

Community Colleges: Leaders in Teaching Excellence

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I appreciate this opportunity to talk with the teaching faculty of Marin Community College[°] because, if all the energy going into the educational reforms of the 1980's is going to amount to anything, it will be teachers in their classrooms who will ultimately bring about improvement in the quality of undergraduate education.

At the moment, blue-ribbon commissions from just about every segment of education are writing reports and making recommendations. Policy makers are passing legislation and imposing regulations; administrators are worrying about assessment and accountability. But in the final analysis, none of these people can affect directly what students learn in college. The quality of education depends largely on what happens when teachers meet students in college classrooms.

Because I think we should be making better use of the first-hand experiences of teachers in this educational reform movement, I welcome this opportunity to present some thoughts about classroom research and how we, from the University of California at Berkeley, and you, from the front-line of community college teaching might work together to develop and test some techniques that can be used

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by college teachers nationwide to gain a better understanding of the day-by-day impact of teaching on learning.

I'd like to talk first about the role of community colleges in this particular era of educational reform. Then I'll move to how we might address some of today's concerns about the quality of education. And finally, I'll make some concrete suggestions for how we might work together to provide some useful materials and procedures that might be used in community colleges nationwide.

The educational reform movement has moved with great speed, considering the number of people affected. It has been just five years since A Nation at Risk took aim and fired its salvos at the American educational system, making memorable such phrases as, "unthinking, unilateral educational disarmament" and "a rising tide of mediocrity that threatens our very future as a nation and a people" (p. 5).

The National Commission on Excellence in Education was appointed by then-Secretary of Education Terrel Bell to look into some so-called "indicators of risk" -- data showing the unbroken decline in SAT scores from 1963 to 1980, international comparisons of student achievement that showed American students never first or second and frequently last in comparison with other industrialized nations, widespread functional illiteracy among 17 year olds, and a leaky educational pipeline that spews 25 percent of the population onto the streets as high school dropouts. Americans, said the commissioners, were growing impatient with the shoddiness of American life that is too often reflected in our schools and colleges (p. 11).

Apparently so. At any rate, an intense re-examination of schools and colleges, teachers and teacher training, is now underway. In the past five years, more than 300 task forces have been appointed throughout the 50 states; more than 60 major reform reports have been issued by organizations of every conceivable stripe, including those representing teachers and teachers' unions, foundations, state and national departments of education, professional associations, colleges of teacher education, and deans of university schools of education.

Legislators have been busy too; 22 states now require public colleges and universities to set up programs to assess what students learn in college, and in many states students are required to demonstrate through statewide testing programs that what they have learned in high schools and community colleges will enable them to profit from further education.

The bad news is that so many people regard the educational system as in a state of disrepair and disarray. The good news is that education is finally receiving the national attention that it deserves, with the presidential candidates trying to outdo one another this fall in their premature reach for fame as the "education president."

The realization has hit hard that the dependence of this society on education is more than hyperbole. The existence of a permanent undereducated underclass is a threat to our most basic values of democracy and freedom, and the lack of learning skills among the general population is a threat to productivity, international competition, and the general welfare in a society in which more than 60 percent of the work force is said to be working with information.

Most American workers, says John Naisbitt, author of Megatrends (1982) "spend their time creating, processing, or distributing information" (p. 14). Functional illiterates can't even support themselves, let alone contribute to a society that has become, in a relatively short period of time, dependent on an educated work force.

Many of you sitting in this audience today would say to me at this point, if you could get a word in edgewise, "Don't we know it! We're trying to work everyday with the graduates of American high schools who can't write a coherent paragraph or solve a math problem requiring several steps." Four-year college teachers are saying the same thing about community college transfers, and graduate schools are echoing the sad refrain about the graduates of four-year colleges. The buck has to stop somewhere, and while everyone would prefer that we provide a solid foundation for learning in elementary schools, the fact is that we won't have a good educational system until every teacher at every level is doing the best possible job that they can do. That is what we mean by educational effectiveness, the latest buzz word in education.

