



Rethinking Learning

Faculty Workshop



The facilitators of this faculty series:

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Centre for Teaching and Learning Through Technology
"the focal point for University of Waterloo's leadership in e-learning"
University of Waterloo
Waterloo, Ontario
Canada





Rethinking Learning

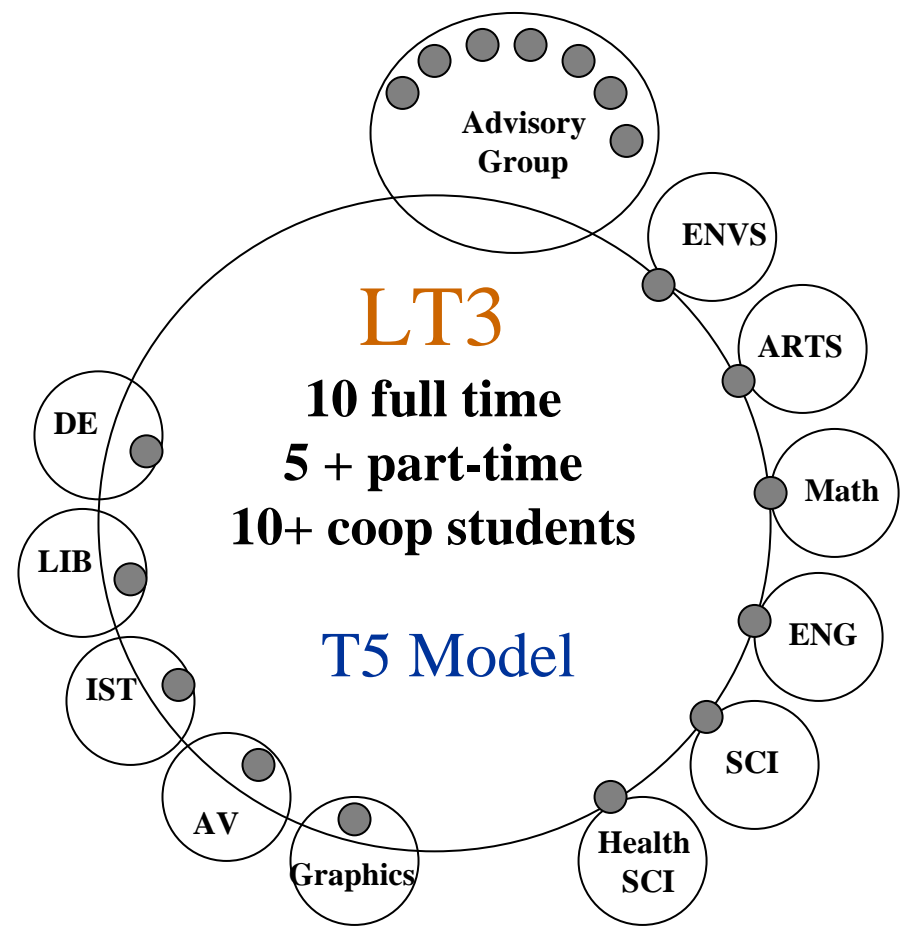
Workshop Schedule

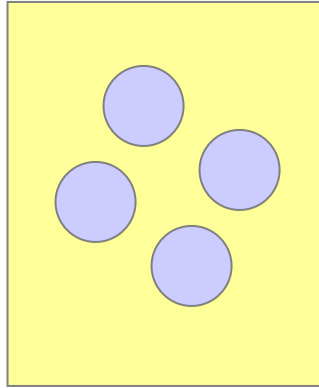
Workshop/December 15th to 17th		
Day		Topic
1	Am	Introductions New Classroom Part 1/Tasks
	Pm	Tools, application and demonstrations Part 1 Coaching A/Working on tasks
2	Am	New Classroom Part 2/Feedback & Time and Space/LearnMapper
	Pm	Tools, application and demonstrations Part 2 Coaching B/Working on tasks
3	Am	Mini presentations: Each member gives 10 minute presentation on their solution to an instructional bottleneck.
	pm	Mini presentations: (continued)





University of Waterloo's
Centre for Learning and Teaching Through Technology:





5 minutes

- what is your primary motivation for participating in this workshop?
- what challenges do you anticipate?
- what are some of the learning challenges you face in your classroom?
- what other issues do you want to cover?

Challenges

Learning Management Systems are not designed as a Learning Environment. They are mainly used by instructors as a place for dumping information.

Challenges

The focus of instructor development:

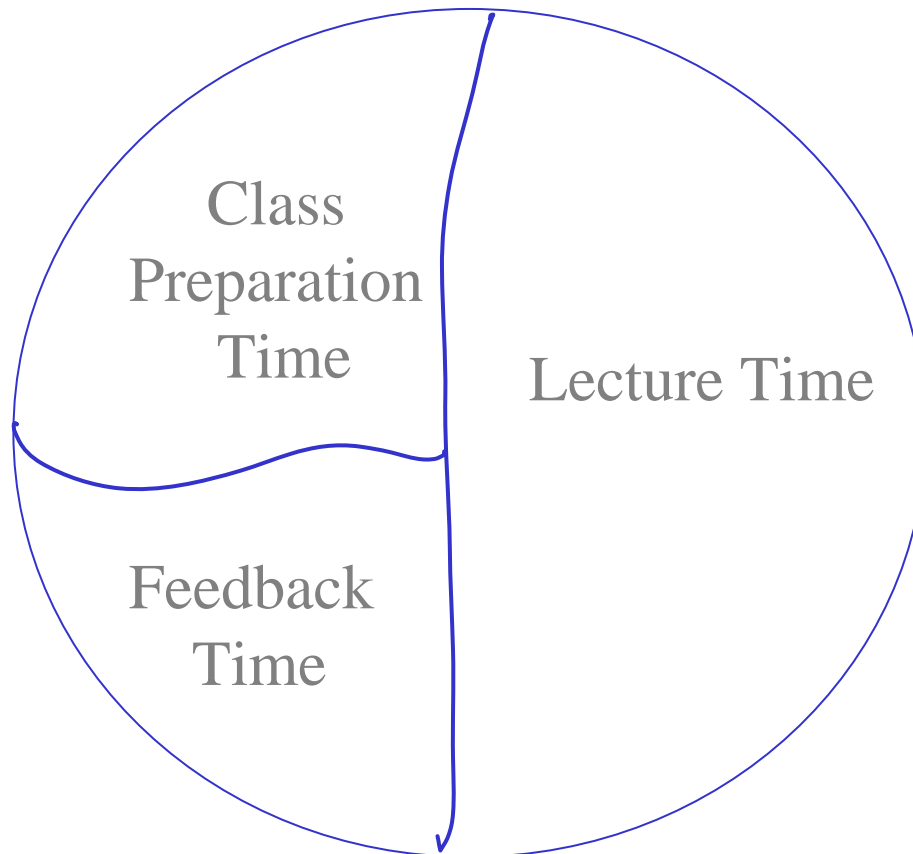
- Pedagogy (principles of instruction)
- Technology (training on use of learning management systems.)



Challenge of Time

Instructor/Student

Time is the one thing instructors can not increase.

