

COMMUNITY COLLEGES AT THE CROSSROADS

K. Patricia Cross

Distinguished Research Scientist
Educational Testing Service

I have entitled my remarks today "Community Colleges at the Crossroads" because I think the 1980s will be the decade in which community colleges will have to make some critical decisions about future directions. For some 25 years now, community colleges have been barreling down the superhighway of American higher education at a very fast clip. There have been no crossroads at which community colleges were forced to slow down, read the signs, and contemplate new directions. Now, however, the highway seems full of signs reading "caution," "yield," "slow down," and "do not enter." There is concern now that colleges, especially community colleges, have taken on more than they can handle, and conference themes abound with titles such as "Can the Community College Be All Things to All People?" and "Setting Priorities and Making Choices."

Throughout the golden years of growth and expansion in higher education, community colleges were rewarded for taking on every new task that society wanted done in postsecondary education. The change in name from "junior" colleges to "comprehensive community" colleges reflects a fundamental shift in purpose--from little brother to four-year colleges to parental provider for the educational needs of the community. Like most parental providers,

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community colleges have discovered that the more successfully needs are met and provided for, the more expectations and demands rise. Unfortunately, rising expectations are not always accompanied by increased understanding of the difficulties encountered in meeting each new demand. As long as the resources flow freely, there is no pressing need to set priorities, to question the legitimacy of the demand, or to think much about designing more effective and efficient procedures.

Up until the last few years, higher education generally, but community colleges in particular, have used an add-on approach to meet each new demand for educational opportunity. If there is a desire for a new community education program, for example, new administrators and new faculty are added, new locations found, new curricula taught. Add-on expansion doesn't complicate anyone's life because new people are added to do new things. Faculty hired to do one thing are not suddenly faced with new demands, an increased workload, or the necessity to change their ways.

Community colleges are themselves a product of the add-on model. When equal educational opportunity became a national priority, we didn't try to expand existing colleges and convert their faculties to open-admissions education. We built new colleges and hired new faculty to perform a new function. When open admissions created a need within these new colleges for developmental studies, once again the add-on model protected colleges and teachers from the shock of massive change by establishing developmental studies programs. As long as the add-on model is adhered to, there is no big problem in coping with change.

But community colleges are at the crossroads now because the add-on *calls for 2 assumptions that cannot be met in the 1980's* model ~~is not working. The present situation in community colleges violates~~ the two basic assumptions of the add-on model. One assumption is that the resources to add new people and new programs are unlimited--a situation that is patently untrue, ~~in California now.~~ But the tax revolt is a nationwide phenomenon, and it strikes a fatal blow to the add-on methods for dealing with change that have been used so successfully in higher education for several decades now.

The second requirement is that the proposal for educational change must add on new people to perform new functions; it cannot add to the work of existing personnel. But over the past couple of decades, the community colleges have added, not just more students but different kinds of students, and this new student diversity has not simply increased the size of the college but rather has increased the workload of each classroom teacher.

~~I attribute much of the low morale and disaffection of college faculties today to the breakdown of the add-on model.~~ *The add-on* ~~It is a model,~~ designed to handle diversity when there is a volume to go along with it, *but it* ~~The add-on model~~ is expensive, and it is hard to justify adding new staff and new programs when student volume is not increasing. The problem we face today is that diversity is continuing to increase while volume is steady or falling. The add-on model is not appropriate under these circumstances, and so the workload generated by diversity is working its way into the typical college classroom, creating a demand for change and leaving frustration and unhappiness in its wake.

The problem can be made clear through the use of an analogy that occurred to me as I made my familiar trek to the ~~San Francisco~~ Airport recently.

For some years now, the nation has been building new access ramps onto the superhighway of postsecondary education. When the new access traffic threatens to cause congestion in any area, the add-on model simply adds a new lane to the superhighway. There is no real problem as long as the new traffic is traveling at roughly the same rate of speed and going in the same direction as the existing traffic. The problem comes when the new access ramps pour a vastly increased diversity of vehicles and drivers out onto the highway.

