College Level Teaching Effectiveness

Dr. Mark S Bellnap

Embry-Riddle Aeronautical University

Abstract

This is a paper that discusses factors which contribute toward college level teaching effectiveness. Clarity of presentation, meeting student needs, ability to arouse interest and enthusiasm, and respect for student ideas all can contribute to teaching effectiveness. In addition, automation has made significant contributions toward effective teaching.

College Level Teaching Effectiveness

The purpose of writing this paper is to discuss some of the factors that contribute to effectiveness in teaching at the college level. This topic has been widely written about and discussed for many hundreds of years. There is certainly good reason for this. At the heart of the college experience rests the ability of the faculty to provide "expert knowledge in some special direction" (Whitehead, 1957, p 1). If the college fails in this, then it is to some degree ineffective.

It therefore becomes a major focus of the college to determine those factors which significantly contribute to effectiveness in the classroom. Some of these factors are inherent qualities of the faculty themselves. The college must either hire faculty that has those qualities or else provide some type of training to the faculty to develop or enhance those qualities. Other factors that contribute to classroom effectiveness are external to the faculty members themselves. This includes such things as facilities (Sinclair and Skerman, 1984), lighting, technology, and libraries.

The remainder of this paper will focus on two relevant discussion points. Both of those discussion points highlight aspects which contribute to teaching effectiveness. This paper then concludes with a summary which wraps up the salient points.

The first discussion point will be on the variety of factors inherent in the faculty that contribute to teaching effectiveness. The second discussion point will be on automation and teaching effectiveness. The impact of technology and information cannot be underestimated. There has been more new information in the past 30 years than the previous 5,000 years; there is more information on a weekday edition of the New York Times than the average person in the 16th century would have received in a life time; and the amount of information available doubles approximately every five years (Guns, 1996, p. 3).

Faculty and Teaching Effectiveness
Clarity of Presentation and Organization of Subject Matter

Many people have seen the Disney movie "The Absent-Minded Professor." In this movie, Fred MacMurray portrays a warmhearted, yet forgetful college professor. According to Heilbroner (1992), Adam Smith, the classical economist and professor, may have had some of these absent-minded characteristics. One account has the absent-minded Adam smith walking fifteen miles in his dressing gown before he realized it. Some people today may still stereotype college professors in this light. Generally speaking, this stereotype is not accurate (Miller, 1979). Regardless of these affectionate portrayals, absent-mindedness and forgetfulness are not good qualities of college faculty.

To the contrary, well-organized materials and articulate classroom presentations are key ingredients in conveying information. Planning the classroom instruction is one way to keep everything organized. The value of planning is not limited to the classroom. Businesses have business plans and many organizations have strategic plans

(Goodstein, Nolan, and Pfeiffer, 1992). These plans help keep businesses and organizations focused.

In the classroom, one way to organize the instruction is with a lesson plan. A lesson plan identifies what you want to teach, will help you from going astray, and it helps insure that all of the relevant material is covered (Stone, 1995). A well-designed classroom presentation is generally very favorably accepted by the students.

How an instructor verbalizes his ideas, thoughts, and meaning plays a big role in conveying the subject to the students. That is, saying things well is important. At his second inaugural ceremony, Abraham Lincoln said "With malice toward none, with charity for all, with firmness in the right as God gives us to see the right, let us strive on to finish the work we are in, to bind up the nation's wounds. To care for him who shall have borne the battle and for his widow and his orphan, to do all which may achieve and cherish a just and lasting peace among ourselves and with all nations." (82nd Congress, 1952, p118). These are well chosen and spoken words, that eloquently express one man's perspective of how the victorious north should pursue peace after the American Civil War. In the classroom, without such clarity, meanings can be misunderstood or misinterpreted. For the student, that can result in faulty analysis of subjects or the incorrect application of a skill.

Meeting the Student Needs

This generally takes two forms. The first is meeting student needs outside the classroom. In today's environment, college classrooms are filled with working adults as well as traditional students. Acknowledging that students

have competing interests for their time (e.g., school, work, and family) is important for faculty to gain and retain the respect of students.

Faculty should not be strict authoritarians and make no allowances when students miss classes and/or request to make up examinations. Students are more likely to develop a good rapport with educational institutions and faculty who are reasonable and flexible.

The second form of meeting students needs takes place within the classroom. An example of this would be to match the teaching method with the needs of the student. Teaching methods would include such things as lecture, classroom discussion, and classroom participation. None of these methods is the panacea for all classroom situations. Rather, each has value in specific settings.

Using the lecture method in an introductory class would seem to be in order. The reason is because it is expected that many of the students would have limited or no background in the subject. A lecture class could provide the "nuts and bolts" of the discipline or subject to the students. This type of information is usually necessary before meaningful and esoteric discussions of the discipline or subject can take place.

The discussion method can be effective in both the upper level undergraduate courses as well as graduate courses. At these levels, the students will generally have some formal educational background in the discipline. The students should be able to synthesize information and make informed judgments about the subject.

The participation method can be effective at any level. Generally, it

involves the students being involved in some classroom exercise or activity which results in some teaching point. For this to be effective, both the activity or exercise and the teaching point must be geared to the level of the students involved.

The dilemma for the faculty is that using a teaching method which seems appropriate for the educational maturity level of the students will not necessarily be effective for each student (Halpern, 1997). For teaching to be effective at the individual level, it needs to be patterned to that individual (Jacob, 1957). For example, some students may feel an aversion to participation in the classroom or discussion in the classroom. For those students neither classroom participation nor discussion would be an effective teaching tool.

