

Knowledge
is
Power

POWERFUL TEACHING TO IMPROVE UNDERSTANDING AND PERFORMANCE

GOALS

1. Recognize the significant role of teaching.
2. Appreciate the definition of teaching as it relates to power.
3. Know the methods of teaching that emit a powerful teaching process.
4. Determine effective methods that most often result in successful testing outcomes.

If the student didn't learn—where do we place the blame? Did the student just not learn or did the teacher fail to use powerful teaching? If the student learns, to what extent is the teacher credited for powerful teaching? Good questions!

DEFINITION OF TEACHING POWER

The definition of teaching or instruction is that there is an imparting of skill or knowledge. This implies that the teacher is to be the example of wisdom relative to the content being presented. More importantly, the teacher is the human conduit through which the means, information, testing, and support occurs during the learning process. Beyond the imparting of information and the total learning process, the teaching process is responsible for the major way learning occurs and determines the degree of acceptable understanding by students. He/she, as the teacher, has the *power* to excite learning or discourage the desire to learn. What greater gift can a person give to another than the gift of skill and knowledge that could possibly change, for the better, the world in which we live?

The definition of power can be understood as a noun or a verb. This document refers to the definition (not verb) of power as a noun—that is, this document refers to a person (teacher) who has the capacity to influence another person's behavior and intellectual understanding in a positive way through teaching power. Power in teaching comes when a teacher recognizes knowledge and practice that is less than ideal and teaches to change knowledge for the better. Intellectually, it comes from an experience that recognizes that a given educational situation or understanding of a process is less than ideal and, then, exercises measures to pursue educational and process excellence. It sometimes requires teaching creativity that is sometimes called “thinking out of the box” and possibly criticism for pursuing appropriate, positive, and passionate teaching theory and exemplary behavior which will result in positive student outcomes.

Why is *power in teaching* important? Without it mediocrity exists and recognition for excellence wanes. With it (power) a student's success and teacher excellence surpasses moderate expectations. It (power) is important because without this positive catalyst for change advances in science and human relationships would never occur.

THE HOW-TO OF TEACHING POWER

The success related to the imparting of information comes when the teacher makes a decision as to *how* to impart the understanding and application of the intended skill or knowledge. For example, the degree of the comprehensive understanding of a skill or knowledge of a subject can usually be preliminarily tested in the classroom by discussion and examples (by the students) regarding the potential application of content presented by the teacher. Verification of this understanding could be substantiated through a form of testing.

Testing by incremental or final written exams are often used to determine relevant cognitive understanding of skills or knowledge. State Board exams are often used to determine intellectual/cognitive understanding of concepts of practice by providing a choice of answers in a multiple-choice setting. Actual psychomotor application is often used in a laboratory situation where actual use of principles and procedures are demonstrated and re-demonstrated to show a coordination of cognitive knowledge and related psychomotor skills. The affective (attitudinal) domain is tested by appropriate enthusiasm and attitude regarding the application of what is/has been learned.

No matter the testing procedure, the outcome is expected to be useful in the testing of Benjamin Bloom's domains of intellectual/cognitive, psychomotor, affective (attitudes), and/or application abilities of students. The choice of testing the final ability of the retention and use of this skill and knowledge is unique, as all students have a personal propensity for learning and a variety of different opportunities to apply information. This, herein, is the need for all teachers to ascertain the many learning capabilities of each student and answer this profound call to teach, in some way, to these many unique learning abilities.

The challenge, then, is to teach in many ways and *repeat, again, in different situations as needed* to pass exams to a point of competence. Using the acronym of "TEACH," let us look more closely at the many facets of learning skill and knowledge.

T: **Tell** information about skills or the knowledge to be retained. Start with stating information that is already known and move slowly and methodically toward information that is related and unknown, but built upon the proceeding information. Students learn best by learning incrementally and learning the natural movement and building on information of previously learned concepts.

