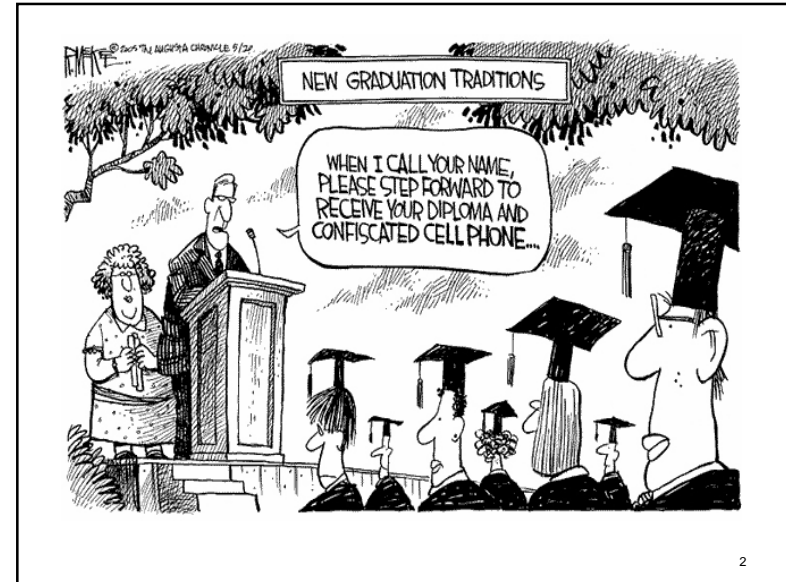


“Are You the Only Active Learner in the Classroom?”



Dr. Stewart Ross
Minnesota State University



“Tell me and I forget. Show me and I remember. Involve me and I understand.”

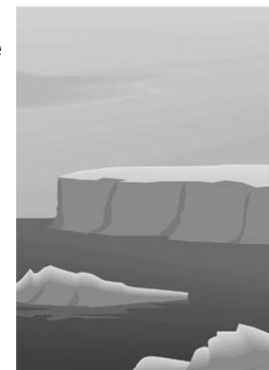
- Chinese proverb



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Icebreakers

- One of the easiest yet effective ways to incorporate active learning into a class
- Particularly useful at early meetings of a course
- Can create a “safe” classroom over time
- Even a course using traditional lecture could benefit from the use of occasional icebreakers.



4

What is Active Learning?

- Active learning occurs when students are given the opportunity to interact with the subject matter of a course. It is anything students do in the classroom other than passively listening to a lecture.
- Students generate rather than receive knowledge. Impossible to transmit knowledge.
- The teacher facilitates rather than dictates the students' learning.
- Active learning can vary from occasional use in a course to the main "teaching" strategy used by the instructor.

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Why Use Active Learning?

- Research suggests that active learning is an exceptionally effective teaching technique.
- Regardless of subject matter, when compared to traditional teaching methods (lecture), students learn more material, retain the information longer, meet other students, and enjoy class more.
- Much more later...



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Active Lectures

- Structured notes
- Clarification pauses
- Muddiest point
- One minute papers
- Presentation with listening teams
- Wait time after question is asked
- Feedback cards or devices



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Collaborative/Cooperative learning



- Collaborative learning is one of the most powerful tools instructors have in higher education.
- Students get a chance to speak, share personal views, and develop the skill of working with others.
- Requires that group members work together to complete a given task.

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Think-pair share

- Students are given time to think about a topic, turn to their neighbor for a short discussion, and then share the results with the rest of the class.
- Can be used in any size classroom
- Works well with any subject or topic
- Useful in moving traditional lectures to active lectures



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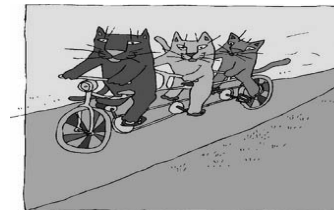


"I forgot to make a back-up copy of my brain, so everything I learned last semester was lost."

11

Classroom Assessment Techniques (CAT's)

Students are given a few minutes during, or at the end, of a class to answer questions such as: "What was the most important thing you learned today?"



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Brainstorming

- A simple technique that can involve an entire class in a discussion
- The instructor introduces a topic or problem and then asks for student input.
- Works well with pair-share



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Games

- Games related to a subject can easily be incorporated into the classroom to foster active learning and increased participation.
- Games might include matching, mysteries, group competitions, solving puzzles, and jeopardy.



