs, etc.

Standard		Assignment	SmartMusic	Other Tools
<p>Select Select varied musical works to present based on interest, knowledge, technical skill, and context.</p>	<p>MU:Pr4.1.E.1a Explain the criteria used to select a varied repertoire to study based on an understanding of theoretical and structural characteristics of the music, the technical skill of the individual or ensemble, and the purpose or context of the performance.</p>	<p>Assignment 1: Select three pieces of music (solo, small ensemble or large group composition) and write a paragraph that outlines the structure, technical skills and purpose of this composition.</p>	<p>Student selects solos and/or large group files from SmartMusic library. All instrument parts and performance MP3s included. Submits written work to teacher.</p>	<p>Student finds appropriate solo/and ensemble music and recordings. Use CDs, MP3s, iTunes, Spotify, etc. Share written work with teacher using, Google Docs, Dropbox or LMS.</p>
<p>Analyze Analyze the structure and context of varied musical works and their implications for performance.</p>	<p>MU:Pr4.2.E.1a Demonstrate, using music reading skills where appropriate, how compositional devices employed and theoretical and structural aspects of musical works impact and inform prepared or improvised performances.</p>	<p>Assignment 2: Identify a specific musical effect created by the composer. Explain how this effect shaped your understanding and performance of this piece.</p>	<p>Student identifies the piece of music that they will be performing. The teacher schedules a Response assignment and includes MP3 of this piece. Student submits written comments.</p>	<p>Student writes paragraph identifying a musical effect created by the composer. Student shares written assignment and MP3 using Dropbox or LMS.</p>
<p>Interpret Develop personal interpretations that consider creators' intent.</p>	<p>MU:Pr4.3.E.1a Demonstrate an understanding of context in a varied repertoire of music through prepared and improvised performances.</p>	<p>Assignment 3: Submit a recording of your performance of this composition that demonstrates the interpretation and style indicated by the composer.</p>	<p>Student submits Response assignment with their SmartMusic performance of the piece of music.</p>	<p>Student uses recording software such as Audacity, Wavosaur, Kristal, etc. to record their performance. Student shares recording with teacher with Dropbox or LMS.</p>
<p>Rehearse, Evaluate and Refine Evaluate and refine personal and ensemble performances, individually or in collaboration with others.</p>	<p>MU:Pr5.3.E.1a Develop strategies to address expressive challenges in a varied repertoire of music, and evaluate their success using feedback from ensemble peers and other sources to refine performances.</p>	<p>Assignment 4: Share your recording of your performance with your peers. Ask your peers to share their comments with you.</p>	<p>Student performs their selected music with a group of their peers. Student has their peers use a Music Performance Rubric* selected by their music teacher.</p>	<p>Student performs their selected music with a group of their peers. Student has their peers use a Music Performance Rubric selected by their music teacher.</p>
<p>Present Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.</p>	<p>MU:Pr6.1.E.1a Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures, styles, and genres.</p>	<p>Assignment 5: Schedule a live performance of your music with your teacher.</p>	<p>Student performs for their music teacher. Music teacher evaluates and discusses their performance using your teacher selected Music Performance Rubric.</p>	<p>Student performs for their music teacher. Music teacher evaluates and discusses their performance using your teacher selected Music Performance Rubric.</p>

Creating a Lesson Plan Using Technology to Implement a Core Standard

1. Set a very specific achievable goal

For this assignment, the goal is to give every student in the Band, Orchestra, and Jazz Ensemble a blues and big band experience as spelled out in a Core Standard.

2. Provide expert instruction for your students

Develop a thorough lesson plan for this Core Standard. Review each category of the standard and the resources needed to complete each task. Assign to students with timelines for completion.

3. Focused practice - Student will need to:

- ☒ Access MP3s of musical works.
- ☒ Submit written work and MP3 recordings digitally.
- ☒ Record and share their performance of a musical work.
- ☒ Self-assess their performance.

4. Immediate Feedback: Core Standard ☒ (sample rubric below).

Teacher will share and review rubric with students and use rubric for grading this assignment. Rubric can be graded in a web-based gradebook.

Core Standards Grading Rubric				
	4 - Superior	3 - Excellent	2 - Good	1 - Unsatisfactory
Select Select three varied musical works to present based on interest, knowledge, technical skill, and context.	Selected 3 varied musical works to present based on interest, knowledge, technical skill, and context.	Selected 2 varied musical works to present based on interest, knowledge, technical skill, and context.	Selected one musical work to present based on interest, knowledge, technical skill, and context.	Did not select a musical work to present based on interest, knowledge, technical skill, and context.
Analyze Analyze the structure and context of varied musical works and their implications for performance.	Student provides a clear and well-structured presentation of the form, chord progression, themes, diatonic or chromatic analysis of a piece of music.	Student provides a good understanding of the form and style of the piece of music.	Student provides a basic understanding of the form and style of the piece of music.	Student does not provide a clear understanding of the elements or structure of the piece of music.
Interpret Develop personal interpretations that consider creators' intent.	Student provides an excellent account of the theory and structural elements that the composer used to create musical imagery and effects in this piece of music.	Student shows a good understanding of the composer's process of creating musical effects in this piece of music.	Student shows a fair understanding of music theory and effects used in this piece of music.	Student does not demonstrate an understanding of the musical elements of this piece of music.
Rehearse, Evaluate and Refine Evaluate and refine personal and ensemble performances, individually or in collaboration with others.	Student performs for peers and receives <i>Superior</i> ratings and comments using a Music Performance Rubric.	Student performs for peers and receives <i>Excellent</i> ratings and comments using a Music Performance Rubric.	Student performs for peers and receives <i>Fair</i> ratings and comments using a Music Performance Rubric.	Student performs for peers and receives <i>Poor</i> ratings and comments using a Music Performance Rubric.
Present Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.	Student performs for music teacher and receives <i>Superior</i> ratings and comments using a Music Performance Rubric.	Student performs for music teacher and receives <i>Excellent</i> ratings and comments using a Music Performance Rubric.	Student performs for music teacher and receives <i>Fair</i> ratings and comments using a Music Performance Rubric.	Student performs for music teacher and receives <i>Poor</i> ratings and comments using a Music Performance Rubric.

* Sample music performance rubrics can be found on-line, including at www.rcampus.com. Specific music rubrics can be seen on this short link to that site: tinyurl.com/ooquth8.

In conclusion

The right digital tools can help set specific and achievable goals, provide expert instruction, focus student's practice experience, and provide immediate personalized feedback. While solutions vary in the amount of automation they offer, the benefits are clear.

The ability to assess students' understanding, and critique their performance is an important, refining aspect of the new standards. Digital audio and video recording capability is built into almost ev-

ery phone, tablet, and computer folks carry around today, so, it's natural to use them to record rehearsals, performances, and solo practice sessions. Let's be open to these important innovations, and with better standards, incorporate creating, performing and responding to music with exciting music technology.

Most importantly, technology gives your students new opportunities to become independent learners and to develop their musical literacy.