What we have on the community college highway now is, to say the least, colorful in its variety. There are VWs and Cadillacs and Peterbilt trucks; old clunkers, sleek and powerful race cars, stock cars carrying an incredible mix of mismatched parts; and lately a few classy vintage antiques have appeared on the scene. Added to the variety of vehicles, we have slow drivers who want to travel in fast lanes, drivers whose only past experience is on country roads, drivers who can't read road signs, drivers whose attention is completely occupied elsewhere, and drivers who don't know where they are going.

Our past dependence on the old add-on model provided us with some pretty good highway engineers who really knew how to build access ramps and add new traffic lanes. They engineered a 6000 percent increase in financial aid between 1954 and 1974 and a 193 percent increase in community college students over the past decade. But as we move into the 1980s, it is becoming clear that we probably don't need more access ramps or new lanes added to the

superhighway of postsecondary education, and even if we did, the taxpayers are not about to put up the money to build them. The problem faced by community colleges in the 1980s lies in dealing with the traffic already on the highway.

What we need, I suppose, is traffic cops who know how to deal with diversity, but even if we had well-trained traffic expeditors, it is not at all clear that the old-fashioned highway design would work. And we have not developed the new breed of highway engineer who can modify or design highways to handle diversity rather than volume. The warning signs have been flashing for years, but as long as we had money and trained people to build access ramps, we didn't go out looking for traffic cops and a new breed of highway engineer. Thus the community colleges have some decisions to make.

The first decision, I suppose, is whether this highway which is the comprehensive community college can handle all this diversity and, with reasonable efficiency, carry it where it is going. If it can't, then the decision gets down to where we are going to put traffic diverters and what access ramps we are going to close. That decision, of course, would have all kinds of political ramifications. Realistically, it will probably be politically impossible to close access ramps without providing acceptable alternatives. While some colleges have closed a few access ramps, I think it unlikely that closing access on a national scale represents any long-term solution to the problem. No special interest group that has lobbied for access to education is going to stand quietly by and see their access ramps closed. They would rather be on a clogged highway going nowhere than denied access altogether. Anyway, the taxpayers are going to see the problem as one of

inefficient and outmoded highway design and traffic direction, and not as one of overcrowding--and, of course, at this particular time in history they are right.

So let us assume, in the first instance, that we are not going to close access ramps--at least not on any broad national scale. There is some tendency, however, to set up vehicle inspection stations on the access ramps. A majority of states now have some form of minimum high school competency standards, some of which deny a diploma to students with grossly inadequate basic skills. These inspection stations will presumably screen out vehicles that have no hope of traveling any significant distance on the educational highway without breaking down. But the standards of the inspection stations are so minimal, and the whole endeavor subject to so much criticism, that it is doubtful that such screening will do much to alleviate the congestion. Moreover, tightening high school graduation standards has little impact on adults, who constitute the fastest growing segment of higher education, and represent even greater diversity in educational backgrounds and goals than 18 year olds.

So let us next explore the possibility of helping faculty members deal more adequately with diversity in their classrooms. That too is going to be difficult. The assigned task of the classroom teacher is comparable to that of a traffic cop who is asked to meet 20 assorted vehicles of widely varying speed and states of repair and to escort them in a convoy to the next exit. They must all stay together throughout the trip; all must start and exit at the same time; and no one may stop along the way for repair or rest without going

back to the beginning and joining the next convoy. That image is roughly comparable to taking a group of 20 diverse students at the beginning of the semester, insisting that they all move at the same pace through the same subject matter, exiting "on time" (our time, not necessarily theirs) without compromising anyone's academic standards.

