IN THE LOOP:
Co-Equal Integration of Technology in Performance and the Classroom

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The Constituents

Digital Natives

VS

Digital Immigrants
We must consider “how we can integrate technology effectively into the work lives of adults and students that advance much more ambitious instruction and higher levels and deeper learning by students”
INTEGRATING MULTIPLE SUBJECTS

Bresler’s definition of integrating multiple subjects

• Subservient
• Co-equal
INTEGRATING TECHNOLOGY IN THE MUSIC CLASSROOM

- Integration Gap
- Currently mostly used in administrative tasks (Surface Level)
- Many fear that students are not learning the important information...
INTEGRATING TECHNOLOGY IN THE MUSIC CLASSROOM

- Content Knowledge (CK)
- Pedagogical Knowledge (PK)
- Technological Knowledge (TK)
- Content Pedagogical Knowledge (CPK)
- Technological Content Knowledge (TCK)
- Technological Pedagogical Knowledge (TPK)
- Technological Pedagogical Content Knowledge (TPACK)
How This Is Connected

3

Settings
Lessons
Levels of Integration
Sources


3rd Grade: General Music

Joe Kulick
**CONTEXTUAL INFORMATION**

- **2 Classes**: 21, 23
- **General Music Class**
- **35 minute lessons - total of 3 (2 composition - 1 performance)**
- **One-to-One ThinkPads Grades**: 3-5
OBJECTIVES

• Students will compose an accompaniment track in the form of Intro, A, B, A
• Students will listen to, evaluate, and choose loops that they think fit well into their composition
• Students will perform basic rhythms using hand percussion with little to no errors, using proper technique
• Students will Improvise a 2 bar rhythm
• Students will perform basic rhythms with an accompaniment track
• Students will evaluate their musical performances by stating what they could have done better and what went well
OLD NATIONAL STANDARDS

2. Performing on instruments, alone and with others, a varied repertoire of music.

3. Improvising melodies, variations, and accompaniments.

4. Composing and arranging music within specified guidelines.

5. Reading and notating music.

6. Listening to, analyzing, and describing music.

7. Evaluating music and music performances.
New National Standards

- **MU:Cr1.1.3:**
  - a. Improvise rhythmic and melodic ideas, and describe connection to specific purpose and context (such as personal and social).
- **MU:Cr2.1.3**
  - a. Demonstrate selected musical ideas for a simple improvisation or composition to express intent, and describe connection to a specific purpose and context.
- **MU:Cr3.2.3:**
  - Present the final version of personal created music to others, and describe connection to expressive intent.
- **MU:Pr5.1.3**
  - a. Apply teacher-provided and collaboratively-developed criteria and feedback to evaluate accuracy of ensemble performances.
- **MU:Pr6.1.3**
  - b. Rehearse to refine technical accuracy, expressive qualities, and identified performance challenges.
- **MU:Re7.1.3**
  - Demonstrate and describe how selected music connects to and is influenced by specific interests, experiences, or purposes.
- **MU:Re9.1.3**
  - Evaluate musical works and performances, applying established...
Reflection

