**Activities to Encourage Active Learning**

**Affective Response** - This is similar to a ‘one minute paper’, but here you are asking students to report their reactions to some facet of the course material - i.e., to provide an emotional or valuative response to the material. Obviously, this approach is limited to those subject areas in which such questions are appropriate (one should not, for instance, inquire into students’ affective responses to vertebrate taxonomy). However, it can be quite a useful starting point before the range of views provided by theory are presented, or as a ‘pause’ during examination of (particularly contentious) material. Responses could be private or discussed, as deemed appropriate.

 **The Pre-Theoretic Intuitions Quiz** - The instructor gives a quiz aimed at getting students to both identify and to assess their own views. An example from an introductory ethics course is a "True or False" questionnaire designed to start students thinking about moral theory, which includes statements such as "There are really no correct answers to moral questions" and "Whatever a society holds to be morally right is in fact morally right". 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. This technique may also be used to assess student knowledge of the subject matter in a pre-/post-lecture comparison.

**Information transfer**. This is a paired activity. Partners ask each other questions and give answers to fill gaps on their worksheets. (Each worksheet has different gaps.)

**Fishbowl**. One group discusses a topic. The second group observes the discussion and each person records: (1) A partner’s contributions (and gives individual feedback afterwards), or (2) The important parts of the discussion (may be identification of issues, applications, generalisations, etc., depending on the task instructions)

**Discussion of sticky points**. Write a short note to the instructor stating what was the most confusing aspect of the explanation of a point in the lecture segment, or explain where he/she is "stuck" in the understanding of a concept, and then see if other members of the group can help resolve the problems.

**Wait Time & Student Summary of another Student's Answer** - The instructor WAITS before calling on someone to answer their question. The wait time will generally be short (15 seconds or so). It is important to insist that no one raise his hand (or shout out the answer) before you give the OK. When the wait time is up, the instructor asks for volunteers or randomly picks a student to answer the question. PLUS: In order to promote active listening, after one student has volunteered an answer to your question, ask another student to summarise the first student's response.

**Highlighting**. Have students highlight (with a marker) a written passage for the important points, then compare their highlighted points with those chosen by others in the group.

**The "One Minute Paper"** - Ask students to take out a blank sheet of paper, pose a question (either specific or open-ended), and give them one (or perhaps two - but not many more) minute(s) to respond. Some sample questions include: "How does John Hospers define "free will"?", "What is "scientific realism"?", "What is the activation energy for a chemical reaction?", "What is the difference between replication and transcription?", and so on. Another good use of the minute paper is to ask questions like "What was the main point of today’s class material?"

**Quiz/Test Questions** - Here students are asked to become actively involved in creating quizzes and tests by constructing some (or all) of the questions for the exams. This exercise may be assigned for homework and itself evaluated (perhaps for extra credit points). Once suggested questions are collected, the instructor may use them as the basis of review sessions, and/or to model the most effective questions. Further, you may ask students to discuss the merits of a sample of questions submitted. Students might be asked to discuss several aspects of two different questions on the same material including degree of difficulty, effectiveness in assessing their learning, proper scope of questions, and so forth.

**Inkshedding** - First you need a question to pose to the students. You can either develop a question for the day, or a series of them to use over a few weeks. Ask the students to spend 5 minutes writing down their thoughts on the question. That writing should be what language teachers call 'freewriting'. That is, the student writes whatever comes to mind, without anyone making judgments about it or corrections to it. Freewriting helps generate thoughts and ideas, so it's an excellent starting place for discussions. The students finish their 5 minutes of freewriting and then pass their notebook to another student. Everyone reads the notebook in front of them and then spends another 5 minutes freewriting in response to the first student's thoughts. That process continues through several iterations, until -after 20 or 25 minutes - the students have engaged in an extended dialogue with each other, all on paper, and are ready to start talking about their ideas out loud.

**Jigsaw** - This is a collaborative learning method which can help students to make meaning from written material. Divide students into small groups - around 5 people in each group depending on your class size. Divide the information into 5 segments. For example, with accounting students you may use different parts of a report for each group (as might happen in the workplace), or you could use different articles on the same topic. Give each member of the group a different segment of information and allow them time to read it but not discuss it at this stage. This information, or article, could be given in the previous class. Rearrange the groups so that all those with the same information become an expert group on their own segment. Give students in these expert groups time to discuss the main points of their segment and to rehearse how they would present it to non-experts. Students from each expert group then go back to their original group which now contains an expert on each piece of information. Each student presents her or his segment to the group. Encourage others in the group to ask questions for clarification.

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These are a selection of activities designed to encourage active learning. They have been adapted from a range of sources, such as:

Paulson, D. R., & Faust, J. L. *Active learning for the college classroom.* <http://web.calstatela.edu/dept/chem/chem2/Active/>

Wood, L., McNeill, M. & Harvey, M. 2008. *How to lead discussions: Learning through engagement*, Macquarie University. <http://www.mq.edu.au/ltc/pdfs/FBE_Lead_Discussions.pdf>

AUT User Centre for Educational and Professional Development. *[Strategies for encouraging active and collaborative learning.]* <http://www.tedi.uq.edu.au/largeclasses/>