

DOCUMENT RESUME

ED 361 046

JC 930 429

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 TITLE Reinventing Teaching and Testing: Quality Learning
 for Quality Employment.
 PUB DATE [93]
 NOTE 7p.
 PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.)
 (120) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *Classroom Techniques; Community Colleges;
 Educational Change; *Educational Testing; *Education
 Work Relationship; *Employment Qualifications;
 Outcomes of Education; Program Descriptions; Self
 Esteem; Teaching Methods; *Teamwork; Two Year
 Colleges; Two Year College Students; *Work
 Attitudes

IDENTIFIERS Santa Fe Community College NM

ABSTRACT

To succeed in today's competitive global markets, organizations are hiring responsible problem solvers and collaborative "associates" who improve productivity, assure quality service, and contribute creatively. These organizations demand employees who are skilled at learning to learn, listening, communicating, problem solving, teamwork, and leadership. The dramatic shift in the way employers conduct business demands the concurrent redesign of antiquated teaching and testing emphases in colleges. Teachers committed to preparing students for professional and vocational opportunities must share employers' emphasis on constant improvement, leadership, pride in workmanship, and price-based decision making. The dual emphasis on course content and learning process is essential in a global economy where the breadth of professional and technical information defies individual mastery and demands collaboration. Quality teachers reward learning and deemphasize test scores. At Santa Fe Community College in New Mexico, many instructors teach students using quality management principles, administering traditional multiple-choice and true-false tests in three stages. In stage one, instructors collect completed tests and record only how many questions each student answered correctly. In stage two, students are invited to find their own errors and to re-submit their answers for further evaluation. In stage three, students form teams of up to five members and complete the same test as a group, developing skills associated with group problem solving. In evaluations, students in these quality classrooms express greater comprehension and self-confidence. (PAA)

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REINVENTING TEACHING AND TESTING:
QUALITY LEARNING FOR QUALITY EMPLOYMENT

Brian P. Cooke

This article examines the link between quality learning and students' subsequent employment opportunities. It describes how radical change in the ways contemporary organizations conduct business demands concurrent redesign of antiquated teaching and testing methods. It proposes teachers manage their classrooms as exemplary quality organizations. It describes aspects of quality management most relevant for classroom teachers. It introduces a testing approach consistent with organizational emphasis on continuous improvement and collaboration.

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**REINVENTING TEACHING AND TESTING:
QUALITY LEARNING FOR QUALITY EMPLOYMENT**

by Brian P. Cooke

While contemporary American industry engages in radical corporate reengineering and the federal government launches a bold initiative to reinvent delivery of public service, classroom teachers must recognize the revolutionary scope and impact of change in today's organizations and prepare their students accordingly. Among their many responsibilities, schools have always been expected to educate students for gainful employment. The dramatic shift in how employers now conduct business demands concurrent redesign of antiquated teaching and testing emphases.

In *Reengineering The Corporation: A Manifesto For Business Revolution*, Michael Hammer and James Champy challenge executives to identify and abandon the outdated rules and fundamental assumptions ... about technology, people, and organizational goals that no longer hold." This revolutionary imperative emphasizes integrated processes and continuous improvement and eliminates dependence on specialized labor and quality by inspection. As demonstrated by the severe corporate lay-offs announced with frightening regularity, reengineered organizations no longer require task-focused laborers working on functions unrelated to customer needs. This harsh reality threatens employees at every organizational level and students who are ill-prepared for initial employment.

To succeed in today's competitive global markets, reengineered organizations are hiring and developing responsible problem-solvers and collaborative "associates" who

maximize productivity, assure quality service, and contribute creatively to the bottom-line. As Peter Senge observes in *The Fifth Discipline*, "the organizations that will truly excel in the future will discover how to tap people's commitment and capacity to learn at all levels." These organizations demand employees who are skilled at learning to learn, listening, communication, creative thinking, problem solving, self-esteem, motivation, negotiation, teamwork, and leadership.