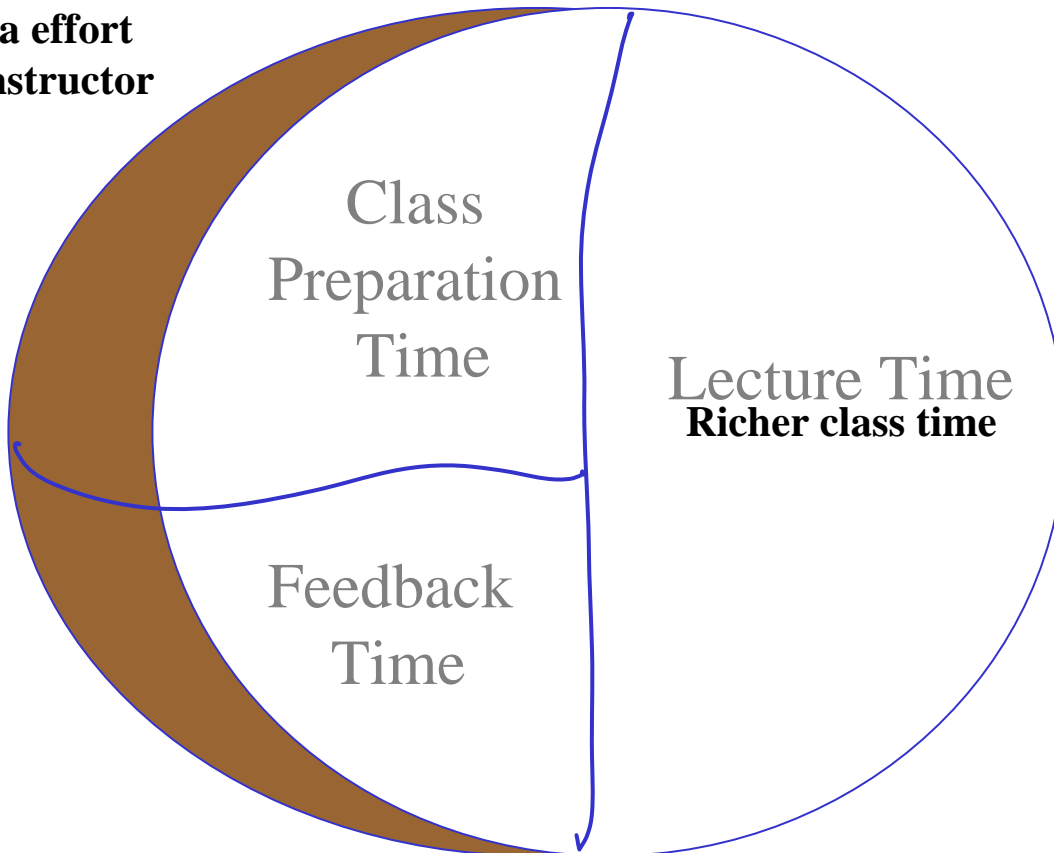




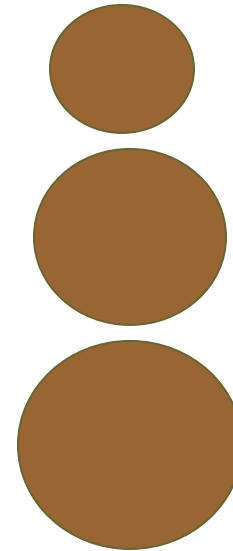
Time

Instructor/Student

**Extra effort
by instructor**



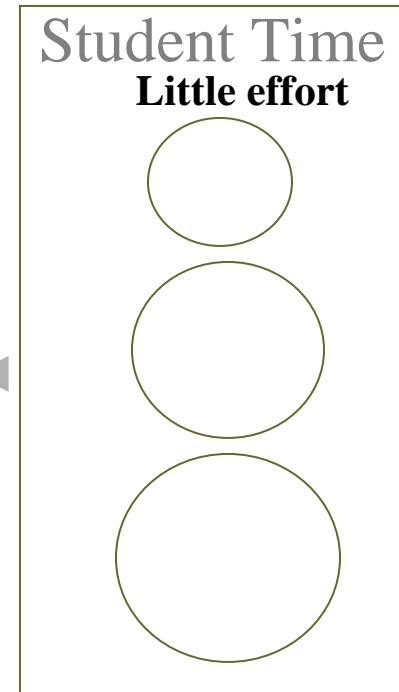
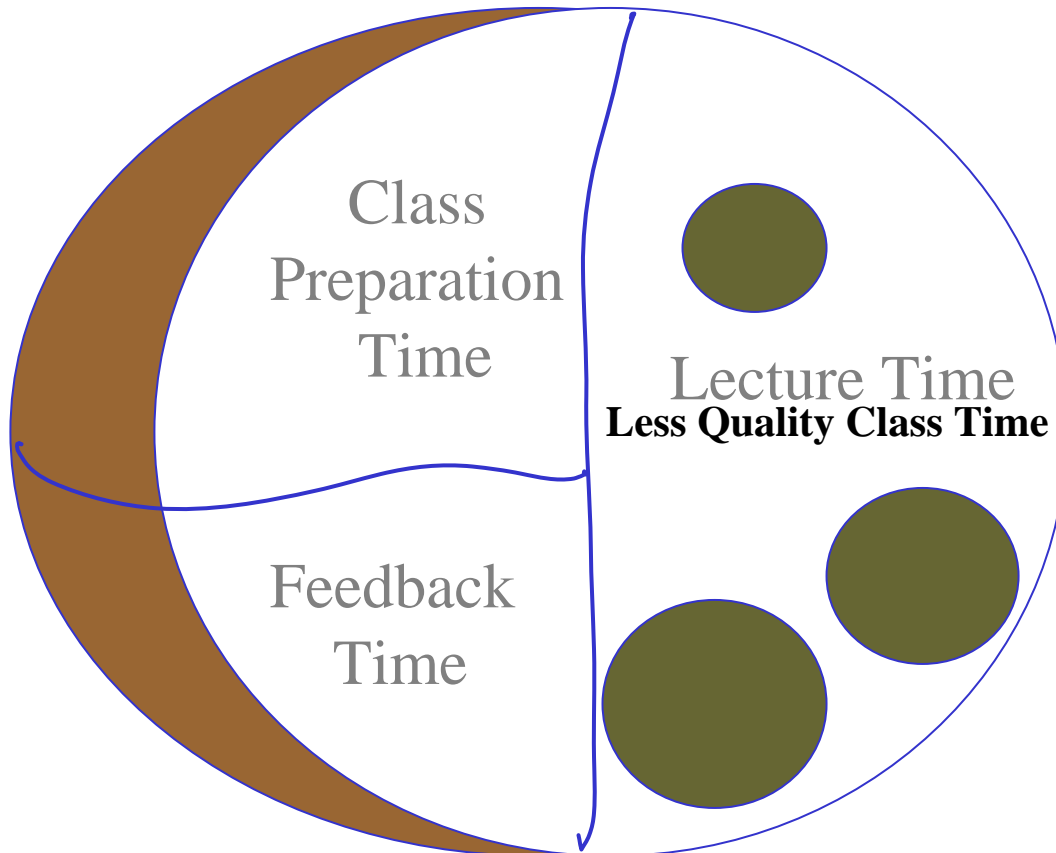
Student Time
Makes and effort





Time

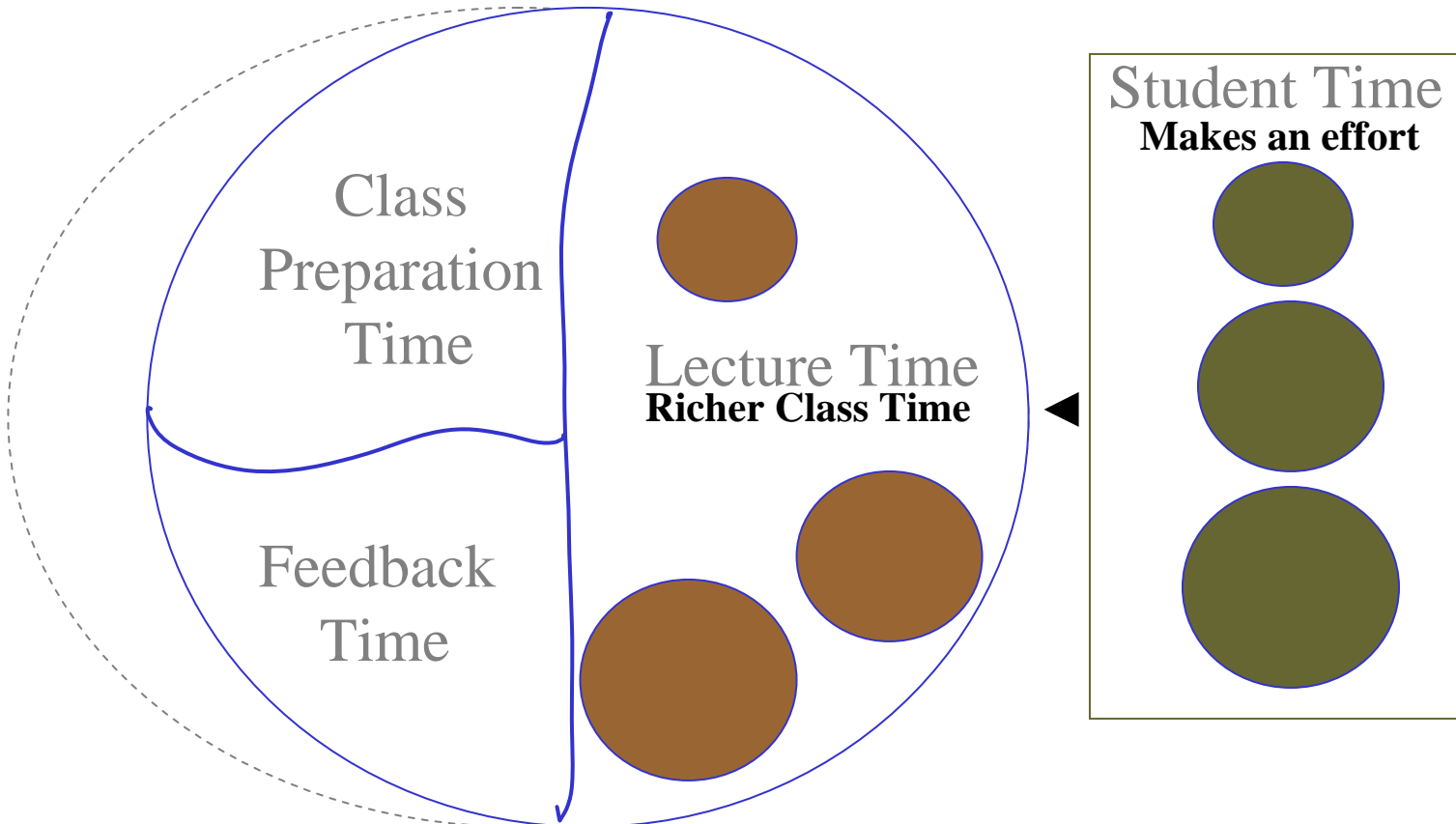
Instructor/Student

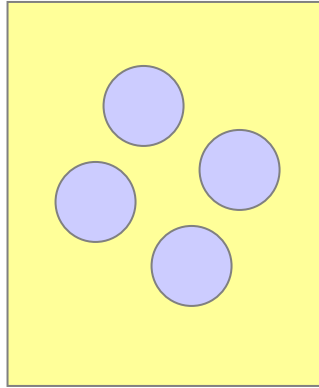




Time

Instructor/Student





What Drives Learning? (How do students learn)

What Drives Learning? (How do students learn)

- Time on Task
- student/instructor interaction
- Continuous feedback
- active with content
- interaction with peers (teams)
- rewards/motivation

“I don’t lecture, I create an environment for them to learn”
Albert Einstein,



Rethinking Learning

The New Classroom Series for Faculty

Contemporary learning theory is based upon the notation that learning is an active process of constructing knowledge rather than acquiring knowledge

that the instruction is the process by which this knowledge construction is supported rather than a process of knowledge transmission.