Name______________________________________________________________

1. What do you think went really well in your performance? Why?

2. What could have been better in your performance? Why?

3. What did you like about the project? Why did you like it?
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>0 - Below Expectations</th>
<th>1-2: Approaches Expectations</th>
<th>3-4 - Meets Expectations</th>
<th>5 - Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition</td>
<td>No Composition Completed.</td>
<td>QGroove is less than 12 measures and/or does not have either a drum track or 2 other instrument tracks.</td>
<td>QGroove is 12 Measures long, has a drum track, and at least 2 other instrument tracks.</td>
<td>QGroove goes beyond 12 measures, utilizes multiple combinations of instrument tracks.</td>
</tr>
<tr>
<td>Creativity</td>
<td>No Compositions Completed.</td>
<td>Student uses the same loop throughout.</td>
<td>Student uses a variety of 4 bar loops with 1-2 different styles.</td>
<td>Student uses a variety of both 4 beat and 2 beat loops and uses multiple styles in their composition.</td>
</tr>
<tr>
<td>Rhythm Performance</td>
<td>The beat is very erratic and rhythms are unrecognizable.</td>
<td>The beat is somewhat erratic. Some rhythms are accurate. Frequent or repeated duration errors. Rhythm problems occasionally detract from the overall performance.</td>
<td>The beat is secure and the rhythms are mostly accurate. There are a few duration errors, but these do not detract from the overall performance.</td>
<td>The beat is secure and the rhythms given are played exactly.</td>
</tr>
<tr>
<td>Technique</td>
<td>No technique is used in the performance, and bad habits occur.</td>
<td>Student is aware of technique, however many issues occur somewhat affecting the performance.</td>
<td>Student is using the correct technique, few issues occur not affecting the performance.</td>
<td>Correct technique is used with little errors. Performance is clear as to what tones the students are playing.</td>
</tr>
<tr>
<td>Self-Evaluation</td>
<td>No comment given.</td>
<td>Student uses very general terms to describe their performance. (Good, Bad, Short, Fast)</td>
<td>Student uses specific areas that were good and bad.</td>
<td>Student uses specific areas that were good and bad and defines what could be changed for a better performance.</td>
</tr>
</tbody>
</table>
What Happened?

• Above Expectations
• Shared their compositions
• Play them simultaneously
• Composed up to 64 measures
• Wanted to share with the class/teacher
APPS

• Free for Student sign-up
  – Qgrooves: Free Rap and Rock Styles

• Quaver Music is $795.00 Biennial

• Technology Capabilities and Resources
**TIPS**

- Create a Class Password: Teacher and Grade
- Have Students use the usernames from their devices or First and Last Name
- Possibly have students **Double Save** their compositions
- Require the same tempo for every composition
- Extend the Composition to include an intro
- Split the Performances into 2 different classes
5th Grade: Beginning Band

Ethan Wagoner
CONTEXTUAL INFORMATION

- Woodwind Section
- 11 Students
- Two 30-minute Lessons
- 2:30-3:00pm
OBJECTIVES

• Given a pre-made Launchpad session, students will rate each loop on a scale from 1 to 5 to determine the overall mix.
• Given an accompaniment track composed on LaunchPad, students will improvise a 16-beat melody with fewer than two mistakes in maintaining the pulse.
• Given an accompaniment track composed on LaunchPad, students will improvise a 16-beat melody using Concert B-flat, C, and D.
• Given an accompaniment track composed on LaunchPad, students will improvise a 16-beat melody that ends with Concert B-flat.
OLD NATIONAL STANDARDS

• 2: Performing on instruments, alone or with others, a varied repertoire of music.
• 3: Improvising melodies, variations, and accompaniments.
• 5: Reading and notating music.
• 6: Listening to, describing, and analyzing music.
• 7: Evaluating music and music performances.
• 8: Understanding the relationship between music, the other arts, and disciplines outside the arts.
NEW NATIONAL STANDARDS

- MU:Cr.1.1.5 -
  - a. Generate musical ideas (such as rhythms, melodies, and accompaniment patterns) within specific related tonalities, meters, and simple chord changes.

- MU:Cr.2.1.5 -
  - b. Use standard and/or iconic notation and/or recording technology to document personal rhythmic, melodic, and two-chord harmonic musical ideas.

- MU:Pr4.2.5 -
  - a. Demonstrate understanding of the structure and the elements of music (such as rhythm, pitch, form, and harmony) in music selected for performance.
  - b. When analyzing selected music, read and perform using standard notation.

- MU:Pr.5.1.5 -
  - a. Apply teacher-provided and established criteria and feedback to evaluate the accuracy and expressiveness of ensemble and personal performances.
  - b. Rehearse to refine technical accuracy and expressive qualities to address challenges, and show improvement over time.

- MU:Cn.10.0.5 -
  - Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music.

