



Seven Promising Shifts and Seven Powerful Levers: Developing More Productive Learning (and Writing) Communities Across the Curriculum

Thomas A. Angelo

University of Miami, Coral Gables

Overview¹

Despite problems old and new that threaten the future of US higher education, I see promising signs that our academic culture may actually be improving in deep, meaningful ways. Specifically, I see shifts already underway that could lead to campus cultures that are both more collegial and more productive. If these shifts proceed apace, our colleges and universities could come to look and act more like intentional learning communities and less like the teaching factories or educational shopping malls they too often now resemble.

The text that follows has three main aims. First, I'll attempt to highlight connections and draw parallels between the learning communities movement of the 1990s and the writing-across-the-curriculum (WAC) movement, which originated in the 1970s. I'll suggest that learning communities are natural offspring and logical extensions of the WAC movement and that both efforts share much in terms of educational philosophy, social values, and pedagogical goals. Given their similar aims and approaches, I'm convinced that leaders of the learning communities movement can profit from 25 years of WAC theory, research, and practical experience. At the same time, by allying themselves with the learning communities efforts, WAC activists may increase the likelihood of realizing their reform agenda.

My second goal is to explain why I'm so optimistic about changes in the academic culture of American higher education. I'll review some of the persistent barriers to instructional and curricular reform that have limited the effects of WAC and related efforts to date and suggest that the timing and circumstances may now be right for learning communities to overcome or at least lower those barriers. I'll briefly sketch what

existing learning communities look like, consider seven promising shifts already moving us in that direction, and identify seven powerful levers that faculty and administrators can use to direct and speed this desirable transformation in academic culture.

My third goal is to promote conversation and collaboration between WAC and learning communities activists. To that end, I'll suggest a few modest steps campus change agents might take to advance the shared reform agenda of both movements. I'll close with a personal note to those in the WAC movement who've shifted my thinking and provided me with powerful levers for personal and professional change.

A personal introduction and *caveat lector*

Despite the fact that I'm in no way a WAC expert, and am surely unknown to those who are, I was invited to share a few ideas with participants at the 3rd National WAC Conference and with readers of this journal. There are two probable motivations behind those generous invitations. First, the conference program committee was interested in exploring connections between assessment and WAC. From 1994-1996, I served as director of the Assessment Forum of the American Association for Higher Education (AAHE) in Washington, DC. Since 1985, the AAHE Assessment Forum has been the national convener and clearing-house for information on assessment in higher education, as well as a strong advocate for focusing assessment efforts primarily on understanding and improving student learning. In addition, I've spent more than a decade working with K. Patricia Cross, David Pierpont Gardner Professor of Higher Education at UC Berkeley, on grassroots approaches to assessment, related forms of action research known as classroom assessment and classroom research (Angelo & Cross, 1993; Cross & Steadman, 1996).

But the invitation I received also mentioned my experience and interest in teaching writing. Although I'm not a professional, full-time composition instructor, at various times over the past 20 years I've taught freshman composition, ESL writing skills, writing for special purposes, and writing-intensive courses in political science, teacher education, and higher education on campuses as diverse as Harvard, UMass Boston, UC Berkeley, CSU Long Beach, and Boston College. At the University of Miami, I'm teaching undergraduate and graduate writing intensive courses. So, inviting an assessment person with some firsthand experience and interest in writing instruction may have seemed a good idea.

I doubt, however, that the conveners or editors could have known just how profoundly WAC teachers, scholars and their work have transformed my understanding of student learning, the ways I teach, and the

kinds of assessment, research, and faculty development work I've engaged in for the past 15 years. Walvoord, Hunt, Dowling Jr., and McMahon (1997) categorize into a half dozen themes the many and various ways faculty say that participating in WAC has affected their career patterns and teaching. The last two of their six themes best capture the effects that exposure to WAC ideas and techniques had on my thinking and work:

- "The Road to Damascus," where there was a revolutionary turnaround in their thinking or teaching; and, finally,
- "New Worlds," in which WAC served as a spur to move outward in many directions which faculty had previously not imagined for themselves (Walvoord, et al., 1997, p. 138).

Let me, therefore, begin by acknowledging my general debt of gratitude to the WAC community for epiphanies large and small and for opening doors to many brave new worlds. I'll save my specific thank-yous for last.

From a Teaching-Centered to a Learning-Centered Paradigm

Throughout its 360-plus-year history, American higher education has changed and reinvented itself repeatedly in response to socioeconomic, political, and cultural trends and crises. Despite current economic and technological challenges to our viability, I see many reasons to believe that we will successfully respond again. Today, much as happened at the end of the 19th century and again after World War II, new ways of envisioning and organizing academic life are emerging, signs of another historic realignment and renewal of our academic culture. This time, however, both the focus and locus of change are different. This time, the changes center less on building new institutional structures, redefining the curriculum, or expanding access, and more on the very heart of higher education—the teaching-learning process.

