If Telling Were Teaching…

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"If telling were teaching, we'd all be so smart we could hardly stand it." So wrote Robert Mager in 1968.

Today, many people seem to have the notion that teaching *is* telling; that all you need to do is tell someone some information. Furthermore, people may consider the teaching accomplished upon the telling. That seems to be the basis for the lecture system. In lecture, a person designated as an instructor stands before a group of people and talks to them. The lecture may additionally include the instructor writing text and drawing images on a blackboard, on an overhead projector transparency, on a flip chart, or with computer animation and video. However, talking to a class forms the core of all lecturing. The task of instruction is presumably discharged with the presentation. Teaching becomes, then, largely a matter of presenting information. Once you have presented the information, your job as teacher is done—or so things may seem.

To me, the notion of teaching as primarily a task of presenting information seems particularly ignorant. Why? Well, because abiding by that method one may ignore what the student does, or is able to do, following the instruction. Furthermore, any actual learning that comes about usually becomes the student's responsibility under such a system. The good student quickly learns various survival skills in the lecture system. The good student learns to take notes during the lecture. After the lecture, the good student learns to read his or her lecture notes, especially before any test. The good student likewise may learn other study skills, such as recopying notes, highlighting notes, reading the chapters in an assigned textbook or other book, making flashcards, quizzing him– or herself, quizzing a fellow student, and other skills. The *real learning* takes place, of course, during these episodes where the student actively responds with respect to the study materials. Those episodes mark situations where the learner directly acts upon the subject matter; or, to put it another way, *operates* upon some small portion of his or her environment. Meanwhile, very little of the learning takes place during the lecture itself. The lecture simply represents a vehicle for transmitting the information. The student then must *work with* the transmitted information and teach himself or herself.

A real instructional system would not remain ignorant of its effects. To be sure, in formal educational arrangements, such as university courses, there are a few indicators of the lecture system's effects. These indicators include the various mid–term and final exams and any other quizzes, tests, and assessments. However, these form crude indicators only. Moreover, if a student does not do well on these indicators, the instructor may presume that it is the student's fault. Perhaps, as the reasoning would go, the student did not study enough. Maybe he or she did not study the right material. Maybe he or she lacked the prerequisite skills. The excuses compile. Remember, under such a lecture system, teaching is supposedly discharged with the information presentation. Anything beyond the information presentation becomes the student's responsibility.

In the university world one finds crude indicators of learning, such as those mid–term and final exams. In the corporate and industrial domains, however, there may be various reasons why trainers cannot test learners. Employees may balk at being tested. If unionized, their union may object to tests. I have seen that happen. Consequently, any training developed may become totally devoid of any direct feedback loop about its effects. The training may simply become lecturing without assignments and without tests. Such an arrangement does not place even a minimal contingency upon the learner to actually learn the information presented. That might explain, in turn, why so much corporate training seems so bad, or why employees may develop a cynical attitude about training.

Even though a direct feedback loop may not exist in lecture–based corporate and industrial training, an indirect, long–term feedback loop will always exist. The main reason to train people is so that they will be able to do a job, and to do it well. Training should result in increased productivity. The basic idea behind training is to ensure that people will have the knowledge and skills to do a job. The presumption is that before training occurs people lack the necessary knowledge and skills. The further presumption is that not having the knowledge and skills costs the company money. For instance, if employees do not know how to do a job correctly, they may manufacture defective products. They may pass along defective products, which if they had the skills to spot the defects, they would have not permitted to go down the line. In the end, the consumer who purchases defective products, inferior services, and so on, will eventually seek out another provider. Or the consumer will advise other consumers to do that. Bad knowledge and skills will eventually translate into lost revenue. This lost revenue may become the indirect, delayed feedback loop. However, the consequences are so delayed, and are not immediately apparent, that the connection may be difficult to make.

The solution to lost revenue, or to other indicators that suggest some intervention, may include training, or more training. Employees may be subjected to more of the same. Their company sends them off for a day, a half day, an hour, or whatever, for more training. If the training is lecture without assessment, the training may be ineffective. The learners come back to the job after such training, with differential results. Some may, indeed, do the job better. Others may not. In fact, if the training required more than a couple of points of information, more than likely the learners will come back with only a few new responses. Back on the job, they may prove as ineffective as they were before the training. Eventually, they will be trained again, and probably develop a cynical attitude about corporate training. Meanwhile, it costs the company both time and money to send employees off for training, and costs the company decreased revenues to the extent that training makes little or no difference.

