

Reflective Teaching

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Five Stages For Effective Teaching and Meaningful Learning in the Classroom

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Like many others, I started my teaching career emulating those who taught me, and, uncritically imitating the way they taught. By and large, that meant passing on information by lecturing in the classroom, with occasional attempts at "discussion." Since then I've come to understand better the processes of teaching and learning. I've come to appreciate that learning is the process whereby we acquire knowledge, apply it, and retain it. Conversely, teaching is the process whereby we create the conditions and experiences that help learners acquire knowledge, apply it, and retain it. Consequentially, the three basic evidences of learning are comprehension, application, and retention. Those three evidences only happen when there is "meaningful learning." Meaningful learning refers to knowledge that has value to the learner; knowledge that satisfies, can be used, and which the learner can identify with



and incorporates into their thinking, feeling, or doing.

Along the way I've identified four foundational pedagogical principles that inform my practice of teaching:

The student is the agent of learning (not the teacher)

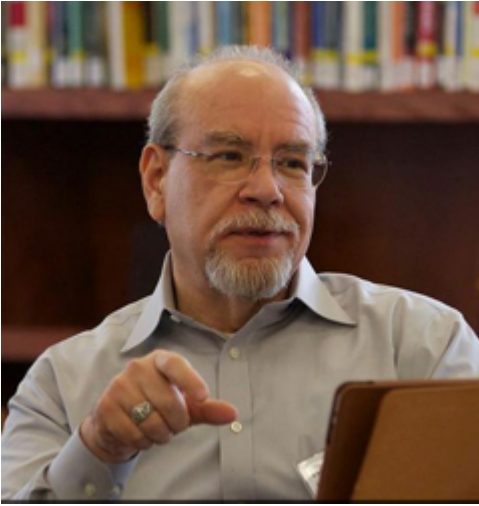
Meaningful knowledge is constructed by the learner ("teaching by telling" does not work)

Experience mediates learning (application of experiential learning)

Meaningful knowledge is applied in the real world (avoid "pretend learning")

Learning requires retention over time (the function of memory and retention).

That's clear enough, but bringing about meaningful learning requires an intentional act on the part of the teacher. Understanding and applying the pedagogy that helps realize meaningful learning makes us more effective teachers. Below are the five stages I use for meaningful learning, with corresponding pedagogical practices beyond



lecturing to help make it happen. Sometimes I use the five stages as the structure for each lesson in a course of study, and, sometimes the stages form the framework for the arch of a course. Either way, I work to ensure that the design of the learning experience follows the structure.

1. Learn about it.

I've discovered the power of helping students find a motivation for learning. But, it is an unrealized or perceived need that is a motivator, not an "interest" or the merely novel. So, awaken in the learner's the insight, "This is why I need to learn this." When guiding students to "learn about" something, teach from the known to the unknown (build on prior knowledge) using pathways to learning (things that help bridge the known to the unknown: metaphors, experiences, etc.). Remember that meaningful learning is knowledge that addresses a need, solves a problem, or satisfies. So, I try to avoid the temptation of "coverage." A course about everything and anything is a course about nothing in general. When "learning about" something, attainment of concepts and principles have more value than learning facts or receiving information.

Most helpful pedagogy: Lecture, explication, problem-posing.

Teacher action: identify knowledge category (skill, information, concepts, principle, self-understanding, etc.). Lecture on concepts and principles (not information). Apply appropriate teaching taxonomy

2. Understand it.

Regardless of how important I think it is, merely receiving information is not sufficient to bring

about meaningful learning. At appropriate intervals, I test for comprehension and check for misunderstanding. Understanding is nuanced, it has degrees and facets, therefore, it's helpful to attend to degrees of learning: "To what extent do you want your learner to know something?" Here, the taxonomy by Wiggins and McTigh's facets of understanding is very helpful in being clear about what I'm teaching toward: Explanation, Application, Empathy, Self-understanding.

Most helpful pedagogy: dialog, question and answer, self-assessment, test for misunderstanding.

Teacher action: share information, provide sources of information or knowledge, test for comprehension, test for misunderstanding using appropriate assessment taxonomy.

3. Manipulate it.

For knowledge to become meaningful, learners must be able to manipulate it. Manipulating information helps internalize knowledge by creating pathways for connecting with what is known, and, processing knowledge through multiple intelligences. Manipulating information, concepts, principles, or objects helps the learner acquire understanding and a "sense" of the nature of things. The manipulation of knowledge also satisfies the need for the "experience" of knowledge. I find this often to be the most creative part of designing the learning experience.

Most helpful pedagogy: Interpret it, enhance it, diagram it, depict it, change it, deconstruct it, combine it, illustrate it, interpret it, model it.

Teacher action: provide appropriate experiential learning activity.



4. Retain it.

Meaningful learning is bringing about change to long-term memory--if the students can't retain it, they haven't learned it. Meaningful learning must be rehearsed in order for it to be retained and to achieve mastery. One common liability in classroom learning is a failure to rehearse learning after the test. I've found that I have to reduce the scope of what I teach (avoid wide coverage), and design multiple ways for students to revisit, manipulate, and apply the concepts at intervals during the course.

Most effective pedagogy: rehearsal, memorization and recall, association, application.

Teacher action: Provide for rehearsal. Use transition induction and summary-review induction. Test for retention and accuracy of retention. Plan intervals for revisiting and rehearsing core concepts.

5. Use it.

Knowledge becomes meaningful when a learner can use (apply) it. The challenge for classroom learning is that knowledge must be applied in the context it must be used (avoid "pretend learning."). Failure to follow this principle results in the tendency to "teach for the test" as evidence of application. As much as possible, I find ways for students to apply what they are learning in the "real world," outside the classroom.

Most helpful classroom pedagogy: simulation, experimentation, application in context,

projects.

Teacher action: provide an application step. Provide feedback on application.

These stages for meaningful learning require application of a process of learning that calls for less lecture and more process.

<https://www.wabashcenter.wabash.edu/2013/11/five-stages-for-effective-teaching-and-meaningful-learning-in-the-classroom/>