50 Ways to Teach Your Students:
A Lyrical Approach to Faculty Professional Development

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Interactive Lectures/Active Note Taking

1. **Lecture/Rhetorical Questioning**: Talk in 7 to 10 minute segments, pause, ask questions, learners record their answers in their notes; answers are reviewed at the end of class and students make corrections as needed.
2. **Surveys with Exemplifier:** Pause, ask directly for a show of hands: 'Raise your hand if you agree…disagree…etc' or "Raise your hand if you have encountered an example of that". Ask one volunteer to speak for each of the response groups represented.
3. **Turn to Your Partner**: Pause, ask each to turn to the person next to them and share examples of the point just made or complete a given phrase or sentence.
4. **Guided Lecture**: Students listen to 15 minutes (or so) of lecture without taking any notes. At the end, they spend five minutes recording everything they can recall. Next, involve learners in small group discussions reconstructing the lecture in a more sequential and organized manner.
5. **Immediate Mastery Quiz:** When a regular immediate mastery quiz is included in the last few minutes of a period, learners retain almost twice as much material, both factual and conceptual.
6. **Best Summary:** Each participant prepares a summary of the main points at the end of a presentation. Teams of participants switch their summaries and select the best summary from each set. This lecture game is especially useful for informational or conceptual content. Stop the lecture at appropriate intervals. Ask participants to write a summary of the content presented so far. Organize participants into equal-sized teams. Redistribute summaries from one team to the next one. Ask each team to collaboratively identify the best summary among those given to them—and read it.
7. **Interpreted lecture:** The presenter pauses from time to time during the lecture. A randomly selected participant "translates" the lecture into plain English. Warn participants that you will randomly select people from time to time to interpret what you said during the most recent segment of your presentation. Lecture for about 5 minutes. Pause briefly to permit everyone to get ready for the interpretation segment. Randomly select a participant to repeat what you said in her language. After this interpretation, ask others to add any missing items. Repeat the procedure in approximately 5 minute intervals.

8. **Popular Questions:** Prior to class (or at the beginning or end of class) invite (or require) students to send you questions (electronically or on index cards in class). Prepare a list of these questions, each identified by a number. At a signal, ask participants to shout out the identifying number of the selected question. Determine the most "popular" first question and respond to it. Ask participants to identify the next question to be answered using a similar procedure. Repeat as many times as desired. This technique can also be done using a prepared list of typed up questions.
9. **Application Cards:** At the end of instruction, students write a real world application for the knowledge on a small card and submit the card to the teacher. Some or all answers can be shared briefly prior to the end of class.
10. **Graphic Organizers**: These visual, organizational tools provide ways of organizing information and ideas and illustrating connections between concepts. Students can design their own or the professor can provide an already designed graphic organizer. The graphic organizers can be completed during lecture as a form of note taking or after lecture as a means of review.
11. **Visual Representations of Knowledge**: After several minutes of lecture, students are asked to draw a representation of the content covered without using words at all.
12. **Quick Thinks**: "Quick Thinks" are fairly rapid student responses interspersed between lecturing. Individual students can be randomly called on to provide a quick think or all students can be asked to engage in the process. A variety of types of Quick Thinks can be used including: CORRECT THE ERROR, COMPLETE A SENTENCE STARTER, COMPARE OR CONTRAST, SUPPORT A STATEMENT, REORDER THE STEPS, REACH A CONCLUSION, PARAPHRASE THE IDEA
13. **Classroom Response Systems:** Sometimes called "clickers," these response systems allow students to respond to a multiple choice question and also provide the professor with important information about students' levels of understanding of concepts or information.
14. **Yes/No Vocabulary Activity**: This is an approach to teaching content area vocabulary that asks students to signal (1 finger for yes, 2 fingers for no) whether a particular word is an "example" of a broader vocabulary concept. Good as a review activity or as a pre-teaching background knowledge assessment. (For example, "Is Piaget an example of a behaviorist?")
15. **Alike or Different Vocabulary Activity**: An effective way to teach reading vocabulary is to consider how pairs of terms or concepts are similar and how they are different. A pair of terms is introduced to the class. Students work in small groups to develop lists of similarities and differences between the terms. Class discussions, during which each group explains its lists, follow the group activity. (For example: Biology – Mycology; Algae – Fungi; Achlorophyllous – Chlorophyllous; Myxomycophyta – Eumycophyta)

