Interactive Techniques

Adapted in part from:

Thomas A. Angelo/K. Patricia Cross, *Classroom Assessment Techniques*. 2nd Edition. Jossey-Bass: San Francisco, 1993.
Alison Morrison-Shetlar/Mary Marwitz, *Teaching Creatively: Ideas in Action*. Outernet: Eden Prairie, 2001.
Silberman, Mel. *Active Learning: 101 Strategies to Teach Any Subject*. Allyn and Bacon: Boston, 1996.
VanGundy, Arthur. *101 Activities for Teaching Creativity and Problem Solving*. Pfeiffer: San Francisco, 2005.
Watkins, Ryan. *75 e-Learning Activities: Making Online Learning Interactive*. San Francisco: Pfeiffer, 2005.

These techniques have multiple benefits: the instructor can easily and quickly assess if students have really mastered the material (and plan to dedicate more time to it, if necessary), and the process of measuring student understanding in many cases is also practice for the material—often students do not actually learn the material until asked to make use of it in assessments such as these. Finally, the very nature of these assessments drives interactivity and brings several benefits. Students are revived from their passivity of merely listening to a lecture and instead become attentive and engaged, two prerequisites for effective learning. These techniques are often perceived as "fun", yet they are frequently more effective than lectures at enabling student learning.

Not all techniques listed here will have universal appeal, with factors such as your teaching style and personality influencing which choices may be right for you.

Instructor Action: Lecture

1. **Picture Prompt** – Show students an image with no explanation, and ask them to identify/explain it, and justify their answers. Or ask students to write about it using terms from lecture, or to name the processes and concepts shown. Also works well as group activity. Do not give the "answer" until they have explored all options first.
2. **Think Break** – Ask a rhetorical question, and then allow 20 seconds for students to think about the problem before you go on to explain. This technique encourages students to take part in the problem-solving process even when discussion isn't feasible. Having students write something down (while you write an answer also) helps assure that they will in fact work on the problem.
3. **Choral Response** – Ask a one-word answer to the class at large; volume of answer will suggest degree of comprehension. Very useful to "drill" new vocabulary words into students.
4. **Instructor Storytelling** – Instructor illustrates a concept, idea, or principle with a real-life application, model, or case-study.

5. **Socratic Questioning** – The instructor replaces lecture by peppering students with questions, always asking the next question in a way that guides the conversation toward a learning outcome (or major Driving Question) that was desired from the beginning.
6. **Reverse Socratic Questioning** – The instructor requires students to ask him/her questions, and the instructor answers in such a way as to goad another question immediately but also drive the next student question in a certain direction.
7. **Pass the Pointer** – Place a complex, intricate, or detailed image on the screen and ask for volunteers to temporarily borrow the laser pointer to identify key features or ask questions about items they don't understand.
8. **Empty Outlines** – Distribute a partially completed outline of today's lecture and ask students to fill it in. Useful at start or at end of class.
9. **Classroom Opinion Polls** – Informal hand-raising suffices to test the waters before a controversial subject.
10. **Discussion Row** – Students take turns sitting in a front row that can earn extra credit as individuals when they volunteer to answer questions posed in class; this provides a group that will ALWAYS be prepared and interact with teacher questions.
11. **Total Physical Response (TPR)** – Students either stand or sit to indicate their binary answers, such as True/False, to the instructor's questions.
12. **Hand Held Response Cards** – Distribute (or ask students to create) standardized cards that can be held aloft as visual responses to instructor questions. Example: green card for true, red for false. Or hand-write a giant letter on each card to use in multiple choice questions.
13. **Student Polling** – Select some students to travel the room, polling the others on a topic relevant to the course, then report back the results for everyone.
14. **Self-Assessment of Ways of Learning** – Prepare a questionnaire for students that probes what kind of learning style they use, so the course can match visual/aural/tactile learning styles.
15. **Quote Minus One** – Provide a quote relevant to your topic but leave out a crucial word and ask students to guess what it might be: "I cannot forecast to you the action of _____; it is a riddle, wrapped in a mystery, inside an enigma." This engages them quickly in a topic and makes them feel invested.
16. **Everyday Ethical Dilemmas** – Present an abbreviated case study with an ethical dilemma related to the discipline being studied.
17. **Polar Opposites** – Ask the class to examine two written-out versions of a theory (or corollary, law of nature, etc.), where one is incorrect, such as the opposite or a negation of the other. In deciding which is correct, students will have to examine the problem from all angles.
18. **Pop Culture** – Infuse your lectures, case studies, sample word problems for use during class with current events from the pop culture world. Rather than citing statistics for housing construction, for instance, illustrate the same statistical concept you are teaching by inventing statistics about something students gossip about, like how often a certain pop star appears in public without make-up.
19. **Make Them Guess** – Introduce a new subject by asking an intriguing question, something that few will know the answer to (but should interest all of them). Accept blind guessing for a while before giving the answer to build curiosity.
20. **Make It Personal** – Design class activities (or even essays) to address the real lives of the individual students. Instead of asking for reflections on Down's Syndrome, ask for personal stories of neurological problems by a family member or anyone they have ever met.
21. **Read Aloud** – Choose a small text (500 words or less) to read aloud, and ask students to pay particular attention during this phase of lecture. A small text read orally in a larger lecture can focus attention.
22. **Punctuated Lectures** – Ask student to perform five steps: listen, stop, reflect, write, give feedback. Students become self-monitoring listeners.
23. **Word of the Day** – Select an important term and highlight it throughout the class session, working it into as many concepts as possible. Challenge students to do the same in their interactive activities.