The syllabus of learning and instruction process (prepared horizontally or vertically in columns) for students of a specific course/class has to do with telling the direction and expectations of the total learning experience that leads to course goals. The syllabus should include (and may not be limited to) the following:

1. Title of the learning experience
2. *The goal (final outcome) of completing the learning experience
3. Days, time, and process of the imparting of information (could be in-class, field trip, computer, etc.)
4. *The objectives (incremental steps to the final goal)
5. Course content in general terms

6. Where extra information regarding the content could be obtained, required reading, or observations
7. Expected date of testing/exams/proof of learning
8. Required score on testing/exams for successful passing of the course
9. Testing process and requirements
10. Availability of the teacher, including days and times
11. Availability and times of learning; that is, human and material resources (e.g. library, as an example)

**All objectives and goals should be written according to BENJAMIN BLOOM'S TAXONOMY. That is, each statement of an objective or goal within the syllabus should start with a verb. The three domains of this taxonomy are Cognitive, Affective, and Psychomotor. (Accessing this information online will result in other similar titles related to the domains of learning.) Each verb (at the beginning of the sentence -goal or incremental objectives) should be numbered progressively through a cycle of simple to complex (for any or all of the appropriate domains of a course of study). These progressive verbs, regardless of the domain, represent incremental and progressive learning. Bloom's Taxonomy verb levels for each of the three domains (or other similar domains) are readily available online by researching "Bloom's Taxonomy."*

Here is a little secret: To select the most appropriate verbs as an expectation of student behaviors, consider selecting the *highest* order verb in the domain of your selection—that is, usually, the most complicated and difficult behavior expected to be achieved. For example: In considering verbs from the cognitive domain, such as, understand, recognize, or know (as examples) for each selected singular behavior, these behaviors (understand, recognize, or know) are *part of the process/happening of obtaining a higher ordered verb* in the cognitive domain, such as, synthesize, develop, or evaluate. Of course, there are many verbs that can be selected and stated for consideration online from any selected domain. Remember (again)-- the one verb to be chosen for each expected behavior is the highest ordered, most complicated, and requiring the highest degree of cognitive thought appropriate for the course. Then, realize that the lower ordered verbs (such as understand, recognize, or know) are accomplished through the process of *obtaining* the higher ordered verbs and *are not to be stated, but are considered covertly to be a part of the process to obtain the higher ordered verbs*. This pushes a student toward excellence and the highest degree of knowledge or behavior that meet the requirements of the course.

(Note: In regard to determining the verbs to be used (according to Bloom's Taxonomy) when writing a teaching syllabus or a job description:

Teaching syllabi are written to expect/require the highest-ordered verbs (e.g. such as synthesize, develop, or evaluate, etc.) in order to achieve course expectations.

Conversely, job descriptions are written to expect/require the least-ordered verbs (e.g. such as understand, recognize, know, etc.) in order to achieve satisfactory employment.

E: **Explore** how and when the concept is applied to "real" life situations. It is similar to how names are remembered—that is, we anchor the name to something silly or from the past that will remind us of the

name for that person. Require class members to relate concepts to real and accurate situations. Direct a class discuss on examples as well as non-examples related to a skill or knowledge that needs to be learned. The secret is to be able to know accurate examples—and the only way to affirm accurate examples is to recognize non-examples. Just sitting in class is not enough for student learning. Active participation in exploratory-thinking exercises solidifies understanding by the student. Teachers can then pick up on inaccurate perceptions and correct those perceptions toward more accurate application.

A: **Approve** positive and accurate comments that relate to the understanding and application of what you have been telling and exploring. Everybody loves to be right. Everybody loves to be admonished for correctly understanding and correctly applying skills and knowledge. Using the word “yes” and nodding “yes” frequently as correct comments occur during a discussion affirms positive behavior/responses. And, what student doesn’t like positive reinforcement for learning?

C: **Create** using the skills and knowledge given. In some classes this might require students to respond verbally, write papers, do art work, present dramas, do pantomimes, develop test questions, do classroom presentations, etc. Nevertheless, having to develop and create forces the application of learned principles. Example would be the nursing students develop multiple test questions similar to what they might see on their state board exams.