(Duffy & Cunningham, 1996)



Rethinking Learning

The New Classroom Series for Faculty

The instructional design of the New Classroom series
is based on the T5 model



The Guiding Principles of the T5 Model

- it's a learner-centred approach to course delivery
- an emphasis is on designing learning tasks to promote student engagement with the content
- an emphasis on the importance of prompt feedback



T5 Model:

- **Tasks** *learning tasks with deliverables and feedback*
- **Tutoring** *feedback*
- **Teamwork** *collaboration work*
- **Topics** *content resources to support activities*
- **Tools** *for developing task, delivery options and administration*



T5 Model:

Ownership ▲

Reuse ▼

- **Tasks**
- **Tutoring**
- **Teamwork**

- **Topics**
- **Tools**



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Ownership ▲

Reuse ▼

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- **Tools**



T5 Model:

Ownership ▲

Reuse ▼

- **Tasks**
- **Tutoring**
- **Teamwork**

- **Topics**
- **Tools**

Textbook

(and re-useable leaning objects as needed)





Online Course Design **Early thoughts:**

Content resources:

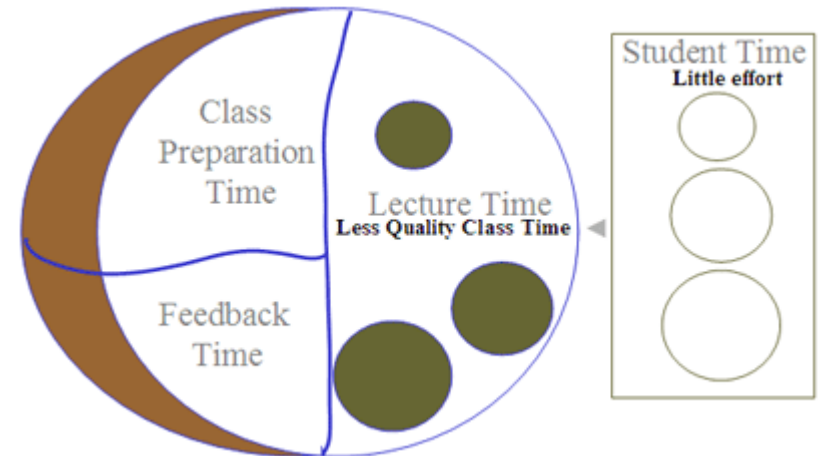
- Lecture Notes
- PowerPoints
- Syllabus



Online Course Design **Early thoughts:**

Content resources:

- Lecture Notes
- PowerPoints
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Online Course Design/Early thoughts:

Content resources:

- Lecture Notes
- PowerPoints
- Syllabus

The Seven Principles

The seven principles may be used to evaluate the quality of a learning environment :

1. In what ways does the course design encourage contact between the students and the instructor?
2. How does the learning environment foster reciprocity and cooperation among students?
3. In what ways is active involvement of the students facilitated through the course?
4. How are the students given prompt feedback for learning activities?
5. Is the course organized so that students and the instructor use their time efficiently and effectively while focusing on learning objectives?
6. How does the course design communicate high expectations?
7. How will the learning environment be structured to accommodate diverse talents and ways of learning?



Online Course Design/Early thoughts:

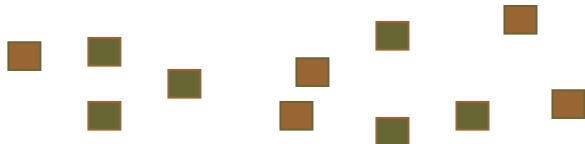
Content resources:

- Lecture Notes
- PowerPoints
- Syllabus

Lets add

Discussion Boards

Learning Objects



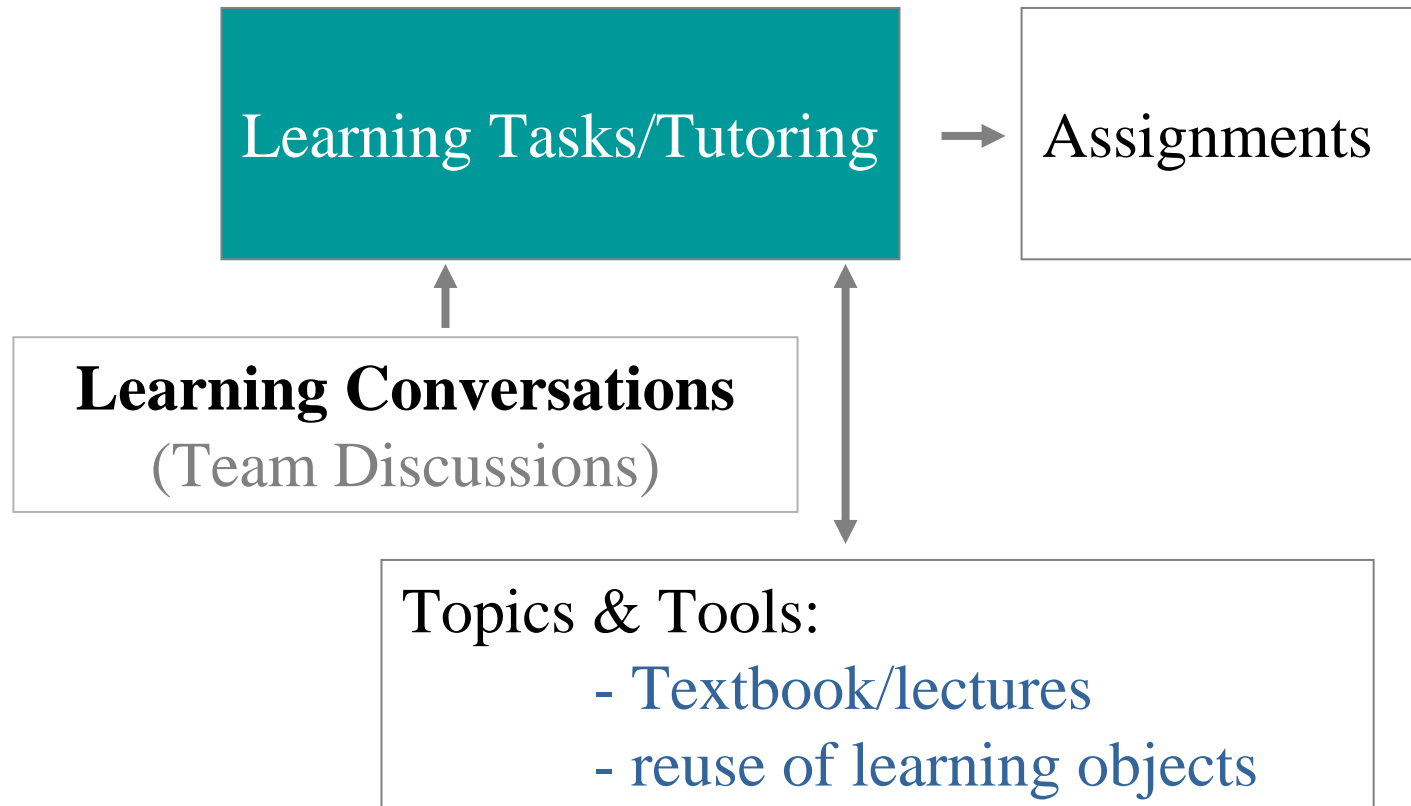
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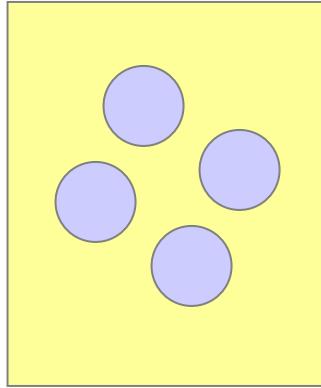
Online Course Design **Current Thinking (T5 Model):**





Assumptions:

- The greater a student's engagement in academic work, the greater the level of knowledge acquisition.
- Learning Tasks promote engagement with the course content.
- Feedback on learning tasks is an essential component in learning to reinforce the student's understanding of the content and guide the student in correcting any misconceptions in understanding.



