STRATEGIES FOR STUDENT ENGAGEMENT

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LEARNING ???

[Images of various senses: eye, ear, nose, mouth, hand, blackboard with "Blank Slate!" and a cartoon figure with a bottle pouring liquid into their head]
LEARNING NOT
Teaching requires understanding students and how they learn.

Information from Environment

Sensory Memory

Initial Processing

Short-term Memory or Working Memory

rehearsal

Encoding

Organization
Elaboration
Imagery

Long-term Memory

retrieval

transferred

transferred

forgotten

forgotten

Information Processing Theory
7 Principles for Good Practice (Chickering & Gamson, 1987)

#3 Good practice encourages active learning.

14 Principles for Improving Higher Learning (Angelo, 1993)

#1 Active learning is more effective than passive learning.

10 Principles of Learning (Engelkemeyer & Brown 1998)

#3 Learning is an active search for meaning by the learner.

ACTIVE LEARNING
Active learning is any instructional method that substantially engages the students in course content through active listening, talking, writing, reading, and reflecting. It involves the students in doing things and thinking about what they are doing.
Classroom Strategies

- Discussion
- Lecture pauses
- Classroom assessment techniques
- Small group work
- Others
Benefits of Active Learning

• Students Improved Communication Skills
  • habits of expression
  • interpersonal skills

• Students are more engaged cognitively and emotionally
  • motivation, interest
  • better attendance

• Students learn the material better and more deeply
  • retain more information
  • Higher level thinking skills

• Students may develop better metacognitive skills
Some general research results from studies of traditional lecture classes

- Student concentration declines after 10-15 minutes.
- Students are not attentive about 40% of the time.
- Students retain 70% of the material from first 10 minutes.
- Students retain 20% of the material from last 10 minutes.
- Students retain 8% more than control group 4 months later.
- Students learn mostly factual material. T
- The amount of new material presented often exceeds the limit of what students can learn. T
Interested in active learning + technology?

“A Manifesto for Active Learning”
Chronicle of Higher Education
Prof. Hacker blog
October 3, 2013

“Lectures are not the enemy of active learning.”

http://chronicle.com/blogs/profhacker/a-manifesto-for-active-learning/52705
What are the barriers?

Roundtable Activity

In your group, go around the table a couple of times, each person saying and writing a response to the question and passing the worksheet to the next person. Don’t discuss the responses at this point.

Question: *What are some obstacles or barriers that prevent college instructors from using active learning strategies?*
What are the barriers?

Pass the problem

• Pass your worksheet to another group.
• In your group, read each problem, discuss it, and propose ways that the barrier can be overcome. Write these on the worksheet.
### Low and High Risk Active Learning Strategies

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Low risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class time</td>
<td>Short</td>
<td>Long</td>
</tr>
<tr>
<td>Planning</td>
<td>Carefully planned</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>Structure</td>
<td>More</td>
<td>Less</td>
</tr>
<tr>
<td>Subject matter</td>
<td>Concrete</td>
<td>Abstract</td>
</tr>
<tr>
<td>Potential for controversy</td>
<td>Less controversial</td>
<td>More controversial</td>
</tr>
<tr>
<td>Dimension</td>
<td>Low risk</td>
<td>High risk</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Ss’ prior knowledge of subject</td>
<td>Better informed</td>
<td>Less informed</td>
</tr>
<tr>
<td>Ss’ prior knowledge of teaching technique</td>
<td>Familiar</td>
<td>Unfamiliar</td>
</tr>
<tr>
<td>T’s prior experience with teaching technique</td>
<td>Considerable</td>
<td>Limited</td>
</tr>
<tr>
<td>Pattern of interaction</td>
<td>Between T and Ss</td>
<td>Among students</td>
</tr>
</tbody>
</table>
Matrix of strategies in terms of student activity level and risk level

- Students are Active
- Students are Passive
- Low Level of Risk
- Higher Level of Risk
Classroom Strategies

- Discussion
- Lecture pauses
- Classroom assessment techniques
- Small group work
- Others
Conclusion: Getting Started

• Be prepared
  • Decide on goal of the activity, be **purposeful**
  • Make sure task is clear and specific

• Ensure participation
  • Positive learning environment, clear expectations
  • Require groups to hand in assignment, grade participation

• Maintain order
  • Limit time and group size