H: **Honor** successful learning of skills or knowledge through providing appropriate letter grades, verbal classroom admonition, or using outstanding acquisition of skills or knowledge as an example of successful course/content application.

DETERMINING LEARNING THROUGH REPEAT TESTING

Every learning situation allows (according to the situation) a determination of whether a test should be given ONCE OR MORE. Some teachers say, “I just want to make sure my students learn the exact content I have tried to teach them.”

However, does that mean *always* that the teacher will test once and use that one test score to determine the outcome for a student’s grade or does it mean that the student can have an opportunity to *retake* a test, again, within a given time using different situations/questions? So—the student did not learn what has been taught the first time and did not show that they had learned according to the outcome of the first test. In many situations, the retaking of a similar tests (not exact) that rechecks the understanding of the skill or knowledge allows for the solidification and repetitive practice of concept application. A second chance at successful testing might be the opportunity for the student to attempt and succeed. This could allow for the clarification of principles or rules that, perhaps, were not fully understood the “first time around”.

There is nothing more satisfying to the ego than to pass a test. There is absolute truth in the fact that students learn differently and at different rates. All students are unique and they have extenuating circumstances in life that help or hinder learning or success at a given point in time. Responding to the uniqueness of each student shows a true understanding of the accepting of human differences. Teachers, when possible, are to teach as well as make successful learning experiences when possible for every student.

This is not to say that this is the answer to all testing situations; however, it has worked successfully for many teachers who teach absolute concepts rather than creative thinking courses. One example is the teaching of math where the answer is right or wrong—and even perhaps when the proof of getting the right answer means following a specific course of constructs. This repetitive concept of testing would probably not apply to the teaching of creative thought or other creative endeavors--because creative outcomes are often in the eye-of-the-beholder.

DETERMINING LEARNING THROUGH MULTIPLE CHOICE (MC) QUESTIONS

Multiple Choice (MC) questions are often used incrementally during and terminally after a course of study. Perhaps the most obvious use is for accreditation, certification, receiving a diploma, and registration. When writing MC questions, it is important, usually, to identify in the directions whether the answer is the most correct answer, the best answer, or any other pre-requisite information that gives explicit direction to a student as to what he/she is looking for in order to have the answer acceptable.

Writing the MC questions accurately is a challenge for most teachers. Knowing the theory of writing such a question(s) is important.

Knowing the MC question format as a teacher (as indicated in the stated document) is the first step toward being able to prepare student nurses to successfully pass a nursing state board exam on their *first attempt*. Unfortunately, some nursing students have little to no education *during* their nursing courses on how to write MC questions, therefore, waiting to the last of their education to learn about how questions are written and how to select the required answer. Consequently, too many student nurses do not pass their state nursing boards. In the critical thinking mode of nursing education, it helps student nurses to understand the MC question process of writing MC questions. This is the most successful way for students to learn is to actually practice the process. It, also, helps students learn to select the required answer on a MC test. Discuss test question(s) in class and why the answer has been determined to be the correct answer. Perhaps, the nursing student's ability to develop questions and support the accuracy of their answers could be a part of the classroom learning process.

DETERMINING LEARNING SKILL MASTERY THROUGH CLICKER REINFORCEMENT

One of the major learning experiences for nursing students is the laboratory pass-off of skills that nurses are required to perform on "real" people. The expected outcome of the laboratory pass-off is the usual evidence of specific skill mastery.

In the teaching of orthopedic surgeons (as one example), student surgeons have been taught to *talk* sequentially while performing an exact procedure/process of tying a surgical knot. While verbally talking about the exact behavior to accomplish the procedure (e.g. One hand movement after the other—to move the surgical thread this way, that way, around, and under, etc.), the correct verbal and related psychomotor activity is reinforced by the instructor clicking a hand-held clicker. The clicker reinforces each positive behavior exhibited by the student during the procedure/process.

