■ KRISHNA S. DHIR, Feature Editor, Campbell School of Business, Berry College

In this thought-provoking essay, Professor Ralph F. Mullin of Central Missouri State University calls for quality improvement through system transformation in the academy. This transformation must be driven by dissatisfaction with the prevailing system and demand a new way of thinking, be goal-driven, apply acquired knowledge, and encourage collaborative development of capabilities. Professor Mullin describes characteristics of transformed systems that manifest quality. Readers will learn how to spot academic quality.

Spotting Quality: A Quality Management View

by Ralph F. Mullin, Harmon College of Business Administration, Central Missouri State University

Spotting Quality by Milton R. Blood (2005) in the July *Decision Line* describes "how to spot quality in education." Everything in the article is about incremental improvement. Yet, quality cannot be incrementally added to a system not designed for quality and continuous system improvement. You can't get there from here! For quality, one *must* transform the system. It obviously is not the conscious intent of AACSB to preserve and maintain the existing unexamined system while striving to *improve* it; however, this is exactly the unintended consequence. Improving the existing stable system will not do it (Deming, 1982). Transformational change to a whole new learning system is required to achieve quality.

First, Transform The System

What might an outside expert in quality management search for as indicators of quality on a B-school campus?

Dissatisfaction with the Current System. For quality, sincere—perhaps even extreme—dissatisfaction is the essential first step before change can begin to occur. It took American managers over 25 years before they took W. Edwards Deming seriously. Deming's call for "transformation" of the system was heard only when the Japanese, who had heard in 1950, started threatening the survival of several of America's most basic industries. Yet today you hear AACSB officials, deans, and faculty claim "we have the best educational system in the world"—echoes of past claims made by General Motors executives. How might an outside expert in quality management "spot quality"? He or she would notice dissatisfaction with . . .

- low level and high variability of students' capabilities at graduation,
- core learning process, the ancient and perpetual course-credit-completion system,
- grades as means and measure of student competence,
- assessment that provides no meaningful information on how to improve the learning process,
- lack of intellectual honesty to admit that many customers are not delighted, and
- leaders with little passion for radically improving student development and learning.

Changed Thinking. For quality, you must change the way you think (Deming, 1982, p. 143). A quality management consultant will begin by changing the way key inside leaders think, from analytic to synthetic. This is doubly hard in academe as faculty

Ralph F. Mullin
is professor of management at the Harmon College of Business Administration, Central Missouri State University. He has been active in the assessment movement for almost 20 years, directing two grants from the Fund for the Improvement of Postsecondary Education (1991-94 & 1995-98) and a $100,000 field experiment on the development of management skills. After serving as a U.S. Air Force pilot and 23 years managing in the private sector, Mullin received a Ph.D. in management in 1987 from the University of Florida. He has taught strategy, research methods, organizational behavior, and globalization. His current teaching priority is quality management. Scholarship interests include transformational change in higher education, leadership, managerial skills development, and performance appraisal.
mullin@cmsu1.cmsu.edu

and administrators are thoroughly trained in research methodology and analytic thinking while synthetic thinking is the exact opposite. This step is required so institutional leaders understand the difference between *improvement* and *change*. Grafting improvements onto an obsolete, stable system will not do it. Systemic change—whole system transformation—is required.

> ***Every system is perfectly designed to produce the results it achieves.***
> Peter Senge (1990)

Does the AACSB self-study process begin with a critical examination of the existing system, studying it as a whole, guided by outside quality systems experts? If the existing system—the basic technology—is not producing substantial year-to-year improvement in the quality of graduates' capabilities and increasing employer delight, that is evidence of a stable system. The next logical step, then, is to design a new system to attain those goals. The concept of technological discontinuity explains why a new system is required. Technological discontinuity is the displacement of one technology by another (see Figure 1). It occurs when a new technology cannot simply be used to enhance the current technology but actually substitutes for that technology to yield better performance.

