

Chromebooks for Composition

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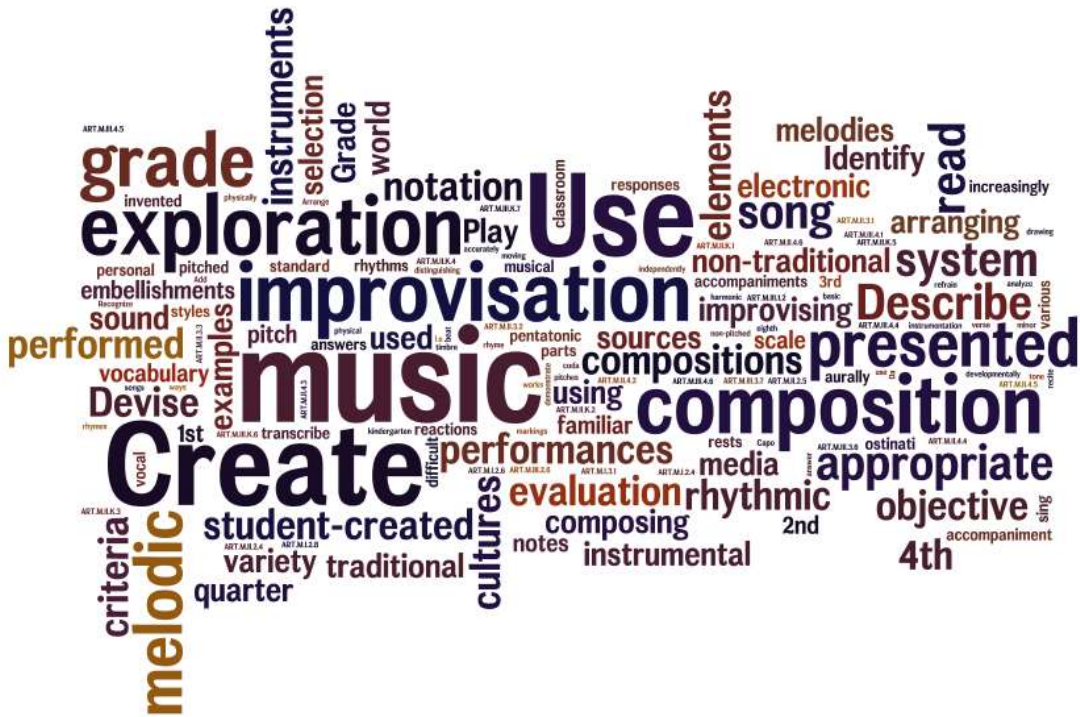
Elementary Music Teacher

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Project Brief

*“The truly **creative** mind in any field is no more than this: A human creature born abnormally, inhumanely sensitive. To them... a touch is a blow, a sound is a noise, a misfortune is a tragedy, a joy is an ecstasy, a friend is a lover, a lover is a god, and failure is death. Add to this cruelly delicate organism the overpowering necessity to **create, create, create** — so that without the **creating of music** or poetry or books or buildings or something of meaning, their very breath is cut off... They must **create**, must pour out **creation**. By some strange, unknown, inward urgency they are not really alive unless they are **creating**.” - Pearl Buck (Iglesias, 2001)*

My students do not do enough creating. They sing, play, dance, and give very insightful answers to questions, but very rarely do they have the chance to organically create something musical of their own. My goal is to foster more creativity in my elementary music students, specifically through a composition unit in third grade. With a set of Chromebooks, a small group of "music mentors," and some extra time with those students and technology, I hope to help students bypass the learning curve of music composition software so they can spend valuable music class time creating original, individual songs. Instead of composing a song together as a class, students could create songs meaningful to themselves. Students would be challenged much more individually, resulting in a deeper understanding of music theory and the creative process. The unit could be culminated with a recording session, giving students the opportunity to record their songs to be included on a class album. I imagine a group of third grade students at the end of the school year who truly understand the concepts of rhythm and melody and have a sense of fulfillment from being able to use the creativity they are, unfortunately, so often asked to suppress in school.