There are many words that come and go in the lexicon of education. Some vanish without a trace, seemingly worn out by too many attempts to define their uniqueness or contribution to the improvement of education. But the concept of effectiveness will remain because effectiveness is a strong word that means precisely what it purports to mean. No tricks, no tortured explanations, no prolonged definitions. It means to the lay public what it means to legislators. The dictionary defines "effectiveness" simply. It means

"Having an effect, producing a definite or desired result." An effective college is one that has an effect, that produces the desired results.

This is an era in which there is a lot of agreement on the desired results of education. The one thing that all of the reform reports have in common is that they believe that educational institutions at all levels should produce students who can read, write, and compute, who possess the basic tools to learn new skills and concepts, and who have sufficient appreciation of learning that they can use it throughout their lives to make life richer and more productive. Priorities, points of emphasis, and especially how to produce the desired results, provide the basis for plenty of discussion, argument, and analysis, but the goal of the reforms of the 1980s is clear. The purpose of educational institutions is to produce educated students, and the challenge is how to do that. When community colleges accepted the challenge of open admissions, they were faced with turning an incredible diversity of students into educated persons -- young and old, ethnic majorities and minorities, rich and poor, achievers and non-achievers.

Although community colleges have not always been given credit as the pacesetters of American higher education, historians are going to write in future years of the enormous impact of community colleges on education and society, especially in the latter half of the 20th century. In our era, community colleges are charged with carrying out one of the most important and most difficult ideals of a democratic society.

Equal opportunity for all our citizens, regardless of color, creed, sex, age, or handicap has been an ideal to which we aspire when we are at our best. Although we can't claim that community colleges have accomplished the goal of equal opportunity, it is a fact that community colleges are the leading institutions in the hierarchy of higher education in serving more minorities, more part-time students, more adults, more blue- and pink-collar workers, more of the elderly, more single parents and more displaced workers than any other segment of higher education. In short, every so-called "non-traditional" segment of society that was underrepresented in higher education in 1950 is overrepresented in community colleges today. Community colleges are doing more than their share to open the doors of higher education to previously unserved segments of society. In this they have served their society well. But, some would claim, opening the doors of higher education is easy -- maybe too easy. Access is a necessary, but not sufficient, condition for equal educational opportunity.

The ideal of opening the doors of college to people who had never thought that college was for them, is without question an exciting venture. When I first became interested in community colleges more than 20 years ago, community colleges were young, idealistic, energetic, and enthusiastic. Then they hit a plateau (Cross, 1981) as teachers and administrators discovered the disillusionment that followed unprecedented access. Mina Shaughnessy wrote eloquently of the feeling that overtook her as an English teacher when the

City University of New York opened its doors in 1970 to every resident of New York City with a high school diploma.

"I remember sitting alone," she wrote, "in the worn urban classroom where my students had just written their first essays and where I now began to read them, hoping to be able to assess quickly the sort of task that lay ahead of us that semester. But the writing was so stunningly unskilled that I could not begin to define the task nor even sort out the difficulties. I could only sit there, reading and rereading the alien papers, wondering what had gone wrong and trying to understand what I at this eleventh hour of my students' academic lives could do about it." (p. VII)

Like Mina Shaughnessy, many community college teachers faced up to the task and tried to understand what had gone wrong and what they could do about it. But a decade ago when Shaughnessy wrote her classic book on the teaching of basic writing (1976), no one knew how to deal with the learning problems of open admission students. Quoting Shaughnessy again,

"...there were no studies nor guides, nor even suitable textbooks to turn to. Here were teachers trained to analyze the belletristic achievements of the centuries marooned in basic writing classrooms with adult student writers who appeared by college standards to be illiterate. Seldom had an educational venture begun so inauspiciously, the teachers unready in mind and heart to face their students, the students weighted by the disadvantages of poor training yet expected to 'catch-up' with the front runners in a semester or two of low-intensity instruction." (p. 3)

That inauspicious beginning blossomed into an energetic nationwide attack on some of the most stubborn problems in education. But most of what teachers learned, they learned through their own experience in the classroom. They were not standing on the shoulders of giants. There was little professional knowledge and research to sustain the effort. Toward the end of the 1970s, energies begin to flag, and "teacher burn-out" entered the vocabulary. After doing some research on community college missions in the late 1970s, I wrote these words,

"The late 1970s and early 1980s represent a plateau between two periods of high energy and a sense of mission in the community colleges. The old ideals that sparked enthusiasm and a sense of common purposes in community colleges have receded, and new ideals have not yet emerged to take their place" (1981, p. 113).