24. **Recall, Summarize, Question, Connect, and Comment** – This method of starting each session (or each week) has five steps to reinforce the previous session's material: recall it, summarize it, phrase a remaining question, connect it to the class as a whole, and comment on that class session.
25. **Focused Listing** – List several ideas related to the main focus point. Helpful for starting new topics.
26. **Background Knowledge Probe** – Use questionnaire (multi-choice or short answer) when introducing a new topic.
27. **Goal Ranking and Matching** – Students rank their goals for the class, then instructor combines those with her own list.
28. **Interest/Knowledge/Skills Checklist** – Assesses interest and preparation for the course, and can help adjust teaching agenda.
29. **Documented Problem Solutions** – Keep track of the steps needed to solve specific *types* of problems. Model a list for students first and then ask them to perform similar steps.

Instructor Action: Lecture (Small Class Size)

30. **Pass the Chalk** – Provide chalk or a soft toy; whoever has it must answer your next question, and they pass it on to the student of their choice.
31. **Quaker Meeting** – Students highlight key passages of the reading, and there is silence (like a Quaker meeting) until someone wants to read his/her out, and others follow. End with brief writing about what they learned from the sentences.
32. **Town Hall Meeting** – Abdicate the front of the room for a student willing to speak out on a controversial subject, and when she is done with her comment, she selects the next speaker from the hands raised.
33. **The Half Class Lecture** – Divide the class in half and provide reading material to one half. Lecture on that same material to the other half of the class. Then, switch the groups and repeat, ending with a recap by pairing up members of opposite groups.
34. **Tournament** – Divide the class into at least two groups and announce a competition for most points on a practice test. Let them study a topic together and then give that quiz, tallying points. After each round, let them study the next topic before quizzing again. The points should be carried over from round to round. The student impulse for competition will focus their engagement onto the material itself.
35. **Three Part Interview** – Pose the following question to the entire class: "What do you think are the three biggest issues related to _____." Choose the student with the birthday closest to today's date and have them stand and share their 3 responses to the question for one minute. Move clockwise around the room until all have shared.

Student Action: Individual (many of these can be used as partnerwork or groupwork instead; or may escalate to that after some individual effort)

36. **One-Minute Papers** – Students write for one minute on a specific question (which might be generalized to "what was the most important thing you learned today"). Best used at the end of the class session.
37. **Muddiest Point** – Like the Minute Paper, but asks for the "most confusing" point instead. Best used at the end of the class session.
38. **Misconception Check** – Discover class's preconceptions. Useful for starting new chapters.
39. **Drawing for Understanding** – Students illustrate an abstract concept or idea. Comparing drawings around the room can clear up misconceptions.
40. **Turn Taking Reading** – Instead of the instructor reading a paragraph on screen (or leaving silence for students to do it), instruct them we will sit in silence until someone is moved to read ONE sentence, then someone else – anyone – will start the next sentence. Adds "good" tension and raises energy.

