

What are Active Learning Techniques? Part I

Scenario: You are a new librarian involved in instruction. You have been asked to provide instruction on a given topic to undergraduates at UT-Austin. You have one 45-minute class session in which to provide instructional content. You are interested in incorporating one or more active learning techniques.

A. You and a partner will be assigned to design a 45-minute class that will cover one or more problem or content areas. Each student will be randomly assigned a problem or content area. Pairs may select to focus on one of the two problem/content areas.

B. Use the modified “Designs for Active Learning” template. Use one template for each active learning technique you plan to employ.

C. You may select one or more techniques listed on the handout, “Sample Activities/Approaches/Formats/Equipment/Supplies.” Or, you can devise your own active learning techniques.

D. You and your partner will be asked to report on your plan!

1. PROBLEM (CONTENT) AREAS

Library of Congress or Dewey Decimal Classification

Keyword searching/controlled vocabulary

How to locate citations to articles using the library's electronic indexes

How to locate 'known' periodical articles within the library

How to narrow a search

How to broaden a search

How to locate information on authors of periodical articles

How to distinguish between types of periodicals: e.g., scholarly & research journals;
professional, trade & industry journals; newspapers; popular magazines

Library policies

Using a specific print reference title

Locating periodicals on display

Locating bound periodicals

Introduction to the online catalog

Boolean searching

Interdisciplinary subject searching

Evaluating resources/citations

Understanding the differences between print and electronic indexes

Selecting a research paper topic

Interlibrary loan

Evaluating information on the WWW

SAMPLE ACTIVITIES/APPROACHES/FORMATS/EQUIPMENT/SUPPLIES

Electronic Discussion List: Set up an internal electronic discussion list (AKA, listserv) for your audience. All students must have e-mail accounts.

Case Study: Descriptions of a decision or a program, written from the perspective of the person who is the decision-maker. Aimed at developing problem solving skills. Respondents can describe situations, determine alternative strategies, evaluate strategies, and identify collateral problems or issues.

Worksheets to be Completed in Small Groups: Worksheets can provide individuals with an opportunity to contribute to group learning. They can serve as a deterrent to 'social loafing.' They can be constructed to provide instruction. They can be customized by subject area and audience. Worksheets can be graded or for in-class use only. They can be designed as evaluation tools for the instructor and thus provide feedback on learner achievement and attitudes.

Worksheets to be Completed Individually

Five-Minute Letter: Reserve the last 10-15 minutes of an instruction class. Ask each student to write you a brief letter about their reaction to the instruction session. Give them two to three guidelines for this letter. The most general guideline might be to write about the "three knows":

1. What did you know coming into this class that was a review?
2. What did you learn today?
3. What do you still need to know to complete your class assignment?

Printed Pathfinder: Pathfinders can identify useful resources and also teach a process. How would you use a pathfinder in an active learning activity? How could you convert creating a pathfinder to an active learning activity?

Lecture, in addition to at least one other technique:

Customized Tour: Organizing a physical or virtual navigation through an area of resource.

Structuring a Session with Questions: Structuring a session with questions. Students take three minutes to pair off and write down three questions they would like to have answered during the session. The instructor writes the questions on the board, sorting

them into broad areas. The instructor asks if there are additional questions. Then, he or she asks students whether anyone can answer the questions.

Student Group Activity: Each group member is assigned a task within the group. The Navigator steers the group. The Helmsman does the keyboarding or searching. The Recorder completes the written report or worksheet. The Reporter gives a one-minute summary of the group's activities.

Student Oral Reports:

Building/Designing a Database: The instructor locates a short magazine article on a general topic. Students read the article, circle indexing terms and write down additional terms. Students decide on searchable fields. Students select 3-5 subject terms. Students compare their results with an actual citation for this article in a real database.

Proposal Writing: Students are assigned to groups of four or five. Each group must sketch out a proposal for a group project. The proposal includes a plan for how to gather literature on the topic, including selection of specific databases and search terms.

Challenging "Expert" Information: The instructor locates an attention-grabbing article from a source such as the New York Times. Students read the article quickly. They write down any questions they might have that question the author's facts, arguments, and/or position. Students decide on which databases to search and develop a search strategy. Students break into groups of three or four to search for information on different questions, using different databases.

Human Boolean Exercise: The instructor prepares a form that asks students: name; gender; year in school; date of birth; color of shirt/blouse; corrected vision. Instructor uses data from the forms to create sets. E.g., DOB (April OR May OR Ju?).

Knowledge Test: Using a data collection instrument, survey, or quiz to assess student knowledge at the beginning and/or end of a session. Can be used also in evaluation.

Role Playing: Portraying various scenarios that occur in the research or information seeking process. Can be scripted or unscripted.

Teaching Boolean Operators Using a Deck of Cards: Place a card on each student's seat before the class begins. Ask students to hold up cards that meet certain criteria. 1. (face card AND red card) 2. (face card OR red card). 3. Ask for other broad (black or red) and narrow (black and queen) examples. 4. Ask for more complex combinations ((face OR ace) and red).

Write the examples on the board, using boolean operators.

Cookie Recipe to Illustrate Boolean Searching: Instructor provides list of ingredients for an oatmeal cookie recipe.

½ c. butter, softened	1 t. vanilla extract	½ t. baking powder
½ t. allspice	1 c. chopped nuts	½ t. salt
1/2 t. allspice	1 t. cinnamon	1-1/2 c. rolled oats
½ t. baking soda	1-1/2 c. flour	
2 eggs	1 c. sugar	
1 c. raisins	1/4 c. milk	

Substitute ingredients to illustrate OR. Add ingredients in stages to illustrate AND.
Exclude ingredients to illustrate NOT.

Using Index Citations to Analyze Topic Change over Time: Students are given a bibliography on a given topic; citations are from two-twenty years old. Students work in pairs to study the citations to look for patterns in the scholarship on this topic. For example, students analyze the authors. The class discusses the results. The instructor tallies a list of possible approaches to studying this literature.

Supplies: General office supplies.

Artifacts: stuffed toys, postcards, canned foods, children's picture books, kitchen tools, book covers, deck(s) of cards

Formats: Print; electronic; presentation software; HTML presentation; hypermedia stack; audiotape; videotape; CD ROM; on disc

Setting: in students' classroom; in library reference area; in electronic classroom; online or virtual participation; interactive video

What are Active Learning Techniques? Part II

Now consider how or if you would alter your class session for another audience.

AUDIENCE

College and High School Debaters
Humanities Scholars
International Students
Deaf University Students
Graduate Students

Honors Students
Business Students
Undergraduate Biology Students
University Faculty
College Secretarial Staff
Elementary Grade Students

Modified “Designs for Active Learning” Template

1. TITLE OF ACTIVE LEARNING ACTIVITY:

Instructor(s) Names:

Introduction:

Subject Area (if useful):

Problem (Content):

Level of Activity:

Time Required:

Audience/Size of Class:

Preparation:

Activity/Approach:

Setting:

Class Instructions:

Discussion:

Definitions: