

TO TEACH

by

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As a teacher my ideals have been strongly influenced by the words of Dr. C. S. Dwight who wrote:

To teach
Is to reach, to find
The hidden laws of growing mind;
In boy to see the coming man;
Then shape him to a splendid plan;
This is to teach.

To teach is to guide or to direct the learning process. Learning is the process by which one through his own activity changes his pattern of behavior. Learning is the result of teaching. If there is no learning, there has been no teaching.

For the teacher there are at least two significant implications in this capsule statement of the teaching-learning process. The first implication is that learning is a result of actions within the learner. The learner learns through his own actions. Each person must do his own learning. The teacher cannot learn for his students. His job is to bring into being those actions within his students which will result in their adopting certain predetermined changes in behavior. To do this successfully the teacher must know what actions are needed to produce the desired changes. Also, he must know how to put the process of learning into gear or motion. To teach, the teacher must first know what he wants to teach and then know how to teach it.

A friend of mine has a garage door that opens upon receiving a message or signal from a transmitting unit located under the hood of his car. A motor mechanism within the garage must be activated to open the door. The transmitting unit in the car alone will not open the garage door. Likewise, the motor mechanism in the garage will not open the door unless it is activated. Not all motor mechanisms for opening garage doors are activated by the same signal. So with teaching. The teacher initiates the procedures needed to activate students into learning. The teacher who is going to open lots of garage doors will need to do his teaching on more than one wave length for not all students respond to the same stimuli. There is no opening of the mechanized garage door without activity on the part of the motor mechanism within the garage. Likewise, there is no learning without activity on the part of the learner.

To teach is to provide an environment which sets the students into action. The teacher influences the learning process through the nature of the learning activities he provides for his students and the students learn that which they do.

A second implication of the capsule summarization of the teaching-learning process is that learning results in changes in the behavior of the learner. The task of the teacher is to promote or facilitate the adoption of predetermined changes in behavior by students. Changes in behavior which are the products of teaching may be changes in feeling behavior, knowing behavior and doing behavior.

Changes in feeling behavior are commonly expressed or described in terms of interests, attitudes, appreciation and ideals. Because they are intangible and not easily measured, we as teachers frequently overlook or ignore changes in feeling behavior in our teaching. I suspect that rare is the teacher who in grading his students gives much, if any, weight to the changes in feeling behavior which may have been brought about as a result of his teaching. Among the most significant contributions we as teachers can make to the education of our students is in the category of changes in feeling behavior. Within this category we find the strong motivators of learning. With the development of interests, attitudes and ideals favorable to the attainment of our aims as teachers, we bring about changes within our students which will keep alive their quest for learning after they leave our classes. Teachers who seek to develop permanent learning give attention to the bringing about of changes in feeling behavior on the part of their students.

Changes in knowing behavior are expressed in terms of understanding. To understand a thing is to see why it is true. To see why a thing is true the learner needs to clearly grasp the relationship between that which is being taught to other knowledge which he already possesses. When the student understands something he is able to fit it into his own life experiences. To understand implies more than rote memorization or being able to recognize. It implies the ability to use. Understandings are closely related to the development of concepts and the ability to think. Learners come to understand through the thinking they do, the relationships they establish between that which is new and that which they already know.

Changes in doing ability are expressed in terms of abilities to be developed on the part of the learner. To teach to develop an ability implies the development of the corresponding changes in feeling and knowing behavior on the part of the student. It calls for the learner to know the answers to the questions WHAT, WHY and HOW. To omit the WHY and to settle for knowing the answers to questions WHAT and/or HOW is to train rather than to educate. Guiding students to supply the answers to the question WHY is frequently much more difficult and more time consuming than leading students to be able to supply answers to the questions of WHAT and HOW. In our haste to cover ground we as teachers frequently move on when the students are able to supply us with answers to the questions of WHAT and HOW. Many times in our haste to cover ground we move on when the students can supply the answer to the question WHAT. We assume that if the student knows WHAT he will understand WHY. Too often our teaching borders on training rather than educating. Frequently I am introduced as a teacher-trainer. I hope this is a misnomer, for unless I am a teacher-educator I am not fulfilling my obligation to the students I teach. To teach is to educate, not to train.