From the quality perspective there are fundamental differences revealed by the language of quality: the whole system is explicit and controlling and the sub-processes are interdependent, the core learning process is cyclical and connected, and assessment, feedback, study, and improvement are integral throughout the continuous learning process. Scholtes explains, in his concept of "transformation's learning curve," how "mastering the rhetoric" is only an illusion of learning (Scholtes, 2005, p. 10). In Figure 2, **A** represents illusion of learning, which includes mastering the rhetoric, grafting programs onto the old organization, knowing enough to be dangerous, and the same old premises at work; **B** represents sufficient understanding to see that "we don't know much," which includes the "aha!" experience, and the beginning of the integration of knowledge and know-how; and **C** represents the beginning of real learning.

Goals Drive System Design. This begins with defining the ends (desired outputs), and the set of goals (the criterion of system design and control) that operationalizes the mission and core process. What are these ends? Forty-six years ago the study funded by Ford and Carnegie Foundations identified "problem-solving, organizational skill, skill in interpersonal relationships, skill in communication, [and the attitude] strong motivation to learn" (Gordon & Howell, 1959, pp. 45, 104-5). B-schools have given little discernable attention to these capabilities as goals of their curricular process and graduation requirements. At best, schools have installed a course in strategic planning (policy), increased use of the case method, and identified some skills to be learned in specified courses—with little or no integration.

In the late 1970s, AACSB sponsored a series of conferences and commissioned a strategic study in 1984, resulting in the Outcomes Measurement Project and the Porter and McKibbin report (1988). The Outcomes Measurement project provided a definition of the knowledge, skills, and personal characteristics (SAPCs) needed for business success and commissioned Development Dimensions International (DDI) to develop measures of these in the mid-1980s. In 1989, the Accounting Education Change Commission, in "Perspectives on Education," stated, "Without a clear set of capabilities to use as objectives in the curriculum design process, it is unlikely that changes in the current content or teaching methods will be responsive to the needs of the profession" (p. 5). This set of capabilities, defined by the heads of the big accounting firms, is consistent with those of the 1959 Ford and Carnegie study. To their credit, AACSB has defined some learning outcomes (skills and personal characteristics and critical content knowledge), has devel-

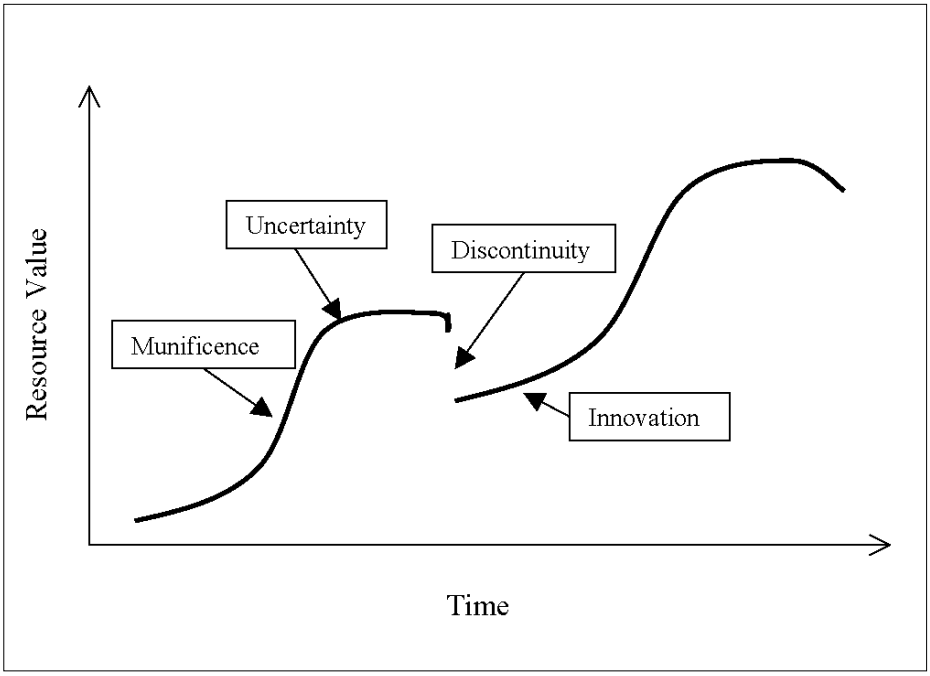

Figure 1. Technological discontinuity.

oped operational definitions and measures for both, and has encouraged schools to develop learning goals as the "first step toward development of a program of assurance of learning" (AACSB Standards, 2005, p. 61). This is not enough.