41. **Board of Artwork** – Post publicly the collected drawings / abstract concepts that students turned in for a previous activity and create an opportunity for discussion and debrief.
42. **Voting Dots** – Provide colored dot stickers to students and ask them to "vote" on statements they agree with the most, by using up their limited dot supply on the pre-written topics displayed around the room on poster boards.
43. **Circle the Questions** – Pre-make a handout that has a few dozen likely student questions (make them specific) on your topic for that day and ask students to circle the ones they don't know the answers to, then turn in the paper.
44. **Ask the Winner** – Ask students to silently solve a problem on the board. After revealing the answer, instruct those who got it right to raise their hands (and keep them raised); then, all other students are to talk to someone with a raised hand to better understand the question and how to solve it next time.
45. **What's the Principle** – After recognizing the problem, students assess what principle to apply in order to solve it. Helps focus on problem TYPES rather than individual specific problems. Principle(s) should be listed out.
46. **Haiku** – Students write a haiku (a three-line poem: 5-syllables, then 7, then 5) on a given topic or concept, and then share it with others.
47. **Infographic** – Students use online services (visual.ly, infogr.am) to create an infographic that combines flowchart logic and visual presentation
48. **Bookmark Notes** - Distribute full-length paper to be used as a bookmark for the current chapter. On it, record prompts and other "reading questions", and require students to record their notes, observations, and objections while reading onto these bookmarks for collection and discussion in class.
49. **True or False?** – Distribute index cards (one to each student) on which is written a statement. Half of the cards will contain statements that are true, half false. Students decide if theirs is one of the true statements or not, using whatever means they desire. Variation: designate half the room a space for those who think their statements are true, and the other half for false.
50. **"Real-World"** – Have students discuss in class how a topic or concept relates to a real-world application or product. Then have students write about this topic for homework. Variation: ask them to record their answer on index cards.
51. **Concept Mapping** – Students write keywords onto sticky notes and then organize them into a flowchart. Could be less structured: students simply draw the connections they make between concepts.
52. **Advice Letter** – Students write a letter of advice to future students on how to be successful students in that course.
53. **Tabloid Titles** – Ask students to write a tabloid-style headline that would illustrate the concept currently being discussed. Share and choose the best.
54. **Bumper Stickers** – Ask students to write a slogan-like bumper sticker to illustrate a particular concept from lecture. Variation: can be used to ask them to sum up the entire course in one sentence.
55. **One-Sentence Summary** – Summarize the topic into one sentence that incorporates all of who/what/when/where/why/how creatively.
56. **Directed Paraphrasing** – Students asked to paraphrase part of a lesson for a specific audience (and a specific purpose).
57. **Word Journal** – First, summarize the entire topic on paper with a single word. Then use a paragraph to explain your word choice.
58. **Truth Statements** – Either to introduce a topic or check comprehension, ask individuals to list out "It is true that…" statements on the topic being discussed. The ensuing discussion might illustrate how ambiguous knowledge is sometimes.
59. **Objective Check** – Students write a brief essay in which they evaluate to what extent their work fulfills an assignment's objectives.
60. **Opposites** – Instructor lists out one or more concepts, for which students must come up with an antonym, and then defend their choice.

61. **Student Storytelling** – Students are given assignments that make use of a given concept in relation to something that seems personally relevant (such as requiring the topic to be someone in their family).
62. **Application to Major** – During last 15 minutes of class, ask students to write a short article about how the point applies to their major.
63. **Pro and Con Grid** – Students list out the pros and cons for a given subject.
64. **Harvesting** – After an experience/activity in class, ask students to reflect on "what" they learned, "so what" (why is it important and what are the implications), and "now what" (how to apply it or do things differently).
65. **Chain Notes** – Instructor pre-distributes index cards and passes around an envelope, on which is written a question relating to the learning environment (i.e., are the group discussions useful?) Students write a very brief answer, drop in their own card, and pass the envelope to the next student.
66. **Focused Autobiographical Sketches** – Focuses on a single successful learning experience, one relevant to the current course.
67. **Course-Related Self-Confidence Surveys** – Simple questions that measure how self-confident students are when it comes to a specific skill. Once they become aware they can do it, they focus on it more.
68. **Profiles of Admirable Individuals** – Students write a brief profile of an individual in a field related to the course. Students assess their own values and learn best practices for this field.
69. **Memory Matrix** – Identify a key taxonomy and then design a grid that represents those interrelationships. Keep it simple at first. Avoid trivial or ambiguous relationships, which tend to backfire by focusing students on superficial kinds of learning. Although probably most useful in introductory courses, this technique can also be used to help develop basic study skills for students who plan to continue in the field
70. **Categorizing Grid** – Hand out rectangles divided into cells and a jumbled listing of terms that need to be categorized by row and column.
71. **Defining Features Matrix** – Hand out a simple table where students decide if a defining feature is PRESENT or ABSENT. For instance, they might have to read through several descriptions of theories and decide if each refers to behaviorist or constructivist models of learning.
72. **What/How/Why Outlines** – Write brief notes answering the what / how / why questions when analyzing a message or text.
73. **Approximate Analogies** – Students provide the second half of an analogy (A is to B as X is to Y).
74. **Problem Recognition Tasks** – Offer case studies with different types of problems and ask students to identify the TYPE of problem (which is different from solving it)
75. **Switch it up**! – Ask students to work on one problem for a few minutes and intentionally move to a second problem without debriefing the first one, then solve the second one and only then return to the first one for more work. A carefully chosen second problem can shed light on the first problem, but this also works well if the problems are not directly related to each other.
76. **Reading Rating Sheets** – Students fill out a ratings sheet on the course readings, on how clear, useful, and interesting it was.
77. **Assignment Assessments** – Students give feedback on their homework assignments, and evaluate them as learning tools.
78. **Exam Evaluations** – Students explain what they are learning from exams, and evaluate the fairness, usefulness, and quality of tests.
79. **Group-Work Evaluations** – Questionnaires asking how effective groupwork has been in the class.
80. **Teacher-Designed Feedback Forms** – Rather than use standardized evaluation forms, teachers create ones tailored for their needs and their classes. Especially useful midway through the term.
81. **Writing Fables** – Students write an animal fable (or at least sketch its outline) that will lead to a one-sentence moral matching the current concept discussed in class. May be done verbally instead.