In summary, the essential elements in the educational process are two, the learner and a set of experiences designed to bring about desirable changes in the behavior pattern of the learner.

To teach effectively the teacher must have clearly in mind the pre-meditated changes in behavior he seeks to bring into being as a result of his teaching. The intended changes to be brought about are the teacher's product and are described as his teaching objectives. The goal of teaching is learning, and the learning is expressed in terms of changes in behavior. In preparing to teach a course the teacher's first step is to select those objectives which belong to the course and which will be of the greatest value to those to be enrolled. Two teachers may teach the same course, yet there may be a great variation in the learning. The principal reason for this will be a matter of philosophy. The beliefs and attitudes of the teacher play an important role in determining his course objectives.

It is generally agreed that we must go beyond the teaching of knowledge if our teaching is to be of the greatest value to students. Knowledge makes up the particles of learning which when combined make up concepts, understandings and abilities. These are products of good teaching. Students may have particles of knowledge without knowing how to use them. Teaching knowledge for its own sake is to be questioned. For knowledge to be of value to the student, he must see its relationship to other things he already knows. Furthermore, he needs to be able to use it to help solve his immediate problems and meet his life goals. Knowledge is taught for use, not to be stored away.

In determining the objectives for a course, the teacher is setting the limits upon his own achievements and upon the worth of the course to students. Master teachers get the cues for their teaching objectives from the immediate needs of their students.

Good teaching touches on the immediate needs of the learners. It seeks to prepare them for living today, assuming that the best preparation for living tomorrow is effective living today.

Frequently teaching is directed toward preparing learners to live in the world of tomorrow. In anticipating the nature of the learning that will be needed, the assumption is made that the world of tomorrow will be similar to the world of today. This implies a static, non-changing world. Who among us can with a high degree of accuracy set forth today the knowledge that will be most useful in the lives of our students ten years from now? It seems highly probable that much of the knowledge needed for living ten years from now is unknown today. We are told that the total body of knowledge in the world will double in the next ten years. This explosion of knowledge will make much of that which we are teaching today out of date by tomorrow--perhaps sooner. Since we do not know the problems of tomorrow and since the body of knowledge in the world is increasing at a rapid rate, it is exceedingly important for the teacher to select teaching objectives for his courses which are relatively the most important and significant to students in meeting their immediate problems.

The adaptive function of education will be highly significant in teaching to prepare students to live in the world of tomorrow. We may not know the kind of a world tomorrow will bring and we cannot anticipate the problems persons living in that world will face, but we do know it will be a changed world and that those living in it will be faced with real problems--problems which may dwarf the problems we are facing in the world of today. To fit into a changing world and to meet unanticipated problems calls for a person who can and will adapt without becoming frustrated. Teachers to prepare learners to live in such a world must develop the ability to think on the part of students. In good teaching, emphasis is placed upon developing the ability to think rather than on the rote memorization of facts or on what to think.

The importance of developing the ability to think as an educative process was described by Elbert Hubbard who wrote, "If I can supply you with a thought you may remember it, and you may not. But, if I can make you think a thought for yourself, then I have indeed added to your stature." From an unknown source comes these words:

A thought repeated may result in an act.
An act repeated may form a habit.
A habit repeated may shape a destiny,
And so a simple thought may help to shape our destiny.

