California's community colleges face tremendous challenges, from diminishing fiscal resources to increasing student diversity. To meet these challenges, community colleges may have to transform how they think about themselves. Organizational restructuring in two-year colleges requires the adoption of a new paradigm about the nature of community colleges. The key assumption in the existing paradigm is that the purpose of community colleges is "to provide instruction." The proposed new paradigm is based on the declaration that "to produce learning" is the purpose of community colleges. Under the old paradigm, community colleges are judged not on the basis of their output, but on the basis of inputs. The focus on instruction, rather than on learning, has made educational innovation suspect. Once this key assumption of the old paradigm is recognized, it becomes easier to recognize and undo the corollary assumptions. Under the old paradigm, faculty were primarily teachers providing classroom-based instruction. Under the new paradigm, faculty become designers and managers of learning experiences and environments. The new paradigm calls on colleges to judge their success not on the quality of instruction but on the quality of learning, allowing for fulfillment of the student outcomes accountability movement. Under the old paradigm, productivity is defined as cost per hour of instruction per student, while under the new paradigm, it is defined as cost per unit of learning per student. A table lists and compares assumptions of the old and new paradigms in the seven categories of mission, purposes, criteria for success, structures, means to ends, nature of roles, and learning context.

(Author/PAA)
A New Paradigm for Community Colleges: A Strategic Planning Issue
by Robert B. Barr, Palomar College, San Marcos, CA

Based on a Presentation for the 1993 Annual Research Conference of the
Research and Planning Group for California Community Colleges, March 3-5, 1993

Abstract

California community colleges face tremendous challenges today. To meet these
challenges successfully, community colleges may have to transform how they think about
their nature. Like the paradigms of Newtonian physics and Euclidean geometry, the
paradigm of the nature of community colleges contains a key assumption. If this key
assumption is changed then the whole paradigm falls apart and a new one is born. The
key assumption of the community college paradigm is that the purpose of community
colleges is to provide instruction. A new paradigm is proposed based on the declaration
that the purpose of community colleges is to produce learning. The corollary assumptions
of the now dominant "old" paradigm are compared with those of the proposed "new"
paradigm. For example, the nature of roles will change under the new paradigm. Under
the old paradigm, faculty were primarily teachers—"sages on a stage"—providing
classroom-based instruction. Under the new paradigm, faculty would be primarily designers
and managers of learning experiences and environments. In addition, the new paradigm
allows for the fulfillment of the student outcomes accountability movement. Student
outcomes under the old paradigm are simply irrelevant to the successful functioning of a
college. Consequently, outcomes assessment has hardly penetrated normal organizational
practice in higher education. Under the new paradigm, outcomes assessment is a necessary
component of successful functioning. The shift to the new paradigm also substantially
alters the definition of productivity. Instead of cost per hour of instruction per student, the
new paradigm defines productivity as cost per unit of learning per student. The alternative
to not adopting the new paradigm and its consequent organizational restructuring is to be
judged ever less effective in meeting the needs of our communities and society. If that
continues to happen, eventually, society will reform us.
A New Paradigm for Community Colleges: A Strategic Planning Issue
by Robert B. Barr, Palomar College, San Marcos, CA
Based on a Presentation for the 1993 Annual Research Conference of the
Research and Planning Group for California Community Colleges, March 3-5, 1993

The significant problems we face cannot be solved at the same level of thinking we were at when we created them.

- Albert Einstein

California community colleges face tremendous challenges today. One budget crisis follows another. Increasing numbers of high school graduates, adult population growth, work force education, training, and re-training contribute to ever greater demand. At the same time, students are becoming more diverse. Increasingly students are part-time, older, working, from ethnic minorities, and returning to school for a second and third time.

To meet these challenges successfully, community colleges may have to transform how they think about their nature. While our impulse may be to blame the environment — the Governor, the legislature, the economy — for our problems, it may be wiser to see our problems as reflections of who we think we are. I propose that a paradigm shift in how we think of ourselves will empower us to solve our problems and lead to new structures that meet our challenges more successfully.

Corporate America has adopted restructuring as a strategy to cope with increasing domestic and world competition. Organizational structure is, after all, the lever of individual human activities. Change the structure in which people work and you change their leverage. The restructuring from building cars one at a time to assembly line mass production, enormously increased the leverage of auto company human resources.

The ability of community colleges to meet the demand for more educational services with little or no growth in public funding is greatly hampered by a structural flaw in our model of what a community college is. Given the current structure, it is impossible to increase productivity without a corresponding threat to educational quality. If colleges increase productivity by either increasing average class sizes or increasing faculty workloads, for example, there will certainly be serious negative consequences for quality.