Student Action: Pairs

82. **Think-Pair-Share** – Students share and compare possible answers to a question with a partner before addressing the larger class.
83. **Pair-Share-Repeat** – After a pair-share experience, ask students to find a new partner and debrief the wisdom of the *old* partnership to this *new* partner.
84. **Teacher and Student** - Individually brainstorm the main points of the last homework, then assign roles of teacher and student to pairs. The teacher's job is to sketch the main points, while the student's job is to cross off points on his list as they are mentioned, but come up with 2-3 ones missed by the teacher.
85. **Wisdom of Another** – After any individual brainstorm or creative activity, partner students up to share their results. Then, call for volunteers of students who found their partner's work to be interesting or exemplary. Students are sometimes more willing to share in plenary the work of fellow students than their own work.
86. **Forced Debate** – Students debate in pairs, but must defend the opposite side of their personal opinion. Variation: half the class take one position, half the other. They line up and face each other. Each student may only speak once, so that all students on both sides can engage the issue.
87. **Optimist/Pessimist** – In pairs, students take opposite emotional sides of a conversation. This technique can be applied to case studies and problem solving as well.
88. **Peer Review Writing Task** – To assist students with a writing assignments, encourage them to exchange drafts with a partner. The partner reads the essay and writes a three-paragraph response: the first paragraph outlines the strengths of the essay, the second paragraph discusses the essay's problems, and the third paragraph is a description of what the partner would focus on in revision, if it were her essay.
89. **Invented Dialogues** – Students weave together real quotes from primary sources, or invent ones to fit the speaker and context.
90. **My Christmas Gift** – Students mentally select one of their recent gifts as related to or emblematic of a concept given in class, and must tell their partners how this gift relates to the concept. The one with a closer connection wins.
91. **Psychoanalysis** – Students get into pairs and interview one another about a recent learning unit. The focus, however, is upon analysis of the material rather than rote memorization. Sample Interview Questions: Can you describe to me the topic that you would like to analyze today? What were your attitudes/beliefs before this topic? How did your attitudes/beliefs change after learning about this topic? How will/have your actions/decisions altered based on your learning of this topic? How have your perceptions of others/events changed?
92. **Get One, Give One** – Students fold a piece of paper in half and write "Give One" on one side and "Get One" on the other side. On the "Give One" side, as them to write four insights from today's material. Have them stand up and find a partner. Each student shares one idea from their "Give One" side of the paper and writes down one idea on the "Get One" side of the paper. Find a new partner until your "Get One" side of paper is full of new ideas!

Student Action: Groups

93. **Jigsaw (Group Experts)** – Give each group a different topic. Re-mix groups with one planted "expert" on each topic, who now has to teach his new group.
94. **Board Rotation** – Assign groups of students to each of the boards you have set up in the room (four or more works best), and assign one topic/question per board. After each group writes an answer, they rotate to the next board and write their answer below the first, and so on around the room. Variation: pass around flipchart paper with the same task.
95. **Pass the Problem** – Divide students into groups. Give the first group a case or a problem and ask them to identify (and write down) the first step in solving the problem

or analyzing the case (3 minutes). Pass the problem on to the next group and have them identify the next step. Continue until all groups have contributed.

96. **Pick the Winner** – Divide the class into groups and have all groups work on the same problem and record an answer/strategy on paper. Then, ask groups to switch with a nearby group, and evaluate *their* answer. After a few minutes, allow each set of groups to merge and ask them to select the better answer from the two choices, which will be presented to the class as a whole.
97. **Layered Cake Discussion** - Every table/group works on the same task for a few minutes, then there's a plenary debrief for the whole class, and finally repeat with a new topic to be discussed in the groups.
98. **Student Learning Communities** – Like faculty learning communities, these communities of practice are meant to invest the participants with ownership and a focus on sharing and joint discovery. Can be structured or unstructured.
99. **Lecture Reaction** – Divide the class into four groups after a lecture: questioners (must ask two questions related to the material), example givers (provide applications), divergent thinkers (must disagree with some points of the lecture), and agreers (explain which points they agreed with or found helpful). After discussion, brief the whole class.
100. **Movie Application** – In groups, students discuss examples of movies that made use of a concept or event discussed in class, trying to identify at least one way the movie-makers got it right, and one way they got it wrong.
101. **Student Pictures** – Ask students to bring their own pictures from home to illustrate a specific concept to their working groups.
102. **Definitions and Applications** – In groups, students provide definitions, associations, and applications of concepts discussed in lecture.
103. **TV Commercial** – In groups, students create a 30-second TV commercial for the subject currently being discussed in class. Variation: ask them to act out their commercials.
104. **Blender** – Students silently write a definition or brainstorm an idea for several minutes on paper. Then they form into groups, and two of them read their ideas and integrate elements from each. A third student reads his, and again integration occurs with the previous two, until finally everyone in the group has been integrated (or has attempted integration).
105. **Human Tableau or Class Modeling** – Groups create living scenes (also of inanimate objects) which relate to the classroom concepts or discussions.
106. **Build From Restricted Components** – Provide limited resources (or a discrete list of ideas that must be used) and either literally or figuratively dump them on the table, asking students in groups to construct a solution using only these things (note: may be familiar from the *Apollo 13* movie). If possible, provide red herrings, and ask students to construct a solution using the minimum amount of items possible.
107. **Ranking Alternatives** – Teacher gives a situation, everyone thinks up as many alternative courses of action (or explanations of the situation) as possible. Compile list. In groups, now rank them by preference.
108. **Simulation** – Place the class into a long-term simulation (like as a business) to enable Problem-Based Learning (PBL).
109. **Group Instructional Feedback Technique** – Someone other than the teacher polls groups on what works, what doesn't, and how to fix it, then reports them to the teacher.
110. **Classroom Assessment Quality Circles** – A small group of students forms a "committee" on the quality of teaching and learning, which meets regularly and includes the instructor.
111. **Audio and Videotaped Protocols** – Taping students while they are solving problems assesses the learner's awareness of his own thinking.
112. **Imaginary Show and Tell** – Students pretend they have brought an object relevant to current discussion, and "display" it to the class while talking about its properties.
113. **Six Degrees of "RNA Transcription Errors"** – Like the parlor game "Six Degrees of Kevin Bacon" (in which actors are linked by joint projects), you provide groups with a conceptual start point and challenge them to leap to a given concept in six moves or