If the convoy system worked, it would in fact ease congestion on the highway. There is no big problem in escorting 20 cars, all in good condition, all traveling at 50 miles per hour, all with drivers attending to the task, to the next exit. The problem increases in direct proportion to the amount of variation in the convoy. If, for example, in your convoy of 20, you have two cars traveling at 45 miles per hour and one at 30, you can even deal with that situation by expecting the 30 mile per hour vehicle to drop out and slowing the convoy down just a little for the 45 mile per hour cars. But picture yourself escorting a group of 20 cars where two could keep up if they had a wheel alignment, three have such erratic speeds that you can't tell what is wrong without stopping the whole convoy to analyze the situation, two don't want to go to the next exit but they like driving on the highway, three are out of gas, two have never been on a superhighway before and are scared to death, two want to travel 55 miles per hour instead of 50, and three are traveling 35 miles per hour, but want you to certify that they are going 55. Those of you who are classroom teachers should feel some empathy with this description. It is patently unrealistic to expect anyone to escort such a diverse group of travelers to a common exit in a predetermined amount of time. And yet that is what we expect of college teachers who are using a highway designed for the more homogeneous groups that characterized higher education in an earlier era.

Some colleges have devised ways of dealing with this diversity, and they work--or at least they help when diversity is not too great and the resources are not too limited. Unfortunately, both of the common methods for dealing with diversity lead to increased costs. Nevertheless, it is possible to either reduce the size of the group or add more personnel to handle the diversity. In remedial education, for example, one of the more effective methods is to teach in very small groups so that individual diagnosis, prescription, and personal attention are possible. Or one can maintain the basic size of the group and deal with diversity through adding specialized services such as counselors, financial aid officers, peer tutors, basic skills specialists and the like. Both of these methods have been used extensively in dealing with diversity of learning ability in open admissions colleges. But since both methods lead to increased costs, they are not likely to be looked upon with favor in the years ahead. As almost everyone knows by now, the first things to go in a budget crunch are specialized services and the so-called luxury of small classes. Thus, the old highway design is outmoded and increasingly unsatisfactory.

But if the old design sounds bad for teachers, pity the students destined to travel this outmoded highway. To illustrate the situation from the perspective of the student, let us assume that the highway between my home in ^{Cambridge} ~~Berkeley~~ and the ^{Boston} ~~San Francisco~~ Airport is designed and operated like a traditional college. I arrive at the access ramp where I am told that I must wait until five teacher-escorts and a hundred cars are ready to go to the airport. With justifiable indignation, I might complain that I don't need an

escort, all I need is a map to tell me where I am going, some road signs to direct me, and a speedometer to inform me of my rate of progress. Patiently, the director of traffic tells me that since my escort knows the way, there are no road signs or maps, and since the group will be traveling at a uniform rate of speed, I don't need a speedometer. All I need is to stay with the group, trust the leader, and do as I am told. Frustrated, I might ask why I have to wait for five escorts and a hundred cars. Why can't I enter the highway when one escort and 20 cars are ready to go to the airport? I should have known the answer to that one, of course. All five airport escorts are at the ~~San Francisco~~ Airport now and will not be back to escort me and my group for an hour. The reason for that is that the toll takers ^{at} ~~on the~~ ^{tunnel} ~~bridge~~ collect tolls every hour on the hour, and so all of the escorts and their groups have to be there at the same time. It is, I am told, administratively impossible to handle the toll booths in any other way.

Resigned to what appears to me to be bureaucratic inefficiency, I spend my time observing, with rising interest and some sense of unease, my fellow travelers. One, a self-confident business executive, about 35 years old, driving a snappy sports car, assured me that she could go as fast as the speed limit permitted, and she left no doubt that she could be half way to the airport by now if she didn't have to wait for an escort and people like me. Meanwhile, an elderly gentleman in a beautiful old car said he had plenty of time and would really rather be taking a country road, but there were no maps and no road signs and he didn't know how to get to the airport by any route except the superhighway. Off to one side of the group was a very shy young driver who

didn't say anything but his engine was sputtering badly, and I had the impression that he hesitated to go get it fixed because he was too shy to ask for help. Each new driver and car added to the interest and colorful diversity of our group that was preparing to travel the unknown highway.

