Faculty Development
Pedagogy & the Role of the CMS

In order to make a connection between pedagogy and your use of a course management system, you should go through these steps:

- Determine a goal you would like to achieve in your teaching and/or your student's learning
- Develop an instructional strategy to accomplish the goal.
- Select an element of the Course Management System (CMS) that can be used in the strategy.
- Identify what skills in the use of the CMS you need to develop in order to implement the strategy.
- Identify any software you need to learn as part of that skill development.

To help you with these tasks we will try to help you identify an instructional need for your class and then go through a model that suggests ways in which the capabilities of a CMS can be used to enhance your class.

What's Your Reason for Being Here?

Something has brought you to this workshop. Perhaps you want to change how you handle material in a unit of a class. Perhaps you want to find a way to improve on what you are already doing. Or, perhaps you are just curious about the capabilities of the new instructional technologies. Often it helps to identify a frustration you have in your teaching or with your students' learning. How would you finish this sentence? "If I could fix one thing in my class, it would be . . . ."

 So, let's identify what it is that has brought you here. Take a few minutes now to turn to your "learning buddy" and talk about what you would like to accomplish in teaching or learning. Then write a short statement in the box below that articulates that need.

Statement of my need or my students' need

Often when faculty express a frustration or need, it fits one of these categories (suggested by Roblyer, Edwards, & Havriluk, 1997, p. 29). Some examples of the types of need statements that fit under each category are provided to help you identify one that fits your reason for being here.

Student Motivation
- I need to capture the interest of my students.
- I want students to have a greater sense of control over their own learning.
- My students aren't prepared for class discussion because they haven't kept up with the textbook reading.

Unique instructional capabilities
- I need to be able to demonstrate processes.
- My students need access to extra resources to update or expand on what the text offers.
- I would like to help students track their own progress in the course.
- My students need to be able to assess their understanding of the content.
- I would like to provide students with more immediate feedback on their work.
- My students need to spend more "time on task" practicing a skill.

Support for new instructional approaches
- I would like to reduce the amount of time spent in class on lecturing (in order to bring some active learning strategies into the classroom) without sacrificing coverage of the content.
- I would like to move from reception learning ("ideas to be learned are presented to the student directly and in a relatively complete form") to discovery-based learning ("the student must work to uncover, or discover, what is to be learned") (Grabe & Grabe, 1996, p. 48).
- My students need opportunities for continuing discussion for peer learning.
- My students need a chance to experiment with the effect manipulation of variables has on a process.
- I would like to help my students focus more on understanding and application, rather than "will this be on the test?"
- I would like to give my students a greater sense of their own responsibility for their learning.

Increased teacher productivity
- I would like to do more activity-based learning in class, but I have a lot of material I need to cover.
- I would like students to have more frequent grade updates.

Into which category would you put your need statement from the previous page?

Category	b
Motivation	
Unique instructional capabilities	
Support for new instructional approaches	
Increased teacher productivity	
Other:	

The "Classroom Flip" Model

The motivation for developing the "classroom flip" came from those need statements listed in the previous section. How can we take what we have learned about learning and apply that in a concrete way to help faculty meet the needs they identify for their own teaching? Faculty are encouraged move from a teaching model to a learning model, but how do *you* do that in *your* class? How do you, as a faculty member at an institution that emphasizes teaching, move from "the sage on the stage" to the "guide by the side"? The typical answer is to open up class time for active learning strategies, but an initial objection by faculty is always, "How do I do that and still provide the same coverage of the content?"

The "Flip" model tries to steer middle course on the issue, bringing the advantages of both the teaching and learning model together in an approach that recognizes the value of each. As Shambaugh & Magliaro (1997) point out, "...each theoretical approach to education has its own strengths and weaknesses" (p. 29). The lecture, for example, is acknowledged by those advocating other approaches to be an efficient way of presenting information (Johnson, Johnson, & Smith, 1998). In addition, some of the gains in learning ascribed to multimedia may be attributable to the design and increased interactivity of the instructional material (Najjar, 1996), suggesting similar gains could be achieved by applying those techniques to a classroom approach. Therefore, although this model draws from cognitive approaches, it also seeks to retain some of the strengths of the traditional lecture approach.

