

The Midwest Clinic  
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## **Flipping the Classroom: Practical Application in the Ensemble Rehearsal**

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PowerPoint presentation, handout, & ensemble evaluation form available at [www.cuwinds.com](http://www.cuwinds.com).  
(Scroll down to *flipped classroom* tab.)

### ***What is a flipped classroom?***

Flipping the classroom is an approach to teaching in which students gain initial knowledge before each class, and class time is used to assimilate, process, and apply that knowledge through activities focused on active learning.

### ***Rationale***

- Frees the instructor from the traditional lecture model.
- By presenting foundational knowledge through various sources and technologies, the instructor is able to cater to a variety of learning styles.
- Students immediately apply the knowledge gained outside of class. Through in-class feedback from their instructor and peers, they are able to correct errors or misconceptions and deepen their understanding while the information is fresh.

### ***Essential elements***

- Students gain first exposure to new information prior to class.
  - Tools include lecture videos, PowerPoint presentations, etc.
- Pre-class preparation is incentivized.
  - Students are often asked to complete a task associated with the material: worksheets, brief quizzes, short writing assignments, etc. Tasks are to be completed before class, and may be further incentivized with points.
- In-class activities focus on higher-level cognition.
  - Class time is used to assimilate, process, and apply knowledge through related learning activities.
- Flipping the classroom often includes a peer instruction component.
  - Options include group work, discussion, and debates.

### ***Constructivism as a foundation***

- The primary innovation of the flipped classroom is the use of technology to distribute pre-class information
- In-class activities are based on constructivist learning theory.
  - Founded on Piaget's theory of cognitive development, which, in part, proposes that humans cannot immediately understand new information. Instead, we must construct new knowledge by assimilating new material into our existing knowledge, and this is done most effectively through experiential learning.
  - Constructivist classroom characteristics:

- Activities are interactive and student-centered, and include authentic student-student and student-teacher discussion.
- Rather than a source of information, the teacher acts as a coach, facilitator, and consultant.
- The student-centered environment is inherently democratic.

### ***Why flip an ensemble rehearsal?***

Every ensemble rehearsal should ideally be a flipped classroom. Students should learn the essential elements of their part before class, and class time should be used to assimilate that information, correct errors and misconceptions, and learn how each part functions within the score. As students focus their energy out of their individual stands, they are able to collaborate with their colleagues and engage in active learning.

### ***The flipped ensemble rehearsal experiment***

The Cornell Wind Symphony is comprised of 55 students ranging from freshmen to graduate students. The ensemble rehearses twice a week for a total of 3:45, and generally performs two concerts each semester.

In the first rehearsal period, the preparation of one piece was flipped, and the other music was prepared traditionally. The second rehearsal period included flipped elements for every piece.

- Period 1: August 25-October 1
  - Percy Grainger, *Colonial Song*
- Period 2: October 15-November 19
  - Igor Stravinsky, *Symphonies of Wind Instruments* (1947)
  - Vincent Persichetti, *Symphony No. 6*, movement 4
  - Patrick Williams, *An American Concerto*, selected passages for soloists & small groups

### ***General performance goals***

- Help students become independent musicians.
- Create an even preparation curve.
- Emphasize process over product.
- Gain a better understanding of individual student competencies.
- Lead students to assume a higher level of responsibility for their part.
- Equip students with information necessary to develop an informed interpretation.
- Foster a more collaborative rehearsal culture.

### ***Specific learning outcomes***

- Students will be able to:
  - Recognize the conceptual difference between practicing and rehearsing.
  - Relate their individual part to the full score, and synthesize numerous musical events.
  - Critically evaluate their performance, and identify and prioritize areas in need of improvement: balance, blend, dynamic contrast, etc.
  - Break down, analyze, and interpret complex passages.

- Identify information that leads to an informed interpretation of a piece of music.

### ***Dissemination of pre-rehearsal information***

- Panopto lecture videos
  - Lecture capture software; works on multiple platforms and integrates with PowerPoint
    - Composer biographies
    - Lecture/demonstrations: technique & musicianship
- Blackboard
  - Content & discussion platform; used to post lecture videos, curated recordings, and copies of full scores
  - Curated repertoire recordings
  - Print materials: full score, related articles, etc.
- Rehearsal blog on ensemble website
  - Used to stimulate conversation about the music, and post rehearsal footage along with questions designed to focus students' attention.

