Enhanced Academic Connections -- Deweyan Waste, Ecological Pipelines, and Intellectual Vitality

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All waste is due to isolation. Organization is nothing but getting things into connection with one another, so that they work easily, flexibly, and fully. . . . The great problem . . . on the administrative side is to secure the unity of the whole, in the place of a sequence of more or less unrelated and overlapping parts and thus to reduce the waste arising from friction, reduplication, and transitions that are not properly bridged. . . . From the standpoint of the child, the great waste in the school comes from his inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning at school. [Dewey, 1899, cited in Dworkin, 1959, pp. 71, 76–78]

The primary waste with which Dewey was concerned in this 1899 lecture, in addition to “money or . . . things,” was “that of human life, the life of the children while they are at school, and afterward because of inadequate and perverted preparation” (Dewey, 1899, cited in Dworkin, 1959, pp. 70–71). Countering the academic isolation that produces such intellectual waste, within and among schools and colleges, forms the focus of this chapter.

In this era of tight budgets and competing fiscal interests, our heightened concern with productivity and efficiency aptly draws
our attention to the efficacy of our school-college connections. Schools and colleges connect in many ways: college graduates teach in the schools, high school students graduate and go on to college, curricular and pedagogical changes at times ripple back and forth, both levels may be affected by the same local economy or politics, and so on. In this chapter we focus almost exclusively upon the academic connections between high schools and higher education, and generally emphasize policy affecting the professionals who work in those institutions. The question addressed here brings us back to Dewey: How do we so enhance the school-college academic connections so to as to prevent the wasteful intellectual isolation he described? Eventually, our answer must also address related questions, such as who will shape and control these connections, as well as which values we most wish to promote.

We contend that recent educational policy regarding school-college connections has focused “on the administrative side,” and in particular, concentrated on the academic logistics of moving students from secondary to higher education. This emphasis corresponds with a primary concern for curricular alignment and accountability across the K–16 spectrum, that is, increasing the curricular connections between schools and colleges. While recognizing the need for such concerns, we suggest that schools and colleges connect in ways far more fundamental than curricular credits, admissions procedures, and assessment instruments. In their best moments, schools and colleges connect—via their teachers, professors and students—through a shared “attitude of inquiry,” as Dewey put it, a shared academic enthusiasm for liberated and disciplined thought. Nurturing such intellectual excitement demands breaking the isolation of teachers and faculty in at least two ways: connecting them in conversation with each other as academic colleagues, and supporting their more robust engagement with their own intellectual undertakings. We maintain, therefore, that school-college policy should be driven and evaluated primarily by its effects on intellectual vitality, and we propose a framework in which that might be developed.
After defining these academic connections a bit further, we will present how they have been addressed in two recent policy trends, and then suggest several appropriate policy recommendations, set within a quite preliminary new framework.

**Academic Connections, Potential Isolations**

The academic connections between schools and colleges are myriad and complex. These quite distinct institutional sectors, each with a range of institutions within the sector, do share common ground in a number of areas. Though the most obvious connections occur at the point of transition from school to college—embodied in the processes of graduation, admission, and placement—schools and colleges also “connect” in ways owing to the shared nature of their enterprise. At the risk of oversimplifying, three general goals would seem to define the majority of these school-college academic connections:

- **Alignment**: articulation of academic content and skills—that is, connecting content and expectations across levels of education
- **Accountability**: measures of quality, integrity of academic content, and effectiveness of pedagogy—that is, connecting institutions to students, families, and the public
- **Intellectual vitality**: effectiveness of the shared culture and pursuit of academic inquiry—that is, connecting educators to each other and to those in related fields, within an overall educational pursuit

Much of the attention given to questions of school-college connections by policymakers has addressed the first of these; that is, alignment, spelling out in scope and sequence the skills and knowledge to be learned at various points in a learner’s academic career in given subject areas. Nearly all states and districts attempt to connect the content and expectations across various levels of
schooling, and to some degree, across K–12 to higher education. Such efforts have included curriculum frameworks at the school levels, exit assessments for graduates, and efforts to align graduation requirements with first-year level study at the postsecondary level. Programs offering college-level credit to high school students, such as the Advanced Placement program and dual enrollment schemes, or explicit course requirements for university admission, illustrate two of the more concrete forms of content articulation across school-college boundaries. Publications from universities spelling out their academic expectations for incoming students provide another common example (see, for example, State University of New York, 1995). Many policymakers express the continuing need to improve the alignment of school and college programs in order to increase “learning productivity,” while avoiding course content duplication and gaps by setting clear standards for the “delivery of instruction” in specific content areas and at specific grade levels.

Much attention, and not a little frustration, has also been paid to the second purpose of academic connections, which concerns those efforts to gauge the quality of teaching and learning taking place. Such accountability initiatives in effect attempt to improve the connections between students/public and the institutions that serve them. Measures have included those focusing primarily on student achievement and persistence (for example, reported test scores, graduation rates from high school and college, retention rates at university, college attendance rates, advanced placement and honors courses taken, state-mandated feedback systems) as well as, to a lesser extent, those focusing on teaching standards and teacher professional development standards.³

The third aim of academic connections between schools and colleges concerns the elusive characteristic of intellectual vitality. In terms of observable academic phenomena, this quality is often associated with highly interactive classroom discussions; complex problem-solving activities; creative expression through the arts; deep reflection upon texts or data; or highly analytic or synthetic reasoning, however communicated. Others have expressed the
concept in terms of developed “habits of mind,” though we would add perhaps what Israel Scheffler calls the “cognitive emotions” and “emotions generally in the service of critical inquiry”: rational passions, perceptive feelings, theoretical imagination, the joy of verification and the feeling of surprise (Scheffler, 1991, pp. 3–17). Students in schools and colleges participate in, at some level, an intellectual pursuit, and the characteristics of such pursuits are a potential common ground shared by teachers, students, and faculty, that is, a basis for enhanced school-college connections. Schools and colleges certainly “connect” on this basis now, through the shared (to some degree) culture of academic inquiry. If in no other way, they share an intellectual culture somewhat indirectly through shared human traffic—that is, high school teachers study in colleges, and college students bring with them their academic experiences of the high school.

Overall, however, we find that the isolation of individual teachers, especially at the secondary level, but also within institutions of higher education, presents a particularly challenging obstacle to effective educational improvement because it limits the degree to which intellectual vitality can be developed and sustained. This isolation—colleagues disconnected both from each other and from their disciplines—occurs in many ways: a history professor fails to remain current with the field; a school English teacher stops reading literature; a faculty member never discusses her teaching with colleagues; or a teacher remains isolated from the broader lives of his students and the community in which he teaches. Breaking such isolation will not insure intellectual vitality, but it remains a necessary condition for its development. In the absence of intellectual vitality, a stagnant mental life can plague an institution, frustrating effective self-reflection and improvement. As Elliot Eisner has described the teaching life at the school level: “Teaching, by and large, in both elementary and secondary schools is a lonely activity. . . . Teachers see each other, but seldom in the context of teaching. . . . Despite what seems obvious, we have designed schools both physically and organizationally to restrict the
teacher's access to other professionals. As a result, it is not unusual for teachers to feel that no one really cares about the quality of their work” (Eisner, 1992, pp. 613–14).4

Thus, while intellectual vitality may be difficult to define precisely—an area that others are far more capable of addressing—we do suggest that it can be supported by at least three types of school-college academic efforts, each working to break the isolation of individual teachers and professors:

• Cross-level teacher-faculty programs: Programs that facilitate a flow of ideas and innovations across institutional levels and sectors concerning content and pedagogy support greater vitality in academic inquiry. Examples of such programs would include school-college subject matter projects, teacher-faculty institutes such as at Yale–New Haven, Internet links across school and college classrooms, Advanced Placement development committees, readings and workshops, etc. (Breaking the isolation of teachers from each other within a single school seems also to contribute significantly to improvements in student achievement; see Newmann and Wehlage, 1995; Newmann, 1994; Bryk and Driscoll, 1988; Lee, Smith, and Croninger, 1995.)