Goals of the Model

The goals of the model, as stated by Baker (2000) are:
- Find an approach that would make it possible for faculty to move from *sage* to *guide*.
- Reduce the amount of time spent in class on lecturing, opening up class time for the use of active learning strategies.
- Focus more on understanding and application (critical and creative thinking) than on recall of facts (content/basic thinking), while not sacrificing presentation of the factual base (categories from Jonassen, 1996, p. 27ff.).
- Provide students with more control over their own learning.
- Give students a greater sense of their own responsibility for their learning.
- Provide students with more opportunities to learn from their peers (pp. 11-12).

This model seeks to accomplish these goals by "flipping" what traditionally has been done inside and outside the classroom—deliver rote lecture content online for students to study outside of class and use the time opened up in the classroom for learning-based activities.

The Classroom Flip
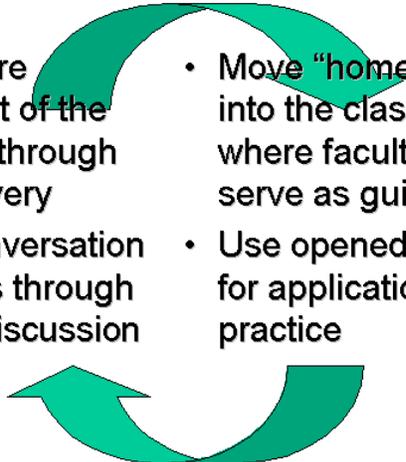
- Move lecture material out of the classroom through online delivery
- Move "homework" into the classroom where faculty can serve as guide
- Extend conversation out of class through threaded discussion
- Use opened up time for application and practice

Connecting the Features of a CMS with the Pedagogical Goals

Let's go through the main features of a Course Management System and indicate how they can be used to address the needs faculty often raise.

Course Content ("Online Lectures")

Features

- Web pages delivered in CMS
- Multiple media sources available
- Student use is recorded
- Can link to
    - Objectives
    - Student notes
    - Discussion area

Benefits

- Not restrained by class time
- Can link to extra resources
- Statistics on student use available
- Student accountability
- Increased time in-class for application and discussion

Online Discussion (Chat and Threaded Discussion)

Types of Discussion

- Synchronous (Chat Rooms)
- Asynchronous (Threaded Discussion)

Features

- Automatically created by CMS
- Messages archived
- Public/Private
- With names/Anonymous

Benefits

- 100% participation
- "Voice" to the silent students
- Thoughtful, articulate responses
- "Time on task" with content
- Use for student presentations with Q&A
- Transcript available for review

Online Quizzes

Types of Questions

- True-False
- Multiple Choice
- Matching
- Short Answer
- Calculated
- Paragraph Answer

Features

- Set time available
- Generate quiz from pool of questions
- Automatic grading
- Set feedback based upon response
- Allow multiple attempts

Benefits

- Holds students accountable for reading
- Saves class time
- Provides immediate feedback
- Can repeat for mastery

Student Presentations

Features

- Area for students to upload material
- Can be divided into groups

Benefits

- In-class presentation available for review
- Place for posting student projects

The following chart helps tie all of this together—starting from typical needs expressed by faculty and moving to instructional strategies and which components of a CMS can be used as part of that strategy.

Student Motivation		
Need	**How Accomplished**	**CMS Support**
• I need to capture the interest of my students. • I want students to have a greater sense of control over their own learning.	Provide a rich environment in which students can pursue their own interests and which accommodates different learning styles	Done generally through extensive online material in **Course Content**, which can include resource material and links to other online sources for students to follow as their interests take them
• My students aren't prepared for class discussion because they haven't kept up with the textbook reading.	Use more frequent quizzes over the text readings.	**Online Quizzes** can be setup to be made available right up to the time class starts and then turn off. The student must read the material and take the quiz before class.
	Encourage their engagement with the readings through discussion of key points with others in the class.	Set up discussion groups for the class in the **Threaded Discussion** area in which regular discussion of text reading can be done.
Unique instructional capabilities		
Need	**How Accomplished**	**CMS Support**
• I need to be able to demonstrate processes.	Use the various electronic media available for creating a demonstration (e.g., stepping through slides , animation, video)	The media can be delivered on Web pages in the **Course Content** area.