To teach is to organize learning experiences which bring about specific changes in behavior. Three basic psychological principles involved in bringing about such changes and which are present consciously or unconsciously in good teaching are the principle of practice, the principle of effect and the principle of association. In capsule form these three principles may be described as follows:

1. The principle of practice--what is learned is that which the learner does. Continued use or practice is usually necessary for learning and for retention. Mere repetition is non-productive for learning, for to repeat an act literally implies doing it exactly as it was done before. Learning depends more upon the vividness or intensity of the practice than upon the number of times it is repeated or practiced. There are varying degrees of intensity of practice and there are differences in the ability of persons to acquire a particular learning. Unless the student has his heart in that which he is doing, little will be learned.

In summary, the learner will learn that which he does, not what he is told about or what he sees others do. In order for the teacher to teach he must get the student to do that which is to be learned. The student can be taught only that which he can be motivated to do.

2. The principle of effect--when a response to a situation is accompanied or followed by a feeling of satisfaction, that response tends to be repeated; but when it is accompanied or followed by a feeling that is annoying, the response tends to be eliminated. The learner tends to adopt --to learn-- any behavior that leads him to goals which satisfy his motives. He tends to eliminate, or not to learn, any behavior that fails to lead to the attainment of his goals.

"Satisfyingness" promotes learning by making learning experiences more rewarding and meaningful to the learner and by encouraging further practice or use. We tend to do those things which we enjoy and from which we receive satisfaction. "Annoyingness" promotes learning by teaching the learner what not to do. However, as a motivator of learning, annoyingness hinders learning to do a thing for it acts as a deterrent to further practice. In good teaching the emphasis is placed on teaching what to do rather than teaching what not to do. The theme song of the effective teacher is "to accentuate the positive--eliminate the negative."

The fastest learning is usually achieved when both satisfyingness and annoyingness are wisely used--satisfyingness when the responses are right, annoyingness when the responses are wrong.

The goals and ideals of the learner contribute to learning in that the learner finds those things which contribute to the attainment of his goals satisfying and those acts which interfere with the attainment of his goals to be annoying. Teachers who seek to bring about changes in feeling behavior give attention to the establishment of goals and ideals on the part of the learner early in their course. The ideals and goals of the learner are his own and are not given to him by the teacher. They become powerful motivators of learning, for we tend to do those things we like to do and to refrain from doing those things which we dislike. The good teacher makes learning a satisfying experience to his students.

3. The principle of association--implies that experiences that are learned together tend to reoccur together. When we are able to perceive relationships, the rate of learning and the permanence of retention are greatly increased. The teacher who applies the principle of association in his teaching will teach new facts in connection with other facts already known by the student. He will also relate the facts being taught to the immediate life needs of the learner. If the learner is to make use of that which is being taught he must see the relationship between that being taught and his previous learning. Isolated facts can be learned only by rote.

Too frequently we as teachers assume that because we can see the relationships existing between the new and the old, our students will see the existing relationships. This is not the case. In such instances our failure to "clinch the nail" greatly lessens the effectiveness of our teaching.

Involving the basic psychological principles of practice, effect and association in teaching may be compared with planing a board. The woodworker can plane a board against its grain, but the job is easier and his efforts are much more rewarding when he planes with the grain. Teachers can teach without involving these basic principles, but their effectiveness will be greatly increased if they consciously involve the principles of use, effect and association in their teaching.

To teach
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To teach is to take each student from where we find him, not from where we would like to find him, and direct him toward the development of his fullest capabilities. Too frequently we rationalize:

The university professor says, "Such rawness in a student is a shame. But his high school preparation, it is to blame."

The high school teacher remarks, "Ability is wanting; the child's a fool. The fault is with the junior high school."

The junior high school teacher adds, "From such a child I should be spared. They send them up nowadays so unprepared."

The elementary teacher comments, "A cover for the dunce's stool. Why was he ever sent to school?"

The kindergarten teacher whispers, "Never such a lack of training did I see. What kind of a person can his mother be?"

And the mother observes, "Stupid child, but he's not to blame. His father's folks are all the same."

