

**Small Teaching: How to Improve Your Teaching Incorporating “Small” Changes**

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Maximize opportunities for students to practice retrieving knowledge

* Give students an exam before you teach, tap what they might already know.
* Best format is short answers.
* Give immediate feedback in both cases.
* Use exercises or quizzes that will promote students to write about something more than once. (Suggested sequence: go over new material (material 1) -> review of material 1 -> go over more new material (material 2) -> review of material 1 and 2. It is important to let students “speak” when reviewing the materials.
* Spaced learning, interleaving. Learning and then pause, move on to learning about the new topic and then pause. Insert the time to pause and review sporadically. Needs to be some breaks in between learning.
* Pretest in order for students to predict at the start of a unit. Revisit material at end.
* Explain purpose of all activities to your students. Explain the “why.”
* Intersperse quizzes.
* Pause, predict, ponder/reflect: during a text, PowerPoint presentation, film clip.
* Set up a problem. Class votes with clickers. Turn to someone with a different answer and then revisit.

Effectively utilize the class time to maximize opportunities for students to practice retrieving knowledge

* Start class by displaying an image. Students ask two questions or answer two questions. Maybe answer at the start of the session, or at the end.
* First 10 minutes of class: free-write on what was already covered.
* First 10 minutes: ask for a 3-5 minute summary (or low-level quiz) of the prior class.
* Take five minutes to prepare students for what they will read/do for homework.
* Use the last 10 minutes of class to respond to a question/short exam: try to retrieve what you just were exposed to.
* Think about how to effectively use the first five and last five minutes of class.

Build in opportunities for more active self-learning

* “Self-explanation enables learners to fill in the gaps of unarticulated steps…” and “…develop unstated inference rules…” (Lang, 146); “…modify and improve their existing perceptions or knowledge of a subject matter”…have flawed mental models that need revising (Lang, 147).
* Have students talk aloud to explain a concept; have them paraphrase.
* Give out only partial notes. Together can make connections and building comprehension.
* Guided notes: notes that need to be there to fill in. Not quite PowerPoint slides, more interactive.
* Backward Fading: students first just observe the teacher solving a problem; then they add one step, etc. until they do the whole problem on their own.

Make more of exams

* Go back over notes in class. Opportunities to retrieve older content/knowledge.
* Ask students to think about and/or make the potential questions on the exams.
* Assignments should have the same format as the format of assessment tool. So don’t use discussion in class as a review for an essay exam. If exam will include multiple choice, have in-class multiple choice examples. End each class with a potential exam question.
* If you want to practice writing essay-length pieces about content: in class, students draft the first sentence of an essay (10-15 minutes). Get immediate feedback. And are told the learning objective of the activity.

Consider Universal Design in Learning (UDL)

* Always try to be targeting different learning styles. Be multimodal, for example. How students access material could be varied, such as offering a choice, they choose to read or listen to content. Add visuals to discussions. How do you tap all the senses?
* Choose a text with an audio component, for example. Think about whether your PDFs are accessible? Do you assign podcasts, other auditory material?
* Use the space in the room. How is your room arranged? It can be changed (within reason).
* Have an agenda posted at the start of the class, and keep up with the class’s progress.

Create a positive classroom setting

* Call students by their names when they volunteer.
* Respond positively to all comments.
* Credit students’ contributions: “That relates to X’s earlier point.”
* Cold calling seen as hostile by some professors. But the person doing the work is doing the learning.
* Students might be afraid to disagree with a classmate. Discussions can be argumentative without being aggressive. Need to be depersonalized.
* Did you wait long enough after asking a question? Studies show that professors think they wait long enough, while students think they do not, that they would like more time.
* Strategies to encourage all to speak: You have been great. Now let’s hear what someone else thinks.