What was your Best Learning Experience & Why?



Student Involvement is the Key to Learning :

The theory... Students learn by becoming involved... seems to explain most of the empirical knowledge gained over the years about environmental influences on student development. (Astin, 1985)



The T5 Model

Objectives ... (Learning Tasks Feedback*) ... Evaluation

(* repeated cycles of tasks and feedback)



Learning Tasks:

A learning task is an activity that requires students to engage with the course material. According to Vella (2000) a learning task is “a way to structure dialogue”. Learning tasks pose an open question; students respond by engaging with course material and/or outside resources.



What is the relationship of the learning task to the content?

Tasks

are open questions
which students respond
by engaging with the
content.



Content

is a resource to help the
student to resolve the task.



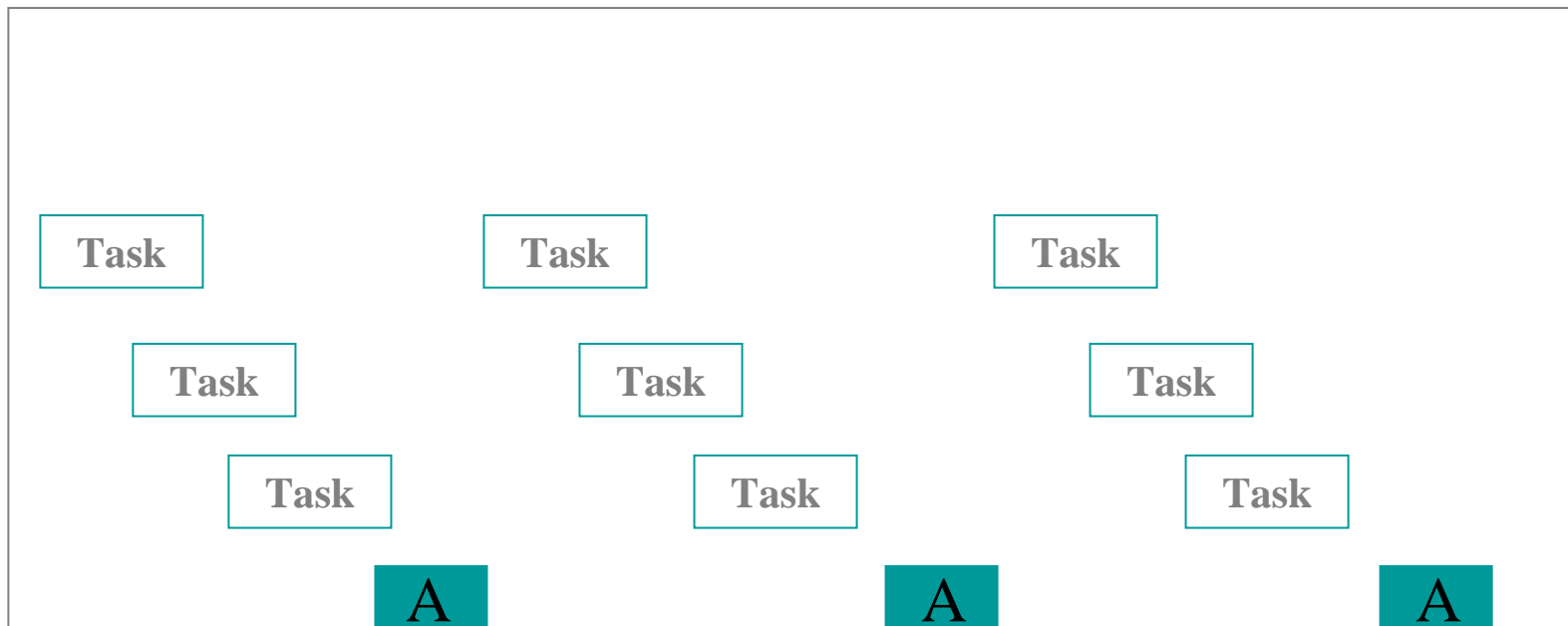
Learning Task/Assignment:

What's the Difference?



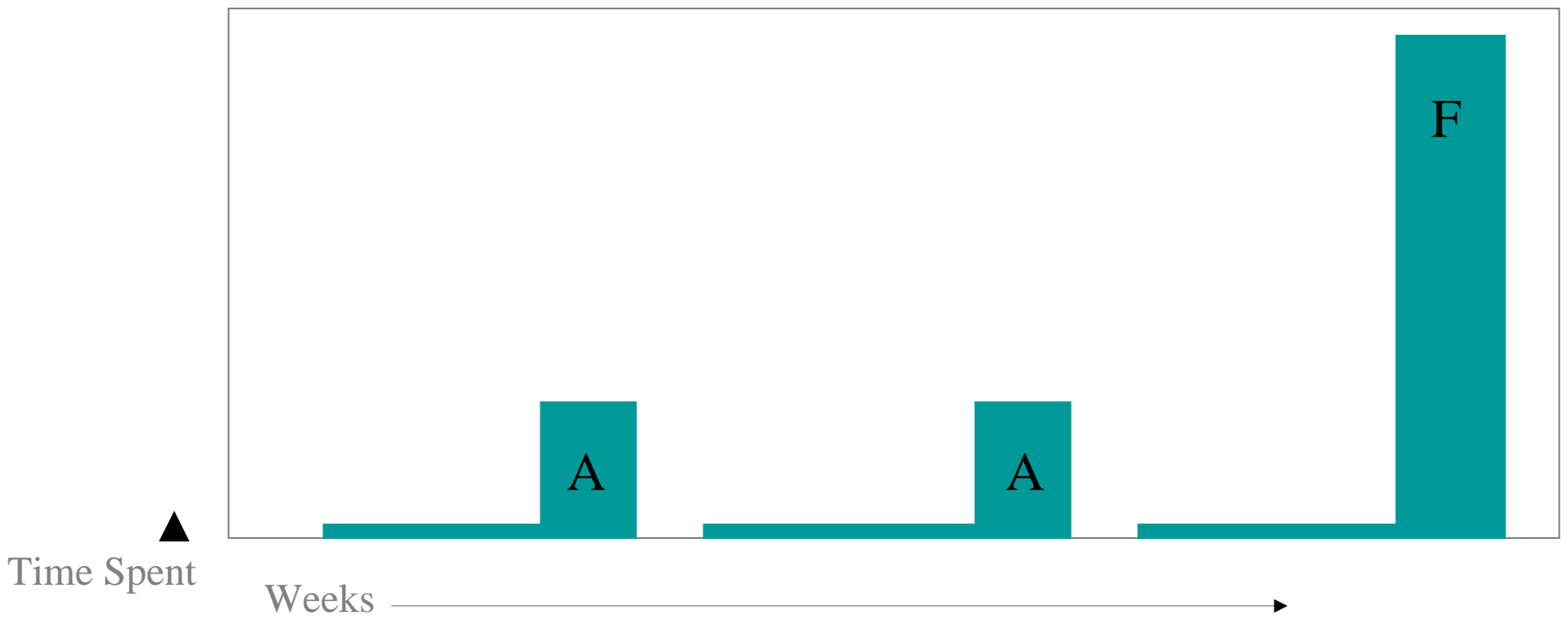
Learning Task/Assignment:

A task is evaluated for **effort** and not correctness.
20% of your total marks could go towards students completing tasks.