A visual representation of Grade Level Content Expectations that I feel need to be addressed more in my teaching of elementary music.

See the Transformation

I would like my students to move from creating a “class composition” to creating their own individual composition. When we write a song as a class, I try to include all students in decision-making processes, but I know that it is not as meaningful or engaging as if the students were working individually or in a small group.

The 3rd Grade Music Grade Level Content Expectations say that students should “create through exploration, improvisation, and composition rhythmic and melodic ostinato accompaniments, answers that are rhythmic and melodic, melodic embellishments for a familiar song, and an instrumental song with lyrics.” I feel that a project in which students create a complete original song would be going above and beyond these GLCEs. Another GLCE is that students “Use a variety of traditional and non-traditional sound sources and electronic media when composing, arranging, and improvising appropriate to 3rd grade.”

In short, I would like my students to be able to apply basic concepts of rhythm and melody to facilitate a deeper understanding of the creative process of composing, using current music technology.

At the conclusion of the unit, all of my 3rd Grade students should be able to give accurate responses to the following music-related questions:

- What are lyrics?
- What is rhythm and how is it organized?
- What is melody and how is it created?
- What is accompaniment?
- What is style or genre?

and the following technology-related questions:

- What technology did you use to create your own songs?
- How did technology allow you to collaborate with your classmates during the project?
- What kinds of decisions did you have to make while writing your own songs?
- What are some rules to follow when working online?
- What is another website or kind of technology that will be easier to use after doing this project?

The Total PACKage

How can I teach my composition unit differently?

Currently, my 3rd Grade composition unit lasts four weeks, which is only four 50-minute sessions, organized as follows:

Week 1: Explore songs that already exist in a genre chosen by the teacher. Vote on topics for a song to write as a class (within the predetermined genre) and create lyrics collaboratively, but mostly guided by the teacher.

- After Week 1, I break the lyrics up into small sections and determine small groups of students to assign to each section of lyrics. I prepare a sheet for each group with the lyrics split into syllables.

Week 2: Review basic rhythms and introduce time signatures. In small groups, write rhythm symbols above lyrics for a small part of a song.

- After Week 2, I put each group's rhythm and lyrics into a file in my personal Noteflight account.

The screenshot shows the Noteflight website interface. At the top, there is a navigation bar with 'New Score', 'Home', 'Scores', 'Forums', and 'Upgrade' buttons. A sidebar on the left displays user statistics: 'Your Scores: 117', 'Your Public Scores: 0', 'Scores Shared with You: 0', 'Your Favorites: 0', 'Your News: new activity', and 'Your Deleted Scores: 1'. Below the sidebar is a promotional banner for a 'Latin Composition Contest!' featuring an image of maracas. The main content area displays a list of musical scores, with a red box highlighting a portion of the list. The highlighted scores are:

Score Title	Author	Shared	Views	Date
The Silly Zoo	Mr. Scanlon's 3rd Grade Cl...	shared	13	Apr 7, 2014
Down, Down, Little Bird	Mrs. Johnson's 3rd Grade ...	shared	14	Mar 24, 2014
Ben, Zack, Gwyneth, Jocelyn				Mar 14, 2014
Hazen, Evelyn, Sahara				Mar 11, 2014
Copy of Hunter, Matthew, Callie, Charlie				Mar 11, 2014
Nathan, Dana, Jorge				Mar 11, 2014
Hunter, Matthew, Callie, Charlie				Mar 11, 2014
Judge, Jazzy, Ende				Mar 11, 2014
Ethan, Drake, Landon				Mar 11, 2014
Maddie, Alexis, Mason				Mar 11, 2014
Cassidy, Luke, Ryan				Mar 11, 2014
Copy of Victoria, Camden, Jed				Mar 10, 2014

Week 3: Learn about stepwise motion, learn how to move notes on a staff on Noteflight, and spend remaining time moving pre-set notes in Noteflight.

- After Week 3, I copy and paste each group's composition into one file and record myself singing the song into UJam.

Week 4: Learn the entire song. Vote on genres and accompaniments for the song from UJam.

