

Characteristics of Effective Teaching

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What makes a teacher effective? Preparation? Communication skills? Experience? Knowledge of student learning styles? This chapter examines some components of effective teaching and provides information that instructors should consider when thinking about increasing their effectiveness in the classroom.

What is Effective Teaching and Who are Effective Teachers?

Key characteristics of effective teaching:

- Knowledge of basic principles and procedures (pedagogical theory);
- Planning and preparation;
- Teaching experience (practice);
- Self-reflection and modification of techniques;
- Flexibility.

Having many years of experience does not guarantee expert teaching; experience is useful only when the teacher continually engages in self-reflection and modifies classroom techniques to better serve the needs of students. Teachers must prepare to teach a wide range of students in terms of interest, motivation and ability, some of whom may need additional assistance. Effective teachers assess needs, abilities, and preparedness on a class-by-class basis and respond to these needs accordingly. Effective teachers:

- adjust their lessons based upon the needs and abilities of their students,
- keep abreast of developments in their field or discipline and incorporate these ideas into their lessons,
- organize the material in such a way as to best facilitate learning,
- use effective communication skills.

- formulate specific goals and objectives and then select the best methods for meeting those objectives,
- share the course objectives with the students to clarify expectations for the students and open communication,
- work to build rapport with their students,
- establish a productive learning atmosphere, and
- use effective communication skills.

Student Motivation and Effective Teaching

Pintrich's model (1994) is based on the idea of reciprocal determinism proposed by Bandura (1986). This model includes the following components:

- Contextual factors which include classroom features that can influence motivation such as the nature of a task, reward/goal structures, instructional methods, and instructor behavior;
- Students' motivational beliefs, which are assumed to mediate between context and behavior, expectancies, values, and emotional responses;
- Students' observable behavior such as choices (class work versus party), level of activity/involvement (asking questions versus sleeping); and persistence/regulation of effort (maintaining effort despite fatigue, boredom, and difficulty level).

Even though students' beliefs and values may be different from each other, there are some things that instructors can do within the context of the classroom to help motivate students:

- require more cognitive complexity to help students to become motivated,
- use "authentic" measures of learning outcomes as a source of motivation,
- develop tasks at just the right level (no mean feat, but possible with some work),

- encourage students to work together outside class or within a discussion in the classroom but retain a structure where individuals are responsible for their own work, and
 - have enthusiasm, rapport, and expressiveness.
- These characteristics of instructors all seem to be related to students' involvement. If the instructor is merely doing something without being excited about its potential, it will seldom work for motivating students.

Classroom Climate and Motivation

Here are nine tips for improving motivation through classroom climate:

- Make students feel important. Instructors who value students avoid condescension, sarcasm, and impersonal behavior. They cultivate students' self-esteem through praising good performance and taking a personal interest in students.
- Make students feel invited. In a number of studies of student retention, the presence or absence of a positive relationship with an instructor is cited as an influential factor on retention. Instructors who make students feel invited, both in and outside class, have a strong impact on motivation.
- Make the most of positive nonverbal cues. Maintaining eye contact, smiling and actively listening, including nodding, helps to motivate students. Instructors should avoid defensive postures that shut down communication.
- Get to know students personally. Instructors who request that all students visit them personally outside class to chat informally understand that personal acquaintance enhances the teaching-learning relationship.
- Learn to empathize. Instructors who remember some of the hardships, uncertainties, and stress of being a student are better able to help others who are undergoing these difficulties. Direct attempts of instructors to talk about their life experiences that are related to the subject and their personal difficulties in mastering certain concepts create a warmer classroom climate.

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- Establish parameters. Good teachers define tasks clearly and set high expectations for behavior and learning. They assume that students will strive to meet expectations, and they realize that expectations can often generate outcome.
- Deal with needed changes from a positive point of view. Honest and frequent feedback is essential to learning, but even very negative feedback can be offered in a constructive, non-threatening way. Instructors can usually find some good point to praise and can suggest specific ways in which unsatisfactory performance can be improved.
- Use student-centered instruction. Student-centered instruction involves planning learning activities that will actively engage students. Effective teachers use these instructional strategies to develop students' personal investment and interest in learning.
- Be enthusiastic. Although most instructors find their discipline compelling, sometimes it is hard to convey excitement about a familiar topic. Effective teachers try to cast the familiar in a new light or present concepts in a fresh way to maintain enthusiasm. Instructors who are excited about their discipline pass that enthusiasm on to students.

Learning Styles and Skills

In this day when retention of students is a pertinent issue, it would be a shame to lose some students whose learning characteristics are never addressed in the classroom. A few of the better-known schemes for organizing learning styles are discussed in the following sections.