Organizational restructuring in community colleges offers the hope of greater
efficiency and effectiveness but it would require a new paradigm of our nature. In fact, to shift to a new paradigm is itself a restructuring since a paradigm is a conceptual structure. A paradigm is a set of rules that describes boundaries and tells us what to do to be successful within those boundaries. A paradigm explains the world to us and helps us to predict its behavior. It is largely an invisible structure through which we think. It is not something about which we think. A paradigm is to thinking what the eye is to seeing. While operating within a paradigm, we take its rules and boundaries for granted. It is "reality." Shifting to a new paradigm creates a new reality and a whole new domain of possibilities.

What is the existing paradigm of community colleges? What would be a liberating, empowering new paradigm? A good place to begin constructing a new paradigm is with the surfacing of the assumptions of the "old" paradigm. Like the paradigms of Newtonian physics and Euclidean geometry, the paradigm of the nature of community colleges contains a key assumption. If this key assumption is changed then the whole paradigm falls apart and a new one is born. The key assumption of the community college paradigm is that the purpose of community colleges is to provide instruction. If we change this, everything changes. I propose a new paradigm based on the declaration that the purpose of community colleges is to produce learning. Does that not shift everything? And isn’t that more true to what we have in our hearts and why we choose to become community college educators?

It is revealing that virtually every mission statement contained in the catalogs of California’s 107 community colleges fails to use the word learning in its statement of purpose. When it is used, it is almost always bundled in the phrase "teaching and learning" as if to say that while learning may indeed have something to do with community colleges it is only present as an aspect of teaching. We refer to ourselves as the premier teaching institutions of higher education. We have "instructional divisions," "vice presidents for instruction," and a Chancellor’s Office "Fund for the Improvement of Instruction." Despite the movement to focus on student outcomes, our recent reform legislation, AB 1725, defines our mission in terms of instruction not outcomes. Clearly instruction has been our purpose, not learning.

Under the old paradigm community colleges are judged not on the basis of their outputs or results but comparatively on the basis of their inputs, resources, and processes. We use such factors as Library and Learning Center books and resources, the
"commitment" of faculty to good teaching, participatory governance structures, adequacy of facilities, and the balancing of the budget. We require minimum credentials to teach but not minimum results in the classroom.

To say that community colleges are in the business of providing instruction is equivalent to saying that auto companies are in the assembly line business. It is to say that we exist to create and support a process rather than to produce a valuable product. To make instruction our end — corollary paradigm assumptions spell out just what counts as instruction — is to reify a particular means for producing learning as the only legitimate, acceptable means. In this light it is no wonder that the core of our business has been so resistant to substantial innovation, change, and reform in its methods and structure. Since classroom-based instruction is the touchstone, until recently educational TV courses had to be so noted on student transcripts. The clear implication is that TV courses are somehow suspect, not real instruction. Thus, "distance education" and many other innovations in the means of producing learning have met great resistance.

Surfacing this key assumption takes us a giant step toward uncovering its corollary assumptions. The accompanying table lists some of the elements of the old paradigm that are a consequence or a corollary of its key assumption. These elements are organized in seven categories or dimensions: mission, purposes, criteria for success, structures, means to end, nature of roles, and learning context. A parallel list provides the elements or assumptions of the proposed new paradigm. For example, the nature of roles will change under the new paradigm. Faculty will be very important under the new paradigm but their role will shift. Under the old paradigm, faculty were primarily teachers — "sages on a stage" — providing classroom-based instruction. Under the new paradigm, faculty would be primarily designers and managers of learning experiences and environments. Teachers will not only be able to look beyond the traditional classroom to create a learning environment, they will be responsible for doing so.

The new paradigm implies that colleges take responsibility for learning and judge their success not on the quality of instruction but on the quality of learning; on their ability to produce ever greater and more sophisticated student learning and educational success with each passing year, each exiting student, and each graduating class. By taking responsibility for learning and holding ourselves accountable for learning outcomes, we do not, as some may think, relieve students of any of their responsibility for learning. The logic of responsibility is not that of a zero sum game. In communicating knowledge, you
lose nothing, perhaps even gain something in the process, while the other gains new knowledge. Likewise, two people may both take 100% responsibility for the same result. When this occurs, there is a synergetic, win/win interaction producing results greater than the sum of what could be produced separately.

The new paradigm allows for the fulfillment of the student outcomes accountability movement. Under the old paradigm the movement has not penetrated very far into normal organizational practice despite its initiation 30 years ago. There are only a handful of colleges across the country who systematically assess student outcomes. Virtually no college can say whether this year's graduating class has learned more than the class graduating five years ago. The reason for this is profoundly simple. Student outcomes under the old paradigm are simply irrelevant to the successful functioning of a college.