• Community linkages: Joint school-college linkages to the local community issues and public life, especially in terms of local problem solving or addressing local concerns, provide another support to intellectual vitality. Examples include the science class in which students understand and address local ecological problems, the art class's involvement in the local art community, a public policy course involved in the resolution of a local housing crisis, or students in various disciplines involved in local schools (such as the University of Pennsylvania's WEPIC project). Promising school-to-career initiatives can build close relationships among teachers, business representatives, and postsecondary faculty, and break an isolation that often fosters outdated approaches.

• Programmatic disjunctures: One “linkage,” if you will, that can serve intellectual vitality is the absence of too-smooth a linkage
across levels of academic work, confronting students with intellectual choices potentially productive of personal development. Thus, for example, the process of choosing postsecondary study, or even whether to pursue postsecondary study, can be terribly significant in the personal development of individual students in a way that the transition from tenth to eleventh year may not be. Well-structured and with proper guidance, the disjuncture between schooling and higher education can result in greater intellectual vitality resulting from those choices that force questions of personal identity, academic interest, autonomy, etc. In turn, the teacher/professor connects in a very vital way to the student's life, and reaffirms his connection to the noble purposes shared by educators across levels.

Pursuing all three goals of school-college academic connections—alignment, accountability, and intellectual vitality—often creates tensions and trade-offs among priorities, and recent policies have shown a tendency to favor the first, and to some degree the second. The third goal, in which school reform and accountability aims appear most convergent, rarely seems to enter serious policy discussion. How best to adjust policy so as to support all three types of academic connections, and thus minimize Deweyan “waste,” is the challenge before us. Our responses to issues of policy control and authority, it is suggested as well, may need to differ depending upon the category of academic connections we wish to advance most.

A brief analysis of two recent policy trends, viewed in light of these three goals for school-college connections, may suggest some useful lessons as we proceed toward a revitalized policy framework.

**Policy Trend Number 1:**
**School-College as Educational Pipeline**

One strongly policy-oriented discussion concerns how school-college academic connections might best promote higher academic standards and greater public accountability. Among many possible
answers, one prominent approach suggests that higher education should align itself more directly with the "standards movement" and the outcomes-based education proposed for K–12. In this approach, the "standards-based" reform of K–12 should be moved "up" into higher education, primarily by setting "competency-based" admissions policies aligned to national standards. Advocates urge a seamless K–16 educational reform as the only way to sustain K–12 reform, believing that students and their parents will not take standards seriously unless colleges and universities require evidence of them in the admissions process and demand them in courses. In turn, postsecondary faculty will need to change their pedagogy, align their curriculum to emerging national standards, and assess the "value added" by their educational enterprise. (For commentary on implications for higher education, see Stewart, 1995.)

Given the fierce competition for limited state funds, higher education must be able to demonstrate such "value added" if it hopes to retain substantial levels of support. Finally, unless higher education dramatically changes the way it prepares those who will end up teaching in the schools, creative K–12 curricular reforms will simply "implode," as teachers will tend to teach as they themselves were taught, leaving creative interactive pedagogies a permanently marginal practice.

In order to pursue greater alignment and accountability, many policymakers have begun to view, and ultimately therefore to attempt to manage, the compulsory and collegiate levels of education as one continuum, through which students move as they gain skills and competencies. A seamless K–16 or pipeline approach in one of its most comprehensive forms would advocate an alignment of secondary and higher education curricula, the subsequent usage of high school exit competency assessments for admission to university, and the use of college graduate exit exams in order to assess the performance of institutions of higher education. 5 "Waste," or inefficiency, results from clumsy linkages among institutions, no unifying vision, and lack of incentives for good teaching and learning.
This pipeline approach draws from some of the recent literature on "systemic" school reform, though it often does not do justice to the more thoughtful advocates of this approach (see, for example, Smith and O'Day, 1990; Fuhrman, 1993; Elmore and Fuhrman, 1994). From the vantage point of state governments, pipeline policies hope to affect all schools and colleges through common curricular frameworks, linked performance assessments, and an alignment of state educational policies across the K–16 continuum. In theory, local sites would retain considerable autonomy, at least in terms of how they choose to adapt to mandated entrance and exit exams and, at the K–12 level, state-developed curricula or competencies. Pipeline advocates often draw from the "systemic" literature the need for a "coherent" centralized educational vision and a supportive state-constructed infrastructure, especially in terms of new assessments, along with an emphasis on curricular frameworks. (Given high student demand and tight education budgets, for example, remediation and course content duplication warrant immediate correction.)

As pipeline policies tend to serve primarily the goals of alignment and accountability, the goal of intellectual vitality seems less effectively supported, while less subtle accountability measures tend to take the forefront, much to the frustration of many educators. This results also from the pipeline emphasis on the immediate problem of transferring students from one institution to another—a messy process that needs to be reengineered into a more seamless series of transactions among interlocking service providers. Curricular efficiency becomes paramount; curriculum alignments and accountability assessments, the common currency of the continuum; and an orderly and efficacious skills development process, the prize.  

Yet, in sum, this approach represents a useful evolution of state participation in school/college improvement. On a policy level, the pipeline approach has brought welcome attention to the overall vision we have for our children's education. It shifts our focus usefully to the specifics of academic performance, and to the difficult,
but essential task of defining our educational goals more clearly. A few states have taken seriously the need to develop a state-supported infrastructure more useful to improving classroom practices; the embarrassing lack of professional development time and resources for teachers may yet be addressed. The emphasis on academic competencies has encouraged promising developmental work in new assessments; state commitment to developing new assessments can spur commercial and nonprofit research and development in these areas. For all of these reasons, and as much as we will argue for the limits of this pipeline vision in addressing intellectual vitality, we must not ignore its significant contributions to other goals. To do so risks repeating education’s tendency for policy patricide today as we lurch toward tomorrow’s policy panacea.