The old ideals were, of course, access and equal opportunity for unserved segments of the population. The new ideals are emerging now as we head into the 1990s. They are set forth in a report that was released this spring by the Commission on the Future of Community Colleges. When the report was presented by Ernest Boyer, President of the Carnegie Foundation for the Advancement of Teaching and Chair of the Futures Commission, I saw some of the old energy and enthusiasm return as the more than 3,000 community college leaders attending the 1988 annual convention of the AACJC rose to their feet to give the Commission's vision of the future a standing ovation.

The Futures report, entitled Building Communities: A Vision for a New Century defines community "not only as a region to be served, but also as a climate to be created." That climate, as the Commission sees it, will to a great extent be established by the teaching faculty. The report states it this way:

"At the center of building community there is teaching. Teaching is the heartbeat of the educational enterprise and, when it is successful, energy is pumped into the community, continuously renewing and revitalizing the institution. Therefore, excellence in teaching is the means by which the vitality of a college is extended and a network of intellectual enrichment and cultural understanding is builtThus, building community through dedicated teaching is the vision and inspiration of this report" (pp. 7-8).

It is one thing to set forth a vision; it is quite another to implement the Commission's vision of community colleges as, "the nation's premier teaching institutions" (p. 25). What is a premier teaching institution? And how realistic is it to expect community colleges, with their unselected and diverse student populations, to lead the nation in such a major contribution and major prize?

My answer to those questions is that community colleges are "naturals," both for making contributions to knowledge about the impact of teaching on learning and for improving practice in colleges and universities. One of the things I want to talk about today is classroom research -- a method that community college teachers can use to accomplish those tasks. I hope that classroom research will become a source of knowledge as well as a source of energy for the

improvement of teaching and learning. The Futures Commission recommended that, "Community colleges should define the role of the faculty member as classroom researcher -- focusing evaluation on instruction and making a clear connection between what the teacher teaches and how students learn" (p. 27).

Since I suspect that I may have been in part responsible for encouraging my colleagues on the Commission to look at the role of community college teachers as classroom researchers, let me hasten to define the concept. Classroom research involves college teachers in the study of the learning process as it occurs in their classrooms day by day. It attempts to answer the very specific question, What are my students learning in my classroom as a result of my efforts? It is not a search for generalities or theories. It does not require complicated experimental designs, "representative samples," sophisticated statistics, or intricate analysis of data. Rather, it is diagnostic and applied; it calls for teachers' "expert knowledge," sensitivity, insight, knowledge of a particular field of study, and systematic observation of the problems encountered by students as they attempt to learn what the teacher is trying to teach.

The purpose of classroom research is to help teachers assess the effectiveness of their own teaching. Most teachers really don't know how effective they are as teachers. In fact, there is some evidence that both students and teachers are well aware of the gap between teaching and learning. When students at UC, Berkeley were asked to rate how descriptive each of 24 items were of their teachers, one item fell consistently among the lowest four. "Knowing how well students are understanding" is, according to students, not

very descriptive of most of their teachers (Wilson, 1987). Teachers too, at least those teaching lecture classes at Berkeley, express concern about how well they understand what their students are learning. (Wilson and Tauxe, 1986).

If faculty are to improve as teachers, they are going to have to have quicker and better feedback on what students are learning and how they are responding to teaching. That is where classroom research comes in. It consists of feedback devices that help teachers assess what students are learning as a result of their teaching efforts. Learning -- rather than teaching -- is the object of study in classroom research. This represents an important reversal of the usual approach to the improvement of teaching in which we are asking teachers to concentrate on their own behavior. It is not only quite difficult to observe oneself in action, but if students are not responding, it makes no difference how perfectly the teacher is teaching. The premise of Classroom research is that as teachers become aware of the impact of their own teaching on students' learning, they can make appropriate modifications while the class is still in progress.