Finally our escorts arrived and we all started off down the highway trusting in our escort and hoping we could stay with the group. Through the rearview mirror, I saw the shy driver pull off the highway as his engine died. I don't know whether our escort even noticed, but if he did there wasn't much he could do about it anyway. Meanwhile I caught a glimpse of the white knuckles on the mahogany steering wheel as the elderly gentleman, frightened but game, pushed his car to 55 miles per hour. I doubted that he was enjoying the trip, and I knew that the travel was more important to him than the destination. Then much to my horror, my car began to make odd noises. Not being shy, I informed our escort who listened to the car for a few minutes and said it didn't sound too serious and suggested I try to keep up with the group. If the noises got worse, he said, I should request a tutor-mechanic to ride along with me and see if we could fix the problem while we traveled along. Well the noises did get worse. I was fortunate and was able to get a tutor fairly quickly, and as we rode along, I tried to listen to the noises, answer the questions from my tutor, and keep my mind on the speed of the group and its destination. While it was nice to have someone along with me who was lending help and support, I was only too aware that I had dropped from the middle of the convoy to the tail end, and I was getting worried. I didn't think that the noises in my car were my fault, but I wasn't sure. Perhaps they were the

fault of the highway system for building bumpy roads or the fault of the people who last serviced the car, but I had a deep-down nagging feeling that maybe there was something wrong with me and my driving ability.

Halfway to the airport, there was a sizeable bump in the road which was labeled with the only sign on the highway. It said "midterm," and it jarred me enough so that the red warning light went on on the dashboard. Alarmed, my tutor and I decided I better stop at the next service station for repairs. My escort was understanding and helpful. He directed me to the service station, called ahead for an appointment, and suggested that when things were fixed, I could join the next convoy to the airport.

Needless to say, I might or might not have made it to this meeting if our highway system were run like our schools. I am fairly certain that I would not face my next trip with any great confidence or enthusiasm, despite the knowledge that the woman in the sports car arrived at the airport without incident or problem. I am also fairly sure that I would complain bitterly about the inefficiency of the highway system, despite the kindness and understanding of my escort, my tutor, and the people at the service station.

Now getting an education is admittedly somewhat more complicated than driving a car. But the difference is not as great as we commonly believe. Driving an extremely complicated and lethal machine through a complex maze of signs and directions over hundreds and thousands of miles of roads varying in size from two to eight lanes across unfamiliar terrain is no simple task. Yet almost everyone in our society learns how to read a map, how to follow directions, how to gauge their progress, how to tell when they are lost, how to recognize warning signs, and some even know how to diagnose and repair their vehicles.

Our highway system would simply become unworkable were we to create the dependence among drivers that we have created among learners in postsecondary education.

~~I believe that our educational system is very close to breaking down.~~ It was designed in a different era to serve a different student clientele. There is no end in sight to long-term and increasing diversity, and things will get worse not better for almost every community college in the country. We have reached the point where tinkering with an outmoded design for education will almost certainly prove inadequate. Students can, should, and must assume more responsibility for their own learning. We can no longer afford escort service, and even if we could, the escort notion violates so much of the research on effective learning that we must find other alternatives. Educators can and should spend less time escorting convoys and more time marking the route, helping students determine destinations, providing maps of the alternatives for getting there, diagnosing and repairing learning problems, and in general designing a new educational system that can handle student diversity at reasonable cost.

As we move into the learning society, it is especially important that we reorient the educational system to create self-directed learners looking to us for roadsigns rather than escort service--if not for pedagogical reasons, then surely for economic ones. ~~In 1930, there were 10 workers for every retired person in the United States.~~ By 1950, the ratio was seven and a half to one; by 1970, it was five and a half to one; by the year 2020 it is expected to be four and a half to one. And if one adds dependent children to retired people,

there will be fewer than two workers for every nonworker in the society in the beginning of the 21st Century. As the Social Security Agency has found out and the health and education services are about to discover, we cannot afford a society in which huge numbers of nonworkers are increasingly dependent on a relatively small number of workers. It may not be necessary to change the ratio of workers to nonworkers; our society probably can afford to give more attention to the quality of life and to the increased enjoyment of leisure time. It will be necessary, however, to promote the independence of nonworkers for the good of society as well as for the good of individuals. And in our times education is the major route to independence.

