



LEARNING INNOVATION LAB PROJECT

*Initial Analysis of
Challenges and Opportunities*

Pedagogy of
Engagement and
Retention in Beginning
Music for the 21st
Century Learner

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Initial Analysis

Pedagogy of Engagement and Retention in Beginning Music for the 21st Century Learner

Introduction

Mare Island Technology Academy is a technology based school. The school opened for business in 1999 and did not offer its first music course until the spring semester of 2010. At the beginning of the fall semester of 2011, this was the only music course available at the middle school level. As school years passed, many students began to be re-enrolled into the course. Not only were students repeating the course, several new students who were enrolling in the course had previous music experience mixed in with beginning music students. There were no varying levels of music courses offered which led to lessons being differentiated to meet the needs of all learners but some students struggled more than others, engagement levels faltered, and students with different interests than in previous semesters needed to be catered to as well. Using best practices for the 21st century learner, how can we engage an audience of students with diverse learning needs within the music classroom?

To address the needs of all learners, students will produce and create instructional modules to assist other students within the same classroom and abroad, and create websites featuring genres and artists of their choice while sharing their knowledge and creative ideas for retaining music theory concepts such as music notation while increasing their retention as well. Students' modules will include reflections and "take away" tools and tips on how they retain the information in addition to accessible Internet and downloadable resources.

Analysis of Problems and Opportunities

Description of the Educational Context

As one of the four electives courses offered and only being a semester long course at a technology based charter school, there have been high volumes of repeating enrollment of students within the same school year or the year after combined with new students enrolled in the same class period. It is also apparent that many students are simply placed into these electives courses because of scheduling conflicts and the lack of a variety of elective course offerings and also the fact that electives classes are not scaffold and are all beginning courses, several class periods become filled with students at varying levels of performance skills, engagement and interest levels, and diverse learning styles and needs to be addressed. The need to increase student engagement and retention of music theory concepts is evident. Engagement in a music class is crucial because learning music will benefit students by developing their 21st century skills; collaboration, communication, critical thinking, creativity, and technology use in the music field. These skills are relevant to have as they will increase students' skills that are needed in the 21st century workforce. Teaching music theory concepts with the infusion of specific

technology will help with engagement. A way to do this would be to develop a project which students create instructional modules for helping other struggling students or any other beginning musician to retain music theory concepts; specifically reading music notation. This in turn will hopefully help with student engagement in the music elective class, while at the same time help with student retention of music theory.

MIT is fortunate to have a 1:1 student to computer ratio in every classroom, but some of the challenges my students may face in regards to technologies are equitable access to personal devices if they do not own them, access to sites such as YouTube which in the past has been blocked at school for students, which brings us to the issue of equitable access to the Internet and tech devices outside of school and the lack thereof, and lastly, if the IT department will be able to unblock the Web 2.0 sites such as Jing and Screencast if they are blocked by our firewall. Jing also will require the use of a microphone which the student computers currently do not have.

Before a project such as the one described above can take place, one must find out how many students have access to a video recording device, how many have Internet access outside of school, will the school allow for uploading videos to sites such as YouTube, is there enough bandwidth on the school's server to allow for an entire class to be on YouTube, is parent permission and consent required for students videotaping and posting to the Internet for a class project, does the school own any video editing software, will students have access to computer microphones either at school or at home, and will my students be able to access and download Jing and Screencast to complete this project.

From previous experience, students are much more engaged, focused, and more inclined to complete a project or even take it seriously if it involves their input, creativity, and usage of technology. Having students create an instructional module for others with certainly help students retain the concepts they will be trying to convey in their videos. Knowing they are helping someone else acquire a new skill or knowledge will leave a lasting impression on them.

Learners

1. **Sociocultural:** The students who will be participating in the creation of the instructional modules are middle school aged children (6th-8th grade) who are enrolled in Beginning Music at MIT. The type of student who falls into the middle school category is around the age of 10-14, they are abreast of the latest technological devices, applications, fashion, and slang. These students are also aware of what is taking place in our society more rapidly with the use of social media and the Internet/Google. Students who are in the know of the ever changing Pop Culture should be taught and instructed on how the music of the Pop genre is made; its origins/roots, the instruments used to make this music, and music elements that are particularly unique to the Pop genre (rhythms, tempos, and dynamics).
2. **Technical:** Students of the second generation of digital natives are quite tech savvy. The technologies that can be leveraged from the type of project mentioned above are student use of video, video editing software (if possible), and students being able to utilize their own personal devices which majority already own for

video recording their student led modules. Students will also be introduced to Jing or Screencast if they would prefer to create modules that incorporate using interactive music websites or if students are inclined to create their own sites dedicated to music theory, and lastly students could post their final products to sites such as YouTube and Edmodo for sharing.

