Active/Cooperative Learning

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The Active Learning Continuum

Make the lecture active

Instructor Centered

Active Learning

Informal Group Activities

Collaborative Learning

Structured Team Activities

Cooperative Learning

Problems Drive the Course

Student Centered

Problem-Based Learning
Effectiveness of Short Activities: Less Can Be More

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<tr>
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<th>With Pause</th>
<th>Without Pause</th>
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<tbody>
<tr>
<td>Short term recall</td>
<td>108 correct facts recalled after lecture</td>
<td>80 correct facts recalled after lecture</td>
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<tr>
<td>Long term recall</td>
<td>Average exam score = 84.9</td>
<td>Average exam score = 76.7</td>
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Ruhl et al., Using the Pause Procedure to Enhance Lecture Recall”, Teacher Education and Special Education, Vol. 10, Winter 1987
Active Learning: Twice As Effective as Lecturing

Incorporating Active Learning: Variations on How We Ask Questions
Common Faculty Questions

How much time does it take to prepare?

Often very little

Can I still cover the syllabus?

YES!!
Active Learning and Teams

Consider the Following Scenario

- You assign 4 homework problems to teams of 4 students
- Students pick teams
- One solution handed in
- Same grade for all

What could go wrong?
CL Criteria: Structures to Improve Teams

- Regular self-assessment of group functioning
- Face-to-face interaction
- Appropriate use of interpersonal skills
- Positive interdependence
- Individual accountability
Does Cooperative Learning Work?

• **Achievement:**

• **Retention:**

• **Student Attitudes**