Let me give one concrete example of a very simple form of classroom research. A physics professor at Berkeley wanted to find out what students were learning from his undergraduate class in introductory physics. One way to find out was to ask them to write the answers to two questions at the end of a class period. The first question was, "What is the most significant thing you learned today?" The second was, "What questions remain uppermost in your mind as we conclude this session?" This feedback gave him enough

information to tell how many students had gained what he hoped they would gain, where there were difficulties in understanding, and where he should pick up the next class session. "Minute Papers," as he called them, became an ongoing practice that helped him improve his teaching. Not so incidentally, this teacher also received very high ratings from students on the faculty evaluation item that asked how well the teacher understood how well students were learning.

Of all institutions of higher education, community colleges are probably in the best position to take the lead in developing both the scholarly and practical dimensions of expertise in college-level teaching for a number of reasons:

First, community colleges are teaching institutions. Their faculties are hired on the premise that they are first and foremost teachers. Thus, they are, and should be, curious about learning and the impact they make as teachers on students' learning. If community colleges are to make their mark as premier teaching institutions, then we must offer faculty the opportunity to establish themselves as authorities on teaching and learning -- as seekers after knowledge as well as practitioners in the art and science of teaching.

A second reason for suggesting community college leadership in classroom research is that no other type of institution has quite the challenge or quite the obligation for excellence in teaching that the community college has. Battles won for access and equal opportunity are meaningless unless the populations newly admitted are gaining access to education that makes some difference in their lives. Improving the quality of teaching and learning is the logical

next step for colleges that led the way in opening the routes of access to college. Community colleges can and should continue to work on access and retention, along with every other type of institution in higher education, but the task that will energize community colleges is the development of special expertise and knowledge about the teaching/learning process.

Third, the curriculum of the comprehensive community college offers a rich and potentially productive laboratory for gaining knowledge about learning. No other type of institution offers such a wide range of learning experiences for study. The curricular mix of vocational, academic, developmental, and adult education, offers one of the richest resources available for study.

Fourth, classroom teaching is especially important to commuting students. The research of the past quarter of a century shows that much of the "value added" of a college education comes from the total environment of the college -- the dorms, extra-curricular activities, and out-of-class relationships with students and teachers. Because virtually all community college students are commuters, rushing from job and family responsibilities to class without much time to trade ideas or reactions with fellow students, whatever education these students get from college will depend heavily on their classroom learning experiences. As the college experience becomes increasingly part-time for a majority of college students in the United States and most students begin to live off-campus, the classroom bears a heavy burden for the development of the skills, values, and appreciations that we associate with educated persons.

Fifth, the practical orientation of community college teachers assures that the problems for classroom research are real problems that affect college teachers in their classrooms. Moreover, because community college classes tend to be smaller, personal attention is frequently expected and given, and teachers have an opportunity to observe learning in process with its variety of stumbles and triumphs.

Finally, the diversity of the community college student population is an advantage in studying the learning process. The bright side of the concentration of students with learning problems in community colleges is that sometimes the best way to understand a process is to look at what goes wrong when things aren't working right. Students with learning difficulties -- whether stemming from poor attitude, lack of knowledge, or lack of skills -- can try the patience of a saint or they can serve as windows through which to view the complexities of human learning. It is probably more productive to study the impact of teaching on learning in students whose learning is heavily dependent on the structuring of the task by teachers than it is to study self-propelled learners who will learn under almost any condition. In summary, the mission, the curriculum, the students, and the faculty of community colleges make them ideal laboratories for the study of teaching and learning at the college level.

A number of things are coming together at this particular time in history to make significant advances in teaching an exciting possibility and community colleges the potential leaders. In the first place, cognitive psychology as a discipline is now exploding with the

energy and knowledge necessary to sustain and advance the experiences and observations of teachers in their classrooms. Psychologists are turning from their preoccupation of studying animals in artificial laboratory settings to studying human learning in natural settings (McKeachie, 1988, p. 4) -- a trend that has new potential for relating learning to teaching. "Instructional psychology" which emphasizes the implications of learning theory for instruction has, according to the experts, "become a vigorous part of the mainstream of research on human cognition and development" (Glaser and Bassok, 1988, p. 1).

A second and related trend in research on learning is the growing conviction among scholars and researchers that pedagogy and subject matter must be joined. It is not very likely that teaching will be improved by some generic breakthrough; far more likely is that improved understanding of how students use their minds to structure knowledge in particular disciplines will give us greater insight into the relationship between what is taught and what is learned.