I feel that the amount of effort it takes for me to prepare each of about 30 groups' work each week for four weeks is not analogous to the students' pride in the final product.

My new composition unit would be laid out as follows:

- Beginning of the school year: A small group of “music mentors” is chosen to meet with me once a week, learning the basics of the composition assignment for their own original songs.
- Throughout the fall: Music mentors work at home using Noteflight student accounts and work with their classmates during free time in their classroom.
- Composition Unit Week 1: Students choose a topic meaningful to them, write a poem about that topic, and begin to re-write the lyrics syl-la-ble by syl-la-ble.
- Week 2: Students write rhythm symbols above the syllables in their poem, insert the rhythms into their Noteflight account, and add the lyrics underneath.
- Week 3: Students move the notes in their Noteflight file to create a melody for their song. When finished, they listen to classmates’ melodies and give feedback while the teacher helps students record their songs into UJam.
- Week 4: Continuation of Week 3.

A follow-up to the unit would include a recording session in which interested students could record their songs onto a class album.

What can I use at my school?

- Classroom computer
- Classroom projector
- Computer lab
- School Internet
- My own Noteflight account (paid, unlimited storage)
- My own UJam account (free, limited storage)

What do I need that I don’t already have?

- Chromebooks: A set of ten Chromebooks would allow me to give each of my “music mentors” a laptop to check out so they could get familiar with the concepts I am teaching them from home. These Chromebooks could be assigned to other students who could benefit from them later in the school year.
- Headphones: Ten sets of headphones would ensure that students could focus on their work on their Chromebooks without distractions.
- Noteflight Subscription: A “classroom subscription” would allow 250 students to create their own accounts within a private classroom community.
- Volunteers: During Weeks 3 and 4 of the composition unit, I would need extra supervision so students can be working on their computers and learning and recording their songs simultaneously.

Why Chromebooks?

Troy Hicks, an associate professor of English at Central Michigan University who focuses his work on the teaching of writing, literacy and technology, and teacher education and professional development, recommended Chromebooks as an asset to this project in a conversation we had in June 2014. My

school has an iPad cart, laptop carts, and a desktop lab, but those are all restricted to the school and difficult to get access to as a specials teacher. A classroom set of Chromebooks would allow “music mentors” to work at home and would be less expensive than iPads or full laptops.

Affordances and constraints of Chromebooks in the music classroom are listed in a presentation by Russell (2013). Several affordances are compatibility with Noteflight and UJam, low cost, and administrative rights for the teacher. The constraints do not seem to be relevant to this particular project.

Russell also mentions that in a traditional classroom, Chromebooks generally focus on substitution and augmentation in the SAMR (substitution, augmentation, modification, and redefinition) model and rarely make it to modification and redefinition, which are the higher, more challenging levels. He argues that in a music classroom, though, there are not many ways to substitute or augment content using Chromebooks, so as music teachers using this technology, we are forced into modification and redefinition. Since we are encouraged to strive for modification and redefinition, I see Russell’s argument as a challenge that will make the technology use in my lesson more meaningful.

How does this project help my students?

I have two main goals as an elementary music teacher. One can be summed up in this quote from Shin'ichi Suzuki:

I want to make good citizens, noble human beings. If a child hears fine music from the day of his birth, and learns to play it himself, he develops sensitivity, discipline and endurance. He gets beautiful heart.

My second main goal is to send my students off to middle school with a deep understanding of musical concepts, allowing ideas from those concepts to be transferred to band, orchestra, choir, language arts, and even science, social studies, and mathematics. Willingham (2009) says the following about deep knowledge:

The student [with deep knowledge] understands not just the parts, but also the *whole*. This understanding allows the student to apply the knowledge in many different contexts, to talk about it in different ways, to imagine how the system as a whole would change if one part of it changed, and so forth. (p. 95)

Willingham suggests that assignments must demand deep understanding rather than just surface knowledge (pp. 103-104). A composition assignment in which students create their own song using musical concepts requires deep understanding. For example, if students do not know that a quarter note is one sound that lasts one beat, they will not be able to match rhythms to their lyrics and therefore will not be able to create a melody from the rhythm. Deep understanding is vital in this particular assignment.