Just as scientific management once governed industry for most of this century, quality management has become essential for contemporary organizations. This revolutionary shift in management direction demands complementary reinvention of classroom teaching. Yesterday's schools that seated students in neatly arranged rows, taught them by rote, and ranked them by performance on objective examinations prepared individuals for highly bureaucratized, tightly controlled industries. Today's schools must meet the demand of quality organizations for self-confident, self-directed, self-motivated, team-oriented, quality-sensitive, customer-directed employees.

Classroom teachers must recognize and understand this revolution in employer expectations. Since contemporary work is becoming more learning and quality oriented, teachers must assure complementary development of student interest, appreciation, and skill in learning and quality. Toward this end, teachers committed to preparing students for professional and vocational opportunities must share employers' emphasis on constant improvement; leadership, collaboration, and pride of workmanship; elimination of mass inspection and management by numerical quotas; and termination of short-term, price-based decisionmaking.

In a quality classroom, the instructor and students share responsibility both for learning course content and for developing thinking, judgement and interpersonal communication. While respecting the integrity of the curriculum, students concurrently appreciate the importance of analysis and explication. This dual emphasis on course content and learning process is essential in a global economy where the breadth of professional and technical information defies individual mastery and demands collaboration.

Like managers in contemporary quality organizations, quality teachers surrender absolute control and authority. They coach and counsel, not preach and profess. They steer students toward relevant knowledge, not inspect their work for defective understanding. They delegate more and lecture less. They cease emphasis on destructive competition and nurture confidence in empowering collaboration. In short, quality teachers envision and manage their classroom as an exemplary quality organization.

Like quality managers, quality teachers minimize student fear and competitiveness. They cease dependence on evaluating student success solely through examinations. They introduce frequent, creative exercises that enhance continuous learning and personal development. They reward learning and deemphasize test scores. They strive for total quality work from all students. They abandon standard grade distributions. They accentuate applied knowledge and long-term understanding. They deemphasize short-term test performance. They consider quality education a challenging journey, not a

specific destination. They expect continuous, unending revision and improvement of student work.

At Santa Fe Community College, many instructors teach and test students with emphasis on principles of continuous improvement and collaboration that develop skills required by quality organizations. In addition to maintaining a quality classroom environment, instructors administer traditional multiple choice and true/false tests in three stages.

In stage one, students take the test and submit their answers for initial evaluation. The instructor reviews students' individual responses and records how many questions each student answered incorrectly. The instructor, however, does not indicate which questions were wrong.

In stage two, the instructor returns the tests and invites students to find their errors and resubmit their answers for further evaluation. Unlike traditional testing where the instructor is the ultimate arbiter of right and wrong, this testing process develops students skill and confidence identifying and correcting their own work.

In stage three, the instructor directs students to form teams no larger than five members. The instructor then requires each team to submit one set of answers to the same test students completed individually. While discussing the test and preparing their team's answers, students compare their own knowledge and understanding with teammates. Instructive disagreements typically ensue that are resolved by varying degrees of expertise, persuasiveness, group political process and negotiation. In this classroom context, students address challenges, frustrations, and opportunities

associated with group problem-solving that they encounter regularly both in the workplace and in their personal lives.

This quality approach to teaching and testing shifts students' focus from evaluation to continuous learning. It requires students to educate themselves. It encourages them to teach and learn from each other. It eliminates student dependence on the instructor for direction and validation. When asked to evaluate this approach, students report greater interest and understanding of course material. They appreciate the opportunity to educate themselves. They express greater comprehension and commitment to the subject. Most important, students trained in quality classrooms believe they conclude their studies with greater self-confidence and interpersonal skills that increase their value in the job market and improve their likelihood of professional and personal success.

"I recommend this approach to teaching and testing," one student says, "because it is an effective model of real life situations we will encounter as members of the work force."