In the most widely read and discussed higher education article of the past few years, Robert Barr and John Tagg (1995) characterize these changes as a shift from our current teaching-centered model of undergraduate education to a new learning-centered paradigm. As Barr and Tagg see it, the primary purpose of colleges and universities in this new paradigm will be to produce learning, rather than to provide instruction. By focusing on learning as the end, this new paradigm redefines traditional classroom teaching as only one among several possible means of learning production.

Although the term *paradigm* always makes me a bit queasy—Thomas Kuhn (1962) reportedly tried to withdraw the term from use late in his life—I think Barr and Tagg are correct in their view of the magnitude of

these changes. One possible outcome of this paradigm shift could be the transformation of our mental models of teaching and learning. Judging by the way we organize our work, we seem to imagine colleges and universities as types of teaching factories or educational shopping malls. Students are conceived of as products we turn out or customers we service. In the new learning-centered paradigm, by contrast, we're encouraged to view students as collaborators in the learning process—albeit often novice ones—and, consequently to construe, construct and inhabit our institutions as communities of learners, or learning communities.

The Learning Communities Movement

The phrase has a congenial ring to it, but what exactly is a *learning community*? (Here, in the best tradition of reflective writing, I urge you to take a moment to jot down your own definition, as participants in the conference keynote did, before reading further.)

Several alternate definitions of learning communities exist, but most center around a vision of faculty and students—and sometimes administrators, staff, and members of the larger community—working collaboratively toward shared, significant academic goals in environments in which competition, if not absent, is at least de-emphasized. In a learning community, faculty and students alike have opportunities and the responsibility to learn from and help teach each other. The faculty member's role shifts from delivering course content to designing learning environments and experiences, and serving as expert guide, coach, and role model for learners. The student's role shifts as well, from one of relatively passive observer of teaching and consumer of information to one of active co-creator of knowledge and understanding (See Gablenick, MacGregor, Matthews, & Smith, 1990; Tinto, 1997).

Though they are a relatively recent phenomenon, functioning learning communities already exist at LaGuardia Community College, Seattle Central Community College, Portland State University, Temple University, the University of Washington, the University of Miami, and on a couple of hundred other campuses—and new initiatives are being launched regularly. While there are many variations on this theme, learning communities typically feature purposive groupings of students, shared course scheduling, significant use of cooperative and/or collaborative learning approaches, and an emphasis on connecting learning across course and disciplinary boundaries. As Vincent Tinto notes, “Nearly all the experiments have two things in common . . . One is *shared learning* . . . The other is *connected learning* (1997, p. 3, emphasis original).

In existing learning communities, anywhere from 20-100 students may be enrolled as a cohort in a cluster of conceptually-linked courses

from diverse disciplines organized around themes such as *Body and Mind*, *Environment and Community Health*, or *Schools and Families*. In some programs, participating students attend an additional group meeting each week, facilitated by a peer advisor. Faculty explicitly design and teach these linked courses to foster coherence and connections. Through them, students learn not only the academic content but also the learning, study, and group-process skills needed to successfully shift from a highly individualistic to a more cooperative academic culture.

The Writing-Across-the-Curriculum Movement

Although the label *writing across the curriculum* is used to refer to a bewildering variety of programs, there is a core of defining assumptions and features shared by almost all WAC efforts. McLeod (1992) offers the following portrait:

Writing across the curriculum may be defined, then, as a comprehensive program that transforms the curriculum, encouraging writing to learn and learning to write in all disciplines. [WAC assumes] . . . that writing and thinking are closely allied, that learning to write well involves learning particular discourse conventions . . . that students learn better in an active rather than a passive (lecture) mode, that learning is not only solitary but also a collaborative social phenomenon, that writing improves when critiqued by peers and then rewritten . . . Profound curricular and pedagogical change can come about as a result of a WAC program, but such change will not take place unless it comes from the faculty themselves. And change takes time. (pp. 5-6.)

WAC, in its manifold forms, is probably the most widespread pedagogical and curricular innovation in the history of US higher education. Since the early 1970s, tens of thousands of faculty on somewhere between one third and one half of all American campuses have taken part in WAC workshops, retreats, study groups or programs (McLeod, 1992). As a result of their involvement in WAC efforts, faculty report changing to varying degrees the ways they think and teach. While some have made only modest changes in their teaching techniques, writing assignments, or in the ways they respond to student writing, others have redesigned courses to make them writing-intensive, and still other faculty have developed ambitious team-taught cross-disciplinary curricula focused on writing skills development (see Walvoord, et al., 1997).