3. Informational: According to Ruth C. Clark, all concepts have critical features or characteristics, and irrelevant features. Clark also states it is helpful when teaching concepts to distinguish between two basic classes of concepts: concrete and abstract. Music for many beginning music students may seem abstract until they see the music theory concepts taught used in context. It is this fact that is the driving force behind this capstone project. This capstone project is meant to be a resource for beginning classroom music teachers, veteran classroom music teachers, and for the music enthusiast who uses the internet for tutorials on learning music theory concepts and techniques. By completing the instructional modules students will develop metacognitive skills about their own learning in the areas of communication, critical thinking, collaboration, and creativity, as well as the music content.

Evidence that Instruction is Appropriate as a Potential Strategy

With today's technological advances and 21st century learners being of the second digital natives' generation, a website with an abundance of resources for teachers is crucial. According to Ruth C. Clark author of *Developing Technical Training, A Structured Approach for Developing Classroom and Computer-based Instructional Materials*, presenting information on a computer is similar to presenting it in training manuals in that the goal is to clearly depict each major stage involved. However, you have some capabilities not available in print media such as animation, sound, and zoom effects. The technical capabilities are what will be engaging for the user; it will draw them in to want to use the website. A website or technology in general is an effective technique especially to present layers of process while still maintaining an overview of the bigger picture.

Justification for Instructional Product Chosen to Meet Learner Need

For many classroom music teachers, resources such as band instruments or music theory software are not available due to expensive costs. This is where the need for an online resource such as a simulation is necessary to have accessible. Clark also states that simulations can be used to illustrate processes. In a simulation the learner interacts with a program that emulates the real process and learns about it in an interactive way. To have a resource such as this website with simulations and instruction that will be stimulating and produced by school age children at your finger tips is ideal. Not only will other classroom music teachers benefit from having resources available to them via Internet but this site will provide relevancy for their students because of the fact that students have created these instructional modules but it will also provide a sense of attainability that music theory can be taught and

mastered by school aged children. Students will see the collaborative efforts, communicative interactions, and creativity of other students and will be inspired to master the content of music theory in order to become better musicians; a skill to have when playing an instrument or listening to music.

Goals

User Goals

Some of the goals for the user who view the instructional modules completed by beginning music students are as follows:

- Resources to use in the classroom music setting.
- Assist with teaching abstract music theory concepts to beginning music students.
- Resources for other beginning music enthusiast.
- Resources for students (study aides).
- Engaging content and lesson ideas for other music educators.
- Become inspired to try out new technological innovations in the classroom with students based on instructional modules presented by beginning music students.
- More classroom music teachers become aware of the importance of the 21st century skills needed in the performing arts in order to prepare their students for the 21st century workforce.
- Teachers using the instructional modules and websites produced by students become members of a professional learning community with other teachers who use online classroom resources via Learnovation Lab website.

Instructional Goals

Some of the goals for the instructional modules completed by students are as follows:

- Development of metacognitive 21st century skills in communication, collaboration, creativity, and critical thinking.
- Students become competent in using video and video editing software.
- Students are at ease and knowledgeable with production of a video and uploading videos to outlets such as YouTube.
- Students learn to research and navigate several music theory websites which are beneficial for retaining the information learned in order to help them teach others.

- Students retain music theory and apply these acquired skills to instrumental performance.
- Students apply music theory skills to enhance their cross curricular projects that incorporate 21st century skills.
- Students will acknowledge and use the following technology standards when creating and posting their instructional modules:
 1. Creativity and Innovation
 2. Communication and Collaboration
 3. Critical Thinking, Problem Solving, and Decision Making
 4. Digital Citizenship; Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
 5. Technology Operations and Concepts; Select and use applications effectively and productively