Active Learning - Creating Excitement in the Classroom

1. What is Active Learning?

According to Active Learning Handbook, active learning is a process wherein students are actively engaged in building understanding of facts, ideas, and skills through the completion of instructor directed tasks and activities. It is any type of activity that gets students involved in the learning process.

2. Why Active Learning?

To engage students in:

a) Thinking critically and creatively,
b) Speaking with a partner, in a small group or with the entire class,
c) Expressing ideas through writing,
d) Exploring personal attitudes and values,
e) Giving and receiving feedback,
f) Reflection upon the learning process.

IMPORTANT TIP

Before considering using active learning instructional strategies it is important and helpful to address the big question "What's wrong with a 50-minute lecture?"

3. The Roles

Teacher Roles	
Traditional Practices	**Active Learning Approach**
• Teacher-centered classroom	• Learner-centered classroom
• Product-centered classroom	• Process-centered classroom
• Teacher as transmitter of knowledge	• Teacher as organizer of knowledge
• Teacher as 'doer' for learners	• Teacher as an 'enabler'
• Subject specific focus	• Holistic learning focus
Learner Roles	
• Passive recipients of knowledge	• Active and participatory learners
• Answering questions	• Asking questions
• Being spoon-fed	• Taking responsibilities for their own learning
• Competing with one another	• Collaborating in their learning
• Wanting to have their own say	• Actively listening to the opinions of others
• Learning individual subjects	• Connecting their learning

(Taken from http://fys-forums.eu/en/fys-toolkit/forum-curriculum/161-active-learning-methods)

4. A Comparison of Simple and Complex Active Learning Strategies

Dimension	Simple	Complex
Class Time Required	Relatively short	Relatively long
Degree Structured	More structured	Less structured
Degree Planning	Meticulously planned	Spontaneous
Subject Matter	Relatively accurate	Relatively abstract
Students Prior Knowledge of Subject Matter	Better informed	Less informed
Students Prior Knowledge of the Teaching Technique	Familiar	Unfamiliar
Instructor's Prior Experience with the Teaching Technique	Considerable	Limited
Pattern of Interaction	Between faculty & students	Among students

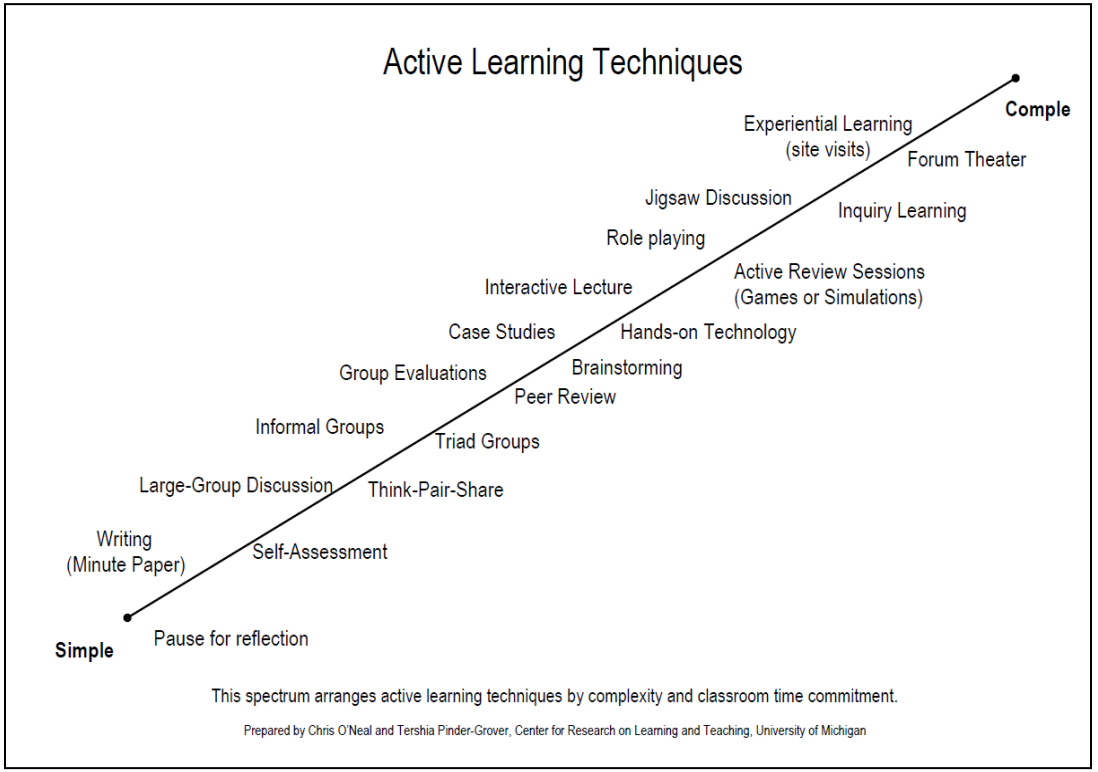
"INTERACTIVE LECTURE"

Low-Risk High Impact

5. Incorporate Active Learning into Learning Activities

Group Learning Activities	Individual Learning Activities
• Large-group discussion • Think-pair-share • Cooperative group in class (Informal Group) • Peer review • Group evaluations • Brainstorming • Case studies • Role playing • Jigsaw Discussion • Forum Theater • Integrating debates into course assignments	• Clarification pause • Writing activities • Self-assessment • Inviting effective guest speakers • Connecting course content to current events
Individual & Group Activities	
• Hands–on technology • Interactive lecture • Active review session (games or stimulation) • Experiential Learning	

Taken from http://www-personal.umd.umich.edu/~pksmith/ActiveLearningStrategies.pdf



6. Instructional Materials

Traditional Lectures	Interactive Lectures
Instructor talks & students listen with minimal interruptions.	Instructor talks with periodic pauses for structured activities.
Student concentration can be observed dropping after 10-15 minutes	As student concentration begins to wane, a short structured in-class activity is assigned
Instructor‘s questions are largely rhetorical	Instructor‘s questions require responses
Students‘ responses to an instructor‘s questions are commonly made by students raising their hands	Students‘ responses to an instructor‘s questions are commonly made by using a clicker or Answer Sheet
Student-to-student talk is discouraged	Student-to-student talk is encouraged
Students listen and take notes independently	Students often work with partners or in groups
Student comprehension during the lecture is not monitored explicitly	Student comprehension during the lecture is assessed directly
Opportunities to correct misunderstandings are not provided routinely during the lecture	Opportunities to correct misunderstandings are periodically provided within the lecture

7. Assessments

Formative	Summative
Pop-Quiz	Examination
Debriefing	Final Project Presentation
Observations	Prototype Presentation
Peer-Assessment	
Self-Assessment	
Presentations and Demonstrations	
Student Survey	
Rubrics	

8. Resources

- Eison, J. (2010). Using Active Learning Instructional Strategies to Create Excitement and Enhance Learning. 1-20.
- Webster University. (2006). Active Learning. Active Learning Handbook, 1-32.
- (http://webs.wichita.edu/depttools/depttoolsmemberfiles/carolynshaw/Gibson%20Shaw%20compendium.pdf)

LEARNING SCIENCES LAB
OFFICE OF EDUCATION

Materials prepared by:
Clement Lim Jun Hiung
Nachamma Sockalingam

"***Learning is not a spectator sport***. Students do not learn much just by sitting in class listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to experiences, and apply it to their daily lives. They must make what they learn part of themselves "(Chickering & Gamson, 1987).