On a historical note, the pipeline approach reflects a deeply held American proclivity, one which policymakers ignore at their peril. From carving out an inhabited wilderness 350 years ago to building a school system for the burgeoning urban masses at the start of this century, Americans have prized practical efficiency in education, a cool pragmatism, increasingly accompanied by the fair handmaiden of science. School-college connections emphasizing curricular content alignment and new assessment technologies often echo these themes. During the first decades of this century, many early school bureaucrats, whom historian David Tyack has called the “administrative progressives,” saw the uniform curriculum, poorly trained teachers, dull recitation methods, and the undifferentiated structure as “rigid, unscientific, wasteful, and inhumane.” Admiring imitators of a rising business class, they became “evangelists for new educational goals of science and social efficiency. They . . . wanted a one-best system but it was to be a more complex, differentiated organization adapted to new social and economic conditions” (Tyack, 1974, p. 188). Supportive of the pedagogical innovators who advocated the “project method” or “activity curriculum,” they sought to individualize instruction, to meet the different needs of different children more humanely, and to prepare them efficiently for their likely work after school. Then
as now, tough social conditions, a dramatically changing international economy and a large influx of the children of immigrants demanded that the school system adapt efficiently.

The pipeline approach tends best to develop school-college academic connections that build greater content/skill articulation (number 1), and to some degree address issues of instructional quality and content integrity (number 2). However, the academic connections that promote intellectual vitality (number 3), especially those that support the intellectual dialogue among teachers and professors, tend to be less well served for a number of reasons.

One reason may be that for many educators, there is something alienating about the pipeline emphasis on alignment and accountability, which seems to detract from its effectiveness as a basis for encouraging intellectual performance and collaboration. Ever since the “experts” prescribed “efficient” approaches like the Lancasterian system—with, contrary to much caricature, some of the best of motivations at heart—some have found the efficiency emphasis a bit debilitating. They questioned what seemed an overly mechanical sense of education, a too rational and too centrally run approach, as an indication of a certain spiritual dryness and narrowness. Better to stay isolated behind closed classroom doors until this, too, passes. Was it not a caricature of life, created by our modern scientific culture, where confidence in the person had been replaced by confidence in a system, the cool delivery of a new product called curriculum, the seamless placement of human capital into the national production system? Schooling’s aims seemed to shrink like a noose around the enterprise, just as access to it increased; the rhetoric followed, and classroom teachers found policy chatter a dull, lifeless description of what they thought they were about.

In addition, setting academic standards for content and competencies, to the degree that the standards are seen as set remotely from particular academic communities, appears to be in tension with the intellectual vitality that such a policy means to promote. This may not be an unhealthy nor completely avoidable tension,
but policy must recognize and address it. Intelligent humans can differ greatly over the intellectual ends or even means they prize, and yet each can engage in academic pursuits of equal vitality. Intellectual acuity and wisdom do not seem to increase as one moves from school site to district to state; frameworks could conceivably be generated in many different localities, without loss of quality. Indeed there is something about locally generated objectives that promise greater meaning and more enduring effectiveness, especially as common measures of academic quality are developed.

A further cultural constraint to the pipeline approach, indeed even to its goal of administrative efficiency, is the fact that the school-college transition functions as a coming-of-age ritual for many American adolescents. The school-college transition cannot be isolated from its wider cultural significance. If properly tapped, such a personal passage can be a wellspring of intellectual growth, a decision to develop academically and personally in a given direction based on a broad inspection of one’s life goals. This echoes a deep chord in American culture, for the school-college transition is emblematic of this society’s persistent and periodic efforts at cultural revival, social reconstruction, and civic reawakening (McLoughlin, 1978). Higher education does not represent simply an extension of high school content to more difficult competency levels, a movement simply in subject matter scope and sequence; high school is not justified simply as a preparation for postsecondary education. Whether efficient or not, certain disjunctures across these sectors may in fact promote greater intellectual vitality, particularly at the postsecondary level, as young adults are forced to make explicit certain fundamental decisions about their lives.

The school and academy represent quite different sets of purposes and carry out different roles within this republic. As a consequence—one with educational implications—the personal transition across these sectors carries with it the cultural emphasis on self-development and maturation as growing autonomy. From a heavily mandated curriculum, one elects to associate with a given
academic community based on shared interests, on qualities of mind sought and trained. In moving from compulsory to voluntary schooling, one shifts from democracy’s workshop to its more fluid intellectual plaza. From the still local high school to the more cosmopolitan university, one glimpses firsthand the rich cultural and intellectual diversity of this land. Though we may not always tap its potential, the school-college transition nevertheless reflects the profound desire of a transplanted people to cultivate themselves in a land of shallow roots. The transition embodies both personal and public renewal. Whether a Russian Jew at New York’s City College early this century or a Dominican immigrant at Miami-Dade Community College today, Americans still believe in a future that is, at least partially, self-construction; the school-college connection must be so structured as to tap the intellectual vitality of this culturally laden disjuncture. For it is within this transition process and its imposed rites of self-definition and self-renewal that we determine our own educational ends, collectively shaping what Lawrence Cremin called “the American paideia” (Cremin, 1988, p. ix). As much as Americans prize the social efficiency noted above, they—including the teachers and professors—also seem to value deeply this academic disjuncture as reflective of a rite of personal development in a highly individualistic culture.

Policy Trend Number 2: Enhancing the Immediate School-College Transition

A second policy trend over the last decade, not entirely separated from the first, attempts in some ways to answer this trade-off between respecting different institutional missions and the logistical needs for efficient student transitions. As such, it must be recognized as another quite promising development in education for quite different reasons than the evolving pipeline policies. This second trend echoes the innovative efforts of what historian Tyack refers to as the “pedagogical progressives” throughout this century (Tyack, 1974).
Some school reformers—enthused by the promise of more interactive pedagogies, performance assessments, student portfolios, and greater school site autonomy—express the fear that current admissions processes will frustrate their reform efforts. School reform has been developing numerous models of K–12 schooling, whereas higher education often seems unaware and unaccommodating. Admissions offices, claim these reformers, too often mechanically calculate a student’s educational opportunity based on credit total, course titles, seat time, test scores, class rank, and GPAs. Thus, some school reformers want admissions officers to recognize and deal with the alternative curricula, at times distinctive to their school community, that they have developed in an effort to be creatively responsive to student needs. They want colleges to handle more comprehensive pictures of students than numbers can suggest, and accommodate the innovative and diverse experimentation characteristic of many alternative and progressive schools. If colleges fail to accommodate the schools, legitimate parental anxieties will put the lid on percolating reforms. Experiment all you wish, just do not disadvantage my child’s chance of admission to State U!

Here is a dilemma well worth debating: how can institutional articulation be made to accommodate the distinct missions of varied institutions in disparate contexts, encouraging richly diverse and intellectually rigorous academic communities rather than fostering a bland gray homogeneity across schools? The challenge involves real interests, veritable dilemmas, and honest differences. Member associations like the College Board have been involved in this for nearly a century; the SAT itself, designed not to dictate secondary school curriculum, originated in part as a means of accommodating the diverse secondary curricula that arose during the Progressive era in public schooling (Valentine, 1987).