I have seen that happen. Let's say you take a computer–illiterate person and send him or her off to a couple days of training to learn how to use Windows98 and Word for Windows. In the classes I have attended, the instructor presents a veritable flood of information to the learners. Students may feel overwhelmed, and will say so, too (usually in a safe place; not in the presence of their supervisors). In a span of a couple of days, hundreds of facts get presented. The learners may sit at a computer terminal and have the "opportunity" to try an example here and there as the instructor moves the course along. Meanwhile, they get very little practice, and are given no fluency goals to reach. The instructional system, moreover, provides no feedback to the instructor about how well each learner is learning, nor imposes any contingency on the learner to actually learn anything. Very little actual learning may result. Back at the office the learners will still ask for help about that which they were just "taught." Or, if they really do need to learn the information for their job, they will be like those college kids and learn it on their own, either on their own time, or furtively on company time.

As a student I experienced the downside of "teaching as telling" when I studied karate. I would go into class, and stand near the back of the assembled group (as required, for students lined up according to belt rank). The instructor would demonstrate a sequence of movements. The movements might form a "kata," a complex sequence of blocks, strikes, steps, and stances. Then the instructor would tell the class to perform the movement sequence. Well, on those occasions, I tried. I certainly tried. But I found the experience very frustrating. I could see the more advanced students at the front ranks perform the movements reasonably well. Back in the rear of the class, I performed the sequence of movements haphazardly. Some of the components of the sequence I did correctly. Some I did incorrectly. Still other components I missed altogether. At the end of class we were told to practice at home what we had learned. "Great." At home I would practice the movements as I learned them in class, often incorrectly. The only salvation came when I showed up for "individual" tutoring on Friday nights. There, the instructor worked with me alone for ten minutes. I would perform the kata, but this time receive immediate feedback as well as individualized instruction at the point in time when I needed it. Finally, I would do the sequence correctly for the first time. Later, I would "undo" what I had learnt incorrectly, and practice the correct movement sequence at home. The clear message to me, however, was that the group instruction proved largely worthless *as* instruction. Its sole value came from practicing what one had already learnt. The real instruction came mainly in those ten minutes of individualized instruction each week.

The basic problem with such teaching as lecturing to groups comes in its simple assumption that telling is teaching. Lecturing may be fine if all you need to teach are a few facts. A good public address system can qualify as an instructional system for that purpose. However, if you need to teach dozens of facts, relationships, definitions, or procedures having dozens of steps, and so on, teaching as telling quickly proves ineffective and pointless. The learners are not sponges soaking up information as it is given to them. They are not passive beings who, upon listening to hundreds of facts, will absorb all of the facts and have them ready for later recall. No. Real human learning does not happen that way.

Real teaching means changing behavior. More exactly, teaching involves arranging circumstances so that an instructor notices the change to learner behavior as a result of the learner's interaction with the instructional system. Such "noticing" makes the resulting instructional system cybernetic (Vargas & Fraley, 1976). "Noticing" here alludes to effective stimulus control of the behavior of the instructor with respect to the behavior change produced. While such "noticing" may suggests tests and exams, it is not limited to those. One may design an instructional system where learners frequently and directly act upon some instructional materials, receive direct, differential, and immediate feedback after each action, and receive instruction at the point of time when they need to make a response. A system having such features would bring the learning back into the classroom, and thus bring back the teaching as well. The measurement of learning would become direct and continuous. Tests, *per se,* would become irrelevant. More to the point, those responsible for teaching would have a direct and continuous measure of their effects. If a particular instructional technique worked, the instructors would keep it as part of the system. If a particular technique did not work, the instructors would drop it or modify it. As a result the system would evolve. The outcome would be

learners who actually learn the knowledge and skills they need. A company that adopted this "direct measurement" approach would get some bang for its training buck, and it would gain that all–important competitive advantage.☘

References

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