WAC programs developed in the early and mid-1970s in response to the widening of access to higher education and the consequent enrollment of many underprepared students, as well as to a much publicized literacy crisis. Over the past 25 years, WAC has continued to evolve and grow while many other pedagogical reforms have proven to be short-lived fads. Thanks to its continued relevance and adaptability, the influence of WAC has gone far beyond its effects on particular instructors and institutions. Russell (1991) notes that in the 1980s:

... WAC became only one of many reform movements, though it served as a model for several: speech communications, critical thinking, ethics, computer literacy — all “across the curriculum.” WAC also became part of a general rethinking of pedagogy and assessment, as institutions sought to increase student “involvement in learning,” as one of the reports put it, through faculty-student mentoring programs, offices of faculty development and teaching, “freshman experience” programs to retain students in an era of dwindling enrollment, and a host of other programs (Russell, 1991, p. 290, emphasis original).

Similarities between WAC and Learning Communities

By this point, the many similarities between WAC and learning communities movements may already be obvious. Learning communities are, like WAC programs, explicitly focused on developing process skills as well as product. And like interdisciplinary WAC programs, learning communities seek to help students construct coherence across largely arbitrary course boundaries. Learning communities evince the same social constructivist philosophy of learning and understanding that informs WAC. Both view meaningful learning as active and personally engaging, interactive and transactional, and developmental. And learning communities have been largely faculty initiated, much like the first generation of WAC efforts. It’s worth noting, as well, that the most of the founding leaders of both reform movements have been women.

As the excerpt from Russell above suggests, these similarities are not accidental. Both movements spring from a broadly cognitivist, constructivist, developmental mix of learning theory that has influenced educational reform since the waning of behavioralism. And many of the same individuals and institutions now involved in the learning communities have been or are still involved in WAC efforts.

A Few Differences between the Movements

Notwithstanding their many similarities, the learning communities and WAC movements do differ in a few important aspects. Given that these two movements arose in different decades and in response to somewhat different circumstances and contexts, these differences — most in degree, not kind — shouldn't be surprising. For example, the scope of learning skills on which the two approaches focus differs. Typically, the learning communities model extends the WAC aim of transforming the curriculum to focus on developing skills in addition to writing, such as speaking, critical/creative thinking, and teamwork. Cooperative and collaborative learning methods play a much more central role in learning communities than in WAC, partly because these methods came into widespread use only in the 1990s. In response to the current sociocultural climate in higher education, learning communities are more apt to explicitly include diversity issues than were WAC efforts. In fact, many learning community faculty purposively use collaborative learning approaches to help break down barriers and stereotypes among diverse groups of students. In a related sense, many learning communities focus more on developing educated citizens than on developing effective writers.

Persistent Barriers to Change

The WAC movement's survival and successes over the past quarter century are all the more impressive when we consider the significant and persistent barriers that stand in the way of instructional reform efforts. These same barriers have often limited WAC to a marginalized status on the perhaps 50% of US campuses where it exists and, in many cases, kept WAC from penetrating the remaining, resistant half.

Some of the barriers are conceptual and cultural, involving conflicts about views of teaching, learning, and appropriate faculty and student roles. As Russell (1991, pp. 292-299) explains, WAC challenges many faculty's assumptions about the nature of writing and how students learn to write. Traditionally, writing has been viewed as either an unteachable talent or gift or a mechanical skill learned early in schooling or never at all. In addition, by focusing on process, WAC runs counter to views that equate learning with mastery of content, and engaging students in more writing almost inevitably implies less time for content coverage. Many students and faculty alike perceive additional writing as an extra burden, rather than an intrinsic element of higher learning. And WAC requires different and non-traditional working relationships between teacher and

students and among students, again challenging traditional and comfortable roles.

Other barriers are more clearly structural and organizational. For example, since responsibility for the improvement of student writing is seen as belonging to no particular discipline — except perhaps to Composition or Rhetoric — WAC efforts often founder against the hegemony of discipline-based departments, in which faculty roles and rewards are directly related to research and teaching about the discipline. The ways in which undergraduate teaching and teaching innovation are evaluated and rewarded tend to ignore or even punish faculty involvement in WAC.

To engage in WAC, then, faculty must swim against powerful, prevailing currents.

It [WAC] asks for a fundamental commitment to a radically different way of teaching, a way that requires personal sacrifices, given the structure of American education, and offers personal rather than institutional rewards (perhaps this explains the religious metaphors common in the movement). A group of faculty who are personally committed to WAC can ride out any administrative changes (and perhaps increase their number), for the reforms are personal not institutional, and their success depends on conversion not curriculum. But on an institutional basis, WAC exists in a structure that fundamentally resists it (Russell, 1991, p. 295).