When I asked our district's band director what musical concepts students have difficulty with upon entering middle school, he said, "Students have a difficult time understanding how to count in different time signatures varying from 4/4 to 6/8. Students also have difficulty identifying notes on a staff regardless of clef." With a deep understanding of the concepts covered in this composition unit, there are many ways that students could transfer their knowledge across the curriculum. A few examples are:

- Music: Students will understand that those “black dots on the page” tell a singer how long to hold a note and whether to move the pitch up or down.
- Mathematics: Students will understand that there are four quarter notes in a measure, or four quarters in a whole.
- Language Arts: Students will understand that vocal music is poetry.
- Technology: Students will understand that, when used correctly, technology is a tool.

- Music Technology: Students will understand that music can be created with voices and instruments or electronically.

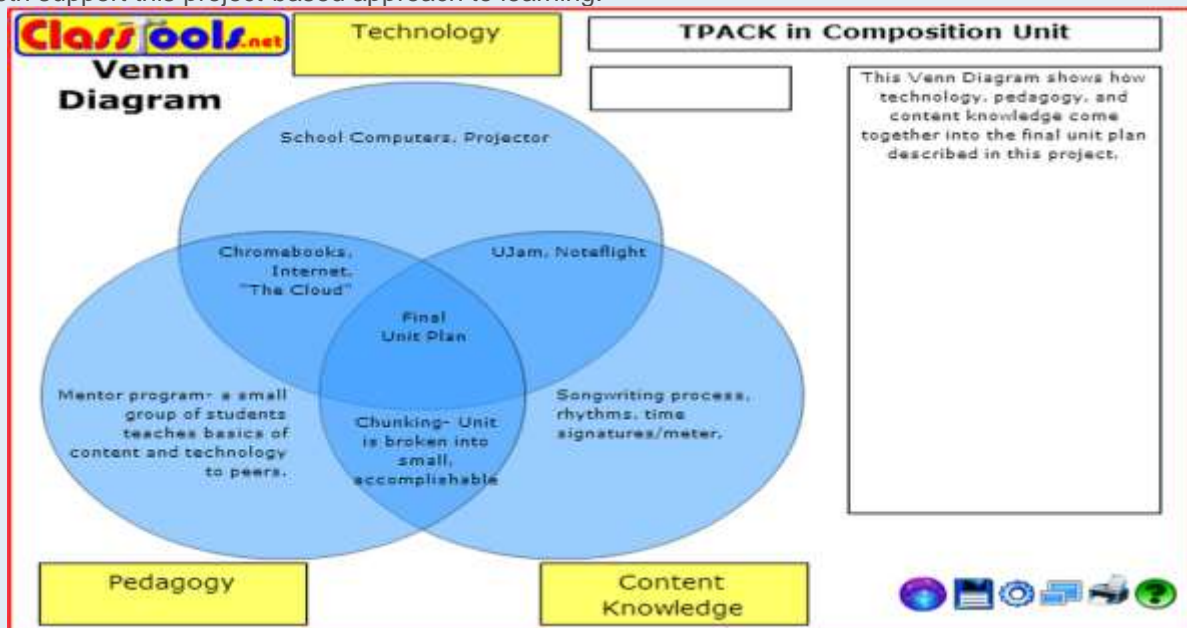
How will the new approach help even more?

Despite my efforts to give each student specific tasks in our group composition project, there have inevitably been students who have “fallen through the cracks.” Not every student needed to understand the concepts of rhythm and melody so long as someone in their group did. By making this an individual project, each student will need to have his/her own understanding of the content.

Some of the biggest challenges in the composition unit have been identifying syllables in the lyrics that receive more emphasis than others (i.e. *Old MacDonald had a farm, E-i-e-i-o*), being sure that the combinations of rhythm symbols in each measure match the meter, and keeping the melodies singable. Hopefully, by introducing the technology to students ahead of time via my “music mentors,” we will have more time to focus on those conceptual challenges. I also hope that by students choosing their own topics for their songs, the project will be more meaningful to them, thereby increasing motivation to create with quality.