Kolb's Learning Styles:

Kolb (1981) described four main processes for learning:

- Concrete experience---learning through direct involvement in a new experience;
- Reflective observation---learning through watching others or through thinking about one's own experiences or those of others;
- Abstract conceptualization---learning by creating concepts and theories to describe and explain one's observations;

- Active experimentation---learning by using the theories and concepts that one has derived to solve problems and make decisions.

He further explains that most students apply all four processes as they learn, but that most individuals prefer one process more often than the others. Depending on these preferences, four learning styles will be adopted:

- Convergents rely most on abstract thinking and active experimentation. They search for specific, concrete answers and a single solution. They prefer dealing with things rather than people.
- Assimilators rely most on abstract thinking and reflective observation. They prefer theoretical concerns rather than applications. They like research, and planning, tasks that call upon them to integrate material.
- Divergers rely on concrete experience and reflective observation. They generally like to work with people and generate numbers of ideas. They enjoy class discussions and working in groups.
- Accommodators rely on concrete experience and active experimentation. They are risk takers, are action-oriented, adaptable and like new experiences. They prefer a hands-on approach.

Learning Modalities

A number of other researchers have focused on the way sensory input influences learning. These researchers emphasize whether the learner takes in information better by hearing (auditory), seeing (visual), touching (tactile), or positioning (kinesthetic). Diverse learning styles call for a variety of instructional delivery methods. Information on learning styles and multiple intelligences can be found at <http://www.ldpride.net/learningstyles.MI.htm>. An interactive learning styles survey as well as a multiple intelligences inventory may also be found at this site. Both may be of interest and use to you and your students.

Putting Theory to Use

Students come to us with various levels of cognitive development and preparation. Teachers can challenge

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students who may be functioning at lower levels of cognitive development by:

- Discussing diverse viewpoints and incorporating a framework for understanding these views;
- Providing a clear context/rationale for the course and providing specific guidelines for each new learning task;
- Incorporating opportunities for the ideas of others to be heard in class;
- Providing for active involvement in learning to facilitate students' development into use of more abstract methods;
- Providing structure:
 - a) use outlines of class lectures, texts, etc.
 - b) use a syllabus that itemizes specific policies, dates, etc.;
- Being prepared:
 - a) use handouts to describe how students can fulfill class requirements
 - b) make explicit the connections between requirements and the activities inside and out of the classroom;
- Personalizing interactions:
 - a) provide opportunities for students to get to know the instructor and other students;
 - b) ask for feedback in the form of journals, logs, after class responses, etc.;
 - c) provide feedback on tests and assignments as quickly and as concretely as possible;
 - d) be available for student contact and consultation.
- Becoming actively involved:
 - a) make connections with real life through case studies, role-playing community-based projects and
 - b) allow opportunities for critical self-evaluation through use of reflective writings, individual meetings, etc. Chapter 4, [Preparing and Designing a Course](#) has additional information about preparing and designing a course.

For students who are ready for more challenge and complexity:

- Providing opportunities to explore different positions:
 - a) encourage classroom debate;
 - b) ask students to weigh pros and cons in choosing alternatives;

- c) ask students to defend positions other than those to which they personally subscribe;
- d) ask students to analyze, synthesize, and evaluate from a personal perspective and from that of others and
- e) ask students to generate new questions and evaluate assumptions;

- Asking students to choose their own projects/assignments and gradually removing some of the provided structures
- Allowing for flexibility and creativity by providing alternative formats for performance;
- Continuing personalization through group work, participation in peer teaching and learning;
- Using specific examples from the students' realm of experience.

The most effective instructors seem to be able to balance challenge and support. **Challenge involves presenting learners with complexity and ambiguity; support is reflected in structure and discipline.** The task, then, of the instructor is to help students also attain this balance.

Engaging Students Through Questioning

Instructors should use questions to engage students at many cognitive levels and to challenge their thinking. Further, questions and discussion should encourage a broadening of the students' frame of reference, facilitating the process whereby students come to make connections between different disciplines and between course subject matter and the outside world. Such varied questioning provides students with a view of the larger implications of their education. There are a variety of questioning strategies which teachers can use to engage their students. Below are the essential ideas from Bloom (Anderson & Krathwohl, 2001) and Taba (1982), as well as divergent and affective questioning techniques. See also Chapter 4, [Preparing and Designing a Course](#).

The revised Bloom's Taxonomy has six cognitive process dimensions. These dimensions can be used when planning questions. The dimensions are remember, understand, apply, analyze, evaluate, and create. Each is briefly discussed below.

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Remember - Some factual questions ask students to recall bits of information. Some useful verbs that can be used to formulate these questions include: Define, repeat, record, list, recall, name, relate, and identify. For example, "Who was the leader of the Free French forces during WWII?" and "What is the Spanish verb meaning 'to run'?"