Establish interactions and participation as the routine

* Give credit for participating.
* Whose responsibility is it to have a ‘good’ conversation? The norm is Civil Attention; is that good enough? Appearing to pay attention…good enough?
* Early in semester, build in multiple student-to-student activities so interaction and participation more the norm.
* Limit your own talking.
* Emphasize that the whole class comprises allies in encouraging participation. Students can be assigned conversational partners. X encourages Y, and also evaluates Y’s participation in writing.
* Try to pose some questions all can answer: what is the muddiest point of the lesson so far? What point most resonates with you? What do you think is supposed to be the most resonant point?
* How do you grade discussion/participation: Students can grade themselves and discuss how much they contribute in (and learn from) a discussion format. What is the value of requiring participation? Ask students to write done what they learned from that day’s discussion that would not have happened by lecture alone, or if they had not contributed.
* How do you define participation? Is attendance and eye contact and note-taking enough?

Make better use of productive discussions

* Silence tends to be the default norm in classrooms. Disrupt that. Discussion = active learning.
* Be explicit about the benefits. Establish the rules on the first day, that civil attention not the norm.
* When asking a question, build in reflection time by prefacing with “Take a moment and consider….” Or “Think about (how, what, why) for a moment.”
* Teachers could also display a question at the start of class and throughout class, to be answered later. Then, students consider the question and answer for a while.
* Low tech alternative to clickers: index cards… hold up a card to indicate your choice. Ask students to close their eyes so they don’t know if they are “wrong’” or not (less risk).
* Fight against consolidation of responsibility. Stats show 5-8 students will account for 90% of the discussion.
* Study finds non-talkers are annoyed at dominators. And teachers annoyed by the non-talkers.
* Post it notes on each desk can be used for students to write questions down for later.
* Are we asking complex questions needing critical thinking? If not, students might think it is not worth participating (too easy).
* Share your own experiences, as a student, as a learner, in discussion formats.
* Model a good discussion. (Post a good discussion thread.) Students might be thinking there is only one right answer, that discussion is like an oral exam. Or that their answer will make them look silly to others. They could be asked to play devil’s advocate.
* Connect readings to what you are doing and discussing in the next class. This also gives purpose to the readings.
* Overall, covering content isn’t enough; we need more doing and observing for learning to happen. Thinking skills along with mastering content.

Share positive attitudes with students

* Find opportunities for students to care, develop a sense of purpose to the class, a way for emotions to be involved. Professor’s own enthusiasm helps. You can tell stories…be deliberate. Whole class can be a story. Often remind students why they are doing this. Many places for it: on the syllabus, in instructions for assignments, on the board, at the end of each class.
* Share positive emotions and feelings with students.
* Growth Mindset: Praise effort > ability. Reward growth. Early assignments worth less than later ones. If fail, can redo (within reason). Once a term, can redo something. Include concrete ways they can learn, study, grow.
* The final exam which is cumulative should be more weighted than the earlier exams. Think about course design and assignment weights that reward for growth.
* Communicate about the growth: Emphasize the possibility to do well (enforce the view of incremental theorists).

Dynamics in the class

* Think about the “social context” of classroom. The interaction between a teacher and students should be dyadic. Leave room for students to share their stories and feelings in the classroom.
* Professor moves around the room.
* You can require two-minute office hour visits from everyone the first month.
* Always start from the big picture, the framework that organizes the content to be learned on a given day. This framework should be left blank. Ask students to fill in the blanks left in the organizing framework. This allows teachers to assess the understanding and preparedness of students. Also, a good way to check on the reading assignment.
* Provide rich, everyday examples to connect dots between the theory and real-life.

**Main Source**

Lang, J. (2016). *Small Teaching*: *Everyday lessons from the science of learning*. San Francisco:

Jossey-Bass.

Additionally…

Howard, J. (2015). *Discussion in the College Classroom: Getting your students engaged and*

*participating in person and online*. San Francisco: Jossey-Bass.

Miller, M. (2014). *Minds Online: Teaching effectively with technology*. Cambridge, MA: Harvard

University Press.

Relevant Websites…

<https://ablconnect.harvard.edu/>

<https://www.facultyfocus.com/>

<http://www.cast.org/our-work/about-udl.html#.XdxVNYNKiHs>