The same list of barriers to change could be used to explain the limited success of the assessment movement, critical thinking across the curriculum, or efforts to use Total Quality Management approaches in the Academy — they simply don't fit well within the prevailing organizational cultures and structures. In the final analysis, no reform can succeed fully unless it becomes an integral part of the culture of an organization and is institutionalized in its systems and standard operating procedures. Learning communities, which arguably make even greater demands on faculty and students than WAC efforts, are and will continue to be limited by the same barriers — unless we can find ways to infiltrate and influence the prevailing academic culture or unless that culture is changing.

Why I'm Optimistic about Change Now, or, Timing is All

Good ideas often wait a long time for the right moment, but advance swiftly when their time comes. I think the time may have come for many of the good pedagogical ideas represented by WAC and other related reform

efforts, and that the learning communities effort may be an effective vehicle for moving those ideas forward. A constellation of related external pressures on US higher education makes a shift from a teaching- to a learning-focused paradigm more likely now than in the past. These pressures include: dwindling post-Cold War Federal research funding, increasing competition for public support at state and local levels, competition among institutions for students and tuition dollars, pressures from parents and students for better instruction, the threat of competition from for-profit distance education and powerful instructional technologies, employers' calls for a better-educated workforce, and demands from legislatures and boards of trustees for better results and more accountability.

My sense is that these external pressures are weakening and eroding many of the barriers to reform mentioned earlier. And as those walls and speed bumps begin to come down, reforms that were stuck can be moved forward. But there's nothing inevitable about the direction of change. If we're to take advantage of timing, we've got to focus our efforts and our leverage carefully. I see learning communities as a promising vehicle — or perhaps a fulcrum — for change.

Seven Promising Shifts and Seven Powerful Levers

As is often the case for participants in WAC programs, involvement in learning communities can represent the fulfillment of long-held personal and professional aspirations. Many faculty hunger for the community of scholars they expected to find in academic life. And the recent explosion of newsletters, books, conferences, listserves and websites focused on teaching and learning is an indication of the breadth and depth of this longing in American higher education.

Notwithstanding the value of enhancing faculty's personal and professional fulfillment, that alone isn't reason enough to make the changes required to develop learning communities. We need first to ask how effective learning communities are at achieving their central aim: producing student learning. Early results are promising. Research done by Vincent Tinto and others is demonstrating that learning communities can produce significant gains in student involvement, learning, satisfaction, social connectedness, persistence and retention. And these benefits appear to accrue to remedial and non-remedial students in community colleges and research universities alike (Tinto, Goodsell Love, & Russo, 1993).

Developing a more cooperative academic culture is vital for our very survival. Just as employers consistently advise us that our graduates need well-developed teamwork skills to thrive in the workplace, faculty need to develop similar skills in order to prepare our students well. Within

the Academy's walls, real and virtual, we'll need better collaboration than we can presently muster to survive coming political and financial shocks. And in the biggest big picture, if we're to cope with our nation's and our planet's increasingly complex problems, we must educate highly effective teamworkers and citizens capable of making connections across all kinds of boundaries and borders. And we must do all the above more efficiently at lower cost—or sacrifice hard-won gains in equity and access.

The challenge, then, is to improve both the productivity of learning and learning quality (Johnstone, 1993; Education Commission of the States, 1995). To realize this vision, to move academic culture toward a more productive learning community model will require several fundamental shifts. The good news is that many positive shifts are already underway, and that powerful levers are available to hasten the transformation. Below, I'll list seven promising shifts and seven proven levers we can employ to build more productive learning communities.

Shift 1. From a culture of largely unexamined assumptions to a culture of inquiry and evidence.

Much of our standard practice in higher education depends on implicit and often highly questionable assumptions. For example, our system of courses and credits assumes that all students learn all subjects at the same rate. Typical general education survey courses assume a vaccination model of learning: A dose of Freshman Composition will make students better writers for the following three years. And some proponents of diversity seem to assume that simply injecting very different students together in the same environment will lead to greater tolerance and appreciation of diversity. While most of us realize these assumptions are problematic at best, practices based on them continue.

Lever 1. Assessment

The assessment movement prods us to examine our working assumptions by turning them into empirical, assessable questions. For example, could more students learn calculus well if we gave them more time? Do students who succeed in Freshman Writing courses write demonstrably better in their other courses? Does simple co-existence with diverse students lead to more open attitudes? After more than a decade of effort, a wide range of assessment tools exist to help us check our assumptions and to determine just how well our well-intentioned innovations are working. WAC, in particular, has a well-developed writing and program assessment literature to draw on (see White, 1994; and Davis, Scriven, & Thomas, 1987). At this point, I would argue that we

have sufficient technical skill to do assessment well. It's sufficient political will that's been lacking.

Shift 2. From a culture of implicitly held individual hopes, preferences, and beliefs to a culture of explicit, broadly shared goals, criteria and standards

The notion of community implies shared goals and values that direct decisions and actions. To get anywhere, we first have to agree on the destination. To create meaningful learning communities, we'll need to develop shared goals for student learning outcomes, shared criteria for assessment and evaluation, and shared standards for measuring student and faculty success. Very few departments or campuses have even begun this process.

Lever 2. Goal-, criteria- and standards-setting methods

Several practical methods for building broad agreement on goals, criteria and standards have been developed in the corporate world and in K-12 education. Some of the most promising are TQM/CQI approaches, such as open-space technology, visioning, and future search (Brigham, 1996) for creating shared goals; and a criteria- and standard-setting method used widely in WAC, known as *primary trait analysis* (Walvoord & Anderson, 1995; Bean, 1996).

Shift 3. From a teaching culture which ignores what is known about human learning to one which applies relevant knowledge to improve practice

For far too long, far too few college faculty were informed about applicable research on learning and teaching and far too many were dismissive of its potential value. Imagine if other applied professions, such as medicine or engineering, took the same view of research in their related sciences. How many of us would respect a physician who thought that the biological sciences had no relevance to her practice, or a civil engineer who didn't bother keeping up with materials science?

Lever 3. The research and practice literature on teaching and learning

After more than 50 years of research in psychology, cognitive science, and education, there are some general, well-supported principles of teaching and learning that can inform our professional practice. Books published in the last decade by Boice (1996), Campbell and Smith (1997),

Cross and Steadman (1996), Gardiner (1994), McKeachie (1994), Menges and Svinicki (1991), and Pascarella and Terenzini (1991), among others, offer useful research syntheses and practical, empirically-based suggestions for improving teaching and learning.

WAC, once again, has a particularly useful and diverse theory and research base to draw on—one that has much to offer learning communities faculty—including work by Bereiter and Scardamalia (1987), Bruffee (1989), Daiute (1985), Faigley, et al. (1985), and Young and Fulwiler (1986).

Shift 4. From a narrow, exclusive definition of scholarship to a broader, inclusive vision of scholarship

In *Scholarship Reconsidered* (1990), the late Ernest Boyer made a persuasive argument for broadening our vision of scholarly work from traditional discipline-based research only, which he termed the scholarship of discovery, to include the scholarships of integration, application, and teaching. Boyer and his heirs have argued that the restrictive traditional research paradigm is a Procrustean bed on which the creative and productive energies of many faculty are lopped off or, at best, diverted. At the same time, a narrow view of research inhibits faculty from focusing on applied pedagogical inquiry, precisely the kind of scholarship needed to improve learning quality and productivity.

Lever 4. The faculty evaluation system

Like most everyone, faculty tend to do what they are evaluated on and rewarded to do. Therefore, changing the faculty evaluation system used for retention, tenure, and promotion decisions is a pivotal shift. Inspired by Boyer's challenge, campuses throughout the country are working to develop ways to document, assess, evaluate, and reward a broader range of scholarship. The American Association for Higher Education's [AAHE] Peer Review of Teaching Project (Hutchings, 1995) and Forum on Faculty Roles and Rewards (Rice, 1996) are two national efforts to move this agenda "from ideas to prototypes." Perhaps the most promising tool in these efforts, the teaching or course portfolio, is well-known and has been long used in WAC to assess student writing (see Yancey & Weiser, 1997).

Shift 5. From an academic culture that tends to ignore costs to one that attempts to realistically account for direct, deferred, and opportunity costs

The “cost disease” threatens the health of higher education generally, and the very existence of many particular programs and institutions. Yet, for the most part, we lack accurate information on the real costs and benefits of our programs and activities on which to base decisions. There’s no general agreement, for example, on what the appropriate, meaningful unit would be in a cost-per-unit accounting of learning. Without better and more appropriate accounting, in the broadest sense, we can’t determine our productivity, much less improve it. This is a particular problem for pedagogical innovations, which are rarely less expensive when typical student head-count or credit-generation accounting is used, but might well be more cost-effective in generating learning—if only we could measure and account for it.

Lever 5. New accounting methods

Innovations in accounting, such as activity-based accounting and full-costing are beginning to be adapted and applied to academic units, informing our assessment and decision making. Inside the Academy, leaders like Guskin (1994), Johnstone (1993), Plater (1995), and Zemsky and Massy (1995) are working to develop new, more appropriate models and measures of teaching and learning productivity.

Shift 6. From a culture that emphasizes and privileges individual struggle for private advantage to one which encourages collaboration for the common good and individual advancement

While it’s critical to change the evaluation and reward systems for faculty and testing and grading system for students to encourage and reinforce community, it’s also necessary to teach all involved how to work together effectively. Since group process is the major determinant of group effectiveness, this means training faculty and students in group process skills.

Lever 6. Cooperative and collaborative education methods

A rapidly growing body of research on and practical expertise in these approaches can guide and inform our efforts. Johnson, Johnson, and Smith (1991) and Goodsell Love, Maher and Tinto (1992) are particularly useful resources.

Shift 7. From a model of higher education as primarily a quantitative, additive process to one that is fundamentally qualitative and transformative

In the US, higher education is often equated with course-taking and credit-collecting, as if the simple adding up of experiences necessarily led to any significant learning. No pile of bricks, however large, will by itself make a building; no list of disconnected courses, however long, will automatically make an education. Too often, students are awarded degrees primarily for persisting, and employers complain, with some justification, that our graduates lack basic skills and knowledge.

Lever 7. Competency-based, mastery learning

One way around this unsatisfactory academic bean counting is to de-couple course-taking and grades from degree-granting. It would require that we define the competencies (what learners must demonstrably know and be able to do) that we most value, the core criteria for evaluating them, and the standards for how well students must perform, and develop adequate means to assess them. In a productive, competency-based learning community, students could demonstrate their mastery of some aspects of the curriculum without taking courses, but they could not become certified simply by taking courses.

The necessary connection between competency-based learning and assessment brings us full circle, a transit that underlines the necessary connectedness of all these shifts. Competency-based learning isn't a new idea. Most of the ideas listed above are not. My hope is that they are good ideas whose time may finally come. Our efforts can play an important role in making the timing right. Progress toward more productive, more authentic forms of academic community will require movement on many fronts at once—many small shifts propelled by many small levers.

In Lieu of Summary: Another Way of Putting It

Peter Senge, well-known in the business world for his work in Total Quality Management, has written about the need to transform corporations, and educational institutions, into what he calls learning organizations. While my focus above has been on a more modest level, on learning communities that involve subsets of the total campus, many of the same ideas apply. In his best-seller, *The Fifth Discipline* (1990), Senge suggests that the transformation to a learning organization requires the development of five disciplines—well-developed ways of thinking and acting—which he labels personal mastery, mental models, shared vision, team learning, and systems thinking. Judy Sorum Brown (1997) suggests that change agents trying to transform a college or university into a learning organization—or perhaps a learning community—would do well to prac-

tice Senge's five disciplines. To create learning organizations/communities, Sorum Brown argues that we'd need to: become committed lifelong learners ourselves (personal mastery); become aware of and check our assumptions and metaphors against those of our colleagues and the external reality (mental models); develop and follow a shared sense of what matters most (shared vision); learn to learn from and collaborate effectively with colleagues within the university (team learning); and develop the ability to see the larger patterns and the multiplicity of variables involved in change (systems thinking). The practice of those five disciplines, even by a substantial minority on any campus, would surely alter its culture.

Five Modest First Steps

For those interested in building connections between WAC and learning communities efforts, or in transforming a WAC program into a learning community, I'll suggest five modest steps which I think are consistent with Senge's five disciplines.

As a first step in personal mastery, resist the understandable urge to hurry the change process; it rarely works. Experience shows that most successful instructional innovations take years to bear fruit—often as long as actual fruit trees do. You'll save time and grief later in the process if you take the time *at the front end* to develop shared trust, shared language with which to discuss change, and a few shared goals. To explore mental models, you might begin by sharing successful teaching experiences, definitions of meaningful learning, or examples of exemplary student work. Building on that second step, develop a shared vision of what your students should know and be able to do at the end of a course, a program, or upon graduation.

Fourth, from the start, or very early on, focus on team learning. Engage in some group-process training yourselves. Get an outside facilitator to help you learn how to work effectively as a team. After all, you won't be able to teach cooperation and collaboration to students unless you've mastered their challenges yourself. And few of us learned cooperation in graduate school.

And fifth, apply systems thinking to your planning. Ask how well what you are proposing fits within the institutional structure and agenda, as well as how it fits into the systems of faculty work and careers and students' lives. Do some reading and research. Learn from the successes and failures of other efforts, both on and off your campus. But remember that good ideas and promising practices can only be adapted, not adopted. In sum, if you can create a learning community first among the committed activists, then you can more easily convince the open-

minded and the skeptics. The truly cynical will never be convinced, so leave them to plan their retirements.

A Closing Acknowledgment

I'm convinced that, as a profession, we academics don't honor our valued teachers often or well enough. So, I'd like to close by thanking those in the WAC community from whom I've learned most. The first and most personally meaningful book I've read on writing remains Mina Shaughnessy's *Errors & Expectations* (1977). In my first year as an inner-city high school teacher, Shaughnessy gave me ways to make sense of my students' writing and, more importantly, hope that they could actually learn to write well. In twenty years, no other book has had more impact on my teaching. My second epiphany on the road to (WAC) Damascus came during a workshop led by Elaine Maimon in 1980-1981 at Boston College. I was then in my first year of college teaching, a temporary sabbatical replacement struggling with several sections of Freshman Comp. Elaine Maimon's vivid examples from Beaver College's pioneering WAC program, her passionate engagement, and her practical suggestions all helped me find ways to help my students make writing connections beyond my own classroom (Maimon, 1981).

Over the years, I've benefited greatly from courses taken, seminars attended, or conversations with other WAC luminaries, including Collete Daiute, Peter Elbow, Toby Fulwiler, Dixie Goswami, Donald Graves, Lad Tobin, Barbara Walvoord, and Vivian Zamel. My sincere thanks to them, and to all those whose writings I've drawn on above, for opening doors to new worlds.

Notes

¹ This text is an expanded version of a keynote address given by the author on February 6, 1997, at the Third National Writing Across the Curriculum Conference in Charleston, SC. Elements of these remarks have appeared previously in the December 1996 issue of *The National Teaching & Learning Forum* and the May 1997 issue of the *AAHE Bulletin*.

Works Cited/References

Related to writing across the curriculum

- Bean, J. C. (1996). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. San Francisco: Jossey-Bass.
- Bereiter, C. & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Erlbaum.
- Bruffee, K. A. (1989). Thinking and writing as social acts. In E. P. Maimon, B. F. Nodine, & F. W. O'Connor (Eds.), *Thinking, reasoning, and writing* (pp. 213-222). New York: Longman.
- Daiute, C. (1985). *Writing & computers*. Reading, MA: Addison-Wesley.
- Davis, B. G., Scriven, M., & Thomas, S. (1987). *The evaluation of composition instruction* (2nd ed.). New York: Teachers College, Columbia University.
- Faigley, L., et al. (1985). *Assessing writers' knowledge and processes of composing*. Norwood, NJ: Ablex.
- Maimon, E. P. and others. (1981). *Writing in the arts and sciences*. Framingham, MA: Winthrop.
- Maimon, E. P., Nodine, B. F. & O'Connor, F. W. (Eds.). (1989). *Thinking, reasoning, and writing*. New York: Longman.
- McLeod, S. H. (1992). Writing across the curriculum: An introduction. In S. H. McLeod & M. Soven, (Eds.), *Writing across the curriculum: A guide to developing programs* (pp. 1-11). Newbury Park, CA: Sage.
- McLeod, S. H. & Soven, M. (Eds.). (1992). *Writing across the curriculum: A guide to developing programs*. Newbury Park, CA: Sage.
- Russell, D. R. (1991). *Writing in the academic disciplines, 1870-1990: A curricular history*. Carbondale, IL: Southern Illinois U. Press.
- Shaughnessy, M. P. (1977). *Errors & expectations: A guide for the teacher of basic writing*. New York: Oxford U. Press.
- Soven, M. (1992). Conclusion: Sustaining writing across the curriculum programs. In S. H. McLeod & M. Soven (Eds.), *Writing across the curriculum: A guide to developing programs* (pp. 189-197). Newbury Park, CA: Sage.
- Walvoord, B. E. & McCarthy, L. P. (1991). *Thinking and writing in college: A naturalistic study of students in four disciplines*. Urbana, IL: National Council of Teachers of English.
- Walvoord, B. E., Hunt, L. L., Dowling, H. F., Jr., & McMahon, J. D. (1997). *In the long run: A study of faculty in three writing-across-the-curriculum programs*. Urbana, IL: National Council of Teachers of English.

- White, E. M. (1994). *Teaching and assessing writing* (2nd ed.). San Francisco: Jossey-Bass.
- Yancey, K. B. & Weiser, I. (1997). *Situating portfolios: Four perspectives*. Logan, UT: Utah State U Press.
- Young, A. & Fulwiler, T. (Eds.). (1986). *Writing across the disciplines: Research into practice*. Upper Montclair, NJ: Boynton/Cook.