Robert Glaser, a leading cognitive psychologist, notes that "contemporary theorists are turning their attention to learning in specific domains of competence ... corresponding to the basic academic disciplines -- reading, mathematics, writing, and science" (1988, p. 25).

In years past, we have been all too ready to explain a student's poor performance by assuming "poor reasoning abilities," or earlier than that, "low I.Q." Newer understandings place more emphasis on the importance of building or structuring knowledge of the subject

matter so that new learning can be related to information and understandings which are already present in the mind of the learner.

A series of studies of the differences between experts and novices, for example, shows that experts learn new concepts in their fields quickly and easily, not because they are more intelligent or have better reasoning abilities than novices, but because they are able to incorporate new information into principles and abstractions that already exist in their knowledge of the subject matter. The problem solving difficulties of novices, in contrast, are attributable, not to a lack of generic reasoning skills or problem solving abilities, but to the inadequacies of their knowledge bases (Glaser, 1988). In her intensive study of basic writing, Mina Shaughnessy made essentially the same observation when she wrote that "basic writing students write the way they do, not because they are slow or non-verbal, indifferent to or incapable of academic excellence, but because they are beginners and must like all beginners, learn by making mistakes" (p. 5). These recent directions in cognitive psychology have enormous implications for building a psychology of instruction which is conceptually strong enough to serve as a knowledge base for teaching.

All in all, the climate for advancing knowledge about teaching in the 1990s is potentially more productive than that of the 1970s. In the 1970s, access was the issue, and research and knowledge about teaching was not up to the demands placed upon it by the enormous influx of disadvantaged students into colleges. In the late 1980s and into the 1990s, the issue is and will remain quality, and it appears now that there will be new knowledge to sustain a concerted

intellectual drive toward improved teaching through better understanding of the relationship between teaching and learning.

Now let me conclude these remarks by making some concrete suggestions about how we might work together to develop classroom research into a reality that would improve the quality of education for community college students nationwide.

Tom Angelo, my associate in Classroom Research, came with me from Harvard to Cal to help direct a national project on Classroom Research. We were delighted to discover that Kate Brooks, a teacher of Astronomy at Los Medanos Community College, had a long-time interest in classroom research, and we convinced her to work part time with us this year on the community college project. Together, we hope to establish a working relationship with several community colleges in the Bay Area to see if we can develop some teaching techniques that will teach learning skills, and at the same time, give teachers feedback on how well students are learning those skills.

Our first problem in launching this project was to find out what teachers think students should learn from them. So we started by developing a questionnaire that asked teachers to rate the importance to them of 48 possible teaching goals. The questionnaire, which we called the Teaching Goals Inventory (TGI), asks teachers to select one course that they are currently teaching and to rate on a 5-point scale the importance of each of the 48 possible goals to the teaching of that class.

When we administered the TGI to 200 teachers at Miami-Dade Community College, for example, 58% said that mastering the subject matter of the discipline was an essential goal of the course they had

selected; 45% said that acquiring job skills and knowledge was an essential goal; 30% said that they felt it was essential to help students develop self esteem. For almost all of the items, we had the full range of responses, i.e. while some teachers rated self-esteem essential, others rated it irrelevant or not essential in the teaching of the course they were describing.

When we administered the TGI to a nationwide sample of some 600 community college teachers, we found that teachers tended to clump or cluster the 48 items into 6 groups consisting of similar items, i.e. a teacher who tried to help students develop analytic skills was also usually interested in helping them develop the ability to apply principles and generalizations in solving problems. etc. We labeled the cluster of items that seemed to emphasize the development of higher order thinking skills, Critical Thinking. Another cluster that we called Personal Development consisted of items such as these: helping students accept personal responsibility, helping them develop respect for others, helping students develop self-esteem, self-knowledge, and the like.

There are six clusters in the TGI, each cluster consisting of a group of items that seemed to teachers to have something in common. We labeled the cluster as follows: Critical Thinking, General Education, Academic/ Test-Taking Skills, Career/Work, Technical/Specialized Skills, and Personal Development. The most commonly endorsed cluster was Critical Thinking, followed by Academic/ Test-Taking Skills and General Education.