Here is also a conversation that can be productively resolved in diverse ways.10 Several emerging technologies should help support the articulation between increasingly varied schools and equally
diverse colleges. For example, various electronic college application networks and World Wide Web sites, both of postsecondary institutions and educational services groups, offer those students who have access extensive information regarding possible postsecondary options, funding sources, and application logistics. Other innovations include computer adaptive testing, for both admissions and placement purposes; “dynamic assessments,” instruments that assess student ability to learn through a task; instruments able to evaluate a student’s ability to generate alternative explanations; the digitized portfolio; open-ended tasks and simulations; and instruments linking student performance to specific guidance resources.

Several university system efforts to accommodate diverse school improvement efforts are also under way in Wisconsin, Colorado, Oregon, and California. Wisconsin’s effort, which builds in a research component comparing traditional and nontraditional admissions protocols, offers an example of the kind of measured accommodation universities are beginning to develop. The Transition Project in California, Oregon’s PASS Project, and a growing collaboration between the College Board and the Coalition of Essential Schools represent just a few of the many state, regional, and national efforts to adjust college admissions procedures to alternative school models.11 The efforts have only recently begun, and few generalizations can be made yet. However, each promises to lend additional experience and data to the emergence of a more accommodating articulation infrastructure.

We have, then, the potential in the emerging technologies and collaborations to build a variegated articulation infrastructure able to handle the increasing diversity of educational institutions and students. This may allow us—and here is its great promise—to minimize the trade-offs between school-college policies that enhance articulation and accountability with those that support greater intellectual vitality. But to do so may require a policy framework better able to encourage intellectually rigorous, intrinsically humane, and locally adaptive institutions.
Advancing All Three Goals—Some Initial Premises

Building from the two recent policy trends just described, upon what premises might policymakers construct a renewed framework for school-college policies in order to advance all three goals—alignment, accountability, and intellectual vitality? We postulate the following minimum premises for such a framework:

Encourage Teaching/Learning Qualities Directly, Let Institutional Articulation Follow

Whereas policy must address institutional linkages per se in such matters as credit policies and admissions requirements, policymakers must directly seek to assess and encourage the teaching/learning qualities they value. Teachers and faculty must be engaged directly in this process as agents of change, or we risk developing more policies that never penetrate the “black box” of the classroom. Getting beyond the classroom door means engaging those who determine most what happens there, teachers and students. Institutional articulation may support such changes but are terribly indirect in affecting the changes.

In addition, an institutional policy focus weakens policy to the degree that educational institutions are evolving ever more rapidly. A “seamless vision” approach will forever be frustrated as both sides of the seam continue to diversify, multiply, and transform themselves in response to their environments and constituencies—even if they continue to carry the familiar labels of school or college. Educators from K–12 through higher education face a series of trends that may reconfigure dramatically the array and nature of institutions we use to educate ourselves; this reconfiguration has been more the norm than the exception in U.S. history (Cremin, 1976, 1988). More ethnically diverse, linguistically challenged, economically disadvantaged, and vocationally oriented students enter our schools and universities each year; nearly 50 percent of postsecondary students are over 25 years of age (Aslanian, 1996).
Virtual higher education expands as national frontiers dissolve. Commercial firms have gone beyond supplying services to schools and colleges; increasingly they are themselves delivering educational services. One for-profit university in the Southwest has tripled its enrollments in five years, and claims to be the nation’s twelfth-largest accredited private university (Stecklow, 1994). High-tech megamergers promise highly capitalized contenders; corporations already spend perhaps $200 billion on education every year (Eurich, 1990, p. 18). With an increasingly diverse student body, evolving and emerging educational institutions, multiple and varied educational transitions, and the unpredictable role of technological innovation in changing the educational experiences, policies guided by a K–16, curriculum-specific and institutionally bound framework will probably be ineffective in affecting the teaching/learning dynamic.

**Curriculum and Assessment Are Useful as Tools, Less So as Reliable Levers**

Policymakers must recognize that institutional culture, taught curricula and assessment practices are the variables we need to affect, not fixed tools for improving schools and colleges. High standards can exist in an endless variety of curricula. To stimulate better curricular quality, stimulate greater professional and organizational capacity, and begin by breaking the intellectual isolations separating teachers and faculty (Darling-Hammond, 1993; O’Day, Goertz, and Floden, 1995). Using new assessments to drive curriculum and instructional reform, on the other hand, can be quite problematic. The contribution of an assessment’s format to a teacher’s pedagogy has perhaps been seriously overstated (Noble and Smith, 1994a, 1994b; Shepard and others, 1995). In addition, if we are to avoid educational hubris, we must recognize that many of our finest educational ambitions for our students may always involve, as Eliott Eisner puts it, “forms of performance for which the pre-definition of outcomes cannot be specified” (Eisner, 1994,
p. 14). Not surprisingly, the drive to establish a “coherent” curriculum or a single set of standards across institutions arises far more from policy and political circles than from teachers and professors.

Finally, too much reform depends on assessments that do not yet exist in reliable or affordable forms. This runs the risk of frustrating the best of school reform by the imposition of poorly-designed, but fiscally-feasible instruments, a tendency already evident. The clear technical constraints, not to mention those more political in nature, are one reason states are refusing to rush into new assessments.13

**Different Levels of Authority May Advance Different Goals**

Though state-level authority may serve alignment and, to some extent, accountability goals, the traditions of local control and institutional autonomy, however they may have shifted over the years, remain strong and vibrant forces affecting policy impact on intellectual vitality. Recent controversies over mandated curricula should reinforce this point to any would-be reformer. Change within educational institutions—in schools, for example, as seen in the efforts of the Coalition of Essential Schools, Levin’s efforts, Comer’s initiatives, TQM-inspired changes, SBM/SDM designs, effective schools—depends in no small part upon each institution setting the outcomes and mission it deems important. Further, as Judith Warren Little has argued, “One test of teachers’ professional development is its capacity to equip teachers individually and collectively to act as shapers, promoters, and well-informed critics of reforms” (Little, 1994, p. 106).

Obviously each school need not reinvent the wheel or isolate itself from other schools’ curricula; student mobility is also a serious concern. Setting local standards demands reference to nonlocal standards for comparison. However, school change literature makes clear that externally determined and mandated content and performance standards do not tend to nurture school reform that is likely to affect classroom practice (Cuban, 1993; Cohen and
Spillane, 1992). At the postsecondary level, it is clear, if only from the recent reactions to mandated efforts, that imposed assessments and curricula will only meet with deeply resentful opposition (Peters, 1994). Many professors would view this as a crude application of school reform methods to the very different world of the academy. In the end, mandates do little to remedy the academic isolations that so debilitate intellectual vitality.

Instead of avoiding controversy by stating only vague curricular goals over a broad range of institutions, we should stimulate a rich variety of purposes and missions, within the shared bounds of a democratic people, and then provide the tools by which students, families, and the public can gauge their success or failure according to the mission the institution set out for itself.

**We Need More Tools!**

Perhaps we will know that we are serious about school reform when attention increases to developing and testing the tools by which teachers, counselors, admissions officers, and professors will actually transform school-college connections. In commercially viable areas such as electronic application networks or some administrative supports, a number of for-profit and nonprofit ventures are actively involved. In the vast majority of areas in which educators need better curricular and assessment support tools, research and development is scarce.