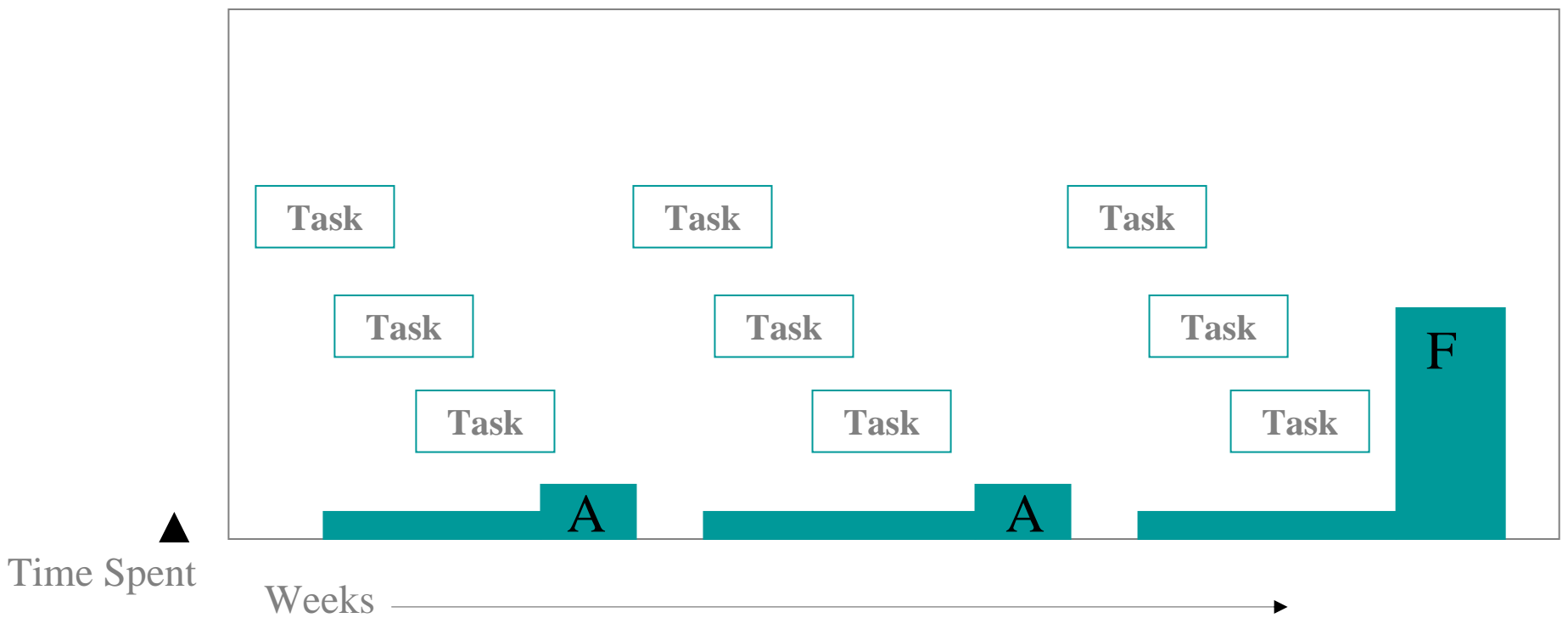


Homework Patterns





Homework Patterns





Student Quote

I just wanted to say that I really think the pre-class activities are a great idea! By having these I feel motivated to read the essays.

Amy Prokein German 102, Winter 03.

Instructional/Learning Challenges

Examples

1. Student struggle with sheer volume of information
2. Student unprepared for class – they haven't done the readings.
3. Student reads text passively and without a focus
4. Poor quality of essays
5. Content is simple but they just don't get it.
6. Class prerequisite knowledge varies
7. Wait until the last moment to develop library skills required for assignment.

Your Examples?



Learning Task Examples:

To have students better prepared for class.

Effective discussions in a class room setting aren't possible unless the students come prepared to engage and discuss; typically, students don't come prepared, in spite of our efforts to provide pre-class readings and course materials.



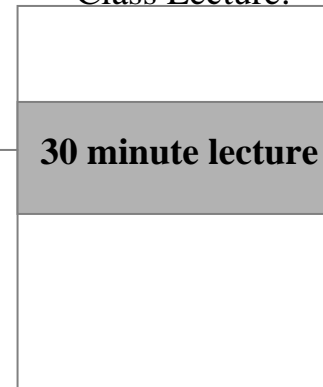
Effective discussions in a classroom

Paper version:

Read this chapter
Prior to class



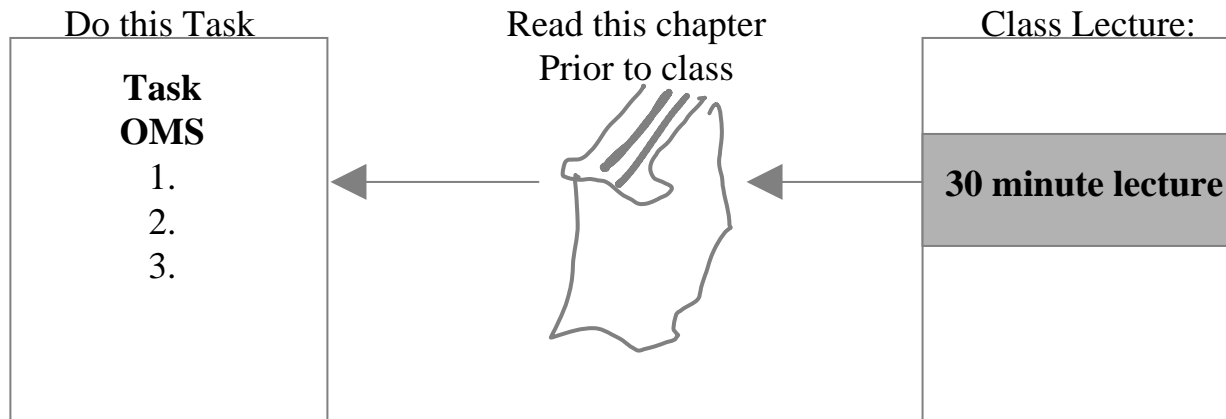
Class Lecture:





Effective discussions in a classroom

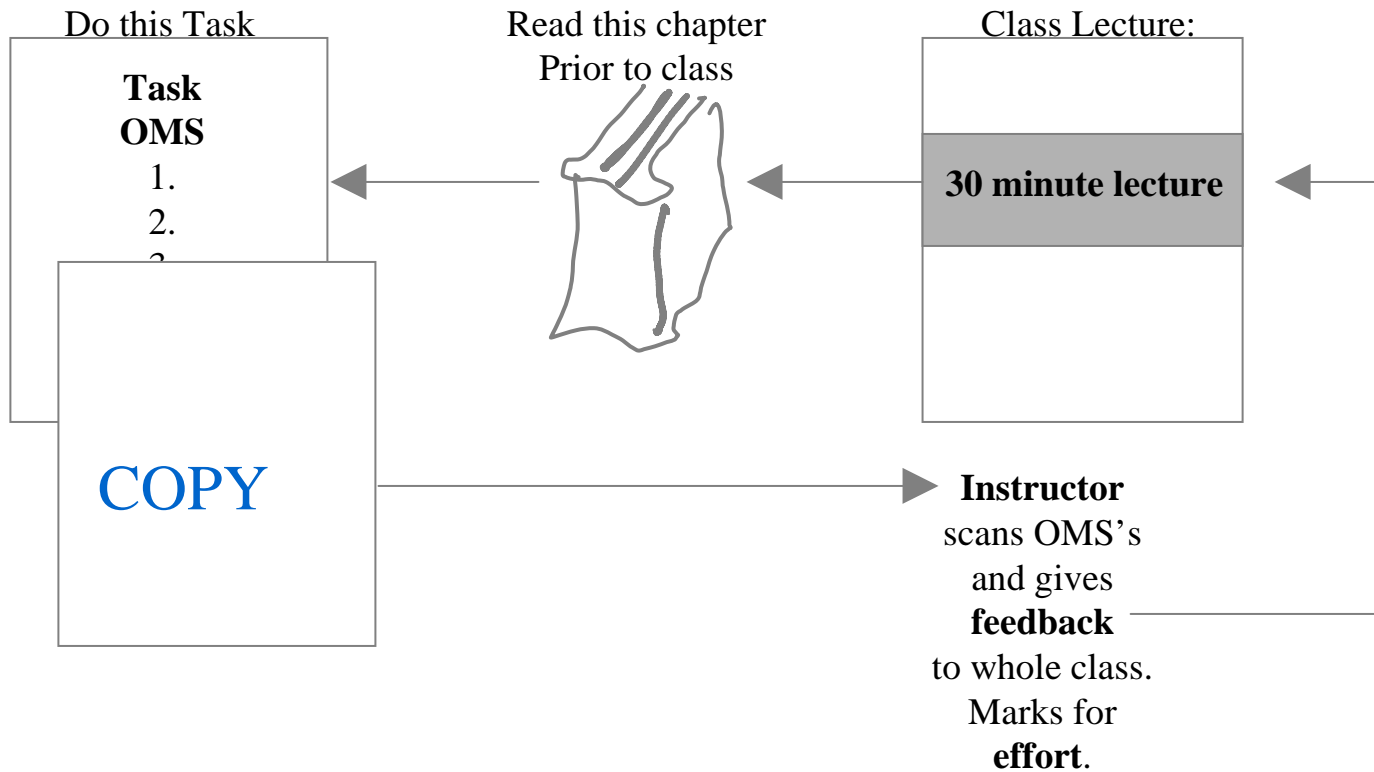
Paper version:





Effective discussions in a classroom

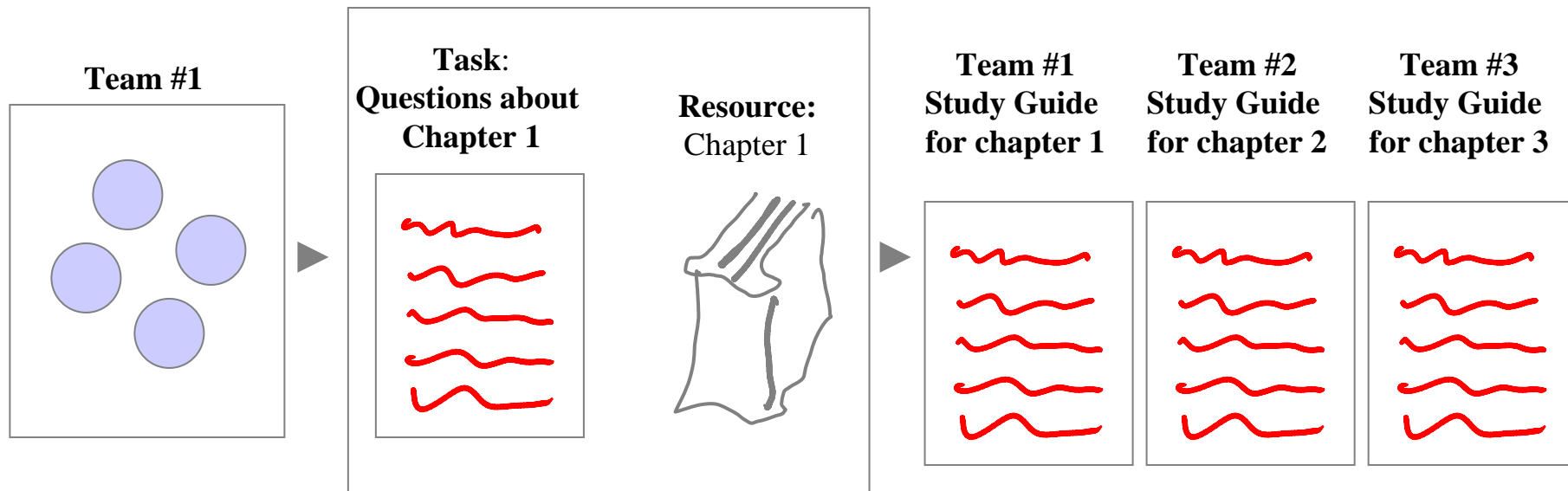
Paper version:





Student struggle with sheer volume of information

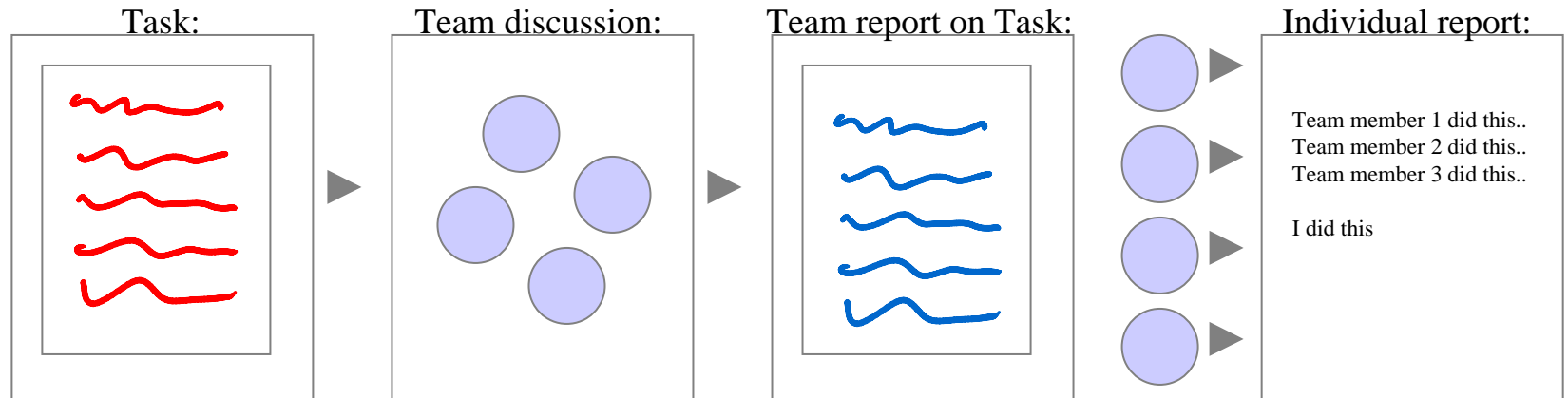
Textbook study guide for final exam.





Peer Feedback

Team Task:



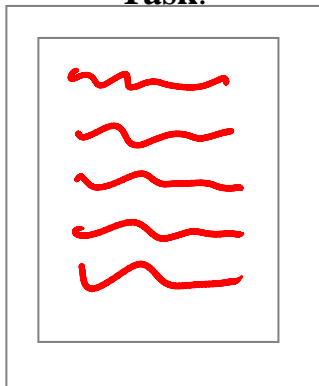


Peer Feedback

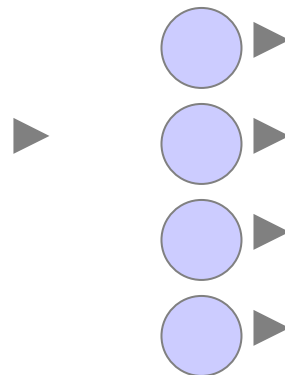
Team Task:

Case study: Ethical decision

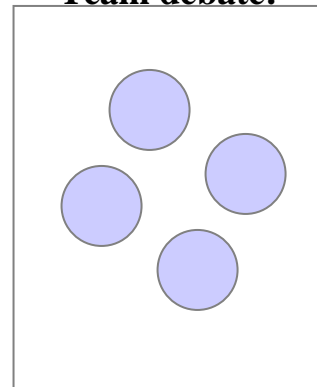
Task:



Individual student posts what they would do and why.
Can not see other postings until they have posted theirs.



Team debate:



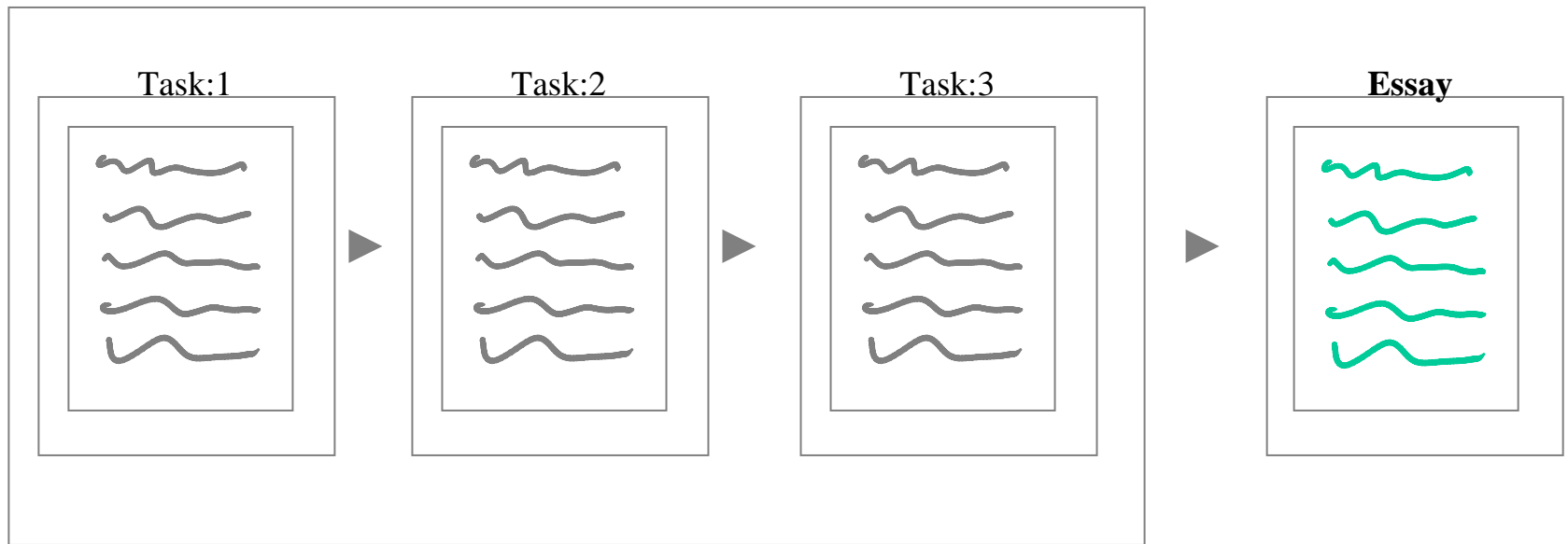
Individual report:

Team member 1 had this view..
Team member 2 had this view
Team member 3 had this view.

I agree or disagree because
and this is my view



Poor Quality of Essays



Given Mark for Effort



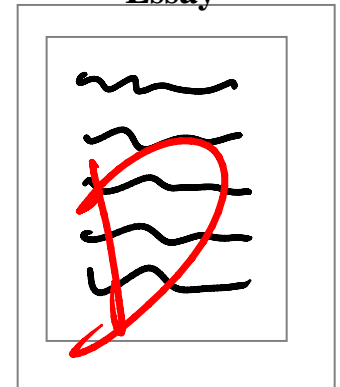
Wait until the last moment to develop library skills required for assignment.

First week of term Librarian come to class and give 1 hour lecture on library skills, to help student prepare for and perform better on assignments.