But teachers are individualistic in the priorities they assign to teaching goals, and their priorities are also shaped by the nature of

their teaching field and their association with the people and subject matter of their departments. At Miami-Dade Community College, for example, we found that teachers of the social sciences rated Personal Development goals high, while math and science teachers rated them low relative to other goals. Teachers in career education gave goals in the Career/Work cluster their highest priority, while teachers in the humanities and social sciences rated them lowest of all six clusters.

These results suggest to us that faculty are looking for variety in measures of their effectiveness as teachers. Some want to know how helpful they have been in developing the critical thinking abilities of their students, while others are more interested in knowing whether they have helped students grow in self esteem. These interests tend to be related to the subject matter of the course, but they are also related to the values and teaching philosophies of the instructor. After gaining some understanding of what teachers consider important, we are ready to take the next step.

What we would like to do in this project is to develop a variety of teaching and assessment techniques that will help teachers find out whether they are accomplishing the goals that seem important to them. This is where we need your help as experienced classroom teachers.

Dr. Angelo and I have made an early start at developing some simple classroom measures that are generic -- that is can be applied to any field of study by any classroom teacher. Descriptions of 30 of these assessment techniques appear in a new book entitled Classroom Assessment Techniques: A Handbook for Faculty, and

they can serve as general first-generation models for the development of some new second-generation Classroom Assessment Techniques that teachers will find more closely tied to their particular subject matter and teaching interests.

Specifically, our proposal -- subject, of course, to modification and negotiation -- is this:

First, the Teaching Goals Inventory would be administered to Marin teaching faculty sometime within the next few weeks. The TGI takes about 15 minutes to complete, and we have found that most teachers enjoy this opportunity to think about their teaching goals. While all TGI responses are confidential, many teachers find it interesting to compare their goals with those of their colleagues at the college.

We, at UC Berkeley, would score the TGIs and provide a composite profile of teaching goals for the college as well as for interested departments or divisions of sufficient size and participation to make the profiles meaningful.

The purpose of the TGI profile is to serve as a backdrop of knowledge against which to develop the kinds of classroom assessment techniques that would be most useful to teachers in the various disciplinary specialities.

The second step in the proposed project would be to identify two or three departments that would like to form task forces to work with us throughout the year on the further development of classroom research. Most desirable would be departments representing broad-based fields of inquiry such as Math/Science, Humanities, and Social Sciences. The reason for involving distinctive

fields of study in the actual development of classroom assessment techniques is that we suspect that a measure that would help math teachers know whether they were accomplishing a teaching goal of critical thinking, for example, might be quite different from a measure devised for teachers of history. In any event, if classroom research is to be useful and intellectually stimulating to classroom teachers, the assessment devices should respect the integrity of the discipline and be devised by teachers familiar with the task of teaching their subjects to others.

After the selection of the task forces, Dr. Angelo would conduct brief workshops for members of the task forces, working with teachers to clarify their own teaching goals and to try out, in their classrooms, the generic classroom assessment techniques that have already been developed.

At this point, members of the discipline-based task forces would be ready to develop new assessment techniques that are appropriate to their own disciplines. These so-called second-generation assessment techniques would then be tried out and refined in the classrooms of task force members and other interested faculty members at Marin Community College.

Depending on the productivity of the project, a number of things might begin to happen:

- 1) Local task forces might start their own classroom research projects in their departments or with interested colleagues.

- 2) Your college might serve as a demonstration center or training site for community college teachers in Northern California, the Western States, or the nation.

3) Tom Angelo and I would prepare Handbook II which would include the best of the Classroom Assessment Techniques developed by the task forces, at Marin, Los Medanos, and Diablo Valley Colleges. The Handbook we envision now would contain a self-scoring TGI to help teachers develop a profile of their teaching priorities. Teachers could then turn to the indexed Classroom Assessment Techniques that would be most likely to help them evaluate the attainment of their teaching goals.

4) The concept of classroom research might be extended to the broader study of learning styles, cognitive development, refined instructional methods, and other issues of special interest to individuals or groups of teachers.

The possibilities are endless, and it doesn't make much sense to try to spell out in any detail where we might end up by the end of the academic year. We hope the road traveled would be fun, stimulating, and productive, and we hope you will travel it with us.

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