

Using Technology to Promote Musicianship and Cooperative Group Learning
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Improvisation Warm Ups For All Seasons, Ages and Moods
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1. I Had a Snickers and Pepsi For Lunch
2. My Boyfriend Just Broke Up With Me and My Mascara Is Running
3. You Won't Fall Off the Bench If You Touch The Piano
4. Everyone Is A Drummer
5. Five Finger Pass The Solo

Keyboard Ensemble Playing
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Keyboard ensemble playing has become very important to me as I see the smiles on students' faces as they make a "joyful noise". Sometimes this comes in the form of published materials (check out Ogilvy Music) and sometimes we get right into improvisation. I never let the students really know we are improvising, the term is too scary. "What do you mean I have to make it up??"

Today we are going to create an ensemble based on a favorite from the FJH Piano Adventures Series, "Spanish Cabellero" from the 2B lesson book. This piece is a perennial favorite with my students and several have chosen to play it at recitals.

First I need some volunteers to be drummers, to set the pace for us. You will be giving us a two-measure introduction of this rhythm...quarter, eighth-eighth, eighth-eighth. You may choose bongo drums, woodblocks with a tambourine, or use your imagination. We are thinking Spanish music not hip-hop and this is an excellent time to talk about ethnic music and cultures. Every student drummer needs to though where the drum roll note and the crash cymbal is on the keyboard for our grand finale.

If I have students who have all played this piece or who are capable of identifying chord structures we examine the form, where the chord changes are, and what constitutes the bass line. I have written out simple Accompaniment parts for various pieces but the students get more satisfaction from figuring it out themselves.

I choose one student to play the piece as written, encouraging the use of an acoustic guitar sound. Next I may have one or two students who will play part of the bass part. This may mean playing the part as written, playing block chords while the soloist is playing broken chords or taking one note from the bass part and playing it two octaves higher perhaps using a woodwind sound.

Off we go. Usually the first time through is a mess! When students start to listen to each other then we start to make music. I use a red rhythm stick as my conducting baton to catch everyone's eye. We are

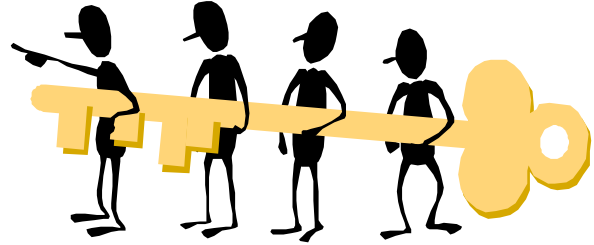
learning the ever-important triangular _ conducting pattern too. Drummers begin, two measures please, and then enter our soloist and his/her back-up group. Note that at measure 22 I instruct all supporting players, including the drummers to stop while the soloist plays those impressive parallel chords alone. Drummers wait for a cue from me to play the drum roll as the soloist plays the final chord followed by a crash cymbal to coincide with the accented bass note from the soloist.

Have fun!!

Kathy Maskell, NCTM

Working Together to Learn: Cooperative Learning in the Piano Classroom

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What is Cooperative Learning

- Students collaborate to perform activities in groups, such as creative activities, drills, research, review...
- Activities are structured to encourage cooperation among students
 - Students are actively involved in handling the material
 - Groups have common goals
 - Students within groups share resources, ideas and knowledge
 - Students help each other for the benefit of the group
- Developed independently by David and Roger Johnson (U of Minnesota), Robert Slavin (Johns Hopkins U) and Spencer Kagan (U of California) in the 1980s

What Makes CL an Effective Teaching Technique?

- Students make active and immediate use of knowledge
- It provides peer tutoring and frequent practice opportunities
- Learning takes an interactive game-like shape with clear goals and rules
- Group success increases sense of accomplishment
- Peer support results in lowered anxiety levels

How Does Technology Enhance Cooperative Learning in the Piano Classroom?

- Interconnected headphones with microphones enhance class communication
- Teacher's console facilitates private monitoring of students and teacher intervention
- Sequencers put music into a tangible form that can be replayed, manipulated, analyzed and extended.

What are Some Key Elements of a CL Activity?

The most important elements to keep in mind when creating Cooperative Learning activities are:

1. Group Interdependence:

- Task is structured so that students perceive that they need each other to complete task
 - Common goals and responsibility ("...make sure all members learn")
 - Joint rewards (e.g. points in tournament)
 - Shared resources (e.g. dividing task into parts and assigning each student one)
 - Assigned roles (e.g. summarizer, encourager, time keeper, etc)

2. Individual Accountability

- To assure that all members are working
 - Students are frequently assessed with random or individual tests and results are shared with group
 - Group periodically files reports of contributions in the form of worksheets or questionnaires
 - Group receives reward or recognition when everyone has done their part
- Easier to achieve once students understand that success depends everyone's contribution

3. Group Processing (self-evaluation)

- At the end of the task, each group assesses how well they functioned as a group:
 - Group analyzes rate of success in accomplishing the goals and in maintaining an effective working relation
- Teacher may encourage self-evaluation by providing a questionnaire asking...
 - "Name three things the group did well today"
 - "Name one thing that would make the group better"
 - "List three ways in which the members helped the group", etc.