Problem:

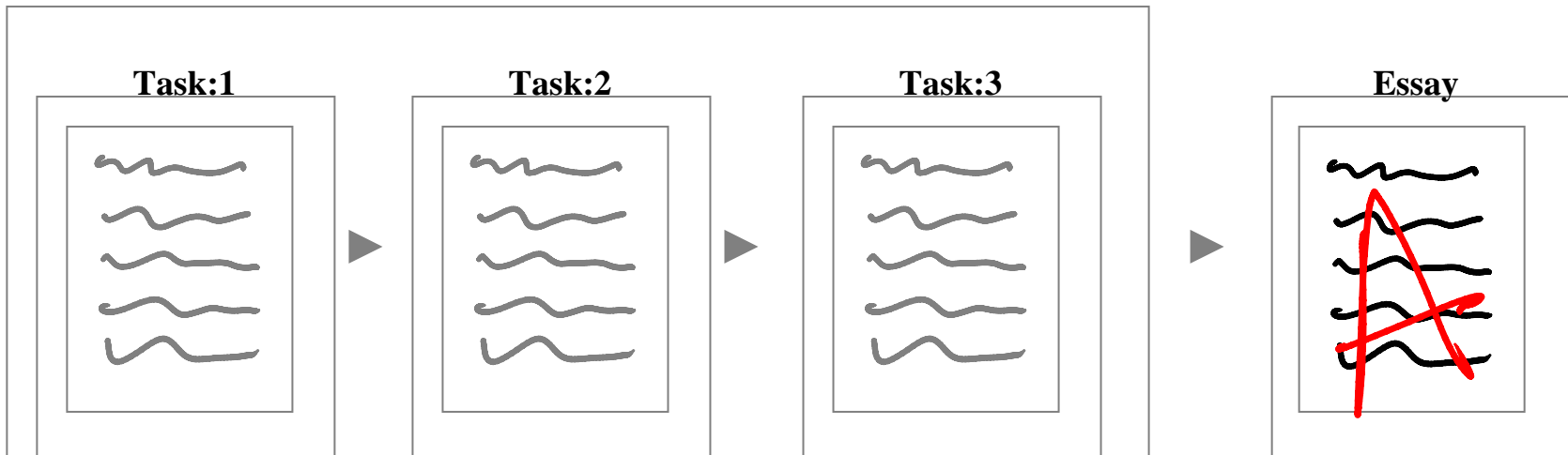
- Students didn't listen because the essays are not due until another 6 – 10 weeks.
- Librarians feel they were wasting their time.
- when students finally handed in their essay, feedback to essay was to late to make any difference

Essay





Wait until the last moment to develop library skills required for assignment.



- Librarian helped to write tasks with online library skills.
- Librarian also helped develop generic feedback for tasks.
- 50% of the essay mark was transferred to effort on task.

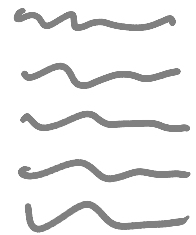


Content is simple but they just don't get it.

Mathematics students needed to learn taxonomy of terms in order to participate in class.

It was simple knowledge and connection but they just could not get the meaning and would fall behind the rest of the class.

**Taxonomy
of terms**



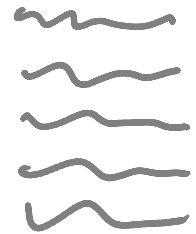


Content is simple but they just don't get it.

Task:

Write a document. The document must include 10 of the terms.

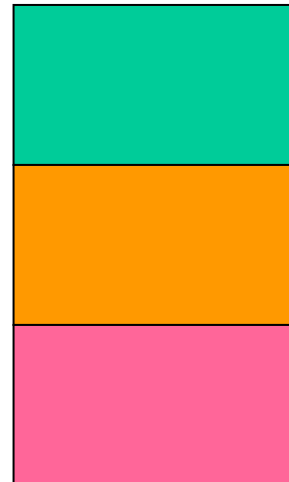
**Taxonomy
of terms**





Class Prerequisite knowledge varies

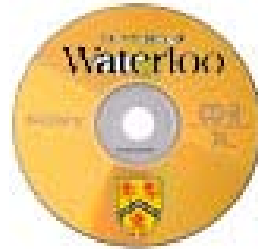
800 students



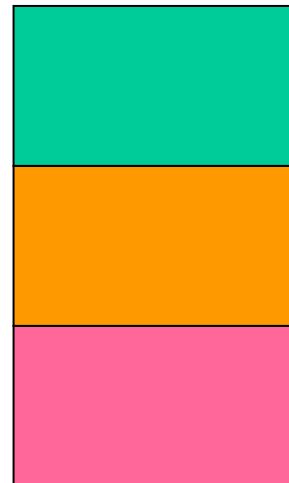


Class Prerequisite knowledge varies

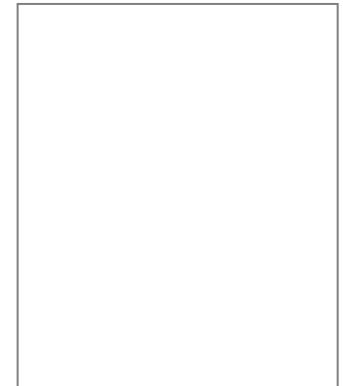
Read this chapter
Or take lecture online
or off CD