For example, if admissions procedures are to accommodate a greater variety of high school academic programs, such as those not based on Carnegie units or class time, then counselors and admissions officers will need credible instruments establishing "academic currencies" by which to evaluate student abilities, handle different and possibly a much broader range of student data, place accepted nontraditional applicants effectively, and justify nonadmission decisions to anxious families. In other words, we would need to develop and maintain a robust variety of credible academic "currencies" as standards rather than standardizing curriculum into an
interinstitutional “currency.” The fact remains that too few such R&D efforts are underway and fewer are likely to be sustained.

Another category of examples concerns the academic interventions, diagnostic instruments, relational databases or pedagogical tools that will support the achievement of new academic standards in the average classroom. Notwithstanding the considerable professional development that may be necessary, even trained teachers and faculty will require practical, well-tested tools to support these efforts—whether they be in the form of powerful new software programs, classroom strategies targeted toward higher-order thinking skills, or diagnostic instruments linked to pedagogical and counseling resources. These tools, if a product of continuing professional consensus, also serve practically to connect teachers and professors with best practice in the field.

In addition, equity demands that new assessment instruments continue to reflect both specific curricula and those skills developed in a variety of strong curricula, and this requires continued investment. Making college admission solely dependent upon a uniform curriculum or set of subject-specific competencies, while serving alignment goals, will frustrate educational equity. Students from those schools lacking such a curriculum, no matter how competent or self-schooled, will be shut out of educational opportunities. Thus, while subject matter assessments certainly must play an important role, exclusive reliance on them in a seamless curricula-aligned system could have a tremendously adverse impact on the most underserved populations, and limit the ability of this society to develop neglected talents. As testing expert Robert Linn stated concerning the SAT (I), “[It] provides a second chance. . . . For many students, [it] provides an alternate way of demonstrating scholastic ability that may not be reflected in high school grades or in performance on subject-matter achievement tests” (Linn, 1994, p. 30). For this reason, a variety of instruments not directly dependent upon specific curricula continue to require ongoing research and development.
The Ecology of School-College Connections

Based on these premises, we need to construct another framework for school-college policies. Rather than indirectly trying to influence teaching/learning by changing the format of assessments or by changing the curriculum guidelines—both of which may effectively serve alignment and accountability—we propose asking what we want to happen inside the classroom, and what kind of educational ecology is needed to support it.\textsuperscript{15} This organic/ecological framework would start from the qualities of interaction that constitute effective learning experiences, seeking to stimulate rich teaching/learning dynamics across institutions, linked by the principles and practices that underlie such processes.\textsuperscript{16} Primary linkages across academic levels would be based in research-informed principles of the teaching/learning process, and upon shared public pursuit of richer educational ecologies. Curricular alignment across large heterogeneous sectors would become an occasionally useful byproduct rather than a central focus of policy, with student transitions only one of many ways in which schools and colleges connect. Success would not be measured primarily by the “seamlessness” of student transitions, but rather by the quality of the learning stimulated across institutions, the intellectual vitality prodded by various school-college connections.

From a pipeline image, policy primarily links schools to colleges by aligning curricula and assessments. From an ecological image, policy primarily should help students and teachers gauge and stimulate high-quality educational interactions by building a shared language of research-informed principles and best practices, and by meeting needs for institutional articulation through tools tested to reflect these shared principles.

Thus, in addition to constructing a better pipeline across institutions, we also start from inside the classroom and link institutions via the common “biology” of teaching/learning. What is it about the process of teaching and learning that we desire? What is the
<table>
<thead>
<tr>
<th>Sphere of Immediate Practice</th>
<th>the teaching/learning dynamic in which the learner is directly involved</th>
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<tbody>
<tr>
<td>Institutional Sphere</td>
<td>the interaction between sphere one’s dynamic and the institutional environment in which it occurs (school organization and culture)</td>
</tr>
<tr>
<td>External Sphere/Context</td>
<td>the interaction between that institution and the wider context of constituencies, community, policies, and personnel preparation</td>
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</table>

environment, the ecology (in the classroom, in the school, and in the system/community) needed for that process to flourish? Although we would have a healthy respect for natural processes we do not completely understand, we would also need some practical tools for a learning community to distinguish between weeds and roses.

How might we picture such an ecology of school-college connections? For simplicity, we have identified three interlocking concentric spheres that affect a student’s experience. The educational ecology’s core interaction concerns the complex process of teaching/learning itself, which in turn is influenced by its immediate and extended environment. For this discussion, the spheres are described in Figure 7.1 and are contrasted in Figure 7.2 with a pipeline approach.

The qualities of interaction within and across spheres at schools and colleges—for example, the incidence of student analysis in math classrooms, or the degree of a university’s engagement in community problem solving—would form the core focus of educational research, and the resulting research-informed principles would provide the common ground of discussion, the basis for qualitative, educational linkages across institutions and sectors. Evaluations and assessments based on these principles would provide the
basis for credible "currencies"—a shared language of quality for educators and the public—by which largely autonomous institutions with varied missions can be better described and understood within the "marketplace" of educational opportunities. Some exist today, providing level-headed and hard-nosed accountability without stultifying pipeline prescriptions, both as "curriculum-neutral" (in one narrow function, the SAT serves this purpose) assessments and as curricula of recognized quality (for example, Advanced Placement or International Baccalaureate). Much more needs to be done.
Examples of Ecology-Minded School-College Policy

In order to clarify what this means to policy, let us consider the goal of more rigorous academic challenges for students. With a pipeline in mind we might look to the connecting points, and raise graduation and admission requirements. Yet experience tells us that it is difficult to raise them much beyond the median of current practice, and that the net effect tends to be an increase in academic course-taking among lower-achieving students (see note 15). Combined with increased admission requirements at local universities and proper guidance support, the impact increases, with even more students taking more challenging work. Course content might get watered down, but most classroom practices probably will remain unchanged (Porter, 1995; Porter and Associates, 1994).

A more ambitious pipeline notion might inspire a rethinking of requirements themselves, away from seat-time in courses to competencies or performances, as several states have attempted or are attempting. The experience has been educational in itself, and a bit sobering. Competencies too vague become shelf-sitters along with past packets of policy prose. Specific performance standards become targets of bitter controversy, and expensive assessments rarely exist at a defensible stage of development. Issues of whose standards are being imposed inevitably flare. Admissions personnel, although often sympathetic to the reform aims, must themselves seek reliable standards of comparability and efficient placement instruments. Under fiscal constraints, controversy-averse politicians shy away from dramatic curricular or assessment reforms, though some may still propose radical shifts in governance. Those teachers and faculty involved in developing new performance standards often benefit considerably from the professional development opportunity it represents, though they may also represent largely the converted. As the initiatives ebb, so do such opportunities, and most teachers watch the froth of reform disappear onto the vast beach of unaffected classroom practice.

If, on the other hand, we accept the ecology framework, how would we design policy? First, we would set as our primary goal
enhancing the intellectual vitality in school and college classrooms. Second, we would build ongoing school-college collaborations, starting with teachers and faculty, through which to break down intellectual isolations and to construct educationally sound means for gauging the qualities of academic inquiry. Third, after bringing in public and student constituencies, we would refine and disseminate publicly these gauges of intellectual vitality. The public education campaign this would involve would bring accountability pressures to bear as close to the classroom as possible and focus upon the quality of the academic enterprise.