A shift to the new paradigm produces a profound shift in the criteria for success. The new paradigm implies a new definition of productivity. Under the old paradigm, productivity is defined as cost per hour of instruction per student. This is usually measured by the WSCH per FTEF statistic; the number of weekly student contact hours per full-time equivalent faculty. Under the new paradigm, productivity is defined as cost per unit of learning per student. Not surprisingly, there is no statistic that measures this notion of productivity. Under this new definition, it is possible to increase outputs without increasing costs. There is an abundance of research showing that alternatives to traditional semester-length, classroom-based instruction produce more learning. Some of those alternatives are less expensive. Under the new paradigm, producing more with less becomes possible. All that is required is a restructuring, perhaps a continual restructuring, of the methods and structures used to produce learning. One might even imagine the eventual disappearance of the lock-step semester system and the traditional classroom.

This proposal is not merely new language for the same old thing. This is a paradigm shift. It is a change in a whole constellation of assumptions, rules, and boundaries. Some of the shifts are displayed in the accompanying chart. Many implications are not yet clear, and as with all paradigms, the new paradigm will carry its own set of unspoken or unrecognized assumptions.

The change to the new paradigm will not be easy. There are entrenched systemic forces that support the old paradigm. For example, our society's commitment to the idea that our business is instruction is reflected in how we are financed. We are funded on the
basis of student attendance, ADA or average daily attendance. This powerful force severely limits the kinds of changes that can be made in learning methods. It virtually limits them to changes within classrooms leaving intact the one teacher, one classroom basic structure. If we were funded for something like ADL, average daily learning, then experimenting with new means and structures for producing learning would not only be easier but would be encouraged and rewarded when successful.

On the other hand, the very forces supporting the old paradigm are themselves a result of the near universal societal acceptance of the old paradigm. Paradigms are self-fulfilling. You know a paradigm is functioning when people say, "That can't be done" and "That's impossible." Thus, the initial response to a suggestion that we fund community colleges based on outcomes is likely to be a form of "That's not possible."

According to Thomas Kuhn in "The Structure of Scientific Revolutions," paradigm shifts occur when at least two conditions are met. First, difficulties or anomalies begin to appear in the functioning of the existing paradigm which cannot be handled adequately. Such serious difficulties have appeared in the functioning of schools and colleges. Report after prestigious report has concluded that our schools and colleges are in "crisis" and are not getting the job done. Second, there must exist an alternative paradigm that will account for all that the original paradigm accounts for — but, of course, not in the same way — and offers real hope for solving the major difficulties facing the old paradigm. This paper proposes such an alternative paradigm. The alternative to not adopting the new paradigm and its consequent restructuring is to be judged ever less effective in meeting the needs of our communities and society. Eventually, society will reform us. Perhaps that process has already begun in California with the Voucher/Choice Initiative's placement on the November ballot.
Comparing Educational Paradigms
By Robert B. Barr
Palomar College, San Marcos, CA 92069

The Current "Old" Paradigm
"to provide instruction"

- To provide instruction in a wide range of subjects

The Proposed "New" Paradigm:
"to produce learning"

Mission
- To produce learning and student success

Purposes

- Quality Teaching
- Deliver knowledge from faculty to students
- Comprehensive, diverse programs and courses
- Access for diverse students
- Faculty success

- Quality learning
- Create ever more powerful learning environments
- Improve talent development
- Success for diverse students
- Greater learning for fewer resources and less student time

Criteria for Success

- Enrollment growth
- Revenue growth
- Program additions, growth
- Quantity and quality of resources
- Quality of entering students

- Quality of learning
- Learning growth, efficiency
- Increasing graduation rate
- Increasing transfer rate
- Increasing retention rate

Structures

- Teaching
- One teacher, one classroom
- Disciplines, departments
- Semesters, all classes start and end at same time
- Grading of students in classes
- Degree = accumulated credits

- Learning environments
- Specified learning outcomes
- Pre/Post assessments
- Institutional assessment of student knowledge and skills
- Degree = demonstrated knowledge and skills
Comparing Educational Paradigms

The Current "Old" Paradigm: "to provide instruction"

- Hiring high quality teachers
- Gaining more resources
- Specification of teaching goals
- Innovations in programs
- Innovations in teaching
- Emphasis on operational planning

The Proposed "New" Paradigm: "to produce learning"

- Producing powerful learning environments
- Greater learning with fewer resources
- Innovations in learning methods
- Specification of learning goals
- Emphasis on strategic planning

Means to End

Nature of Roles

- Faculty are primarily teachers
- Staff support faculty and the process of instruction
- Line governance
- Faculty are primarily designers of learning environments
- All staff are educators who produce student learning and success
- Shared governance

Learning Context

- Students are passive vessels filled by faculty knowledge
- Faculty classify and sort students
- Competitive/Individualistic
- Any expert can teach
- Students are active constructors, discoverers, transformers of own knowledge
- Faculty develop every student's competencies and talents
- Cooperative among students and cooperative teams among faculty and staff
- Empowering learning is complex and requires considerable training