### ***Incentivizing pre-class preparation***

- Help the students understand how this will improve their learning experience.
  - More productivity outside of rehearsal = more active participation in rehearsal
  - Pre-class learning = more thorough understanding of the music
  - Peer discussion & evaluation = more collaboration
  - How will they be held accountable?
- Clearly articulated rehearsal plan, distributed in advance
  - Pieces, sections, goals and practice assignments
- Individual & small group recordings
  - Selected students are asked to submit recordings of challenging and/or exposed passages via email. Instructor responds with written comments, and optionally requests another submission.
- “Kleibergrams”
  - Modeled after Carlos Kleiber’s comments & suggestions written on index cards & placed on musicians’ stands before rehearsal.
- Statistics tracking on Blackboard (monitors student access)
- Points, quizzes, writing assignments, etc., are not appropriate for my population, but they could be useful in other settings.

### ***Peer instruction***

- In class
  - Peer discussion/evaluation module
    - Perform the portion of the work chosen by the instructor to be addressed (3 minutes)
    - Students analyze the performance in their sections (1 min.)
    - A representative from each section reports, and the various reports are prioritized with the instructor’s advice (2 min.)
    - Selection is performed again (3 min.)
    - Instructor feedback (2 min.)

- Out of class
  - Students are responsible for organizing at least one sixty-minute sectional every two weeks.
    - Instructor leads first sectional of the semester in order to model time management and advance selection & prioritization of passages
    - Sectionals are reinforced: attendance as part of final grade
  - Ensemble rehearsal blog

### **Assessment**

- Formative assessment (Used during the learning process to monitor and improve student attainment. Usually low stakes; low or no point value.)
  - Continually evaluate student performance
    - Ensemble rehearsal recordings
    - Individual and small group recordings
  - Assess student understanding
    - Monitor discussion on ensemble blog (essentially journal entries)
  - Consider student feedback on various learning activities.
    - Mid-semester and final student evaluation forms
- Summative assessment (Monitors educational outcomes; high stakes.)
  - The concert is the primary assessment.

### **Student feedback**

The following questions were included in a course evaluation form given after the first of two concerts. Student responses are represented by percentages.

1. How much did the following materials help your learning?

	A lot of help	Some help	Very little help	No help at all	No opinion N/A
Repertoire recordings	68%	35%	○	3%	5%
Panopto videos: composer biography	8%	32%	50%	5%	5%
Panopto videos: technique & musicianship	32%	50%	5%	3%	8%
Ensemble rehearsal recordings	68%	35%	○	1%	5%
Blog & online discussion	5%	49%	30%	8%	5%

(Given at semester's end, after second concert.)

	A lot of help	Some help	Very little help	No help at all	No opinion N/A
Repertoire recordings	71%	21%	4%	○	○
Panopto videos: composer biography	4%	35%	40%	8%	8%
Panopto videos: technique & musicianship	21%	48%	10%	○	17%
Ensemble rehearsal recordings	73%	35%	2%	○	○
Blog & online discussion	5%	49%	30%	8%	5%
Instructor feedback shared electronically (blog or email)	8%	31%	44%	6%	8%
Individual/group recordings and instructor feedback ( <i>used with selected students</i> )	25%	8%	6%	2%	40%

- Selected student responses:
  - *This method helps to alleviate the practically impossible task of cramming for musical performance, so, overall, this helps a lot!*
  - *I definitely think listening to recordings (especially of us) was extremely helpful. Also, the assignments we had to record ourselves were helpful because it ensured that we had to learn our parts.*
  - *The technique videos made it so I could work on difficult passages without relying on in-person work.*
  - *The effectiveness of the flipped classroom tools would be even more so if everyone did them.*

2. A primary goal of the flipped classroom experiment was to inspire an even ensemble preparation curve (rather than a sharp increase immediately before the concert). To what extent did you feel it was helpful?

A great deal	A lot	Somewhat	Not at all	No opinion
4%	15%	48%	33%	2%

- Selected student responses:
  - *I definitely felt that as a group we had that sharp increase immediately before the concert... Many of us have so much going on that our mindset is to focus intensely during rehearsal, but not so much outside. I just never made much time beyond listening to repertoire recordings, though I do wish I had.*
  - *It seemed we did grow through the rehearsal period, but we still needed a large spike in the end, as usual.*
  - *I still felt that there was some increase right before the concert but it was much less dramatic than what I have experienced in other ensembles.*

### ***How will I proceed?***

- Flip elements of the preparation of every piece, rather than one module
- Repertoire & rehearsal recordings: unchanged
- Rehearsal blog: after every Thursday rehearsal
  - Mandatory responses from rotated groups of 8 students; all others encouraged to participate.
  - Deadlines for submission (11:59pm on Sunday for Tuesday afternoon rehearsal)
- Panopto lecture videos: two for each rehearsal period (< 5 minutes each)
  - Composer biographies
  - Technique and/or musicianship lecture/demonstration
- Individual/small group recording: soloists, & others as needed
- In-class peer discussion & evaluation: one 10 min. module, once a week
- No points or grades