> ***A goal beyond the capability of the system will not be reached.***
> W. Edwards Deming (1982, p. 76)

Learning goals must drive the design of an integrated learning system, because a single course can "produce only minor gains in student skill development . . . more development is needed than can be expected in one course" (Mullin, Shaffer & Grelle, 1991, p. 117). Thus, these complex capabilities require reinforcement by repetitive and varied development throughout an integrated learning process. How might an outside expert in quality management "spot quality"? He or she would become aware that:

- The assumptions and principles that guide design of the learning system are explicit.
- The set of capabilities required of students is widely understood and accepted as the criterion of system design and control.
- These student-learning goals are clearly in-use, directing and controlling behavior of students, faculty members, and everyone in the system.
- A process for continuous improvement (i.e., Shewhart cycle) is "designed in."
- Students develop their knowledge and capabilities systematically and developmentally across the process (connected, interdependent, and integrated).
- Students are required to successfully demonstrate capabilities as a condition of graduation.

Methods: The Basic Learning Technology: The set of goals that control design of the core learning process also determine which methods are most effective in achieving the learning goals. The Ford/Carnegie study, under the heading "Learning to Utilize Knowledge," states:

> Formally acquired knowledge will not be very useful to the future businessman unless he learns how to apply it . . . experience in using these tools (statistics, accounting, economic analysis, etc.) in situations that resemble those he will encounter in the business world. [This] is more than a matter of didactic teaching . . . . Systematic knowledge should be the foundations on which 'clinical teaching' is then built. (Gordon & Howell, 1959, pp. 107-9)

Thirty years later, the Accounting Education Change Commission in "Perspectives on Education" found little progress and again similarly criticized,

> The current textbook-based, rule intensive, lecture/problem style should not survive as the primary means of presentation. New methods, both those used in other disciplines and those that are totally new to university education, must be explored. (1989, p. 11)

The reader may judge whether the "textbook-based, rule intensive, lecture/problem style" has survived at their institution. A quality expert, however, will not look favorably on B-schools taking almost 50 years, or even 16 years (dated from the quotes above), to even begin to respond to major customer requirements. Actually, the overall design of the educational system—the course-credit-completion model—dates back 100 years. Learning theory did not drive design, efficiency did: efficiency in pushing students through the system. How might an outside expert in quality management "spot quality"? He or she would see that:

- Faculty members view courses not as discrete packets of disciplinary content knowledge, but as developmental building blocks that are integrated by those "capabilities needed for business success."
- Faculty members know what is needed for success because they are experienced practitioners and scholars.
- Faculty members design learning experiences that "resemble those [the student] will encounter in the business world."
- They do not depend on textbooks, lectures, or objective tests.
- They use assessment and feedback as means of learning, require student self-assessment and reflection, and see repeated performance as integral to the learning process.

Student Focus and Motivation: In the existing course-credit-completion system, students are motivated to complete courses at a target GPA. On course completion, students often "erase the disk." This does not produce durable learning. They also tend to experience general education courses, not as connected in meaningful ways with their major program or as developing capabilities, but as hoops to jump through. The student's relationship with the instructor is competitive, aimed at achieving the desired grade with minimum

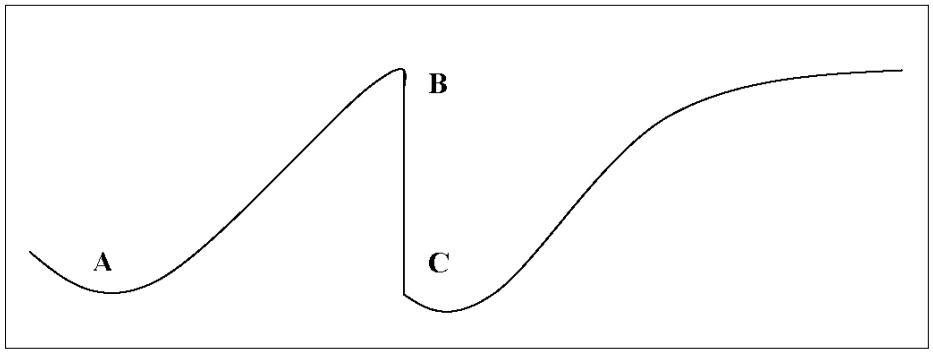

Figure 2. Transformation's learning curve (adapted from Scholtes, 2005, page 10).

