Flipping Courses:

Transitioning From Traditional Courses to a Blended-Learning Approach

OFFICE OF
QUALITY IMPROVEMENT
UNIVERSITY OF WISCONSIN-MADISON

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The biggest barrier to blended learning is the pathological fear that your students' performance will worsen if you do not lecture to them.

There is absolutely no evidence that students will fail if they are not "lectured at". Capable students underperform because of ineffective time-on-task.

The Flipped Course: A blended-learning approach is used to integrate technology into the overall course design and delivery to 'flip' the course. Traditional in-class lecture material is delivered out of the classroom through the use of online technology, while the traditional 'homework' is done in class with even greater potential for student learning through the use of Active Learning/Experiential Learning activities using a group/team approach. Technology can also be used in the classroom and assessment can be done both online and in class.
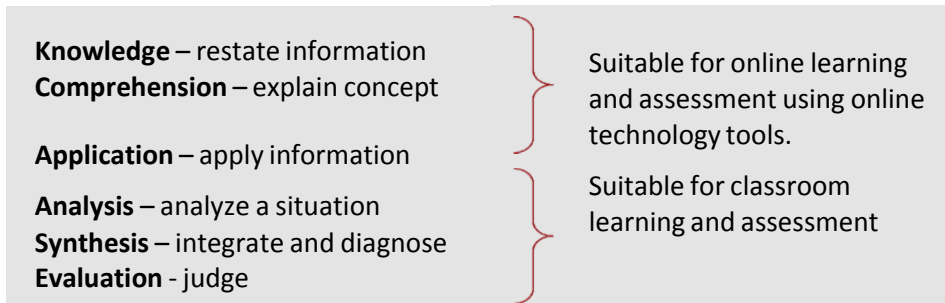
Benefits of Flipping Courses Include:

- Improved student learning (Active Learning & assignments not as dependent on instructors availability)
- Reduced costs (Less time lecturing and grading; design course once and repeat)
- Ability to reach more students (increase capacity)
- Students have more flexibility in using their time

AN APPROACH TO DEVELOPING FLIPPED COURSES

Step 1:
Select and Sort

Begin by selecting a traditional course – one that is primarily made up of lectures, with some kind of assignments for 'homework', and some method for assessment – and reorganize the traditional lecture course curriculum into the online learning activities and in-class learning activities that best take advantage of the strengths of each learning environment.

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One way to think about selecting and sorting process is to utilize Blooms taxonomy:

Knowledge – restate information
Comprehension – explain concept

Suitable for online learning and assessment using online technology tools.

Application – apply information

Analysis – analyze a situation
Synthesis – integrate and diagnose
Evaluation - judge

Suitable for classroom learning and assessment

Step 2:

Flipped Course Design and Delivery

Guidelines and Options for Flipped Course Design and Delivery:

	Online Activities (Technology)	In-classroom Activities (Active Learning)
Student Participation	Mandatory, not optional. Use online quizzes to monitor participation.	Should connect to the online activities. Students are required to attend – take attendance.
Types of Activities	Utilize Course Management System for online delivery. Use Lecture Capture to record lectures once and make available online. Design/Record Online Modules in a studio: • talk with slides • talk with writing on whiteboard Online lectures specifically reference standard textbook; • Option: Provide written content online (putting the equivalent of a textbook online can be time consuming); • Option: Use electronic textbooks. Online quizzes (to ensure students are watching), with due dates just before the relevant in-class activities. Homework can be submitted electronically. Results of online quizzes and homework can be used to focus in-class activities toward concepts that require extra attention.	Students must DO SOMETHING, not listen and take notes: • Small group practice/problem solving • Student team discussion and reporting out • Team projects • 2-3 students at a computer • Online exams taken in the classroom • Do homework as a team Design specific processes to guide students through applied practice & experiential learning. Technology can also be used in the classroom.

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Using Student Groups/Teams in the Classroom

To be most effective, students benefit from some basic guidelines and training in how to be a high performing work team, especially if the teams stay together for some period of time. It is good to periodically assess how well the student groups/teams are functioning.

Using Online Quizzes/Homework

Some online quizzes/homework can be set up to give students immediate feedback, as well as second and third chances to get the right answer. A percentage of full credit can be given for getting the answer correct on the second try, and less again for a third try.

Online quizzes/homework can save grading time by only needing to grade incorrect answers to look for partial credit.

Navigating the Creation of the Online Components

Transitioning a traditional lecture course to a flipped course using a blended-learning approach takes an up-front time commitment, as well as substantial help from technical support to create the online modules and best utilize the Course Management System.

One suggestion is to spread out the design work and complete the transition over three semesters, rather than do everything at once:

Before & During the First Semester: (Est. 100 hours time)	Teach traditional course as usual. Sketch out the overall approach to a blended-learning format. Capture the lectures directly or design the modules and 'studio' record them throughout the semester. Begin to design the "Flipped" in-classroom Active Learning activities to implement second semester (including homework and/or homework online)
Before & During the Second Semester: (Est. 100 hours time)	Run modified version of Flipped Course: • Student watch 'lectures' online • In-class time is focused on Active Learning activities and 'homework' is incorporated into in-class Active Learning activities. Assessment continues in traditional manner. Simple quizzes are delivered in class to ensure students are watching lectures.
Before & During the Third Semester: (Est. 100 hours time)	Design and incorporate online version of assessment: • Bring quizzes online • Bring homework online, where appropriate • Bring exams online, where appropriate • Begin to generate a 'warehouse' of online assessment questions.

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Step 3:
Periodically Review and Assess Progress

Some Questions to Ask Yourself:
- Am I improving learning by focusing in-class time on active learning activities? By providing more immediate feedback on quizzes, homework and/or exams? Etc.
- Am I reducing costs by delivering the same content, but reducing time traditionally spent in lectures? By increasing the number of students served? Etc.
- How well are the students able to adapt to the blended-course approach? Are students prepared to learn substantial amounts of content online and on their own? Is there a need for "How to Learn Online"? Etc.
- Would this course be a candidate for an all online offering?

Resources to Help Get Started

DoIT-Academic Technology
Through a broad portfolio of services to Campus, DoIT-Academic Technology provides faculty and staff advise, custom development and support for teaching and research through the use of technology including Lecture Capture, Course Management Systems and the Design of Active Learning Modules.

To learn more call 262-5667, email academictech@doit.wisc.edu or visit http://doit.wisc.edu/academictech

Community of Educational Technology Support (ComETS)
The mission of ComETS is to congregate and collaborate, share expertise and resources, and initiate events on technology, faculty engagement, instructional design, and related teaching and learning topics across Campus.

To access the ComETS informal referral list for the first point of contact in your school or college visit https://comets.wisc.edu/first-contact

UW-Madison Libraries
The Libraries provide teaching and learning services for faculty and students including finding and accessing online library materials, dealing with copyright and intellectual property issues, and student training and development for doing research in groups.

To learn more visit http://www.library.wisc.edu/inst-services/#schedule or contact the subject librarian in your unit.

Vice Provost for Teaching and Learning
For toolkits and curricular design advise call 262-5246 or visit http://www.provost.wisc.edu/teach.htm

Office of Quality Improvement (OQI)
OQI provides a range of services that can help with various aspects of an educational innovation effort including facilitation, project management, understanding group dynamics and building effective teams.