fewer. One student judge in each group determines if each leap is fair and records the nature of the leaps for reporting back to the class.

114. **Sticky Note Discussions** – Divide students into cooperative groups and have them read individually. Ask them to use sticky notes to mark places that they want to talk about in the text. Then direct them to reread as a group and discuss the parts they have marked.

Facebook

115. **Replace Discussion Boards** - Create a Facebook "group" (private/invite only) and use the Wall as the class discussion board. Students are notified by home page notification when someone replies to their thread.
116. **Notify Students Quickly** – Posting to Facebook will reach your students much faster than an email, because most of them check Facebook regularly.
117. **Fan Page** - An alternative to a group is a "fan" page, which has the advantage that your "status updates" will show up for students on their Live Feed. Disadvantage: some students turn off Live Feed and only see status updates of their friends.
118. **Direct Facebook Friendship** - Allowing your students to "friend" you will give you unfettered access to them (unless they've set up a special role for you), but more importantly, your status updates will be visible to them on the home page (unless they block you manually). Disadvantage: too much information will be revealed on both sides, unless both you and the students set up "lists" with limited access allowed.

Twitter

119. **Report from the Field** – Students use smart phones to record their observations while witnessing an event/location related to the course of study, capturing more honest and spontaneous reactions
120. **Twitter Clicker Alternative** - In large classes, a hashtag can amalgamate all posts by your students in one place, giving them a free-response place to provide feedback or guess at a right answer. Also useful for brainstorming.
121. **Backchannel Conversations in Large Classes** – unlike a whispered conversation, a Twitter conversation (searchable by agreed-upon hashtag) becomes a group discussion. Students may also help out other students who missed a brief detail during the lecture.
122. **Follow an Expert** – Luminaries in many disciplines, as well as companies and governmental agencies, often publish a Twitter feed. Reading such updates provides a way to stay current.
123. **Tweeted Announcements** - Instead of Blackboard, use Twitter to send out announcements like cancelled classes.
124. **Twitter Pictures and URLs** - Twitpic and other services allows for photo upload to twitter; bit.ly and other "link shorteners" allow for pasting long URLs as short ones.
125. **Student Summaries** - Make one student the "leader" for tweets; she posts the top five important concepts from each session to twitter (one at a time); other students follow her feed and RT for discussion/disagreements
126. **Historical Tweets** – Students roleplay as historical figures (Lincoln, Napoleon) or fictional characters (Hamlet, Three Little Pigs) and tweet as if in specific contexts.
127. **Quick Contact** - Since sharing cell phone numbers is risky, instructors may wish to let students follow them on Twitter and send Direct Messages that way.
128. **Community-Building** - A Twitter group for your specific class creates inclusiveness and belonging.
129. **Twitter Projects** - Tweetworks and other apps can enable student groups to communicate with each other more easily.
130. **Brainstorm** - Small Twitter assignments can yield unexpected brainstorming by students, since it's happening "away" from the LMS.
131. **Twitter Poll** - PollDaddy and other apps enable Twitter to gather interest, information, attitudes, and guesses.

132. **Post Links** - News stories and other websites can be linked via Twitter (services such as bit.ly will shorten URLs).