Some examples of useful CL structures applied to class piano

NOTE: For more examples, please visit <http://spot.colorado.edu/~cremasch/coop/>

Three-Step Interview

Transposition in pairs. Two students

- Students are given flash cards that contain a transposition key in the front, and tips, help or a realized notated version in the back
- Students study their own cards individually and become experts in their own key
- STEP 1: Student A tests ("interviews") his partner B by asking him to transpose to the key that A has practiced. Student A helps B to understand the transposition process and to become fluent in A's key.
- STEP 2: Students reverse roles
- STEP 3: Individual students are asked to play their transpositions for the class

Jigsaw II

- A subject or task is divided into 3 or 4 simpler tasks or portions
- Three groups of 4 members are created
- Each student in each group receives a different task or portion to learn, solve or master
- Members with the same tasks or portions come together to confer about their common part
- Original groups come back together and each member shares knowledge about her own task or portion, and then teaches and tests other the members of the group.
- Individual students are tested by teacher, or share their group discoveries with the rest of the class

Example: Fingering jigsaw: An "unfingering" chorale or a piece is assigned to groups of 4 students. The piece is divided into 4 short portions and each portion is assigned to one member. Each member works individually on fingering their own portion. New groups are created; this new groups only contain students who have all worked on the same portions. Each student plays and explains his or her choices to the group. Discussion ensues, and other possibilities are explained and tried as a group. The instructor may want to intervene and add additional comments at this point. The students return to the original groups, where they will share, show and explain their fingering of their own part to the other members. After this is completed, the instructor may call on some students to explain the rationale for the fingering in any portion of the piece.

Think-Pair-Share

Harmonization in group

- After teacher has explained rules for harmonization and has showed examples...
- THINK: Students harmonize a given melody individually
- PAIR: Students are grouped in groups of 3. They play for each other, discuss their choices
- Students must discuss options and reach a compromise to arrive at a single chord solution
- SHARE: One student from each group plays for the class. Chord choices are discussed as a class

Reading and practicing new repertoire

- THINK: Individually, students look over a new piece to find a few difficult spots or passages
- PAIR: In small groups, students rank spots in order of difficulty and device strategies for practicing those spots
- SHARE: Individually, students share their findings and thoughts with the class

STAD / TGT

STAD (Student Team-Achievement Division) and TGT (Teams-Game-Tournament) are fairly complex techniques developed by Robert Slavin. We encourage you to read his books for a complete description. TGT is a variation of STAD in which students participate in a group tournament at the end.

- Teacher teaches material and prepares self-directed activities such as reviews, quizzes, flashcards, research, etc
- Intensive team work: students in each team study and review together
- Students take quiz or compete (in the case of TGT) individually. They receive an "improvement score" based on how well they have performed compared to past levels. Teams receive recognition for the sum of their improvement scores

Clef reading tournament

- Teacher teaches concept of reading lines intervalically and directionally, and how this skills helps in reading difficult clefs
- Students receive 4 exercises in a sheet. They look at them individually, and then work on them as a group, devising strategies for accuracy and practicing them
- Students from each team enter a competition where they earn points for their team. This is an on-going competition that continues throughout the semester with other type of exercises

Using Technology and Cooperative Learning to Teach Harmonization of a Melody
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1. Write the solfege or numbers of the melody above the noteheads in Example #1 .
2. Play the melody. Find a realistic tempo and set the metronome for triple meter. (♩=100-120).
3. Record the melody on track 1.
4. For Example #1: Write every possible harmonic choice for each note of the melody Listen to your recording on track 1.
5. As track 1 plays, experiment with possible harmonizations for the melody. Play chords in your LH. Use I, IV_{6/4}, and V_{6/5}.
6. For Example #2: Notate the most effective harmonization for the melody in lead-
7. line and bass clef notation. Be prepared to justify each chord choice in your harmonization.
8. Record the harmonization on track 2.
9. Example #3 Harmonic Dictation. Switch disks with your partner. Play your partner's harmonization. Write the chords that your partner has used in his or her harmonization in lead-line and bass clef notation. Discuss your harmonization with your partner and justify your chord choices.

Example #1

Vocalise

<i>Cantabile</i>	Bordogni
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The musical score consists of two systems, each with a treble and bass staff. The first system (measures 1-8) is marked 'Cantabile' and the second system (measures 9-16) is marked 'Bordogni'. Solfege syllables are written below the treble staff, and Roman numeral chord symbols are written below the bass staff. The key signature has one flat (Bb) and the time signature is 3/4.

<i>Cantabile</i>								Bordogni			
Do	Mi	Sol	Do	La	Do	Sol	Fa	Mi	Re	Mi	Do
I	IV	I	V7	I	IV	I	V7	IV	V7	I	
I		I		I		I		I		I	

<i>Cantabile</i>								Bordogni								
Do	Mi	Sol	Do	La	Do	Sol	Fa	La	Sol	Mi	La	Sol	Re	Fa	Mi	Do
I	IV	I	V7	I	IV	I	V7	I	IV	V7	I	IV	V7	I	IV	V7
I		I		I		I		I		I		I		I		I

Example #2 (Student Sample, mm. 9-16)

Example #2a (Student Sample, mm. 9-16)

Example #3: Ear Training, mm. 9-16

Follow-Up Activities

- Partners decide on one most effective harmonization and practice harmonization together.
- Partners play duet with one partner playing melody, the other partner playing an accompaniment.
- Partners play duet for the rest of the class. Class figures out chords by ear and discuss group choices.
- Individual and/or partners accompany the melody using a style and auto-bass accompaniment.