The health professions are already working toward much heavier emphasis on preventive medicine which places more responsibility with the individual, as opposed to traditional medicine which continues to place responsibility in the hands of the physician, often with very little understanding on the part of the patient. There is an ancient proverb that says, "Give a man a fish and you feed him for a day; give him a fishing rod and you feed him for the rest of his life." Our educational proverb might read, "Teach students subject matter, and you give them perishable information; teach them how to learn, and you give them knowledge and independence for the rest of their lives."

Community colleges are at the crossroads because they have to make a decision about whether to continue toward their original destination of serving the postsecondary educational needs of the community or whether to back off a bit into the more traditional role of colleges. There are many who advocate traveling the older, narrower highway. Their solution is to admit that the

community colleges cannot be all things to all people in the community and to begin now to set priorities and make the hard decisions to eliminate some functions.

I have grave reservations about that too-obvious solution because while lopping off programs may reduce the program diversity of the college--which is an economic problem--it will not necessarily reduce student diversity in the classroom, which is the educational problem. The only way to reduce student diversity is to introduce some form of selective admissions--a concept that would deny the central mission of the community college.

While I admit that fiscal realities may demand some reduction of community services, the eve of the lifelong learning movement is a poor time to default on leadership in meeting the educational needs of the community. It may well be that as we move into the learning society, other agencies will assume educational functions that cannot and should not be handled by colleges. As some of you know, the report of the AACJC 1979 Assembly takes the position that community colleges individually, and collectively through AACJC, should play the central role in coordination of community learning resources through working with libraries, museums, industry and labor, and other community agencies. I heartily concur.

That still leaves the problem of diversity in the classroom, however. A realistic solution to that problem must accomplish the following: It must improve the quality of education for students without increasing the workload of individual faculty members and without increasing the cost. That is a huge order because I believe that the only way to improve the quality of education in the face of increasing student diversity is to individualize

instruction, and that would appear to place an intolerable burden on teachers and to skyrocket costs. But there are three aids to individualization that we are not currently using to the maximum.

First, students can assume more responsibility for their own learning. Second, community colleges should be making greater use of other students in the educational process. Third, community colleges need to capitalize on the growing potential of technology. Now let me go back and expand a little on each of those underutilized assets to the individualization of instruction.

Students must assume more responsibility for their own learning. Escort service is undesirable pedagogically and unaffordable economically. If there is one thing we have learned from the research on learning, it is that the person who does the work is the person who does the learning. In the jargon of psychology "time on task" is the most significant factor in learning, and that means that learning activities should be designed to engage the active participation of the learner. That in turn requires that learners know the destination, i.e., the expected outcome of the learning unit, that roadsigns and checkpoints be provided to help them gauge their progress, and that it be clearly understood that the responsibility of the teacher is to facilitate learning. It also requires that the learning task be set realistically for the level of ability of the learner.

Those requirements are not met in the usual classroom. All too often the teacher is more actively engaged in the task than the students; the destination may be known by the teacher, but students usually know only the ground to be covered; and given today's diversity, learning tasks are often too simple for some students and too difficult for others.

I suggest that far more use be made of learning materials developed to take advantage of new knowledge in instructional design and calling for maximum activity on the part of the learner. The use of class time for the dissemination of information by the teacher is pedagogically ineffective for the reasons I have mentioned, but it is also economically inefficient.

The major expense of traditional education goes into subject matter presentation by teachers rather than into learning for students. Most faculty are still struggling to design their own materials and are understandably disappointed and frustrated when there is no time or energy left over to deal with the diversity of individuals trying to learn their course. I suggest that almost all presentation of subject matter should be done out of class, through multimedia materials that are self-pacing, self-evaluating, and self-propelling, if possible. Class time should be reserved for high-quality human interaction.