YouTube

133. **Video Demonstrations** - Using a webcam, record a demonstration relevant to your topic and post it to YouTube.
134. **Student Videos** - Student projects, presentations, or speeches can take the form of video instead of PowerPoint, and uploaded for the class to see.
135. **Closed Eyes Method** – To prevent students at home from "reading" presentations (such as poem recitations) that were supposed to be memorized for YouTube upload, require them to give the performance with their eyes closed.
136. **Interactive Video Quizzes** - Using annotations (text boxes) and making them hyperlinks to other uploaded videos, instructors can construct an on-screen "multiple choice" test leading to differentiated video reactions, depending on how the student answers. Requires filming multiple videos and some editing work.
137. **Movie Clips** - Show brief segments of popular movies to illustrate a point, start a conversation, have students hunt for what the movie gets wrong, etc.
138. **Embed Into PowerPoint** - YouTube videos can be embedded into PPT as long as there is an active Internet connection; create a Shockwave Flash object in the Developer tab, and add the URL for "Movie" in the properties (the URL will need to replace "watch?=v/" with just "/v/"). Alternative: use one-button plugin from iSpring Free.
139. **Shared Account** – Instructor creates a generic YouTube username/account and gives the password to everyone in the class, so student uploads all go to the same place.

Wikis

140. **Group Wiki Projects** - Instead of emailing a document (or PPT) back and forth, student groups can collaborate in real time with a free wiki such as wikispaces.com
141. **Wiki Class Notes** - Offering a class wiki for the optional sharing of lecture notes aids students who miss class, provides a tool for studying, and helps students see the material from more than one perspective.
142. **Wiki Lab Manual** – A variant of the class notes idea, a lab book is more produced and colorful, with images and YouTube videos embedded by requirement, as if the students were building a book for another crop of students in a future semester.

Blogs

143. **Questions to Students** - Use the blog to "push" questions and discussion prompts to students like you would email, but in a different forum.
144. **Provide Links** - The native HTML nature of the blog makes it easy to give links to news stories and relevant websites.
145. **Substitute for Blackboard Discussion Board** - Students can comment on each post (or previous comment) and engage in a dialogue that is similar to Blackboard, but while out in the Internet in general.
146. **Electronic Role Play** - Students create their own blogs, and write diary-type entries while role-playing as someone central to your content.

Clickers, Student Responses, and Alternatives

147. **Handheld Clicker** – External vendors provide hardware (receivers) to faculty for free, and students buy a handheld device (usually $20) and maybe also online access by semester. Vendors include iClicker, CPS, and Turningpoint
148. **Cloud-Based Clicker Alternatives** – External vendors that use a website to track student input data using their own devices (laptop, smartphone, etc) and the campus wi-fi. Vendors charge students per semester (usually $20); there is no hardware for faculty members. Examples include LearningAnalytics, Top Hat Monocle, and Via Response.

149. **PollEverywhere** – Cloud-based clicker alternative that uses cell phone texting (SMS) for student responses. Business model calls for faculty-centered payment by user, but the free option suffices for anonymous polling of up to 35 students.
150. **Color Boards** – Students are issued (or create their own) a set of four paper-sized cards. These can be used to vote on questions raised in class by lifting the appropriate board into the air. Optionally, the back of each card should be white so students do not see what others have answered.
151. **Fingers on Chest** – Students vote on multiple choice questions by showing a finger count (1 through 4). Rather than raise them into the air, they hold their fingers across their chests so other students don't see what the majority is voting.

Creating Groups

152. **Quick Division** – Divide your class into two roughly equal segments for simultaneous, parallel tasks by invoking their date of birth: "if your birthday falls on an odd-numbered day, do task X…if your birthday is even, do task Y." Other variations include males and females, months of birth, odd or even inches in their height (5'10" vs 5'11").
153. **Question and Answer Cards** – Make index cards for every student in the class; half with questions about class content; half with the right answers. Shuffle the cards and have students find their appropriate partner by comparing questions and answers on their own cards.
154. **Telescoping Images** – When you need the class to form new groups, craft sets of index cards that will be grouped together by theme, and randomly pass them out for students to seek the other members of their new groups. Example: one set of four index cards has pictures of Europe on a map, then France, then the Eiffel Tower, then a person wearing a beret (thematically, the images "telescope" from far away to close up, and the students must find others in their particular set of telescoping images).
155. **Speed Sharing** – Students write definitions, concepts, quiz questions, etc. on index cards and form two concentric circles, facing each other. For thirty seconds (or 60), they share their knowledge with the person opposite them. Then, the outer circle "rotates" so that everyone has a new partner, and the sharing is repeated. This can be done until each student has completed the circuit.
156. **Trio Rotation** – Group students into threes, and arrange the groups into a large circle. Each team of three works on a problem. Then, each team assigns a 1, 2, and 3 number to each person. The 1's stay put, but the 2's rotate clockwise and the 3's rotate counterclockwise. Newly formed teams then work on a new problem.
157. **Go to Your Post** – Tape a sign onto opposite sides of the walls with different preferences (different authors, skills, a specific kind of problem to solve, different values) and let students self-select their working group
158. **Four Corners** – Put up a different topic in each corner of the room and ask students to pick one, write their ideas about it down, then head to "their" corner and discuss opinions with others who also chose this topic.