Discussions/Questioning Techniques

1. **Think/Pair/Share**: Pose a question of some substance, have each person share with one person next to them, and then ask for responses from a few pairs making sure to have the partner say what the OTHER person said.
2. **Halting Time**: Present complex material, discussion topics, or directions and then stop so that learners have time to think about their responses or carry out directions before asking for questions. Let them know how much "think time" you will be giving them before asking for responses.
3. **Pass it!** – After about 10-minutes of lecture, have students write down a question or a fact they just learned on an index card. Give a few minutes so students can process the information you just said. Have students pass the cards around so they are "shuffled" in the room. Using Popsicle sticks with student names randomly choose a student to share what is on the index card in front of them. Facilitate an answer to the question or have students offer more information about the fact, etc. You can also do this activity by only asking for questions and collect the cards during a break. Skim the cards and address with common questions after the break is complete.
4. **Round:** Each person has a 2 or 3 minute opportunity to express his or her point of view on a given topic, or passes, while others listen. This approach will elicit a range of viewpoints and contribute to students' willingness to take risks in discussion.
5. **Fishbowl:** Discussion format where students are selected from the class. They sit in front of the class as a panel to discuss topic while class observes. Discussion can then be opened to whole class depending on time available, size of class, etc.
6. **Carousel Brainstorming:** Subtopics or questions about a topic are posted throughout the room. Student groups brainstorm or respond to topic statements as they visit each of the subtopics. When they return to their seats, selected students can summarize the ideas on each topic.
7. **Artifact Strategy:** The teacher presents carefully selected objects, artifacts, photos, or pictures to the students, poses a problem or a focus question, and allows students to collect information about the presented item and then formulate answers to the presented problem or question.
8. **One Minute Paper**: A variety of topics and levels of complexity can be used with this approach. Students are simply asked to write a response (to a question, a prompt, a statement, etc) for one minute providing their best thoughts.
9. **Question Levels:** Prior to class, construct questions related to the topics that are high level, divergent, structured, and straightforward. Consciously think about the level of question you are asking.
10. **Talk First, Discuss Later:** Most class discussions will be more productive when they occur in small groups and then small groups summarize their conversations for the benefit of the whole class. These discussions will also be more focused when time is limited and limits are stated up front and adhered to.
11. **Write First, Talk Later:** Ask all students to take a minute or less to jot down thoughts about the discussion topic or question. This process will enable more students to participate in the discussion because more will have something to say.

Collaborative and Cooperative Groups/Pairs

1. **Jigsaw**: For more complex problems, this structure provides students the opportunity to develop expertise in one of many components of a problem by first participating in a group solely focused on a single component. In the second stage of the exercise, groups are reformed with a representative from each expert group who together now have sufficient expertise to tackle the whole problem.
2. **Three-stay, one-stray**: Even students working in groups can benefit from the feedback of additional peers. In this structure, students periodically take a break from their work (often at key decision making points) and send one group member to another group to describe their progress. The role of the group is to gain information and alternative perspectives by listening and sharing. The number of times the group sends a representative to another group depends on the level of complexity of the problem. This method can also be used to report out final solutions.
3. **Individual Task with Review:** Problems to solve that apply the concepts presented; problems should be relatively complex. Students complete the task and then compare results/ideas with their neighbors before the whole class discusses the answers.
4. **Construction Spiral**: Pose problem questions in a three step learning cycle: 1) each individual writes down his or her own thoughts, 2) all share in small groups of three, and 3) compile the answers on the board in front of the whole class, avoiding any evaluation or changes to what the class offers. Let the group correct itself. If weaknesses appear or more sophisticated understanding is needed, pose a second problem in the same manner.
5. **Question Pairs:** Learners prepare for class by reading an assignment and generating questions focused on the major points or issues raised. These questions can be used during the class period for discussion, or handed in to the professor to facilitate lecture and class content foci. One can also use new randomly assigned partners at the next class period to ask some of the questions of each other.
6. **Team Effectiveness Design**: Whatever material is to be learned is presented to teams in the form of a manuscript or text followed by a multiple choice test requiring conclusions or inferences, not locating information in the readings. After completing the test individually, learners join teams of three or five to discuss the questions and arrive at a consensus as to the most valid answer to each question, without consulting the reading. Then a key is distributed and learners score individual answers as well as the team's answers.
7. **Example Hunt:** Presenter uses examples to explain several related concepts. In teams, participants generate additional examples to demonstrate their mastery. The professor should give appropriate feedback on each team's examples, highlighting the critical and variable features.
8. **True or False**: Prepare a list of statements related to common misconceptions about the selected topic. Make approximately half of the statements true and the other half false. Distribute copies of the list to participants and ask them in pairs

to determine which statements are true and which statements are false. When they have finished this task, read the first statement aloud. Ask participants who think that the first statement is true to raise their hands. Explain why the statement is true or false and provide relevant background information.

