

Changing Minds in Higher Education: Students Change, So Why Can't Colleges?

by John Tagg

The problem today is that when students change, colleges don't have to because they camouflage and conceal the evidence that could guide change.

Introduction: Paradigm Shift, Learning Imperative, and Educational Change

In 1995 my colleague Robert Barr and I announced, in an article published in *Change*, a paradigm shift in higher education. With a degree of temerity that only came home to me after the article saw print, we declared in the first paragraph:

A paradigm shift is taking hold in American higher education. In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists to produce learning. This shift changes everything. It is both needed and wanted. (Barr and Tagg 1995, p. 13)

Are we getting there? Is higher education changing in this respect? Is it planning to change? A good deal of the literature about students and colleges seems to assume that colleges can deliberately plan in light of changing circumstances to better serve changing students. But this may be a more difficult proposition than it at first appears.

There are dozens of exciting examples of institutions that have moved a long distance. In my book *The Learning Paradigm College*, I recounted 17 institutional examples of significant reform in the direction of the "learning paradigm" (Tagg 2003). In 2005, Kuh and his colleagues at the National Survey of Student Engagement (NSSE) reported in *Student Success in College* on 20 institutions that had performed notably better than their demographics would have predicted on the NSSE (Kuh et al. 2005). In 2007, the Association of American Colleges and Universities published the report of the National Leadership Council for Liberal Education and America's Promise (LEAP). The report, *College Learning for the New Global Century*, outlines the principles that should animate reform and is filled with examples of institutional change (National Leadership Council 2007). At the beginning of 2008, the Council for Higher Education Accreditation instituted its Award for Institutional Progress in Student Learning Outcomes, recognizing four institutions. Yes, much is happening.

But not enough. There is fairly clear consensus among those who have seriously addressed the subject that most institutions are behind the curve and generally cannot even coherently describe what they are trying to get students to learn, much less produce credible evidence of what they actually do learn. The agenda that reformers have been pursuing for at least 30 years is yet to be realized at most institutions. That is not to say that higher education will ever go back to "business as usual." But it is also impossible, for me at least, to predict just what the trajectory of change will be. Some of the most exciting changes in colleges and universities have been amazingly constrained: One college in a university has adopted a completely new way of working, while the other colleges remain stuck in conventional practices. An exciting innovation has vastly improved outcomes for a large body of students, but it survives primarily through the work of contingent faculty while the tenured and tenure-track stick to the conventional. Learning communities or service learning or undergraduate research thrive in some enclaves, but cannot gain a foothold in others. As the LEAP report concludes, "Across all the work on access, readiness, costs, and even accountability, there has been a near-total public silence about what contemporary college graduates need to know and be able to do" (National Leadership Council 2007, p. 7).

Changing Students in a Changing World

Students pursuing higher education have probably changed more in the last half century than in any other period in history. Much of this change was driven by social transformation and economic development and much by the past successes of higher education. Whatever the reasons, the hypothetical average student entering today's

college or university is different in attitudes, expectations, abilities, knowledge, and goals from those of previous decades. He or she has grown up in a different technological environment with a different set of tools. There are also many more college students than there used to be and more kinds of students: demographic groups that either did not exist in this country before or that were largely excluded from college by economic status or cultural bias now make up a large portion of the college population. But even the “traditional” student is different.

As students have changed, so have the economy and the world. Levy and Murnane (2004) examined employment trends for the past three decades and found that the kinds of work people do have changed at an accelerating pace. These days, if the job can be described by an algorithm, a computer can do it better and at less cost than a human worker. The trajectory in both the number and the kinds of jobs favors work in which computers complement human labor rather than substitute for it. Levy and Murnane identify the skills that this new economy rewards as “complex communication” and “expert thinking.” The kinds of work we need people to do will increasingly be those in which individuals must apply higher-order thinking skills in complex and unpredictable situations—not simply repeat learned patterns.

The public is concerned about the quality of K–12 education and with good reason. According to the National Assessment of Educational Progress, there has not been much (educational progress, that is). Between 1984—the year after *A Nation at Risk*—and 2004, reading scores for 13-year-olds and 17-year-olds were basically unchanged, and math scores improved only slightly and just for 13-year-olds (National Center for Education Statistics 2005). The variations in scores between demographic groups likewise remained stable. So while the mix, number, and character of students demanding higher education has changed significantly, the general level of student preparation for college has not improved and may have declined.

Kirsch, Braun, and Yamamoto of the Educational Testing Service (ETS) and Sum of Northeastern University addressed this shift in their 2007 report for ETS, *America’s Perfect Storm* (Kirsch et al. 2007). The authors noted the changing economy and how it combines with both the divergent distribution of skills in the population and the demographic shift in which the current workforce ages while new workers disproportionately come from underserved and underprepared groups. One consequence of these changes is that the importance of higher education is inescapable: “The expected lifetime earnings of males with a bachelor’s degree in 1979 were 51 percent higher than their peers with only a high school diploma. By 2004, however, this difference had widened to 96 percent” (Kirsch et al. 2007, p. 4). But while a diploma will be necessary for most workers, that tells only half the story. The priority of the skills that Levy and Murnane (2004) have identified as essential is even more pressing: “The earnings premiums accruing to a particular level of educational attainment...are substantially larger for individuals at that level who have higher cognitive skills” (Kirsch et al. 2007, p. 4).

The Challenge and the Response

The task of colleges is to take students who come to them ill-prepared and equip them for careers that will increasingly demand not only a degree but also an array of cognitive and communication skills without which the degree will lose much of its value. In other words, learning, and learning at a high level of cognitive functioning, is what the world of tomorrow will increasingly demand of college graduates—and of colleges. Pressed by a new and rapidly changing group of incoming students at one end and new and changing demands from the world that seeks its graduates at the other, colleges face an unprecedented challenge.

The result is that a question that has been in the background of higher education has now moved to the forefront. When nearly everyone is encouraged to go to college, the inescapable question becomes “What good does it do them?” (Or, “What do they learn there?”) That question has been problematic for higher education and remains one that most colleges and universities cannot even pretend to answer. Why? **Because the students have changed while colleges and universities have remained in many ways the same.** If we look at yesterday’s and today’s students and the societies in which they grew up, it is like comparing an old black dial telephone to an iPhone or a BlackBerry. But if we look at most colleges and universities, we see something much more like the pre-breakup AT&T: a monopoly organization providing an essential service at a very high

quality for decades, but one that has continued to operate in essentially the same way, impervious to outside criticism and changing only on the margins. Compare the telephone you are using today to the ones available in 1982 at the breakup of AT&T. You see the difference. But if you compare undergraduate colleges and universities from 1982 with those of today, the biggest difference is in the students. The institutions themselves are reminiscent of the chunky black desk telephones that were ubiquitous for most of the decades of Ma Bell's monopoly.

Some things about colleges and universities change, of course. Research moves at the speed of sound. Technology, in some places, is different every time you turn around. What remains constant is the basic framework for undergraduate education. This raises the question of whether students are learning as much as they used to. But it is a hard question to answer because we do not know what they used to learn, and we do not know what they are learning today.

Many institutions are struggling to change, but it is not easy. Even planning to change is hard. Why? It seems simple enough: aim for the target. But it is not simple. The root reason is that colleges and universities are structured for instruction on the core assumption that instruction is an autonomous good, a kind of basic element not subject to examination and analysis.

We can identify five interconnected categories of barriers that prevent institutions from investing themselves fully in promoting student learning or, indeed, even coherently planning to do what they say they intend:

1. The structural barrier. Some years ago, two organizational theorists from Stanford University, Meyer and Rowan (1983), suggested that educational organizations were “loosely coupled” in important respects. In educational organizations, they argued, “structure is disconnected from technical (work) activity, and activity is disconnected from its effects” (Meyer and Rowan 1983, p. 61). They went on to note that educational organizations consistently “leave instructional activities and outcomes uncontrolled and uninspected” (p. 61). Educational organizations create as the framework for their work a set of “ritual classifications”—classes, grades, departments, degrees—that define the roles of faculty, students, and staff, as well as what constitutes successful performance. As long as work is going on in the correct categories, we assume that the job is getting done. No one looks at the results. Colleges and universities, we might say, maintain a set of black boxes of a certain size and shape, but all opaque.

The criterion of organizational success that serves as the most powerful index of comparative institutional performance available—retention—measures the proportion of students who complete their classes and then take more of them. Classes provide the apparatus for classifying and organizing the work of the college.

Classes are where enrollment resides, and departments are where classes reside. So departments are the key structural framework at most institutions, the keepers of the ritual classifications that shape the institution's work. Departments at most institutions essentially hire new faculty and decide who will be retained or promoted. To the extent that departments have any incentive to promote student learning, that incentive applies only in the constrained realm of the classes offered by that department. Departments sometimes clarify and reinforce the connections in the major, which tend to be fairly obvious, while they often obscure or conceal the connections among the disparate elements of general education, which are hard to find. The failure to provide consistent and coherent general education means that students fail to master the foundational cognitive skills they need to excel in their major. Without the metacognitive skills that general education should develop, students lack the foundation for mastering, applying, and communicating the specialized studies that they pursue in the major. This process not only lowers the quality of learning for new students but retards their preparation for specialized work. The new basic skills that the world will require of graduates—complex communication and expert thinking—can only be built on a foundation of connected understanding and cognitive practice.

2. The information barrier. Ask any president, provost, dean, or department chair how many courses are being offered within his or her college, how many students are enrolled in each, what completion rates are, what average GPA is, and you will get answers in—at most—a matter of minutes. These are the categories by which institutions define their work, their workload, and their productivity. They are also categories that tell us close

to nothing about educational effectiveness or student learning. Then ask the same administrator how many students are writing papers, doing collaborative projects, taking multiple-choice tests, writing essay tests, or having conversations with other students about the objects of their learning. In my experience, honest administrators will answer these questions “I don’t know.” At best, one will get educated guesses.

The best educated guesses, of course, will come from institutions that administer the National Survey of Student Engagement or the Community College Survey of Student Engagement. Questions about what students are doing in their classes are at the core of these surveys, which reveal consequential information about student engagement and effort. It is not direct information about whether and what students are learning, but it is a reasonable surrogate. Enrollment—seat time—is educationally trivial; engagement is educationally important. Which black boxes the student moves through tells us little unless we know what the student is doing in those black boxes.

Like many college students, most colleges are impaired learners because they have a dearth of feedback. “Feedback,” as I use the term here, is information about an activity or a performance that helps one to improve in the future. Most college students are constantly evaluated in their classes but receive inadequate feedback. Likewise, most colleges and universities as institutions generate very little information that helps them decide how to improve.

3. The incentive barrier. An institution’s structure determines its incentive system, which must function with the information available. For students, the system of separate and unconnected courses graded by the teacher creates incentives that encourage defective approaches to learning: for example, memorizing what they need for the final exam and forgetting it soon after. For faculty, the incentive system that hires and promotes them within departmental enclaves and rewards them for teaching isolated classes creates incentives that reinforce defective approaches to teaching. The faculty reward system based on research rather than teaching provides a clear incentive to spend your time on something else.

Of course, many institutions today have made a substantial investment in faculty development to try to get faculty to take a more learning-centered approach to teaching. But success has been limited. Why? Because the incentives contradict the training. Mager and Pipe (1997) examine the question of employee incentives in business organizations in their book *Analyzing Performance Problems*. They ask a series of questions aimed at discovering the source of performance difficulties. The key questions for our purposes are “Is desired performance punishing?” and “Is undesired performance rewarding?” Now apply those criteria to faculty, student affairs staff, and administrators by trying a simple thought experiment. What if a faculty member could achieve dramatically better learning outcomes in a class by spending 10 percent more time in preparation and student contact? What would be the corresponding reward from the institution? None. What if a faculty member could spend 10 percent less time at the cost of significantly inferior learning outcomes? What would be the penalty from the institution? None. Time taken away from teaching for other pursuits is its own reward.

Even personal satisfaction is constrained by the fact that the teacher rarely knows the significant consequences of his or her work—and others never do. One reason most faculty feel no sense of urgency about defining or measuring learning outcomes is that there is no sign that it would make any difference if they did. For the faculty member who fails to do research or produces consistently substandard research, the failure is public and visible. For the faculty member who expends little or no effort to improve his or her teaching, the failure is private and invisible.

4. The finance barrier. One of the most troubling questions concerning higher education innovation is why success so often fails. Examples are legion of demonstrably successful innovations that have simply faded away or been discontinued. On the other hand, conventional practices that consistently, verifiably fail to achieve any valuable educational purpose at all persist as the norm. Learning communities die out or barely survive on the margin, while science teachers continue to lecture to half-full auditoriums. The chief rationale in many cases is financial. Demonstrably effective strategies for promoting student learning are often rejected or discontinued on the grounds that they are “too expensive.” But this calculation is made in the context of a peculiar accounting system designed to fund and maintain existing organizational structures. It is a system that, in Oscar Wilde’s telling phrase, knows “the cost of everything and the value of nothing.” So, the university budget records with

precision how much is spent on each established line item for each structural unit but does not account for the actual work that gets done. Salaries assume homogeneity of the work process without specifying its contents, which go unexamined. Most of the money the college spends is poured into the black boxes of courses and departments, and nobody knows what, if anything, it is buying. Faculty members are paid for teaching classes but not for how they teach classes or what happens as a result. Advisors are paid for advising but not for the consequences of their advice. The system contains no measure of “productivity.” Activities with positive consequences have no more value than activities with negative consequences.

In many instances, the question of educational quality simply has no traction in the decision-making process because any activity that entails a change in conventional practice will also entail some adjustment cost, and there is no corresponding measure of benefit resulting from that cost. Retention is not a line item. So the concept of spending more to get more—a key principle in strategic planning in most enterprises—does not work with college budgets. Because there is no measure of the benefit that the cost accrues, any increase in the line item seems an absolute loss. The effect of expenditures on students is often invisible. Overall, we get what we pay for. And what we pay for is instruction, not learning.

5. The culture barrier. If many innovations are rejected because of financial reasons, many more are rejected without even the fig leaf of finance. A striking case in point is the work of the National Center for Academic Transformation (NCAT) directed by Carol Twigg (see www.center.rpi.edu/). NCAT has demonstrated for several years that it is possible and practical to redesign conventional courses to achieve better learning results at the same or lesser cost. While there is a growing interest in course redesign, what is most surprising is how little NCAT’s process has been imitated. Conventional general education courses at many institutions are imposed on junior faculty or teaching assistants and unwilling students as a kind of penance they must do, the price they must pay as the cost of entry to something interesting. Playing out the unconscious script that most of us carry around, faculty and students alike speak of general education requirements as something to “get out of the way.” That most general education courses desperately need to be redesigned is hardly controversial. So why do more institutions not move aggressively to redesign them? Why do they fail to do so even when they could save money in the process?

Institutional culture refers to the largely unconscious assumptions that people make—the things that “everybody knows” but nobody can easily articulate. The picture is complicated at higher education institutions because the culture is atomistic and fragmented. In their research activities, faculty members may be both competitive and collaborative, while in teaching they are largely engaged in individualistic, isolated activities with neither competition nor collaboration. In research, faculty employ standards of evidence and criteria of excellence that are collaboratively developed by a community of shared expertise. In teaching, faculty rely on largely impressionistic and self-generated criteria of excellence that are seldom tested in genuinely collaborative work.

In both research and teaching, faculty culture is fragmented into departmental or disciplinary enclaves. Faculty and staff who work outside of instructional departments are cut off in even more distinct enclaves. Different departments may adhere to quite different narratives of faculty rights, influence, and institutional history. We speak of the faculty as a collective body taking shared responsibility for educational decisions, but at most institutions faculty exercise their responsibility distributively, not collectively. Most faculty are citizens first of their departments. Where faculty are represented as a whole—as in the faculty senate—their roles and sense of purpose are shaped by what they can do in relation to the larger organization. Faculty senates, as legislative bodies, can generally assert their authority only by approving or rejecting initiatives. The administration is the executive body; faculty executive authority exists only within departments. So at the level of the whole institution the faculty can exert real authority mainly by saying “no” to administrative initiatives (because saying “yes” is not to exert authority but rather to acquiesce to an administrative authority). As a source of initiatives and new ideas, faculty have a forum only in the parts of the institution, not the whole.

In large institutions, many faculty members are completely creatures of their departments, and the faculty at large becomes chiefly a watchdog over administrative abuse, framing its role as the enemy of noxious change. Thus the fact that most faculties are educationally conservative is hardly surprising. The structure creates a culture that is much better at defeating evil initiatives than at solving problems or generating ideas.

It is commonplace today to talk about building “a culture of evidence” on campus. That is an inspiring goal that is hard to achieve. Meyer and Rowan (1983) sought to explain how loosely coupled educational organizations could continue to operate with so little control of quality. They identified the principle at work as “the logic of confidence”: “higher levels of the system organize on the assumption that what is going on at lower levels makes sense and conforms to rules but they avoid inspecting it to discover or assume responsibility for inconsistencies and ineffectiveness” (p. 62). So if the classes are being taught, we assume that learning is taking place. The logic of confidence produces not a culture of evidence but a culture of untested assumptions.

What to Do?

How then shall we address these barriers in order to improve higher education? There is only space here to suggest the first steps. The structural barrier is the most important but also the most difficult to address directly. Indeed, most institutional planning is framed by organizational structures and hence often has the effect of actually reinforcing those structures. Form does not merely come before function in much of higher education planning, it supplants function by concealing and obscuring evidence of educational purposes and outcomes. The data that institutions generate—enrollment, grade points, retention, and persistence—are self-referential, reporting only numbers of students moving through organizational structures. These data are about the numbers of people who occupy the black boxes—not about what anybody learns.

The first point of leverage, then, for addressing these barriers and generating change is information. The key to changing the form is to introduce information—feedback—about function. The logic of confidence can survive as the linchpin of organizational culture because there is little or no real evidence about educational processes or outcomes.

If higher education institutions are going to plan in order to better address their overarching educational goals—in other words, if they are going to plan strategically—then a major focus of planning must be to generate better information; that is, better evidence about educationally relevant activities. This can be done in any number of ways, but such information must meet certain criteria at a minimum:

- First, it should be information about students that reveals something about either the process or results of learning.
- Second, it should be information that is generalizable. Anecdotes about successful and unsuccessful students are useful for planning only if they reveal testable hypotheses about future students.
- Third, it should be information that could potentially guide action in the service of better educational results. The information must at least provide potential feedback to the institution—information that could lead to improved performance in the future.

The Pedagogical Inventory

The NSSE gathers some general institutionwide information, but that information is often difficult to act on. How difficult would it be to gather such information on a local basis? Nearly all institutions periodically administer student evaluations of faculty, which provide important but ambiguous evidence about the quality of teaching. The standard questions usually ask for students’ conclusions about faculty teaching practices without asking for specific information about just what those practices are. Why not incorporate questions similar to those included in the NSSE benchmarks for “level of academic challenge,” “active and collaborative learning,” and “student-faculty interaction”? Such a survey instrument has already been developed by the IDEA Center based on a survey first devised at Kansas State University (see www.idea.ksu.edu/index.html). An institution could add questions or develop its own survey targeted at priority issues and then aggregate the information gathered to create a pedagogical inventory, a picture of the range of pedagogical practice and its distribution across different departments and courses. Of course, information on an individual faculty member’s practices would be available only to him or her, but information about the frequencies of various practices would allow

that faculty member to see, for the first time, the real range and distribution of practices throughout the institution.

Such information speaks directly to how students learn in their classes and could lead individual teachers to reassess their own pedagogical practices. Moreover, it could provide a baseline for goal setting by departments, divisions, or the institution as a whole. Most institutions are unable to set goals for improving pedagogy in large measure because they are not sure what practices are being followed today, or where, or by how many faculty members. Given a baseline description of present practice and ongoing feedback regarding changes in practice, it would become possible to set goals.

This information could also be combined with existing data to inform the institution about the consequences of its practice. For example, do courses that employ collaborative learning or interactive lectures retain students at a higher rate than those that do not? Do departments that pursue some practices attract more majors from among undecided students than do others? If we knew what students were doing in their classes, we could ask a variety of reasonable questions about the relationship between teaching and learning, and we would have some evidence that would point toward answers. This would open the possibility of planning to change in ways that we cannot today because of a lack of information.

The Outcomes Transcript

Today, the only information that most institutions systematically collect and preserve about individual students consists of end-of-course evaluations: the transcript of grades. The transcript itself is a barrier to evidence-based thinking because it is opaque; there is no rubric that can reliably translate grades into information about learning. We have a vague feeling that students who get better grades are doing something better than students who get worse grades, but the transcript itself gives us no direct information about just what it is they are doing in either case. The teachers who assign the grades could no doubt tell us a good deal about what those grades mean, but that information is locked in the black box at the end of the term and excluded from the transcript. So what we have in the record of grades is data but not evidence. It does not point beyond itself to any reliable conclusions; it makes nothing evident.

Just as the pedagogical inventory could produce evidence about what goes on in classes, an outcomes transcript could produce evidence about what learning is happening and where. Every accreditation body in the country now requires institutions to define and measure the learning outcomes students are expected to achieve. Institutions have approached this task in a variety of ways. Most often, they fragment the task along the lines of existing structures, developing learning outcomes differently in different departments. But for the institution that develops interdisciplinary outcomes and interdepartmental rubrics, it would be a simple matter to have faculty report student performance on those rubrics with respect to some of the outcomes at the same time they assign grades. Presumably faculty members already assess student skills in order to assign letter grades. The Minneapolis-based eLumen Collaborative has developed software that can record and aggregate outcomes data in a way that can provide feedback to faculty, the institution, and individual students regarding their progress toward achieving learning outcomes (see www.elumen.info/index.html). Some institutions are developing their own frameworks for such a reporting system.

A coherent framework in which to report learning results would draw connections between classes for individual students and provide them with feedback on their progress toward significant learning goals. It would also give the institution evidence of where, when, and how learning is happening. Moreover, institutions that implemented, in some form, both the pedagogical inventory and the outcomes transcript could meet the challenge of interpreting the wealth of evidence about how teaching affects learning and how programs, courses, and cocurricular experiences shape student development.

Learning to Change

No institution, of course, could adopt either of these systems overnight; it would require long conversations and careful planning. Indeed, since both systems threaten to undermine the logic of confidence, adopting them

would require a change in organizational culture at many institutions. To implement either system would also require changes in organizational structure; long-term, transdepartmental structures are necessary to develop and govern these new systems. But once implemented, systems like these for providing ongoing feedback about teaching processes and learning outcomes would progressively undermine the bias against change that thrives in the vacuum of information currently prevailing at most institutions.

These are just two examples of ways institutions could generate new information that would change the dynamics of decision making and begin to undermine the barriers to transformative change. There are many other good ideas.

The problem today is that when students change, colleges do not have to because they can camouflage and conceal the evidence that would guide change. To become responsive and effective institutions, we must build a capacity to register and respond to the actual learning experience of students so that when the students change, our colleges can change too. Learning is change. We can only propagate it if we practice it. If we are to prepare our changing students for a changing world, we must be learners who can shape our colleges and universities to new tasks in new ways.

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