(Author unknown)

The master teacher has the ability to see in each boy the coming man, then shapes him to a splendid plan. To make an analogy, the master teacher may be compared with an artist. Several years ago while in attendance at the North Dakota Winter Show I had a opportunity to visit with and to observe the work of Ole the Hermit who was a master whittler and wood carver. Ole loved to whittle as the master teacher loves to teach.

As I observed Ole demonstrate his proficiency as a whittler and wood carver I reflected and compared him with the master teacher. Before Ole started whittling he formulated a mental picture of what the final product would be. So it is with the master teacher. Before he starts his teaching he has his desired outcomes, his teaching objectives, clearly in mind. Ole's objectives were pictured in terms of the carving he planned to make; the master teacher's objectives are pictured in terms of the changes in behavior he wants to bring about in his learners.

Not all of the pieces of wood in Ole's stockpile were equally easy to work with, for some were even-grained while others were knotty with the grain running in many directions. Before starting to carve a particular piece of wood, Ole would make a careful appraisal to envision its potential. Without this evaluation it would have been only by chance that the full possibilities in a piece of wood would have been realized. In all probability many blocks of wood which had hidden in them the potential of pieces of real art would have been discarded. The ability to see in each piece of wood with which he worked some splendid design of art, and then know how to bring out the full potential in the finished product, was one of the distinguishing marks which made Ole an artist rather than just a whittler.

In completing the analogy, a mark of the master teacher is his ability to take the students who come to him, to appraise their capabilities, to envision in each the coming man, and then shape him to a splendid plan. This is to teach.

We have in capsule form considered the nature of the teaching-learning process. Now we shall briefly consider essentials of good teaching. The late Dr. W. F. Stewart, who was considered by his students and co-workers as a master teacher and who was for many years Professor of Agricultural Education at Ohio State University, suggested the essentials of good teaching to be five in number.

Selecting objectives to meet the needs of those enrolled was Dr. Stewart's first requisite of good teaching. When the learner has a feeling of need for that being taught, the instruction becomes meaningful and purposeful to him. If the instruction touches on the needs of the student he will make associations between that being taught and that which he already knows, and he will apply it to the solving of his problems. In making these associations the learner is using that which is to be learned. This is satisfying to him and adds to the vividness of that being taught. This makes for effective teaching, for the student is learning because he wants to learn. Galileo is credited with having said, "You cannot teach a man anything. All you can do is to help him find it within himself."

Teaching to arouse the interest of the learner in that which is being taught is Dr. Stewart's second essential of good teaching. Persons who have accomplished the great things in this world have been driven by intense and abiding interests. The master teacher arouses in his students a desire for learning. He recognizes that you cannot teach anybody anything unless there is a desire to learn. The good teacher is more than a dispenser of information--he is an arouser of interests. To teach is to create an appetite for learning on the part of the student. From an unknown source comes the words, "Interest is the mother of attention; attention is the mother of memory. Therefore to get memory, get her mother and her grandmother."

The third essential of good teaching advanced by Dr. Stewart is to teach to develop understanding on the part of the learner. When a student understands, he knows facts and basic principles and knows how to use them in making associations and in solving his problems. In the words of Thomas Huxley, "The great end of life is not knowledge, but action. What men need is as much knowledge as they can assimilate and organize into a basis for action. Give them more and it becomes injurious. One knows people who are heavy and stupid from undigested learning as others are from overfulness of meat and drink."

Developing the ability to think is a fourth essential of good teaching. Teaching which does not stimulate careful thinking does not make for wisdom. The ability to think is the first fruit of true education. If we as teachers are not developing within students the ability to think and if we doubt our ability to do so, then the education which we seek to impart is inadequate to meet the needs of the student. Our students will learn to think critically to the extent that we make critical thinking a satisfying and rewarding experience for them.