Icebreakers

159. **Introduce Your Partner's Non-Obvious Trait** – Students partner up and are tasked with learning one thing about the other person that is not obvious by looking at them. Then, they introduce their partner to the larger class. Instructors can use this time to record a crude seating chart of the students and begin to learn their names.
160. **Scrapbook Selection** – Put students in groups and give each group a big pile of printed photos (best if laminated – maybe different shapes/sizes?) Ask them to choose one as a group that epitomizes their reaction/definition of the topic being discussed, and explain why.
161. **Brush with Fame** – Students relate their closest encounter with someone famous, even if it has to be a story about something that happened to a friend or relative.
162. **Name Game** – Students form circles in groups of 8-10 and one at a time state their name with an alliterative action: "I'm Jumping James!" Optimally, they should perform

the action as well. They proceed around the circle, stating names and performing the actions, adding names one at a time, until the last person in the circle will have to say everyone's name and perform all the actions.

163. **Human Bingo** – Students become acquainted at the start of a semester by performing a scavenger hunt you design as a handout: "find someone who dislikes carrots, someone who owns a German car, someone who has read a book about submarines, etc."
164. **Line Dance** – Students line up according to their level of agreement on a controversial subject: strong agreement on one side, strong disagreement on the other.
165. **Two Truths and a Lie** – Go around the room and ask each student to relate two true statements and one falsehood about themselves, without giving away which is false.
166. **Name Tag Trio** – Color code name tags and ask people to form groups of three made up of people with nametags of the same color, then introduce themselves.
167. **Sketch Intro** – Ask participants to draw a picture, using no letters, that captures a key facet of their experience, philosophy, or personality.
168. **Speed Skating** – Like the Olympic sport that moves in a circle rapidly, line up students in a circle and step forward one at a time to say a quick personal statement (I am Belgian, I am allergic to peanuts, I love classical music) and then step back into position.
169. **Word Association Cloud** – Collect secret-ballot responses to a word association prompt related to your topic, and paste them into a word-cloud generator to create an image that shows which words were used the most.
170. **Answer Any Three** – Write 5 questions on the board and ask students to stand (or pair off) and answer any 3 of the 5 questions posed. Some sample questions might include: "I have always wanted to……, The person I most admire is…, The two most important job responsibilities I have are _____ and _____., I'm a sucker for…, One reason why I entered my field is…, Something few people know about me is…" Content-related questions may also be used to review material being presented.

Games (Useful for Review)

171. **Crossword Puzzle** – Create a crossword puzzle as a handout for students to review terms, definitions, or concepts before a test. Some online websites will automate the puzzle creation.
172. **Jeopardy** – Play jeopardy like the TV show with your students. Requires a fair amount of preparation. Can be used also for icebreakers (such as finding out what participants already know about your subject, your university, etc).
173. **Pictionary** – For important concepts and especially terms, have students play pictionary: one draws images only, the rest must guess the term.
174. **Super-Password** – Also for concepts and terms; one student tries to get his partner to say the key term by circumlocution, and cannot say any of the "forbidden words" on a card prepared ahead of time.
175. **Guess the Password** – The instructor reveals a list of words (esp. nouns) one at a time and at each point, ask students to guess what key term they are related to. The hints become increasingly specific to make the answer more clear.
176. **Twenty Questions** – Assign a person, theory, concept, event, etc to individual students and have the partner ask yes/no questions to guess what the concept is. Also works on a plenary level, with one student fielding the questions from the whole class.
177. **Hollywood Squares** – Choose students to sit as "celebrities" at the front of the class. Variation: allow the celebrities to use books and notes in deciding how to help the contestants.
178. **Scrabble** – Use the chapter (or course) title as the pool of letters from which to make words (e.g., mitochondrialdna) and allow teams to brainstorm as many words as possible from that list, but all words must be relevant to this test. Variation: actually play scrabble on boards afterward.
179. **Who am I**? - Tape a term or name on the back of each student, out of view. Each student then wanders about the room, posing yes/no questions to the other students in an effort to guess the term on his own back.

180. **Ticket out the Door** – At the end of class, ask students to summarize the lecture today, or provide one new personal significant learning outcome (in 3-5 sentences), and give their response to the professor for their ticket out of the door.

Interaction Through Homework

181. **Find the Company** – Students search the Internet for a corporation that makes use of concepts/ideas from class, and must defend their choice in the next class session.
182. **Diagnostic Learning Logs** – Students track main points in lecture and a second list of unclear points. They then reflect on and analyze the information and diagnose their weaknesses.
183. **Process Analysis** – Students track the steps they take to finish an assignment and comment on their approaches to it.
184. **Productive Study-Time Logs** – Short records students keep on how long they study for a class; comparison allows those with lesser commitment to see the disparity.
185. **Double-Entry Journals** – Students note first the important ideas from reading, and then respond personally.
186. **Paper or Project Prospectus** – Write a structured plan for a term paper or large project.
187. **Annotated Portfolios** – Student turns in creative work, with student's explanation of the work in relation to the course content and goals.