800 students

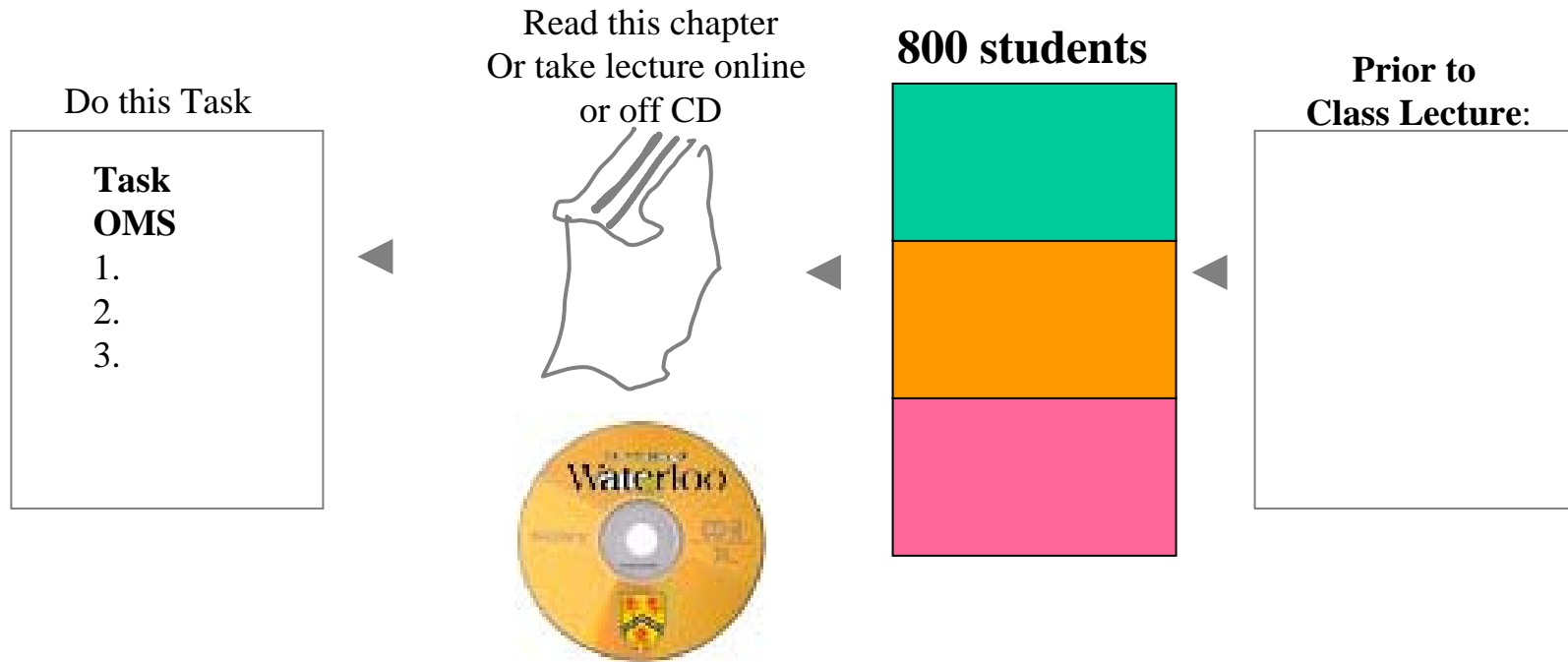


**Prior to
Class Lecture:**



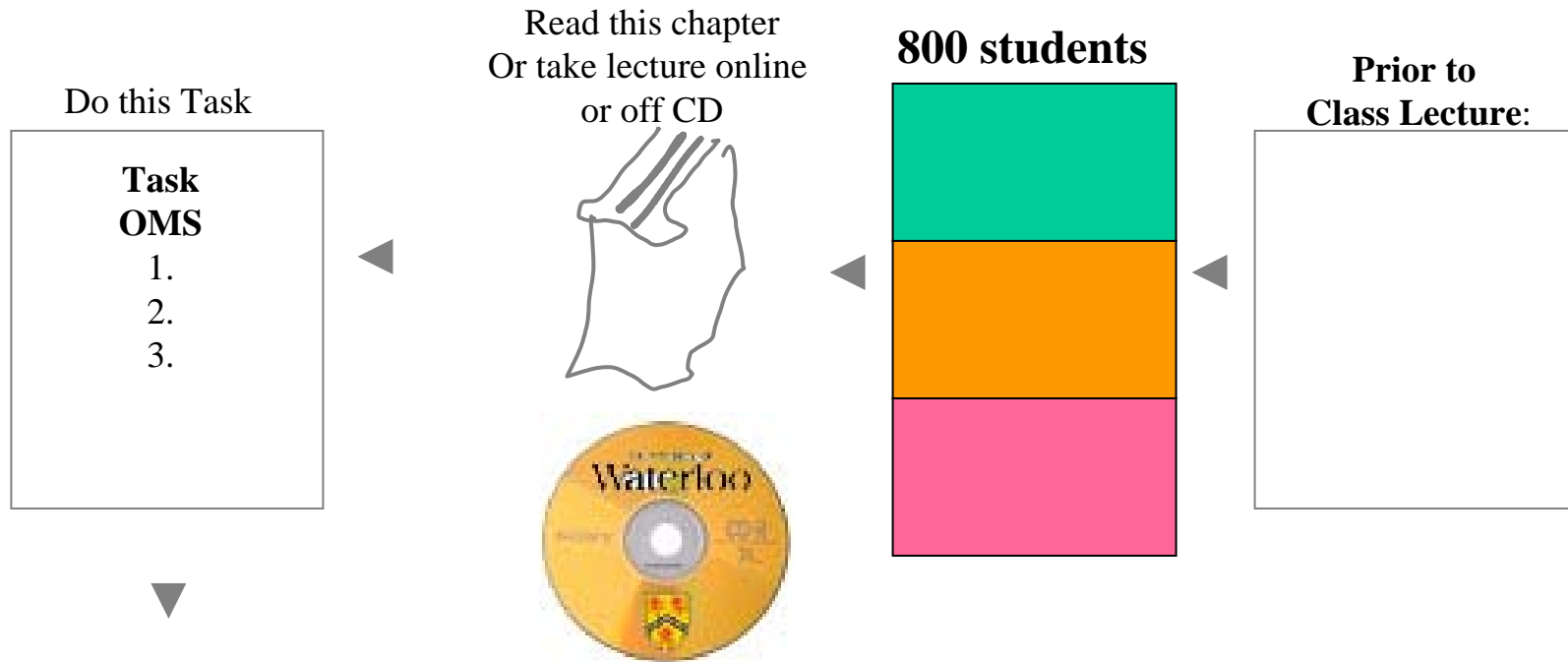


Class Prerequisite knowledge varies





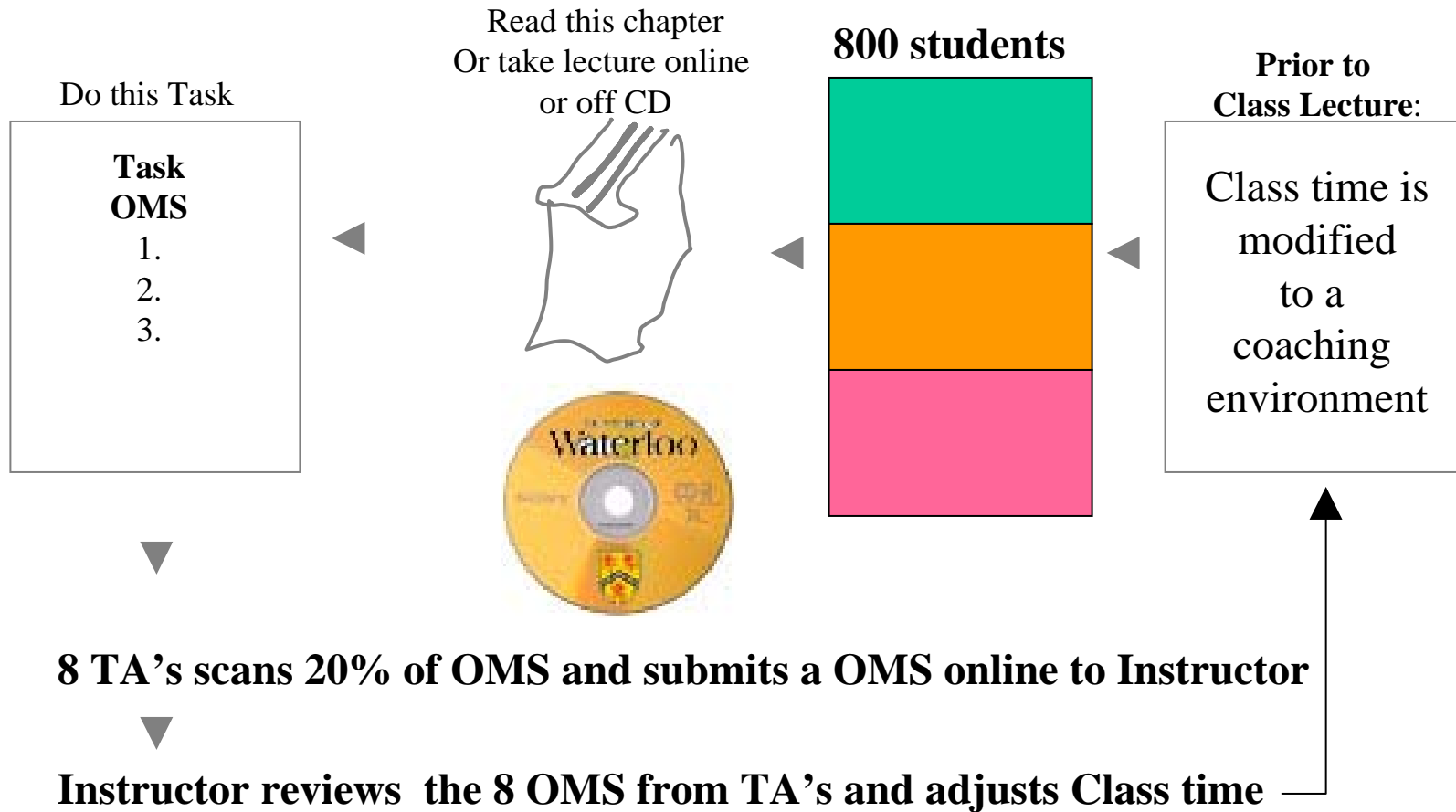
Class Prerequisite knowledge varies



8 TA's scans 20% of OMS and submits a OMS online to Instructor



Class Prerequisite knowledge varies



Steps for Designing Tasks:

Look at your course and identify a learning challenge

Course Outcomes

1. _____
2. _____

Evaluation

- _____
- _____

Unit of Study 1

Learning Outcomes

- 1.
- 2.

content

content

content

Unit of Study 1

Learning Outcomes

- 1.
- 2.

content

content

content

Unit of Study 1

Learning Outcomes

- 1.
- 2.

content

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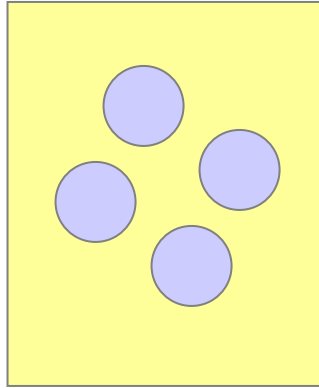
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Task:

Design a Learning Task to address a learning challenge in your course

Learning Tasks: _____

<p>Objectives:</p>
<p><i>What course objective will your task address?</i></p>
<p>The Learning Challenge:</p>
<p><i>Describe the learning problem that your task will address.</i></p>
<p>The Task:</p>
<p><i>Describe the learning task and how your students will complete the task.</i></p>



In your groups discuss your ideas for your Tasks

The New Classroom

Week 1 *Focus: Designing Tasks*

**Complete on online modules
receiving online feedback to tasks
(2 - 3 hrs)**

1. Orientation
2. Introduction to the T5 Model
3. Learning Theories
4. Designing Learning Tasks

Week 2 *Focus: Coaching on their Tasks*

**Participate in Coaching Session A
(2 hrs)**

Coaching A

Week 3 *Focus: Designing Feedback for their Tasks*

**Complete on online modules
receiving online feedback to tasks
(2 - 3 hrs)**

1. Designing Feedback
2. Expanding Time & Space for Learning

Week 4 *Focus: Coaching on their Feedback to their Tasks*

**Participate in Coaching Session A
(2 hrs)**

Coaching B



The New Classroom [online](#)





Faculty Feedback:

“Prior to engaging in this course, I was simply looking for a quick and easy solution to mounting a few handouts, assignments and old exams on a web site. Students in previous course evaluations had requested this.

When I was first exposed to the T5 learning modules, I felt that I was being led along a path that was quite different from my initial goal. I was forced to examine my teaching at a very fundamental level, essentially dealing with the philosophy of teaching and the underlying principles of learning. This led to some initial irritation and resistance on my part as I felt my established classroom teaching methods (which until now had been moderately successful) were being threatened.

After the coaching session A, I began to overcome my own resistance and initial aversion to the T5 Model. I was able to look at the creative potential of adopting the T5 methodology to core engineering courses, and using some of the new e-learning tools being offered within the T5 framework of person-centered learning. I expect these insights to lead to a better learning opportunities for my future students. “