Understand - Some factual questions require students to organize facts into a logical relationship. Some useful verbs include: Discuss, describe, explain, express, report, review, and tell. An example is, "What are the steps a bill goes through before it becomes law?" and "What is the commercial method for producing hydrochloric acid?"

Apply - Application questions require students to classify objects or events by common characteristics or explain the relationship of two or more concepts. Useful verbs for application questions include: Translate, interpret, apply, employ, use, demonstrate, dramatize, practice, illustrate, and sketch. Examples are "How was Gresham's Law demonstrated in the Weimar Republic of Germany?" and "Can you provide an example to fit this definition?"

Analyze - Analysis questions require students to determine if ideas/objects are similar, dissimilar, unrelated or contradictory. Useful verbs include: Distinguish, analyze, differentiate, calculate, compare, contrast, diagram, test, inventory, and relate. Two examples are "Is a mussel the same thing as a clam?" and "What similarities and differences exist between Lincoln's Gettysburg Address and Pericles' Funeral Oration?"

Evaluate - Evaluation questions require students to exercise judgment, value or choice based upon comparing of ideas or objects to established standards. Useful verbs include: Judge, appraise, evaluate, rate, compare, value, assess, estimate, and measure. An example is, "Assuming equal resources, whom would you rate as the most skillful general, Robert E. Lee or Ulysses S. Grant? Why?"

Create - Creative questions require students to put ideas together in a new way, often involving inductive and deductive reasoning. Useful verbs include:

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Compose, plan, propose, design, formulate, arrange, construct, set up, organize, manage, and prepare. For instance, an inductive question is "We have examined the qualities these world leaders have in common. What might we conclude about qualities necessary for leadership?", whereas a deductive question would be "If the temperature of the gas remains the same, but the gas is taken to an altitude of 400 feet higher; what happens to the pressure of the gas?"

Taba's approach consists of four essential questioning techniques using open-ended but focused questions. The four types of questions are questions calling for variety, questions calling for extension or clarification, questions calling for reasons or support for ideas, and focusing questions. Each is briefly discussed below.

Questions Calling for Variety – Students must come up with responses completely different from those already given.

"In this case study, what else could the teacher have done?"

"What else might happen in this case?"

Questions Calling for Extension or Clarification – Students must explain meanings, elaborate on ideas, or provide specific examples.

"What do we mean by 'paradigm'?"

"Give me some examples of paradigms."

Questions Calling for Reasons or Support for Ideas – Students have to explain and/or give reasons for statements they make.

"Give some examples to support your hypothesis."

"How do you know that _____ causes _____?"

Focusing Questions – These questions help to focus students on a particular task.

"What are some factors contributing to _____?"

"What were the results of _____?"

Divergent Questions. Divergent questions have no right or wrong answer but encourage the exploration of possibilities. Asking a number of these types of questions reduces student anxiety because there can be no "wrong" answer. They do require, however, both concrete and abstract thinking to arrive at an appropriate response. The instructor should look for reasoning to support the student's position. Some examples include:

"What might happen if Congress passed a law preventing the manufacture and sale of cigarettes in the United States?"

"In what ways would history have been changed had the Spanish Armada defeated the English in 1558?"

Affective Questions. Affective questions elicit expressions of the attitudes, values, or beliefs of the students. Like factual questions, affective questions involve the greatest number of students. Like divergent questions, however, they require support for any position taken.

"Is Granny Weatherall a likable character?"

"What do you most or least admire about her?"

"How important is the _____ to you? Why?"

Whatever questioning technique you use, remember students do need time to think. Be sure to allow adequate time for all students to formulate an answer before calling on someone or giving the answer yourself.

In addition to eliciting student responses to instructor questions, instructors must consider how to appropriately respond to students' answers, questions, and other comments to foster a productive learning environment. Instructors might consider the following:

- Paraphrase students' questions or comments for the entire class, build them into later lectures or discussions. Validating their remarks indicates your understanding of them and involves the entire class in the discussion.
- Don't feel compelled to comment on every student's point. Encourage other students to

elaborate on or respond to student ideas. At times, turn questions over to the class to answer. Invite student debate.

- Comment on the thinking process of the student as well as on the answer offered in conclusion. If applicable, ask students to explain their thinking that brought them to the conclusion offered.

Final Thoughts

In conclusion, keep in mind there are many factors which are essential to effective teaching. There is no way to cover every factor, however, within the confines of this document. We have tried to translate the theory of teaching into practical applications in the classroom. To that end, we have attempted to present the main ideas that will provide some initial guidance as you begin your university teaching assignment.

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