A little less lecture,
A lot more inspiration!
Teaching college courses as an adjunct for 12+ years

I learned digital photography for fun
ACTIVE LEARNING
On a notecard, write your own definition for “Active Learning”
Volunteer? Lead us as a group in identifying the themes that emerged from this definition
“**Active learning** refers to techniques where students do more than simply listen to a lecture. Students are DOING something including discovering, processing, and applying information. Active learning "derives from two basic assumptions: (1) that learning is by nature an active endeavor and (2) that different people learn in different ways" (Meyers and Jones, 1993).”

**Kathleen McKinney,**  
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TYPES OF ACTIVITIES

**SHARE**

Activities which encourage students to share their personalities, prior knowledge or plans

**EXAMPLES:**

Notes comparisons (Paulson/Faust, #18)

Icebreakers

Picture Making (draw a picture of the student who will be successful in this class)

Holidays, birthdays, celebrations

Breaking bread
Activities which encourage students to focus at the beginning of class, or to zero in on a specific concept

EXEMPLARY:

- Daily Journal
  (Paulson/Faust, #4)
- Pre-Theoretic Intuitions Quiz
  (Paulson/Faust, #15)
- Pair-share (UNC)
- Buzz Groups (UNC)
- Panel Discussion
- Reverse Thinking (Argue your point, but from the opposite perspective)
## TYPES OF ACTIVITIES

### ASSESS

Activities which **assess** student understanding, confidence and progress

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Activities which introduce students to new concepts, or allow them to apply previously learned knowledge

EXAMPLES:

Student Summary of Another Student’s Answer (Paulson/Faust, #9)

Three-Step Interview (UNC)

Students Writing Quiz Questions (Paulson/Faust, #11)

Puzzles and Paradoxes (Paulson/Faust, #16)

Whole-Class Debates (UNC)

Role Playing (Paulson/Faust, #26 & UNC)
On a note card, write down one of the following that you feel would be most useful in your class:

SHARE

FOCUS

ASSESS

LEARN
Find one other person who has the same purpose as yours.

As a pair, identify one activity you both feel comfortable with from any of the handouts.

Share with the group why you picked this particular activity.
Muddiest / Clearest Point

On a note card, write down one point that you consider to be the muddiest, or one you consider to be the clearest up to this point. Be prepared to share.
THE ART OF ASKING QUESTIONS

"If you're not confused then you really don't know what's going on...!"
Some interesting research...

“A study of college faculty in a variety of different institutions showed that, on average, college professors devote only 3.65% of class time to questioning, regardless of course level or academic field.

“Moreover, 63% of these questions are directed at the lowest cognitive level, requiring only recapitulation, clarification, or factual responses.”

Bloom’s Taxonomy (of educational objectives)

1. Knowledge – at this level, information can be recalled.

2. Comprehension – at the level, information can be interpreted and translated

3. Application – at this level, information is used to solve problems

4. Analysis – at this level, information can be broken into parts and relationships between the parts understood

5. Synthesis – at this level, information can be used to create novel information

6. Evaluation – at this level, information can be compared, contrasted and judged against a given criteria
Questions come in different flavors...

“NEW MEXICO SHOULD BUILD ANOTHER COAL POWER PLANT”

• Do you agree with this statement? (closed)
• How would the power plant change your life? (open)

• The plant would be built in which area? (convergent)
• How might the plant impact the environment? (divergent)
...And with different purposes

Knowledge
When is the plant proposed to be built?

Comprehension
Describe the plant project in your own words (no value judgments).

Application
How will the actual construction impact transportation through the state?

Analysis
How does this plant compare to the similar projects in Arizona?

Synthesis
What alternatives to the plant would you propose?

Evaluation
Do you believe we should build the plant?
Why or why not? How would you articulate your biases?
In addition to asking questions, you will need to respond when other students ask you questions.

Normally, our first response is to simply provide the student with the answer he or she is seeking. But is this the best response?

Remember, learners should be encouraged to find their own answers. This is part of the growing process. But how can you encourage students to do so without sending your students away angry?
Q “Are coal plants bad for the environment?”

PARAPHRASE THE QUESTION. By phrasing the question in your own words, the answer may become more obvious to the student.

REDIRECT THE QUESTION. Ask another student to respond to the question. Or pose the question to the class in general.

ASK PROBING QUESTIONS. Throw the question back the student by picking apart the larger question, and asking a detailed question in return. Get the student to evaluate the components of the question they originally asked.

SOURCE (paraphrased and quoted):
PROMOTE A DISCUSSION about the question. If the question is central to the issues you are teaching, break the class into groups and ask them to formulate an answer. Once the group reconvenes, ask the groups to share and discuss their responses.

POSTPONE THE QUESTION. Perhaps the question will be covered later in the class in greater detail. In such an instance, you should feel comfortable acknowledging the value of the question, and stating that it will be answered at a future time.

SOURCE (paraphrased and quoted):
Q “Are coal plants bad for the environment?”

**DISCOURAGE INAPPROPRIATE QUESTIONS.** Occasionally students ask inappropriate questions intended to get attention or sidetrack the class. It is important to maintain control in the classroom while still respecting the dignity of the student. Offer to respond to the student’s questions after the class or training session is over.

**ADMIT WHEN YOU DO NOT KNOW THE ANSWER.** Never make up an answer. If you do not know, admit you do not know. Your credibility will not suffer. But if students find out later you faked an answer, your credibility may be destroyed.

SOURCE (paraphrased and quoted):
“Are coal plants bad for the environment?”

UTILIZE PAUSES AND SILENCE. Pauses in conversation prompt people to think. Do not fear pauses. At times, you may even ask students to not respond for 30 seconds (it will seem MUCH longer).

(experiment... close your eyes and don’t count... raise your hand when we you think we are at 30 seconds)

NEVER PUT STUDENTS DOWN. Always thank students for asking questions, or for answering questions, even if their answers are incorrect.

SOURCE (paraphrased and quoted):
“Are coal plants bad for the environment?”

**ANSWER THE QUESTION.** There are also times when it is appropriate to answer the student questions yourself. For instance, if time is short, or if the question involves knowledge the class is not likely to have. When you provide a direct answer, be brief and concise. Watch the reaction on the face of the student to make sure they follow what you say.

**SOURCE (paraphrased and quoted):**
Return of the Muddiest Point (the sequel)

Discussion of a few cards from earlier
Scan through the three handouts.

Design a twenty minute in-class activity (or interconnected series of activities) that addresses this issue from one of the following:

- Environmental perspective
- Cultural perspective
- Economic / Political perspectives

Be prepared to share your plan with the rest of the group
Don’t get tied to any one activity or model, and don’t follow the rules so closely that you forget the main idea... the purpose is for students to learn, not for your activity to go well.

Let yourself be inspired by lessons learned from others. Steal good ideas and then re-engineer them mercilessly. Nothing is 100% original (there is nothing new under the sun... but it’s still new to me!)

Some of our best ideas come from our failures.

Students who are engaged are receptive... Students who are confused are ready to learn... and Students who are happy teach their friends.
Thank You for Your Participation!