Providing for repetition or use of that being taught is the fifth essential of good teaching suggested by Dr. Stewart. This implies more than drill or the rote recall of facts. Repetition is most effectively brought about through getting students to make associations of that being taught with that which they already know and with the solving of their problems. A master teacher who stimulated me in the establishment of lofty ideals as a "budding teacher" gave me a simple formula for permanent learning. I have used this formula in my personal life and in my teaching and I recommend it to you--I have found no better way to secure permanent learning. This formula, simple in statement but highly effective in getting permanent learning, is:

UNDERSTANDING + USE = PERMANENT RETENTION

Give this formula a trial in your teaching--I believe you too will be gratified with the results it will produce.

In summary, in what he referred to as his "million dollar idea" for good teaching, Dr. Stewart stated, "Methods of good teaching depend upon meeting pupil needs or the usefulness of the knowledge in the learner's life activities; the interest of the learner in that being taught; the thinking and understanding that result from the discussion of that being taught; the repetition that is provided to fix the useful knowledge in the mind of the student."

What are marks of the master teacher? In answer to this question the qualities of humor, fairness, knowledge of subject matter, tolerance and other similar qualities are frequently listed. The presence of these qualities will not alone identify the master teacher, for they are qualities common to other professions. To me, a more descriptive reply was given by the student who when asked to describe the distinguishing characteristic of his "best teacher" replied, "He had the touch of teaching." Dr. Glen Frank must have had something like the touch of teaching in mind when he wrote, "The mere merchandising of information will never seem to the ideal teacher his main purpose; the kindling of the will, the enrichment of his emotions, the lighting up of the imagination, the making of students sensitive and eager, will seem to him more important than all else."

Dr Ernest Melby, a distinguished professor of education at Michigan State University and a former Lake Park, Minnesota farm boy, in addressing a group of teachers at Moorhead State College several years ago stated, "There are plenty of smart teachers who know a lot, but there are few great teachers." In describing teachers who had the touch of teaching, Dr. Melby stated, "While knowledge and skill are indispensable, the master teacher has certain other golden qualities." Dr. Melby listed EMPATHY as one of the more important components of masterful teaching. He who has the touch of teaching has the ability to mutually enter into the feeling and spirit of his students. He puts himself into the seats of his students, he feels their needs, he shares their attitudes, their interests and their aspirations. The teacher who possesses a feeling of empathy will be regarded by his students as understanding, sympathetic, kind, thoughtful and considerate. His teaching will touch directly on the immediate needs and problems of those in his classes--he will be preparing students for living

tomorrow by teaching them how to meet their problems of living in the world of today.

A second component of the touch of teaching is enthusiasm. Henry VanDyke has stated, "Knowledge may be gained from books but the love of knowledge is transmitted only by personal contact." Much that the master teacher teaches is caught rather than taught. Unless there is a radiance emitting from the teacher there will be little or no catching on the part of students. The truly permanent products of good teaching, namely, ideals, attitudes, appreciation and interests, are for the most part caught. Horace Mann challenged teachers to make learning a matter of pleasure to their students when he stated, "There is one rule which in all places and in all forms of education should be held as primary, paramount, and as far as possible exclusive. Acquirement and pleasure should go hand in hand. They should never part company. The pleasure of learning should be the incitement to acquire... Fear is one of the most debasing and dementalizing of all passions. The sentiment of fear was given that it might be roused into action, by what ever should be shunned, scorned, abhorred. The emotion should never be associated with what is to be desired, toiled for and loved. If a student appetizes his books, then lesson getting will be free labor. If he revolts at them, then it is slave labor. Less is done and the little is not so well done."

A third component of the touch of teaching is sincerity. To the master teacher each individual in his class is a person of worth. Each student we have in our classes is the most precious thing in this world to his parents--and in many instances in teaching on the university level, to his wife and children. In a democratic society we believe in the unquestioned worth of the individual. The master teacher teaches to serve each individual student in his classes. To teach is to reach, to shape each to a splendid plan. If the teacher has a feeling of true empathy and if he has a genuine enthusiasm for his work, then in all probability sincerity will be present--but without these two qualities the component of sincerity is likely to be missing.