Ability to Arouse Interest and Enthusiasm

In 1970, I attended my first hockey game. While the game was action packed and fast paced, what I really remember the most was the fan involvement. The fans were riveted to the game. They took in all of the sights and sounds that were taking place on the ice rink. The fans cheered loudly when the home team performed well and booed with equal energy when the opposing team did something well. The sheer overwhelming fan involvement left a very strong impression on me.

This type of intensity and enthusiasm can have a very positive effect in the education environment. Jim Rohn, America's foremost business philosopher, (1994, p. 36) said that "communication is the ability to affect other people with words." It is probably every instructor's desire to generate both enthusiasm and energy in the classroom. Students who possess that enthusiasm will be striving to solve the various problems identified and discussed in the classroom. It is unimportant if those problems are of a nature such as assessing the solvency of a company after looking at their financial statements or understanding the economic ramifications of a trade deficit on a multinational firm. For the instructor whose instruction technique can spark the flame of interest, a high level of enthusiasm is attainable.

One way for the instructor to generate enthusiasm is to be enthusiastic about the material. Enthusiasm is contagious and will serve as a catalyst. Another way is to make the subject challenging for students. It needs to be challenging in way consistent with their confidence and competence (Guns, 1996).

Tolerance, Empathy, and Respect for Students and Their Ideas

The prospects for learning in the classroom are greatly enhanced when there is a mutual respect between the instructor and the students. Crosby (1996) has stated the relationships are based on a climate of consideration and achievement that people recognize as genuine.

Recently I was told a story about a teacher and a student on the playground. The student was in fourth grade and approached the teacher who was the playground monitor. The student looked sad and explained that one of the older boys had taken his lucky rock away. The teacher's first inclination was to tell the boy to get another rock to play with. The desert is full of them. What the teacher ended up doing was have the boy go back to the playground and ask for his lucky rock from the boy who had taken it

away from him. Approximately thirty minutes later the teacher saw the same boy with a big smile on his face. He was walking through the playground throwing a small rock in the air and catching it. The teacher approached the boy and asked if he got his lucky rock back. The boy said yes.

The teacher asked the boy why the rock was so lucky. The boy said that his father was really mean and for a long time he had wished that his mother would leave his father. One day this boy found a rock and told it that he wished his mother would leave his father. The next day the mother left the father and the boy and his mother returned to the town where he had been born.

Needles to say, the teacher was grateful that she told the boy to go back to the playground and get his lucky rock. It is not always easy to determine the significance of things or events to others. Sometimes, when instructors impose their own assessment and values on a situation, others can suffer as a result. When people are asked rather than told, this creates an atmosphere for learning (Watkins and Marsick, 1993). Each student, brings to the classroom their own values, knowledge, and experiences. In an open classroom environment, the instructor and students are able to share values, knowledge, and experience, and everyone benefits from the exchange.

Automation and Teaching Effectiveness

Automation is just one of many things that have contributed to the quality of education in the classroom. However, automation will not automatically result in better teaching. How automation is used is the key (Meltzer and Sherman, 1997). Hundreds of years ago

classrooms were without central heating, light was provided by candles, students did not have calculators, and facilities lacked the acoustics that we see today. Advances and modernization in all of these areas have contributed to teaching effectiveness.

Automation, per se, is not the end product in the classroom. Rather, automation, like proper lighting and central heating can contribute to effective teaching in the classroom. However, managerial actions and not faculty are often the dominate factors in determining the outcomes of computer use (Kraemer et al, 1989, p. 5). Two of the major influences of automation are the ability to process information very quickly and the second is the accuracy of the product.

In the 1930s and 40s business automation was often used in financial applications. Salaries, overtime, vacation time, deductions, and allotments, could all be easily computed with automation. The errors in programming were corrected, and accuracy increased correspondingly. Advances in automation allowed for such applications as linear programming and cost benefit analysis. Automation has allowed for the accurate calculation of very complex mathematical models to be performed in a short period of time.

The number of automation applications in the classroom setting is numerous. For example, in MAS 605, Research Methods and Statistics, statistical software such as Minitab can be used in the classroom. This software can perform the mathematical computation necessary in wide range of statistical tests (e.g. Chi Square, Kruskal Wallis, and the Mann Whitney U).

In addition to the actual mathematical computations, the instructor will often

have specific teaching points to demonstrate to the class. For example, consider the effect of outlier data. With the use of automation and by changing the input data, the instructor could show the effect of outlier data on such things as the mean and standard deviation. Without the automation, the instructor would have to do the computations manually, Manual computations can consume a large amount of time. In addition, there is a greater likelihood of making mathematical errors when computations are performed manually.

BA 518, Managerial Finance, provides another example of the use of automation in the classroom. Spreadsheets can be developed to compute a company's net income based on such variables as sale, bad debts, cost of goods manufactured, taxes, and interest. By changing any of these variables, the spreadsheet can quickly re-compute the new net income.

BA 511, Operations Research, provides yet another example. Software packages can model complex network projects such as the Critical Path Methods (CPM) and Program Evaluation and Review Techniques (PERT). Simulation, inventory models, and exponential smoothing can all be performed by automation (Long, 1989). Automation can be an effective tool to use in classroom instruction. It aids the instructor in presenting material and aids the student in understanding material.

Summary

The purpose of this was to discuss some factors that contribute to effectiveness in college education. Three of these factors dealt with qualities of the instructor. These factors include clarity of presentation and organization of subject matter; the ability to arouse interest and enthusiasm; and tolerance, empathy, and respect for students and their ideas. The fourth factor under consideration was the use of automation in the classroom. All of these factors, under the right conditions, can promote teaching effectiveness in the college classroom.

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