What theories and models support this approach?

TPACK, the marriage of technology, pedagogy, and content knowledge, and SAMR, mentioned above, both support this project-based approach to learning.



The web-based music composition software Noteflight touches all levels of SAMR. First of all, students will **substitute** placing notes on a staff on the computer for writing the notes on manuscript paper by hand. The task of writing music is **augmented** because the music is saved in the cloud and can be accessed anywhere at any time. Composition is **modified** because students can hear the music as they are composing by using playback controls. **Redefinition** occurs when students share their songs in our classroom community and they can listen to songs of students in other 3rd grade sections.

Evaluation

The range of outcomes from this composition project is very broad, so evaluation of the impact of the transformation can come in many shapes and sizes.

Final Recordings: I plan to collaborate with a local DJ to come in and give students the opportunity to record their songs onto a class album. The number of students who take enough pride in their work to choose to record their song will be one indicator of the success of the project, as well as the quality of the final recordings.

Project Grades: Although I do not have the exact data, I can confidently say that the average final grade on this project has been 70% or lower in the past. I attribute this to the fact that we have had to move through the content and technology use so quickly and that there has been no time for revising work. If I use the same rubric as I have in the past (with minor adjustments as necessary), I will be able to objectively compare the short-term impact of this project with the project in previous years.

Pre-Test and Post-Test: Each September, I administer a pre-test to each grade level. 3rd Grade's pre-test includes questions about rhythm, note duration, and melody, among others. These pre- and post-tests are very simple assessments and only cover the "knowledge" spectrum in Bloom's Taxonomy. I save the scores from pre-tests and post-tests in a database. The average score on the 2014 3rd grade post-test was only 68%. After carrying out the new approach to my composition unit, I hope that I will see an increase in post-test scores from previous years because of the deeper individualized understanding of those core musical concepts. In addition to the 3rd grade post-test, I could use the 4th grade pre-test as an indicator of retention of knowledge of those musical concepts. The average score on the 2013 4th grade pre-test was 33%, which is to be expected on a test of content that has not yet been taught. However, if students in 3rd grade construct a deep understanding of musical concepts through the composition project, they will be more likely to transfer that knowledge to other areas (Willingham, 2009) and be able to apply that knowledge to questions on the 4th grade pre-test.

My EdTech Blog: My blog is my space to reflect on the successes and frustrations in new educational endeavors. Throughout the process of this project, from planning to introducing and then to implementing the project, I will reflect on what is going well and what I liked better "the old way" (if that is even the case at all!) This will be a place for me to give subjective reflections, but also to reveal the changes that are happening with my students' understanding and to predict how those changes will affect the rest of their year in music class and their understanding of music beyond my classroom.

Connections to Educational Technology

Developing Technical Skills in Students

"When students are afforded technology and guided with proper background knowledge it inspires students to engage in learning beyond the classroom" (Moore, Owens, Rewarts & Woodward, 2014). By teaching students how to use Chromebooks, Noteflight, and UJam, I will be opening doors to educational use of technology outside of the classroom. Hopefully, students will explore more with these technologies when they are given free time with technology rather than spend time on non-educational games.

Digital Equity

The ideal for this project would be to require students to work on their compositions on Noteflight and UJam from home. Unfortunately, not all students in my district have computers, let alone Internet access, at home. By allowing some students to check out Chromebooks, I will be taking a step toward digital equity. The students who check out Chromebooks will be able to work on their compositions at home (if they have Internet access) even if their parents or siblings are busy on their home computers. I will provide a list to parents of public places with free wi-fi, such as restaurants, coffee shops, and the library along with an explanation of the importance of the work their children will be doing online, as suggested

by Robyn Treyvaud in the webinar by Bouza, Combs, Kuhn & Pierce (2014).

Digital Collaboration

Noteflight and UJam will augment the task of music composition, in accordance with the SAMR model, by allowing students to share their work with classmates for feedback and collaboration. This will introduce students to the evermore common idea of digital collaboration that they will find in Google Docs, Prezi, and many other Web 2.0 tools.

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