Resources related to the Seven Shifts and Seven Levers

I. From a culture of unexamined assumptions to a culture of inquiry and evidence

- Angelo, T. A. & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.). San Francisco: Jossey-Bass.
- Banta, T. W., Lund, J. P., Black, K. E., & Oblander, F. W. (1995). *Assessment in practice: Putting principles to work on college campuses*. San Francisco: Jossey-Bass.
- Gardiner, L. F., Anderson, C. & Cambridge, B. L. (Eds.). (1997). *Learning through assessment: A resource guide for higher education*. Washington, DC: American Association for Higher Education.

II. From a culture of implicitly held individual hopes, preferences, and beliefs to one of explicit, broadly shared goals, criteria and standards

- Brigham, S. E. (1996). Large-scale events: New ways of working across the organization. *Change*, 28 (6), 28-37.
- Stark, J. S., Shaw, K. M., & Lowther, M. A. (1989). *Student goals for college and courses: A missing link in assessing and improving academic achievement*. ASHE-ERIC Higher Education Report No. 6. Washington, DC: Association for the Study of Higher Education.
- Walvoord, B. E. & Anderson, V. (1995). An assessment riddle. *Assessment Update*, 7(6), 8-9, 11.

III. From a teaching culture which ignores what is known about human learning to one which applies relevant knowledge to improve practice

- Boice, R. (1996). *First-order principles for college teachers: Ten basic ways to improve the teaching process*. Bolton, MA: Anker.
- Campbell, W. E. & Smith, K. A. (Eds.). (1997). *New Paradigms for College Teaching*. Edina, MN: Interaction.
- Gardiner, L. F. (1994). *Redesigning higher education: Producing dramatic gains in student learning*. Report No. 7. Washington, DC:

Graduate School of Education and Human Development, The George Washington University.

McKeachie, W. J. et al. (1994). *Teaching tips: Strategies, research, and theory for college and university teachers*, (9th ed.). Lexington, MA: D.C. Heath.

Menges, R. J. & Svinicki, M. D. (Eds.). (1991). *College teaching: From theory to practice*. New Directions for Teaching and Learning, no. 45. San Francisco: Jossey-Bass.

Pascarella, E. T. & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.

IV. From a narrow, exclusive definition of scholarship to a broader, inclusive vision

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Cross, K. P. & Steadman, M. H. (1996). *Classroom research: Implementing the scholarship of teaching*. San Francisco: Jossey-Bass.

Hutchings, P. (Ed.). (1995). *From idea to prototype: The peer review of teaching, a project workbook*. Washington, DC: American Association for Higher Education.

Rice, R. E. (1996). *Making a place for the new American scholar*. (Inquiry #1, Working Paper Series.). Washington, DC: American Association for Higher Education.

V. From a culture that tends to ignore costs to one that attempts to realistically account for direct, deferred, and opportunity costs of various types

Guskin, A. (1994). Reducing student costs and enhancing student learning, parts I and II. *Change*, 26 (4), 22-29 and 26 (5), 16-25.

Johnstone, D. B. (1993). Enhancing the productivity of learning. *AAHE Bulletin*, 46 (4), 3-8.

Plater, W. M. (1995). Future work: Faculty time in the 21st century. *Change*, 27 (3), 22-33.

Zemsky, R. & Massy, W. F. (1995). Toward an understanding of our current predicaments: Expanding perimeters, melting cores, and sticky functions. *Change*, 27 (6), 40-49.

VI. *From a culture that privileges individual struggle for private advantage to one which encourages collaboration for the common good*

Bruffee, K. A. (1993). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore: Johns Hopkins.

Gabelnick, F., MacGregor, J., Matthews, R. S. , & Smith, B. L. (Eds.). (1990). *Learning communities: Creating connections among students, faculty and disciplines*. New Directions for Teaching and Learning, no. 41. San Francisco: Jossey-Bass.

Goodsell Love, A., Maher, M., & Tinto, V. (1992). *Collaborative learning: A sourcebook for higher education*. University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University.

Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). *Active learning: Cooperation in the college classroom*. Edina, MN: Interaction.

VII. *From a model of higher education as primarily a quantitative, additive process to one that is fundamentally qualitative and transformative*

Barr, R. B. & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change*, 27 (6), 12-25.

Campbell, W. E. & Smith, K. A. (1997). *New paradigms for college teaching*. Edina, MN: Interaction.

Education Commission of the States. (1995). *Making quality count in undergraduate education*. Denver, CO: Author.

Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: The University of Chicago Press.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.

Sorum Brown, J. (1997). On becoming a learning organization. *About Campus*, 1 (6), 5-10.

Tinto, V. (1997). Universities as learning organizations. *About Campus*, 1 (6), 2-4.

Tinto, V., Goodsell Love, A., & Russo, P. (1993). *Building learning communities for new college students*. University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University.