The expected exact process of the task (as verbally reiterated as it is performed by the student) is taught to a student to be as clear and finite in each move as a student needs in order to get the procedure absolutely correct and in the absolute order it is to occur. Sometimes, this means the procedural task needs to be terminated and made more explicit/finite in order to help the student verbalize the exact procedure needed to complete the procedure successfully. This has been shown to be a very effective way to promote best-practice technique in the completion of an accurate and successful procedure.

The process of clicker reinforcement (used on training many animals) can be, also, very successful in all aspects in the guiding of student nurses to accurately perform any specific and required task. To understand this process, the leader must understand operant conditioning.

Operant Conditioning: This process involves a reinforcer that increases the probably of a desired response. In this case, a clicker is used by the instructor to reinforce acceptable/positive behavior on the part of the student nurse attempting to pass-off a nursing skill in the presence of another expert person (teacher). Some examples of nursing procedural skills to be passed off in a laboratory setting might include: urinary catheterization, intravenous access, tracheal intubation, and numerous other options.

The goal in the laboratory setting for a nursing student is to pass-off successfully a specifically assigned nursing procedure by verbally stating the process as it is performed and responding by continuing the process according to the positive clicks of the nursing instructor.

PROCEDURE:

1. As a nursing instructor, teach the desired specific technique that will accomplish the needed task/procedure to be performed by the student. The more difficult the procedure, the more finite the specific technique instruction!
2. During the pass-off, do not talk to the student.
3. Inform the student to *verbally repeat the specific technique procedure* as was previously taught to him/her and perform the psychomotor technique while verbally repeating the process of the specific procedure.
4. Use the clicker by clicking once to confirm each accurate verbal statement followed by completion of each accurate move that corresponds with the accurate verbal statement.

Students are usually accepting of an instructor verbally directing, responding to moves, and positively or negatively commenting on their movements to be successful or not successful in passing off an assigned specific skill. This technique removes the psychological need of the student to have verbal accolades or comparative statements between students about an instructor's approval or disapproval of success. It, also, encourages more concentration by the student on the performance of a skill.

If the instructor determines that the student has difficulty in verbally repeating the skill process and is hesitant in continuing the process of *their own* verbal directions for accomplishing the skill pass-off, the instructor might consider increasing the learned steps of the skill/procedure to be more finite and required of the student to verbally reiterate during the pass-off experience. Remember—a student verbally repeating the exact steps and being reinforced positively for each successful step through clicks does not interfere with student concentration on completing the skill. Nursing instructor verbal interruptions require a student to interrupt their thinking process more than just hearing a positive reinforcement from a clicker.

Let us suppose you are in a situation where a student is performing a skill directly on an actual patient. Of course, the student would not verbally repeat out-loud the exact progression of the process—but, usually the student recalls the steps in his/her mind. A clicker (due to the sound) is not the best choice for non-verbal reinforcement. Try using a flashlight (a very small one will do) and turn it on momentarily just as a flash near or on the site as the student successfully completes the skill nonverbally in the presence of a patient. No words are needed to make a patient nervous. However, the student has been told and knows what the flash means and is comforted in continuing the learned psychomotor skill.

TEACHING LEADERSHIP

Recently, this author was reviewing teaching possibilities on the east coast relative to leadership. A prestigious university offered an on-line course in leadership. The course, resulting in a “leadership certificate” was an online course about 2 weeks long that took about 5-6 hours per week—they said. It included relatively short times of group-sharing on-line sessions with all students and several instructors. No course development was needed by this university, as courses were already designed. The requirement was just to support students as they worked through the course.

I share that concept with you, as a reader, because there are some important teaching concerns that should be recognized.

1. Leadership is a very complex subject with numerous considerations that need discussion, understanding, and eventual possible application—and then, evaluation as to the success of the application—again and again. This is a teaching and student challenge.
2. Contemplation and application of theoretical and proven concepts must be understood, applied, taught to others, and evaluated as to their relevance, application, and ultimate success.
3. Learning and thinking about appropriate application of numerous leadership concepts of tasks and relationship takes time.
4. A “Certificate in Leadership” should indicate the knowledge and successful application of the complexities of leadership behaviors. Maybe this stated course best meets the criteria of “Introduction to Leadership?”