To oversimplify, we would need to address two sets of factors: those that build academic connections that in turn build capacity for more engaging teaching practices (to professionalize standards-building) and those that bring accountability pressures more directly to bear on what happens in classrooms (to "localize" incentives for improvement).

**Breaking Academic Isolutions, Gauging Intellectual Vitality**

First, we must invest in teachers and faculty. In order to increase an institution's capacity for improving classroom practices, teachers need joint planning time (at least at K–12 and some initial post-secondary levels), responsive professional development opportunities, and collaborative networks of peer faculty and institutions. Professional standard-building networks promote both improvement and accountability while breaking the deadly isolation of too many who teach in closed rooms. These needs are well known and documented.

In addition, however, teachers and professors need cooperatively to develop "currencies" of academic standards—gauges of academic quality, curriculum- and noncurriculum-specific, that are credible to diverse institutions—including minimum standards of pedagogy.¹⁸ Such standards must be openly and broadly developed and subject to consistent review. They may be multiple, reflecting distinctive categories of educational mission. They must also be enforced by colleagues through mechanisms such as accreditation.
review teams and peer classroom observations. We realize that this causes shudders in many of our colleagues. We recognize further that some of our best teachers seem most distant from the realms of teacher associations and professional jargon.

Yet however idiosyncratic successful teaching and classrooms can be, we all implicitly recognize practices that should not be allowed, and could probably agree upon 70 to 80 percent of the attributes of a classroom with effective student engagement. As educators we must find a way to say this to each other, and to represent this to the public so that they will be better equipped to reject poor practices. Current experimentation with classroom applications of cognitive psychology’s recent insights suggest sources for possible higher-end standards of practice as well. Efforts such as the QUASAR initiative, David Perkins’s and Howard Gardner’s various projects (Project Zero, for example), and work done under the McDonnell Foundation’s Cognitive Studies for Educational Practice (CSEP) offer exciting school-college collaborations centered upon each sector’s contribution to advancing research-informed principles of practice (Buer, 1993a, 1993b; Gardner, 1981; Gardner and Boix-Mansilla, 1994; Perkins, 1992; Druckman and Bjork, 1994). The existence of “classroom” standards will greatly assist educators in peer-review processes, as well as in representing improvements in teaching to a skeptical public.19

**Breaking Academic Isolations: Recommendation**

Here we offer a specific example of an “ecological” policy approach to breaking academic isolations, one that also begins to build consensual norms of practice for intellectually vital classrooms, using accreditation/quality review teams.

Rather than move mandated monitoring from secondary schools to the academy, policymakers should consider ways of bringing a revitalized and publicly credible accreditation/peer review process to K–12. Given the increased and desired variety of K–12 institutions, and the recognized need for greater site auton-
omy, such an approach may represent a natural evolution in accountability design. A comprehensive system, with visiting teams composed of K–12, higher education, and community leaders, would also promote both formal and informal academic connections among faculty and teachers, while providing a valuable professional development opportunity.²⁰

Higher education might in turn learn valuable lessons, given K–12’s greater public exposure. For example, higher education must develop better means for appropriate public disclosure of visiting team reports, as one way of building an external sphere that more effectively stimulates good practices. K–12/postsecondary quality review teams might provide useful experiences for the regional accreditation bodies.

Students, families, and the tax-paying public have a legitimate right to demand quality. Yet, academic freedom, institutional autonomy, and bonafide expertise legitimately restrict the degree to which that right should impinge on faculty decisions about what and how they teach. A balance must be sought. Standards of professional practice must be developed to buttress an ecological approach that insures academic freedom and institutional diversity; if not, approaches focused almost solely upon alignment and accountability will continue to attract support.

Real Accountability for Intellectual Vitality

As teachers and faculty are provided with resources for professional development and collaboration, accountability must move from indirect measures of the teaching/learning process via tests of achievement on remotely determined curricula to more immediate pressures for teachers and students to pursue rigorous intellectual activities. In other words, a teacher’s environment must encourage, or even prod, what by professional consensus are good teaching practices. Given the political context and culture of American schooling, the most effective route may be to educate parents and other citizens—in terms of specific, research-informed
“currencies”—about the qualities that should apply to teaching and learning in their schools and colleges. In shifting from pipeline to ecology, accountability shifts from common curriculum and assessments to common currencies of academic quality and well-informed participants across the school-college continuum. A better-informed community can serve as a powerful impetus to improvement, one likely actually to affect practices, but a concerted educational effort must be made to do this. More nuanced institutional profiles or school report cards may provide one important tool; “educational impact statements” from policymakers regarding their decisions would be another. This is where public schooling’s effectiveness depends upon successful education of the public.

Here is a terribly useful if less glamorous role for state education agencies. Might not federal or state agencies, in collaboration with professional associations, consider experimenting with creative, direct, and sustained informational efforts aimed at parents and the public? Actual tasks that students at different levels should be able to perform, teacher practices shown to be ineffective, and parental activities linked to student success might be included. Might such an effort, sustained over several years, not be more likely than one-shot exams to create consistent pressures close enough to actual classrooms to nudge appropriate changes? Or might they at least spark the kind of local conversations that might clarify institutional purposes?

**Accountability for Intellectual Vitality: Recommendations**

To encourage “localized” accountability pressures, we suggest the following:

- *Educational truth-in-labeling.* If institutions are to defend (and at K–12, increase) their autonomy and academic freedom, and if distant political authority is not to thwart sustained intellectual vitality, then educators must bring about a consensus-driven mechanism for proper disclosure of institutional information, one that meets the common interests of all stakeholders.
Students need far better information regarding any educational institution they are about to enter. Requiring—yes, requiring—educational institutions at all levels to present prospective students and their families a standard list of characteristics or indices, in a common format, to be determined largely within the education community, could go a long way in furthering the education of students regarding the institutions they attend. Such an educationally sensitive market-linked arrangement would contribute toward a more dynamic and locally sensitive accountability scheme. Emerging experiences with school report cards and, perhaps to a significantly lesser extent, higher education feedback systems, might offer some guidelines.

In addition, we recommend regular public information or public education campaigns concerning educational innovations and measures. Schools and colleges need to cooperate in a broader public education effort regarding their successes and challenges. Not only do we lack basic data in education, we often lack a public informed—and less often enthused—about current innovations and directions. Some research suggests that fairly dramatic changes, such as to assessment instruments, may be better received if the public gains greater familiarity (Shepard and Bleim, 1995). Even a wider and more public-friendly dissemination of basic findings regarding the effects of contextual factors on student achievement (for example, from the National Assessment of Educational Progress discussing studies at home, amount of TV watching) could perform a terribly useful public service.

- Assessment of accountability for public ends. We cannot avoid assessing educational institutions at all levels, though particularly at compulsory stages, in terms of the public goals we set for them; that is, the academic connections schools and colleges should both make to the public good. Here the external sphere of the democratic community must be addressed. Does School/College X further the democratic development of its community, or is its faculty isolated from the intellectual challenges current problems pose? We may need to restate explicitly the public aims of schools and colleges.
We suggest schools and colleges can be made accountable, in a way consistent with increasing intellectual vitality, through local problem solving. Schools and colleges should join with other local educational agencies in the resolution of local concerns. The University of Pennsylvania leads an interesting movement in this direction with university-assisted community schooling. Higher and secondary education must seize a leadership role in the resolution of the social problems plaguing our society. Otherwise, lacking community within and vibrant relations to the wider community, the promise of campus-based improvement, indeed institutional autonomy itself, may be threatened; the wider ecology will simply not sustain a lifeform isolated in its midst.

An organic model thus attempts to exploit the vitality of local autonomy and academic freedom, allowing creative excellence and reflective practice to gain priority over efficiency and control. Our goal is not to create a systemic change per se—we have no one “system” in mind—but to stimulate the capacity to improve intellectual vitality, to gauge its quality, and to help its participants insist upon professional integrity. The intellect needs friends, and policy should be one.

Conclusion

We have no wish simply to change policy rhetoric. We must instead evolve to a richer school-college policy premise, one more aligned with heterogeneity, local control, and institutional autonomy. The ecology framework suggests a more nuanced and measured approach to improving what actually happens in classrooms, anchored in what we know and need to know about teaching and learning, and structured to break the wasteful isolations within and among our educational institutions.

Much of the experience in current academic improvement efforts suggests that we reorient policy explicitly toward teachers, faculty, and intellectual vitality. Both common sense and recent research indicate that the variables “most important to learning
outcomes were those that were directly tied to students’ engagement with the material to be learned” (Wang, Haertel, and Walberg, 1990, p. 37; Wang, Haertel, and Walberg, 1995). Much of “systemic” or pipeline style reforms fail to focus on such nonstructural elements critical to the student’s intellectual engagement, such as teacher knowledge, classroom roles, “teachers’ opportunities to learn,” “external normative structures for practice,” or teacher/faculty incentives (Cohen and Spillane, 1992; Elmore, 1996). The history of school reform suggests that we need a much greater effort to “enlist and honor teachers as the key people in reforming schooling” (Tyack, 1995, p. 211). Research based on an ecological model should facilitate such changes as it gauges policies’ effects upon the central teaching/learning dynamic in measurable ways and seeks to enhance those school-college connections most productive of intellectual vitality.

Much more research and development are needed; we have barely begun what we need to do as a profession if intellectual vitality is ever to be taken as seriously as alignment and accountability as an explicit policy goal for schools and colleges. We must admit the degree to which we do not know what effects policy actions have on classroom practices. Our lack of data, particularly longitudinal, concerning the kinds of interactions taking place in classrooms is disheartening; we cannot claim to make them our top priority if we are not willing to rectify that gap. Few other professions or industries would operate under such a lack of basic information and development work. Here is a legitimate role for government support, assisting educators in their efforts to gauge systemic changes without imposing a system externally.

Once we decide to support the core interaction of teaching, we are forced to ask difficult questions about which intelligent citizens can disagree: for example, what qualities we want for that interaction, what outcomes we want in terms of the institution’s core practices, what means will best gauge our progress and shortcomings, and which “we” will be empowered to answer these concerns. That may be a far more difficult set of questions to answer than which
biology text should be bought or which admissions process be implemented.

A shift to an ecological framework also forces us to address questions of purpose and mission, questions research alone cannot decide for us. Schools and colleges do not exist simply as transmitters of curriculum decided elsewhere; they are living communities of humans who must decide what matters for children, and how to implement those decisions. They need better tools and support in order to be able to do so in an effective and accountable way. In all such vital areas, governments should support changes determined by institutions and communities rather than direct changes they will simply follow or creatively subvert. As much as policymakers and even educators express frustration at often laborious and contentious local decision making, getting around school boards, teachers, and faculty accomplishes little save alienation. Providing the tools and resources for better local decision making and accountability, coupled with support for the professional infrastructure required, comprises government’s most useful contribution. Accountability and alignment can then become allies of academic improvement and intellectual vitality.

Schools and colleges link most fundamentally not at their exit and entrance points, but in their shared core pursuit of ideas and queries, in enlarging hearts and minds. For in the end, schools and colleges are neither joints in a pipeline nor verdant ecologies; they are the people who inhabit them. We suggest that how we envision their shared pursuit of intellectual vitality matters, and can help shape policies that either inhibit or nurture the success of their core enterprise. If we view and talk about these academic connections in ways truer to their daily complexities, we may actually break a few stifling isolations, and transition young minds across new intellectual portals.

It is . . . as true in the school as in the university that the spirit of inquiry can be got only through and with the attitude of inquiry. The pupil must learn what has meaning, what enlarges his horizon,
instead of mere trivialities. He must become acquainted with truths, instead of things that were regarded as such fifty years ago, or that are taken as interesting by the misunderstanding of a partially educated teacher. It is difficult to see how these ends can be reached except as the most advanced part of the educational system is in complete interaction with the most rudimentary. [Dewey, 1899, cited in Dworkin, 1959, p. 80]

Notes

1. For a recent survey of school-college collaborations, see Carriuolo (1995); this essay builds in part from Stewart (1995), a chapter in that survey.

2. We will use “college” simply as shorthand to mean any post-secondary institution. We also wish to recognize at the outset that academic connections represent a subset of the various educational connections linking schools and colleges, and an even smaller subset of the educational connections affecting individual student lives.

3. Some examples of measures focusing on teaching standards and teacher professional development standards include peer teacher review projects; evaluation of explicit teacher performance criteria; continuing teacher education requirements and mandatory teacher testing; work of the National Board for Professional Teaching Standards; the PRAXIS series of the Educational Testing Service; postsecondary evaluation efforts, such as those tracked and developed by the National Center on Postsecondary Teaching, Learning and Assessment.

4. That teacher isolation is a recurring obstacle can be seen in Ella Flagg Young’s 1901 dissertation, “Isolation in the Schools.” Young, a veteran of the Chicago school system, was a strong teacher advocate and an important collaborator with John Dewey (see Lagemann, 1996).

5. We do not pretend to capture the wide variety of meanings often ascribed to seamless reform as it appears in the literature,
and limit our discussion to the prominent but ultimately flawed notion we identify here. In fact, we argue that the pipeline approach fails to capture much of the richness of the literature on “systemic” reform, as well as other descriptions of comprehensive school/college reform efforts. For a sense of the variety of meanings and origins to seamless notions, see, for example, Dolan (1994), Fitzsimmons and Peters (1994), Mitchell (1992), Lara and Mitchell (1986), Wiggins (1991), Haycock (1994), Speaker’s Blue Ribbon Commission on Career/Technical Education (1992), Gagnon (1993).

6. One of the most recent definitions of “systemic reform” is an approach to policy that seeks “meaningful reforms in schools” through “state initiatives that set clear and ambitious learning goals and standards, align all of the available policy levers in support of reform, stimulate school-level initiatives, and mobilize human and fiscal resources to support these changes” (“Reforming Science, Mathematics, and Technology Education,” 1995, p. 3).