Student Questions

188. **Student Questions (Index Cards)** – At the start of the semester, pass out index cards and ask each student to write a question about the class and your expectations. The cards rotate through the room, with each student adding a check-mark if they agree this question is important for them. The teacher learns what the class is most anxious about.
189. **Student Questions (Group-Decided)** – Stop class, group students into fours, ask them to take five minutes to decide on the one question they think is crucial for you to answer right now.
190. **Questions as Homework** – Students write questions before class on 3x5 cards: "What I really wanted to know about mitochondrial DNA but was afraid to ask…"
191. **Student-Generated Test Questions** – Students create likely exam questions and model the answers. Variation: same activity, but with students in teams, taking each others' quizzes.
192. **Minute Paper Shuffle** – Ask students to write a relevant question about the material, using no more than a minute, and collect them all. Shuffle and re-distribute, asking each student to answer his new question. Can be continued a second or third round with the same questions.

Role-Play

193. **Role-Playing** – Assign roles for a concept, students research their parts at home, and they act it out in class. Observers critique and ask questions.
194. **Role Reversal** – Teacher role-plays as the student, asking questions about the content. The students are collectively the teacher, and must answer the questions. Works well as test review/prep.
195. **Jury Trial**. Divide the class into various roles (including witnesses, jury, judge, lawyers, defendant, prosecution, audience) to deliberate on a controversial subject.
196. **Press Conference** – Ask students to role-play as investigative reporters asking questions of you, the expert on the topic. They should seek a point of contradiction or inadequate evidence, hounding you in the process with follow-up questions to all your replies.
197. **Press Conference (Guest Speaker)** – Invite a guest speaker and run the class like a press conference, with a few prepared remarks and then fielding questions from the audience.

198. **Analytic Memo** – Write a one-page analysis of an issue, roleplaying as an employer or client.

Student Presentations

199. **Fishbowl** – A student unpacks her ideas and thoughts on a topic in front of others, who take notes and then write a response. Avoid asking questions.
200. **Impromptu Speeches** – Students generate keywords, drop them into a hat, and self-choose presenters to speak for 30 seconds on each topic.
201. **Anonymous Peer Feedback** – For student presentations or group projects, encourage frank feedback from the observing students by asking them to rip up a page into quarters and dedicating comments to each presenter. Multiple variations are possible in "forcing" particular types of comments (i.e., require two compliments and two instances of constructive feedback). Then, ask students to create a pile of comments for Student X, another pile for Student Y, and so on.
202. **PowerPoint Presentations** – For those teaching in computer-mediated environments, put students into groups of three or four students. Students focus their attention on a chapter or article and present this material to the class using PowerPoint. Have groups conference with you beforehand to outline their presentation strategy and ensure coverage of the material.

Brainstorming

203. **Group Concept Mapping** – Start with large posterboards on tables around the room, each with only a central node on it. Participants move around the room, adding sub-nodes to each poster until they are full.
204. **Round Robin** – Have groups silently list top 3 answers to a problem/question. Allow all groups to present one idea in a round robin format until all groups have exhausted their lists. Scribe all answers and then discuss how to reduce/re-categorize answers. Have groups vote on top three, provide results, discuss, and vote again.
205. **Brainstorming on the Board** – Students call out concepts and terms related to a topic about to be introduced; the instructor writes them on the board. If possible, group them into categories as you record the responses. Works to gauge pre-existing knowledge and focus attention on the subject.
206. **Brainstorming Tree** – While brainstorming on the board, circle the major concepts and perform sub-brainstorms on those specific words; the result will look like a tree blooming outward.
207. **Brainstorming in a Circle** – Group students to discuss an issue together, and then spend a few minutes jotting down individual notes. One person starts a brainstorming list and passes it to the student to the right, who then adds to the list and passes it along again.
208. **Chalk Talk** – Ask students to go to multiple boards around the room to brainstorm answers to a prompt/assignment, but disallow all talking. Can also be done in groups.

Online Interaction

209. **Online Chat (All-Day)** – For classes meeting at least partially in an online environment, instructors can simulate the benefits gained by a chat-room discussion (more participation from reserved instructors) without requiring everyone to meet in a chat room for a specific length of time. The day begins with a post from the instructor in a discussion board forum. Students respond to the prompt, and continue to check back all day, reading their peers' posts and responding multiple times throughout the day to extend discussion.
210. **Online Chat (Quick)** – To gauge a quick response to a topic or reading assignment, post a question, and then allow students to chat in a synchronous environment for the next 10 minutes on the topic. A quick examination of the chat transcript will reveal a multitude of opinions and directions for further discussion. In online environments,

many students can "talk" at once, with less chaotic and more productive results than in a face-to-face environment.

211. **Online Evaluation** – For those teaching in online environments, schedule a time which students can log on anonymously and provide feedback about the course and your teaching. Understand, however, that anonymity online sometimes breeds a more aggressive response than anonymity in print.
212. **Pre-Class Writing** – A few days before your computer-mediated class begins, have students respond in an asynchronous environment to a prompt about this week's topic. Each student should post their response and at least one question for further discussion. During the face-to-face meeting, the instructor can address some of these questions or areas not addressed in the asynchronous forum.
213. **E-Mail Feedback** – Instructor poses questions about his teaching via e-mail; students reply anonymously.