If you choose to offer a similar course, be prepared to cover the many decision-making concerns, rules, policies, and known theories related to this role. Use a critical thinking group or individual thinking processes to evaluate the outcomes of leadership practice, success and/or failures of leadership, and theories related to leadership. Be prepared to assist learners with personal and facility/organizational challenges you, as a teacher, have never known or had to face.

If it is done correctly, it will take longer than a 2-week on-line course. Use the many concepts and theories presented by this author throughout this text to help present a quality teaching experience for students regarding the basic understanding and the process related to the practice of leadership.

TEACHING SUPPORT

There is no secret about the increase of learning through visual stimulation. This can be a picture, graph, map, format (e.g. power point), chalk board renditions, video, or computer. It provides a different look at the information. Studies have shown that it increases memory as an outcome of increased interest. It helps to clarify the message. The connection between a verbal message and the idea of the message are increased. Retention is increased.

The power point visual of what is verbally presented helps students to take meaningful notes for study. Those power point visuals should emphasize the information that must be retained to pass tests. Needless to say, it helps the teacher stay on verbal task while doing oral presentations of the content.

There is a question whether a teacher should remain at the front of the class to teach. The adage of “It All Depends” comes to mind. If you are teaching/lecturing and need control of a device for changing visuals or if you need to write on the board, of course, you need to be at the front of the room. However, if the teaching is encouraging participation in creative thinking and problem solving relative to concepts, walking around the room between students promotes the teacher involvement in the process of thinking and logical application of principles. It often requires students to “free” themselves from taking notes and turning physically toward the instructor or other verbally responding students. The interest and participation between the entire room can become “electrified” by collective thought and sharing of ideas not imposed by a front-of-the-room lecturing teacher.

There is a picture associated with the content at the beginning of each document on this site or in this book. As a teacher when presenting the content, the picture could be placed on an overhead at the beginning of the lecture. Just for fun, cartoons can be cut from newspapers that represent something with humor about the content. Even a projection of the related cartoon for visualization during the break-time is a fun “ice-breaker.” (Copying of a cartoon is unacceptable due to copyright laws) However, just an overhead projection can make learning fun!

A student nurse example: Taking nursing students to the actual patient care site where the culmination of classroom teaching occurs is probably the most profound way to teach. Student nurses go to clinical areas to experience the “hands-on/practical” information they have learned in class and practice labs. This method tests a student’s ability to transfer information to performance. One student nurse asked me why I gave her such a difficult patient for her clinical practice. I told her that I knew she could do it, that I trusted her ability, and I am here when she needs help. At the end of the course, she stated she was impressed regarding my trust in her. The ultimate challenge of teaching and student nurse learning meet at the crossroads of the patient’s bedside. What a challenge for both the teacher and the student!

TEACHING THOUGHT

Critical thinking is the heart of learning. It questions concepts and gets to the intended message. It examines assumptions, logical processes, and encourages deeper understanding through a logical process. It, also, helps a student to distinguish between relevant and irrelevant information through an intellectual struggle.

There are four consecutive steps to effective critical thinking:

1. Identifying the problem (problem solving)
2. Thinking about the problem through an analysis of the facts
3. Determining the solution/resolution
4. Making a judgement about the problem

Excellence in teaching requires a student to intellectually struggle in order to more fully comprehend and apply the information that is/has been presented.

CRITICAL THINKING QUESTIONS

1. What is your definition of teaching power?
2. What difference do you intend/expect to make due to your teaching power?
3. What are the three domains of learning set forth by Bloom's Taxonomy?
4. What is the difference in writing course objectives and writing job descriptions?
5. What are some personal teaching ideas you would use to help a student apply taught principles, concepts, and skills?
6. What is Operant Conditioning and how could this concept be creatively used in a teaching process?
7. Who is the teacher in a specified nurse setting?
8. How do you know a student has learned?

RECOMMENDED READING

Understanding Test Preparation and Application by this author

[www.teach](http://www.teachthought.com) thought. com (Included are 28 critical thinking question stems for any content area.)