A final component of the touch of teaching, but by no means the least important, is humility. The humble teacher recognizes that he is privileged to participate in the development of future engineers, agriculturists, homemakers, scientists, ministers, doctors, artists, statesmen and teachers--that through his students he has the high privilege of shaping the world to come. The humble teacher has a deep-rooted feeling of inadequacy. This feeling has been well described by Myrtle Williamson who wrote:

At my touch doors open into fuller light,
Thoughts may stretch out into ideals
And vague desires become realities
If I truly lead.

And yet,
An unwise touch may lock forever
Avenues to fuller life;
Thoughts, struggling to be born may die,
And a personality fail to reach its highest goal
Because I led amiss.

Therefore, Teacher of all teachers hear my prayer;
Live out Thy love through me until Thy words
Shall ring through mine; until my life
Shall reflect the beauty of Thine own,
Until I shall lead aright and be truly a teacher
Because I have been taught of Thee.

The humble teacher recognizes the need for continued growth. If I am to become a better teacher I must change; I must do something within myself to improve. I must constantly bear in mind that being a good teacher today does not insure my greatness as a teacher tomorrow. Advances are being made as rapidly in the profession of teaching as in subject matter fields. Teaching methods and techniques that are adequate today will be outdated tomorrow. Recently I read that the professional engineer spends approximately thirty per cent of his time studying to keep abreast of new developments. Surely if I am to keep abreast of the new developments in teaching techniques and methods I will need to devote as much time to keeping up to date as does the professional engineer.

The humble teacher fully recognizes the importance of his job and accepts the challenge of the task. He recognizes the truth in the words of Horace Mann who wrote, "Teaching is the most difficult of all arts and the profoundest of all sciences. In its absolute perfection it would involve a complete knowledge of the whole being to be taught, and of the precise manner in which every possible application would affect it."

Recently I was asked to complete an information form. One of the questions on the form was, "What is your occupation?" By habit and without much, if any, thought I replied, "Teacher."

Later, in a reflective mood I paused to consider the answer I had given to the question, "What is your occupation?" I paused to ask myself, "Am I truly a teacher? Does my title of Professor of Agricultural Education qualify me to consider myself an educator? Does the meeting of my classes make me a teacher?" As I pondered over the matter, the following questions came to my mind:

1. Does my teaching touch the lives of those in my classes? In my teaching do I touch on the real problems of my students? Does my teaching better prepare them to meet their life needs?
2. Does my teaching bring about changes in the behavior of students? Have I contributed to the development of interests, attitudes, ideals, understanding and abilities needed by my students for successful and rewarding living?

3. Have I contributed to the development of the ability to think on the part of my students? Do I guide students to assimilate knowledge taught and to use it habitually in purposeful thinking?
4. Have I kindled a genuine love for learning within my students? Have I developed an appetite for further knowledge? Will their learning in my field of speciality continue to grow after they leave my classes? Do I meet Einstein's requisite to be called a teacher when he wrote, "Only he can be called a teacher who can teach interestingly; who can present his material, even though it be an abstract subject, in such a manner as to awaken a response in the soul of his students and keep alive curiosity?"
5. And finally I asked myself: Has my professional growth kept pace with my subject matter field and with the new developments in teaching techniques and methods? Am I contributing to the profession of teaching? Am I doing my part to add to the dignity and honor of the profession of teaching--to the end that future teachers may be better teachers and to the end that the educational experiences provided youth of the future will be more meaningful to them and rewarding?

If I can honestly answer all of these questions with a strong unqualified affirmative answer--then I may with all honesty consider myself a teacher.

I invite each of you who in answer to the question "What is your occupation?" reply "Teacher" to join with me in reflective thought and ask yourself the question I just finished asking myself--"Am I a teacher?"

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The hidden laws of growing mind?
In boy to see the coming man;
Then shape him to a splendid plan?
For this is to teach.

Shubel D. Owen

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