• My students need access to extra resources to update or expand on what the text offers.	Provide the resources through Web pages you create or link to, if they are already available on the Web.	The extra material and/or links to online resources can be delivered on Web pages in the **Course Content** area.
• I would like to help students track their own progress in the course.	Provide up-to-date reports to the students on a 24/7 basis.	The CMS's **automatic tracking and reporting functions** provide student access to reports on their use of course content and threaded discussion and assignment and class grades.
• My students need to be able to assess their understanding of the content.	Provide student self-assessment and immediate feedback	**Online Quizzes** and **Student Self-Assessment Questions** allow students to check their understanding and receive immediate feedback, including suggestions for further study, as appropriate.
• I would like to provide students with more immediate feedback on their work.	Provide student self-assessment and immediate feedback	**Online Quizzes** and **Student Self-Assessment Questions** allow students to check their understanding and receive immediate feedback, including suggestions for further study, as appropriate.
	Use electronic assignment submission to help speed up turnaround on assignments	An **Assignment "Drop box"** allows students to submit assignments electronically and receive them back with comments (e.g., the Notes feature in Microsoft Word).
• My students need to spend more "time on task" practicing a skill.	Provide online resources that increase the amount of time students are engaged with the course content.	This is accomplished through all of the parts of a CMS. **Online Discussion** results in more time spent in engagement with the material than is possible sitting in class. **Online Quizzes** motivate them to read and think through the text. Time spent in the **Course Content** increases the time they are spending working through class material. The fact all of this is monitored also motivates them to actually follow through on their assignments.
	Provide more time for application and practice in class, when the faculty member is available as a mentor to the student or teams of students.	Mainly indirect CMS support for this strategy, by making the time available as a result of moving content coverage online.

Support for new instructional approaches		
Need	**How Accomplished**	**CMS Support**
• I would like to reduce the amount of time spent in class on lecturing without sacrificing coverage of the content.	Deliver the content in a multimedia online for the students to study outside of class	**Course Content** section in which the class material is provided through Web pages
• I would like to move from reception learning to discovery-based learning • I would like to help my students focus more on understanding and application, rather than "will this be on the test?"	Use active learning strategies during the class time opened up from the movement of lecture material	Mainly indirect CMS support for this strategy, by making the time available as a result of moving content coverage online.
	Provide increased opportunity for 100% of the students in class to spend time thinking about the course material.	**Online Discussion** in which all students are required to participate in the discussion of key questions.
	Add interactive elements to the "lecture" material so students can work on application as they are reading the material	Hyperlinks and media plug-ins on the **Course Content** pages
	Provide student self-assessment and immediate feedback	**Online Quizzes** allow students to check their understanding and receive immediate feedback, including suggestions for further study, as appropriate.
• My students need opportunities for continuing discussion for peer learning. • Provide students with more opportunities to learn from their peers	Use small group discussion techniques in class. Include more partner or team-based learning projects.	Mainly indirect CMS support for this strategy, by making the time available as a result of moving content coverage online.
	Assign students or teams of students report topics and require the other students to ask questions and add comments to the reports.	Have students deliver their reports in the **Threaded Discussion** or **Student Presentation** area. Have the other students follow up with questions and comments in the **Threaded Discussion** area. Require the original posters to follow up on those questions and comments, extending the conversation beyond what you have time for in the classroom.
	Involve 100% of the class in discussion of class material	**Online Discussion** provides a forum in which *all* students must participate. This provides a "voice" for student who, while thoughtful and articulate, are unwilling to participate in class discussion. Bringing them into the discussion online provides the others in the class with access to their insights.

• My students need a chance to experiment with the effect manipulation of variables has on a process.	Use interactive media that can respond to student input.	The media can be delivered on Web pages in the **Course Content** area.
• I would like to give my students a greater sense of their own responsibility for their learning.	Move from reception learning to discovery-based learning through active learning strategies.	Mainly indirect CMS support for this strategy, by making the time available as a result of moving content coverage online.
	Students now have to get material formerly provided for them	Done generally by making material available that the students have to access on their own

Increased teacher productivity		
Need	**How Accomplished**	**CMS Support**
• I would like to do more activity-based learning in class, but I have a lot of material I need to cover.	Deliver the content in a multimedia online for the students to study outside of class	**Course Content** section in which the class material is provided through Web pages
• I would like students to have more frequent grade updates.	Provide up-to-date reports to the students on a 24/7 basis.	The CMS's **automatic tracking and reporting functions** provide student access to reports on their use of course content and threaded discussion and assignment and class grades.

Take a few minutes now to turn to your "learning buddy" again. This time work together to determine how an objective of the model could help you meet your need. Write your initial conclusions down here.

Brief Need Statement	**Instructional Strategy to meet need**
CMS Support	**Skills to Develop/Software to Learn**

References

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