- MU:Cn.10.0.5 -
  - Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life.
ASSESSMENT
## Assessment

<table>
<thead>
<tr>
<th></th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation of Pitches</td>
<td>Student uses only one pitches from pitch set (B-flat, C, D) in improvised melody.</td>
<td>Student uses only two pitches from pitch set (B-flat, C, D) in improvised melody.</td>
<td>Student uses all three pitches from pitch set (B-flat, C, D) in improvised melody.</td>
</tr>
<tr>
<td>Pitch Set</td>
<td>Student mostly uses pitches from the given pitch set (B-flat, C, D) in improvised melody, with 3 or more notes falling outside of this set.</td>
<td>Student mostly uses pitches from the given pitch set (B-flat, C, D) in improvised melody, with 1-2 notes falling outside of this set.</td>
<td>Student uses only pitches from the given pitch set (B-flat, C, D) in improvised melody.</td>
</tr>
<tr>
<td>Ending Pitch</td>
<td>Student does not end improvised melody with B-flat.</td>
<td></td>
<td>Student ends improvised melody with B-flat.</td>
</tr>
<tr>
<td>Rhythmic Association with Beat</td>
<td>Student performs improvised melody using unclear rhythms with 3 or more errors in aligning with the beat of given accompaniment.</td>
<td>Student performs improvised melody using mostly clear rhythms with 1-2 errors in aligning with the beat of given accompaniment.</td>
<td>Student performs improvised melody using clear rhythms that align with the beat of given accompaniment.</td>
</tr>
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</table>
• Novation Launchpad - FREE
• Download in the Apple App Store
• Loopy - $3.99
• Purchased in the Apple App Store
High School Band

Brett Eichman
CONTEXTUAL INFORMATION

• Wind Ensemble (34 kids)
• Rhythm Check Patterns
• B-flat Major Scale
• Warm-up Procedure (10 min)
Objectives

• Students will improvise rhythmically using at least two of the provided check pattern variations.

• Students will improvise melodically using at least two notes of the B-flat Major scale.
OLD NATIONAL STANDARDS

2. Performing on instruments, alone and with others, a varied repertoire of music.

3. Improvising melodies, variations, and accompaniments.

5. Reading and notating music.
NEW NATIONAL STANDARDS

• **MU:Cr1.1.T.HSI**
  - Generate melodic, rhythmic, and harmonic ideas for compositions or improvisations using digital tools.

• **MU:Cr2.1.T.HSII**
  - Select melodic, rhythmic, and harmonic ideas to develop into a larger work that exhibits unity and variety using digital and analog tools.

• **MU:Pr4.3.T.HSI**
  - Demonstrate how understanding the context, expressive challenges, and use of digital tools in a varied repertoire of music influence prepared or improvised performances.

• **MU:Pr6.1.T.HSI**
  - a. Using digital tools, demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music.

• **MU:Cr1.1.E.Hs intermediate**
  - Compose and improvise ideas for melodies and rhythmic passages based on characteristic(s) of music or text(s) studied in rehearsal.

• **MU:Cr1.1.Hs novice**
  - Generate melodic, rhythmic, and harmonic ideas for simple melodies (such as two-phrase) and chordal accompaniments for given melodies.

• **MU:Cr2.1.H.Hs novice**
  - a. Select, develop, and use standard notation or audio/video recording to document melodic, rhythmic, and harmonic ideas for drafts of simple melodies (such as two-phrase) and chordal accompaniments for given melodies.

• **MU:Re9.1.H.Hs intermediate**
  - a. Explain the influence of experiences and contexts (personal, social, or cultural) on interest in and the evaluation of a varied repertoire of music.
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<th>5</th>
</tr>
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<tr>
<td><strong>Rhymic Improvisation</strong></td>
<td>Does not fit into a 16th note grid</td>
<td>Contains only ONE Check Pattern Variation</td>
<td>Contains at least TWO Check Patterns Variations</td>
</tr>
<tr>
<td><strong>Melodic Improvisation</strong></td>
<td>Does not use any note of the B-Flat Major Scale</td>
<td>Contains only ONE note of the B-Flat Major Scale</td>
<td>Contains at least TWO notes of the B-Flat Major Scale</td>
</tr>
</tbody>
</table>
• Garage Band App
  - Purchased in the Apple Apps Store
Wrap-Up
APP REVIEW

- Quaver Music
- Loopy
- GarageBand
- LaunchPad
• If you have any questions for Dr. Phillip Payne, Joe Kulick, Ethan Wagoner, or Brett Eichman about their presentation or lesson, please email ppayne@ksu.edu