effort. A quality system, by contrast, will encourage a collaborative relationship, where the instructor mentors the student to develop the capabilities he or she must demonstrate in order to graduate. How might an outside expert in quality management "spot quality"? He or she would note that:

- Students are fully aware of the set of capabilities necessary for business success.
- Students clearly understand they must successfully demonstrate these capabilities in multiple disciplines and contexts (assessed developmentally and summatively) as a condition of graduation.
- Students are passionate about learning these capabilities.
- Students demonstrate their ability to self-assess and reflect on their learning.
- Students are focused on improving their capabilities.
- Students believe teachers care about their learning.
- All students, with minimal variation, demonstrate competence on all outcomes by graduation.

AACSB Standards Approach

Three categories provide the organizing structure for AACSB standards. These are strategic management, participants, and assurance of learning. AACSB properly emphasizes that espoused strategy (the written document) is not as important as how the strategy in-use guides implementation and operations. AACSB Standards provide much about the purpose, basis for judgment, and documentation of the school's mission statement but little on system design (pp. 18-23). The mission is only so many words, however, without the set of goals and design of the system to achieve the goals. Deming stressed over and over "there is only one chance for optimum success . . . quality must be built in at the design stage (1982, p. 49)." System design is *the* strategic decision.

The implicit assumption of the second AACSB category, participants, is that student learning is predominately influenced by and attributable to individual faculty members; this ignores the overall system's processes and interdependencies, which are the central emphasis in quality management. AACSB emphasis is on "intellectual contributions" ignoring the problem that many faculty members are not qualified by practice in the profession. In the May 2005 issue of *Harvard Business Review,* Warren Bennis and James O'Toole (2005) distinguish a profession from a scientific discipline, as did Peter Drucker. Professors may "never have set foot inside a real business except as customers" (p. 101). Bennis and O'Toole further assert "no curricular reforms will work until the *scientific model* is replaced by a more appropriate model rooted in the special requirements of a profession" (p. 98).

> ***For quality, one must first have a quality system in place. Then, one must measure the right things.***
> Robert W. Galvin (1991)

The "shift to assurance of learning" sounds good, but all three of the "approaches" (i.e., selection, course-embedded measurement, and demonstration through stand-alone testing or performance) fail to assure integrated development of student learning of critical capabilities. Selection is inspection of inputs. The next two are forms of *inspection at-the-end,* a control approach condemned by Deming and other quality management authorities.

> If you want to improve the product, you should put your attention on the process whereby the product is made, not on inspection at the end of the line. In education, if you want to improve the student's achievements, put your attention on the teaching/learning process . . . . (Tribus, 1992)

Applying quality principles will mean assuring learning by designing-in the systematic development of these capabilities throughout the system, using appropriate methods and measures. The three AACSB approaches will simply produce meaningless assessment "data" that cannot be useful in improving the system or processes of student learning. Table 1 summarizes what a quality expert would seek in the three AACSB categories.

Conclusion

While much of the language of the new accreditation standards has been improved, overall the accreditation standards and process continue to have little influence on transformation of the traditional quantity system to a quality system. This failure to recognize the influence of system indicates a lack of understanding of quality management principles. Failure to focus on capabilities to drive design of the core learning process is the most disconcerting aspect of the AACSB standards. Quality improvement initiatives by AACSB may result in marginal improvements, but they will shortly regress toward the norms and rewards of the traditional system, *because it remains controlling and stable*. The same old premises and assumptions are at work. Peer review will only reinforce these. It is the enemy of change. Review by outside experts (who understand systems, variation, psychology, and theory of knowledge and learning) is needed. AACSB is stuck at point B on Transformation's Learning Curve (Figure 2), short of the "aha" experience. AACSB Accreditation, therefore, intentionally or not, preserves and maintains the existing system.