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Debates

- Debates staged in class can be effective tools for encouraging students to think about several sides of an issue.
- Debates can vary from simple, in-class presentations to more elaborate work over a period of time and with a group.
- Debates can be particularly powerful learning tools when students have to switch sides.



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“I used a \$3,000 computer, a \$1200 laser printer and a \$300 word-processing program—and I still got a D on my term paper!”

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Role play

- Most people have heard that you really don't know something until you can teach it. Through role play, students actually experience the material they are studying.
- Role play can be simple to complex depending on the course, level of students, and time given for student preparation.

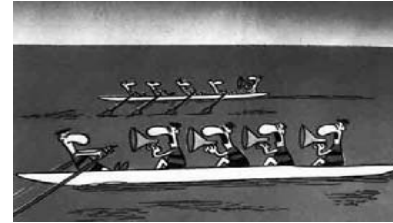


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Team based learning

<http://www.ou.edu/idp/teamlearning/>

- Team based learning goes a step further than cooperative learning with students staying in the same group for an entire semester, transforming groups into teams.



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Case studies

- Instructors who use case studies find real-life stories or problems that prompt students to integrate their classroom knowledge with their understanding of real-world situations, actions, and consequences.
- Instructors can develop case studies to fit the topics and material being studied.



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Case study example

“When Twins Marry Twins” - *Deborah E. Allen*



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Problem based learning

- **Problem-based Learning:** PBL is any learning environment in which the problem drives the learning. PBL is an important part of Team based learning.



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Writing assignments by individuals

- Provides students with the opportunity to think about and process information
- Many options for writing activities including reflections on material learned.
- Provides valuable feedback to instructor and student
- Daily journals a popular technique



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Service learning



- Service-learning is an educational method that entwines the threads of experiential learning and community service.
- It meets educational objectives through real-world experiences, while tapping youths as resources to benefit their college and communities.
- Students can discuss and reflect on subject matter outside of the classroom and with others besides the instructor.

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IF-AT

<http://www.epsteineducation.com/>

- A relatively new strategy that encourages active learning is the Immediate Feedback Assessment Technique (IF-AT).
- This multiple-choice procedure provides immediate feedback to students and partial credit for answers.
- Powerful with team based learning.

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF-AT®)

Name _____ Test # _____
Subject _____ Total _____

SEARCH FOR COVERING TO EXPOSE ANSWER

| | A | B | C | D | Score |
|----|--------------------------|--------------------------|--------------------------|--------------------------|-------|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| 6. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |



IF-AT

- This is a particularly powerful tool when used with groups.
- Each group decides the best answer and scratches off the coating of the rectangle corresponding to the answer. If correct, a star appears.
- If the first answer is incorrect, the group continues to look for the next best answer and scratch rectangles until the correct answer is found.

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Value of active learning

- Fosters metacognition in students
- Involves students in the learning process
- Classroom results tend to improve with deeper learning evident through connections with material from the students' own experience.
- Builds diversity understanding among students as they learn about each other

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Value of active learning

- Develops learning communities and study groups
- Encourages students to seek help and accept tutoring from peers
- Cooperation reduces anxiety
- Provides a variety of assessments for student learning
- Develops oral communication skills through classroom discussions

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Value of active learning

- Models appropriate student problem solving techniques
- Develops social support system for students
- Established a positive atmosphere for preparing students for real world workplace where teamwork is often crucial to success

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Value of active learning

- Large classes can be more personalized with pair-share work
- Increases excitement and interest for the instructors who learn new things in each class period since they can't depend on lectures and must sometimes improvise
- Encourages students take responsibility for their own education

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"Algebra class will be important to you later in life because there's going to be a test six weeks from now."

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"The teachers who get "burned out" are not the ones who are constantly learning, which can be exhilarating, but those who feel they must stay in control and ahead of the students at all times."

- Frank Smith

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"The best learners... often make the worst teachers. They are, in a very real sense, perceptually challenged. They cannot imagine what it must be like to struggle to learn **something** that comes so naturally to them."

- Steven Brookfield

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"If a doctor, lawyer, or dentist had 40 (or 400) people in his office at one time, all of whom had different needs, and some of whom didn't want to be there and were causing trouble, and the doctor, lawyer, or dentist, without assistance, had to treat them all with professional excellence for nine months, then he might have some conception of the classroom teacher's job." - Donald D. Quinn

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Take some risks!



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- Check out the MSU Center for Excellence in Teaching and Learning website at:
- www.mnsu.edu/cetl

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