9. **Find Your Partner:** A method for assigning students to groups and at the same time reviewing previous concepts. Equations, sentences, terms and definitions, or questions and answers are written on a single piece of paper, then the parts of the sets are cut apart. The parts are distributed to students who compare papers with other students until they find their match.
10. **Find Someone Who:** A variation of the Human Scavenger Hunt. Usually this activity is used to encourage students to seek out the students in class who know the answers to specific content questions.
11. **Sticky Note Brainstorming:** Students are asked to list ideas about a fairly general topic (such as "what are the characteristics of effective teachers?") on sticky notes (one idea per note). They should fill as many sticky notes out as possible, placing each one in the middle of the group's work space as ideas are generated, without talking. As a second step groups can be asked to categorize the sticky notes, and agree on category names – again without talking. The "silent rule" will provide less domination by specific students and more even handed participation by all students.

Service Learning/Civic Engagement/Community Service

1. **Community Service**: Students are asked to provide a service needed by the community. The point of the activity is to provide service not necessarily to advance any academic content.
2. **Civic Engagement**: Students engage in projects or activities that respond to social and/or political issues or problems.
3. **Service Learning**: Service learning projects involve areas of intersection between academic content and community needs. These projects are collaborative in nature (between the university and the community) and must respond directly to genuine academic content. Service learning should also involve reflective analysis of the experience at the conclusion of the experience.
4. **Community Problem Solving**: A complex real world problem within the community is explored and examined by students within a course and genuine solutions to the problem are developed in collaboration with the community.

Depth not Breadth/Assess and Activate Prior Knowledge

1. **Reduce**: Make a list of all of the concepts in your course material…then cut it in half.
2. **Let Assessment be Your Guide**: If you are not going to assess student performance in relationship to a specific objective or information, don't teach it.
3. **Just in Time Teaching**: The first step in implementing JiTT is to develop a set of questions which will be posted online for students to answer before class. They may be posted using a course management system, or a basic web site. For a small class, they may even be disseminated and returned via e-mail. The questions should be open-ended, requiring text response. They should explore students' prior knowledge and beliefs about the material to be covered in a single lesson. During the semester, the instructor posts the questions and the students respond online some hours before each class session. Just before class, the instructor selects excerpts from the student responses and brings these to class. These responses form a basis for the interactive class session. Thus students become active participants in constructing the subject matter content.
4. **Focused Listing:** Focused listing is a strategy in which students recall what they know about a subject by creating a list of terms or ideas related to it. To begin, the instructor asks students to take out a sheet of paper and begin generating a list based on a topic presented. Topics might relate to the day's assigned reading, to a previous day's lecture material, or to the subject of the current session. Instructors often move around the room and look at students' lists as they write, briefly summarizing major trends or themes as a way of closing the exercise. Others ask students randomly to share the contents of their lists before moving on with their lecture. In either case, focused listing need not take more than a few minutes. It's an effective way to get students to actively engage material, and it offers feedback that the instructor can use to tailor the subsequent presentation of material to students' needs.
5. **Note Check**: The note check is a strategy in which the instructor asks students to partner with someone and compare their notes, focusing on summarizing key information and locating misconceptions. This can be accomplished in as little as two to three minutes. Students should not be giving their notes to one another in this exercise, but working together to fill gaps in each person's notes.
6. **The Interactive True/False Quiz/Anticipation Guides:** This technique is intended to increase student interest in the topic of the day and/or to assess prior knowledge or beliefs. The instructor should provide a "True or False" (or "Agree/Disagree" depending on the content being considered) questionnaire designed to start students thinking about a particular set of ideas around a topic. After students have responded to the questions individually, have them compare answers in pairs or small groups and discuss the ones on which they disagree. Students can also be asked to return to the questionnaire and change answers they believe need to be changed after engaging with the content.
7. **Take a Guess** – Before your lecture, have your learners pair up. In partners, have the students create a list of three to six important facts about the topic which they think you will discuss in your lecture. As you are lecturing, and you cover a fact they thought you might mention, they circle the items. This activates background

knowledge and therefore prepares them for what they are about to learn.

8. **Human graphs**: Learners literally take a stand on an imaginary graph or continuum in response to a specific "position" statement (ranging from agree to disagree or other similar division). The first few volunteers justify/explain their choice of position and then the remainder of the class joins them without comment.
9. **Objective Focused Content:** Instead of listing chapter headings or subheadings or a list of topics on a syllabus OR for the day's class work, use statements of objectives that clearly define what students should be able to do or know at the end of instruction.
10. **Muddiest Point**: Students write a very brief (1 minute or less) description of the most confusing area/topic covered during class and hand it in prior to leaving class. These "muddiest points" are then used to structure the beginning of the next class.

***The ideas presented in this session are drawn from a variety of sources and have been worked and reworked in various forms by many different people. The following references list provides SOME of the sources in which one can find the ideas outlined during the presentation.**

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