Applying quality principles will mean assuring learning by *changing* (1) the criterion of student success, (2) graduation requirements, (3) the design of the core learning system, (4) the methods of student learning, (5) use of assessment and feedback to integrate these into a continuous learning cycle, (6) the system of appraising and rewarding faculty (see Martin, 1998; and Kerr, 1995), and (7) leaders' perspective from short-term to commitment to the long-term. How do you spot quality?

- The people who have the power to change the system have experienced "aha"

Strategic Management

- A quality system has been designed (model).
- The long-term strategy and plans for staged implementation of the model are explicit and public.
- The planning process is driven by the criterion of system design and control—the set of capabilities, learning goals.
- Faculty members have shifted conceptually and methodologically from teaching to learning.
- Professional development is collaborative, focusing on improvement of the learning system.
- Evidence that the plan's developmental steps are realistically conceived and progressing.

Participants

- Faculty members with both professional experience and academic training are highly valued.
- Faculty members with only academic credentials are required to demonstrate both knowledge of practice and expertise in experiential learning methods.
- Scholarship that informs practice and learning are highly valued, but overemphasis on the *scientific model* is not (see Bennis & O'Toole, 2005).
- Faculty members are valued for how well they collaborate to continuously improve their methods and integration of student development throughout the core learning process (see Martin, 1998).

Assurance of Learning

- Assessment is integral in the learning process, not inspection-at-the-end.
- Faculty collaboration is focused on the learning process as a continuous improvement cycle.
- Their behavior and work is interdependent and cooperative, ***not*** independent and competitive.
- Employers validate goals and serve as assessors of students' development.
- Students are rewarded for success in developing relevant and durable capabilities across courses ***versus*** grades for passing exams and courses.
- Students are recognized at awards nights for successful demonstration of these capabilities ***versus*** highest GPAs.
- These behaviors are valued and rewarded by the system (see *An Academy Classic: On the Folly of Rewarding A while hoping for B*, Kerr, 1995).

Table 1: Spotting quality: AACSB categories and quality indicators.

- Real learning has begun—integration of knowledge and know-how
- The B-school has decided to lead, not follow, AACSB
- A new learning system, based on capabilities, has been designed and is being implemented
- Supplier/producer/customer relationships are becoming intense and pervasive
- The leadership shows patience and is committed to the necessary long-term strategy

W. Edwards Deming, the prophet of quality, was not popular with American management for over 20 years because he steadfastly held that quality was the responsibility of management. B-school deans (and university presidents and provosts) must accept responsibility for system *change*. AACSB, despite its good intentions, has not led *change* so essential for quality. Spotting quality will be evident when people who have the power to change the system step forward and lead.

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See **DEAN**, page 26

End of Third Year in the Program

❑ *Are You Motivated to Do This . . . .*

- ❑ *Does a research and teaching career appeal to you?*
- ❑ *Does the idea of generating and disseminating knowledge excite you?*

❑ Have you experienced a review process with your submissions?

❑ Have you had the opportunity to present your ideas at a regional/national conference?

❑ Have you had the opportunity to review a submission to a conference or a journal?

❑ Can you read articles more efficiently and rapidly integrate them into your stable schema?

❑ Have you passed your comprehensive examination?

❑ Have you developed an idea for your dissertation and defended your proposal?

❑ Are you very comfortable with your proposed methodology?

❑ Have you honed your presentation skills, particularly for the proposal?

❑ Have you entered the job market?

❑ Have you identified your dissertation chair/committee that is on-board with your topic?

❑ Have you had the responsibility for teaching a course?

DIAGNOSTICS – Work on the tendency toward NO responses

End of Fourth Year in the Program

❑ *Are You Motivated to CONTINUE Doing This . . . .*

- ❑ *Does a research and teaching career appeal to you?*
- ❑ *Does the idea of generating and disseminating knowledge excite you?*

❑ Have your articles been accepted in conferences or journals?

❑ Have you attended a national conference in your field?

❑ Have you defended your dissertation?

❑ Have you structured a research program from your projects and dissertation?

❑ Have you developed a set of competencies that you can bring to collaborative efforts?

❑ Have you interacted with peers outside your institution that share your interests?

❑ Have you got a job?

DIAGNOSTICS – Work on the tendency toward NO responses ■

DEAN, from page 23

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