Effective Teaching = Effective Learning: Using Teaching Strategies to Support Learning

Peggy Hsieh, MEd, PhD
Peggy.H.Huang@uth.tmc.edu

Objectives
By the end of the workshop, participants will be able to

- Explain the importance of activating prior knowledge
- Explain the importance of active learning
- Implement the most effective teaching strategy for your learners.

What does Effective Teaching (ET) look like?

In-Class Activity Idea (+Rationale)
- Pass, pass, pass

Learning is influenced by social interactions and communication with others.

MIT Graduates: Can you light a bulb with a battery?
Effective Teaching (ET) is:

Understanding:
- learners’ prior knowledge
- how learners process information
- why learners don’t understand.

ET is:
- Use different teaching strategies
- Frequent assessments (in-class activities)
- Help learners understand, retain, apply, integrate & evaluate information.

Questioning is to:
- find out what learners already know
- identify gaps in knowledge and close knowledge gaps.

Avoid:
- asking too many questions at once
- asking ambiguous questions
- answering your own questions → mini-lecture
- asking questions to only a subset of students
- asking closed-ended questions
- questioning too aggressively.

DO:
- Explain why you ask questions
- Wait
Educators: Discuss strategies you've used to convey a vague/challenging concept.

In-Class Activity Idea
- Think, pair, share

Selecting the MOST appropriate teaching strategy
- Subject matter
- Concept
- Learning objectives
- Learners’ knowledge of the subject
- Available time
- Group size
- Resources.

3 Categories of Strategies
1. Rehearsal
2. Elaboration
3. Organization

Capture Memorize → Recall Comprehension → Application, Integration

“A curious peculiarity of our memory is that things are impressed better by active than by passive repetition…”

William James
Principles of Psychology (1890)

parthenogenesis
Origin: Greek
partheno = without fertilization
 genesis = creation

parthenogenesis
Definition: Reproduction without fertilization

Examples: Earliest documented use: 1849 Cape bees,
Fresh water snails, Fire ants

Learning is deeper and more durable when it is effortful

Illusion of Knowing

- Monitor learners’ comprehension


How easily something is recalled depends on how it was initially learned, how often it has been used, if it makes sense and does it have meaning.

Quizzes, In-class Activities


Use teaching techniques that will promote ACTIVE learning

Interactive Lectures
Polls
Discussion
Case Study
Demonstration
Role Play
Think-Pair-Share activity

Provide opportunities for students to organize new information & reflect

<table>
<thead>
<tr>
<th>In-Class Activity</th>
<th>Faculty Prep Time (Low/Med/Hi)</th>
<th>When to implement (Pre, During, Post)</th>
<th>Length/Duration During Class (Mins)</th>
<th>Indiv/Group</th>
<th>Level of Thinking (Low/Med/Hi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass, Pass, Pass</td>
<td>Low</td>
<td>Any</td>
<td>Depends</td>
<td>Ind</td>
<td>Med</td>
</tr>
<tr>
<td>Minute Paper</td>
<td>Low</td>
<td>Any</td>
<td>1</td>
<td>Ind</td>
<td>Med</td>
</tr>
<tr>
<td>One-Sentence Summary</td>
<td>Low</td>
<td>Any</td>
<td>Depends</td>
<td>Ind</td>
<td>High</td>
</tr>
<tr>
<td>Pros and Cons Table</td>
<td>Low</td>
<td>Any</td>
<td>Depends</td>
<td>Ind/Group</td>
<td>High</td>
</tr>
<tr>
<td>Comparative Organizer</td>
<td>Med/High</td>
<td>Any</td>
<td>Depends</td>
<td>Ind/Group</td>
<td>High</td>
</tr>
<tr>
<td>Exit Slip</td>
<td>Low</td>
<td>Any</td>
<td>Depends</td>
<td>Ind</td>
<td>High</td>
</tr>
</tbody>
</table>
Implications for Instruction

- Help students become more *metacognitively* aware
- The most effective teaching involves leading participants to a point of reflection on content.

- What does this mean to me?
- How can I use this?
- Is this better than what I’m doing now?

So, are YOU an Effective Teacher (ET)?