7. This pipeline view, still popular among many policymakers, also accompanies a tendency, not new to our era, to speak the language of economic rationalism in education. Education is viewed increasingly as a private consumer good, one more service in a service-saturated society. The ultimate success of the pipeline vision is an unimpeded flow of human capital along a seamless continuum of interchangeable educational delivery systems. For an interesting vision of an “unbundled” higher education as a set of service providers, see Armajani, Heydinger, and Hutchinson (1994).

8. On the Lancasterian system, see Reigart (1969), Kaestle (1973). It is interesting to note, and we should not overlook, the strong argument for Lancaster’s approach on the grounds of increasing educational opportunity. Pipeline approaches, to the degree that they draw on such systemic reform literature that we have cited, also arise from strong concerns for equitable educational opportunity.
9. As the school board president of Middletown wryly put it in the 1920s: "For a long time all boys were trained to be President. Then for a while we trained them all to be professional men. Now we are training boys to get jobs" (Lynd and Lynd, 1929, cited in Lazerson, 1987, p. 198). Or as Brown University President Vartan Gregorian more recently asked, "Have we simply come to value education for what it will give us and not what it will make of us?" (quoted in Moyers, 1989, p. 185).

10. For an account of a recent colloquium addressing the implications of K–12 school reform for the admissions process co-sponsored by American College Testing and the College Board, for members of the Association of Chief Admissions Officers of Public Universities, see American College Testing and College Entrance Examination Board (1994).

11. Further information on The Transitions Project is available from Pacific Educational Group, 542 Emerson Street, Palo Alto, CA 94301; on PASS, see "Frequently Asked Questions" and "Admissions Standards: Content and Process Areas Proficiencies and Indicators," both available from the Oregon State System of Higher Education, Office of Academic Affairs, P.O. Box 3175, Eugene, OR 97403–0175; for information on the College Board/CES collaboration, contact Robert Solomon or Mike Johanek at The College Board, 45 Columbus Ave., New York, NY 10023.

12. Two examples:

   Open University, see http://cszx.open.ac.uk/zx/; Western Virtual University, see http://www.westgov.org/smart/vu/vu.html.

13. Vermont's experience has only been one example of the promising, but as yet still quite limited, state of enriched assessments. Few states have worked to sustain such local-level support through the inevitable challenges of so ambitious a reform effort. See, among others, Koretz, Stecher, Klein, and McCaffrey (1994); Koretz and others (1994); Klein (1994); Koretz, Stecher, and Debert (1992); Bond, Friedman, and van der Ploog (1994); Bond and Roeber (1995); Lawrence (1996).
14. This is not to be confused with simply raising requirements, whether at the high school or college admissions level, which can have substantial effects, if by nature primarily at lower competency levels. The preferred approach would appear to be a combination of coordinated increases, supported by professional development for faculty involved in teaching to new standards. See Clune (1989); Clune and White (1992); Massell, Fuhrman, and Associates (1994); Clune and others (1991).

15. We have chosen ecology and organic to recognize the need to treat the teaching/learning act as one intimately woven into and shaped by the environment in which it operates. We are aware also of two historical roots, namely the discussions in urban sociology (especially via the University of Chicago’s Park and Burgess, but also New York University’s early educational sociology), and discussions among settlement houses early in this century.

16. In contrast, the pipeline vision, pivoting along an institutional axis, seeks to better coordinate and control linkages across conceptually static institutions via presumed outcomes. For all of their apparent allure of accountability, pipeline policies ultimately fail to hold schools accountable for the quality of their core enterprise, that is, the teaching/learning process. Outcomes assessments are an essential but terribly indirect and inefficient way to make schools accountable for the central process to which they are dedicated.

17. “Report on the College Preparatory Initiative,” presented to the Board of Trustees, City University of New York; my thanks to vice chancellor Elsa Nunez-Wormack and her staff for their assistance. See also Newman (1995).

18. Though we do not share the misguided faith that leads some to try to make a natural science of teaching, we do recognize that guidelines informed by research and experience can help institutions to target their improvement efforts and to evaluate policies in truly educational terms. As simply one example, see

19. Similar standards need to be developed for institutional and external spheres as well, based on how practices there affect teaching/learning. Decisions regarding school organization and system policies, for example, should be evaluated on the basis of their impact on the teaching/learning process. We do not start from scratch here. In higher education, Alexander Astin's work, AAHE's various forums and initiatives, and the Harvard Assessment Seminars provide a variety of directions for building institutional sphere standards (Banta and Associates, 1993). In K–12, recent work on how changes in school structure affect student achievement suggests further fruitful research (Bryk, Lee, and Holland, 1993; Bryk and Driscoll, 1988; Lee and Croninger, 1996; Bryk, Lee, and Smith, 1993). In the external sphere, work on teacher networks across institutions or concerning institutes such as at Yale–New Haven indicates the potential such collaborative links can have in enhancing teacher repertoires, confidence, and reflective practices. Clearly research on the nonschool activities of students provides another contribution to understanding how educators might focus their energies for greatest impact, and how parents might be best advised (Carnegie Corporation of New York, 1992; Carnegie Council on Adolescent Development, 1989; “The Class of 2000,” 1994; Wright and Huston, 1995; Wright and Carr, 1995; Grissmer, Kirby, and Berends, 1994; Steinberg, 1996). The need for greater school-community articulation, as well as increased links among the varied educational institutions serving a single community, focused upon particular intellectual goals for sphere one, demands even greater attention. (For historical references, see Lawrence, 1944.) Educational research should contribute to a clearer public understanding of the degree to which various public policy decisions affect consensus teaching/learning goals.
20. Learning from English School Inspection seems advisable; see, for example, Wilson (1996).

21. It is interesting to note, for example, that while states were raising graduation requirements throughout the 1980s, many schools responded to more local concerns. The most common changes reported at the high school level between 1983 and 1988 were stricter attendance policies, "pass to play" rules, and stricter conduct codes. See Policy Information Center (1990, pp. 10–11.)

22. There are a number of interesting efforts in this direction, some building consensus for indicators and others setting our common principles of practice. In addition to drafts of new accreditation standards, see, for example, Community Colleges (1994); Ewell and others (1994). See also the work of the Southern Regional Education Board (1991, 1992, 1995) and Jaeger and others (1995a, 1995b); Jaeger, Johnson, and Gorney (1995). For a number of states that have put into place or are putting into place various styles of "feedback" systems, see Flanagan (1992).

23. Recent studies from the Public Agenda Foundation provide some intriguing results; see, for example, Farkas (1992, 1993); Farkas and Johnson (1996); Johnson (1995); Harvey and Immerwahr (1995a, 1995b); Harvey and Associates (1995).

24. As the ETS report Learning by Degrees indicates, there is a great deal we do not know about academic performance in the U.S.; this has not often hindered prescriptions (Barton and Lapointe, 1994). As a critic of reform hype added recently, "We need to learn that mass advocacy should follow, not precede, the careful development and large-scale testing of techniques" (Pogrow, 1996).

References


Pogrow, S. "Reforming the Wannabe Reformers." Phi Delta Kappan, June 1996, p. 11.