~~This leads to~~ My second recommendation which is that community colleges should be making far more use of other students in the educational process. The advantages are many: In the first place, peer tutors have demonstrated their usefulness in dealing with diversity in learning ability in the community college, and anything that helps with that troublesome problem should be adopted with alacrity. Second, peer tutoring is an outstanding learning experience for the tutor. There is probably no better way to learn something than to try to teach it to someone else. Tutors should be trained and should receive full academic credit for the kind of learning that takes place in the tutoring experience. Third, community colleges with their commuting clientele are finding it harder and harder to meet the need for human contact and

interaction in education. Commuter campuses, especially, need to move to a more effective mix of self-directed study and interpersonal interactions. The traditional classroom has a very ineffective mix; there is little student-to-student interaction and also little independent learning action on the part of the learner who spends the major portion of class time passively watching the teacher in action. Finally, traditional schooling is still geared to the reward of independence, while the labor market has shifted to demanding skills that enable people to work cooperatively with one another. More people lose their jobs because they lack the ability to work cooperatively with others than because they lack job skills. Yet education rarely assigns cooperative learning projects. Worse yet, we are likely to punish cooperation by regarding it as cheating and warning students to do their own work. For all of these reasons, we should be utilizing one of the most valuable and underutilized aids known to individualization and humanization of education, namely other students.

Third, community colleges need to capitalize on the growing potential of technology to individualize instruction and to provide high quality instruction for the masses. The RSVP computerized program at Miami-Dade Community College and *its use of Academic Alert & Advisement System* offers an excellent illustration of what can be done to individualize academic advising on a large campus. ~~This fall Academic Alert and Advisement, which is~~ a computer-managed academic advisory service, sent an individualized letter to each of Miami-Dade's 10,000 first-time-in-college students, informing them of their progress and noting any special problems with attendance, needed remedial work, special problems anticipated for veteran's benefits or international visas, and suggesting various campus resources for help with any problems

identified in the letter*. The computer used three sources of information in individualizing the letter to students: Student-provided information such as course load, native language, physical limitations, and age; test data including reading and math test scores; and progress reports from faculty which noted class attendance and performance as "satisfactory" or "needing improvement." Miami-Dade's work with RSVP provides a glimpse into the future in utilizing technology to handle the diversity of the masses. The cost of such computer-managed systems is coming within reach of most colleges now, and for an institution the size of Miami-Dade, it is thoroughly cost-effective. It serves, however, as just one example of what can be done with an imaginative use of technology.

Television and related audiovisual technologies have the potential for improving the quality of presentation of subject matter. Both the advantages and disadvantages of television and its cousins have been discussed endlessly over several decades now, but used well, they offer advantages beyond mere convenience to location-bound learners. Unfortunately, the use of technology in instruction has frequently been discussed as though it were to replace human teachers rather than to supplement them. The task of presenting information, however, is a very limited function of education, and it may be one of the few things in education that can be done better by a machine than by a human teacher. Yet many, if not most, teachers still picture teaching as consisting largely of providing information about their academic speciality-- a picture that may have been accurate when the academic lecture became the mainstay of college instruction centuries ago, but is now not merely inaccurate

* Anandam, Kamala. RSVP: Computer Enhanced Academic Alert and Advisement. Description of the System for the First-time-in-College Students in Fall, 1978-79. Miami, Florida: Miami-Dade Community College, 1978.

but dangerous to the education profession. If teachers continue to define their role narrowly as classroom disseminators of information, then it is likely that in the not very distant future, they will be replaced by machines because they can be.

This may seem a strange time to recommend that community college teachers seek help wherever they can find it--from other community agencies, from students themselves, from peers, and from technology. Some people, not usually teachers, think that with the predicted decrease in students, there will not be enough to do to keep all teachers employed. Ironically, these are usually the same people who complain most vociferously about the quality of education. I believe that the first order of business of all colleges in the years ahead is to cease the preoccupation with quantity that has dominated the last quarter of a century and to concentrate on quality education for each student. For the community colleges, and increasingly for other colleges as well, that means dealing effectively with individual differences.

We can do much to individualize instruction through technology and better instructional design, but ultimately no one has yet come up with a substitute for the responsiveness of human beings to other human beings. My plea is to encourage teachers to move away from the traditional role of disseminators of information, which is an impersonal role that fails to recognize individual differences, toward the more human role of learning facilitators. Administrators, legislators, and taxpayers can help, but the ultimate challenge in improving the quality of learning rests primarily with classroom teachers.