A Note on Education Quality Work

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Our research at the National Center for Postsecondary Improvement (NCPI) indicates that while the quality of undergraduate education in the United States remains good by traditional standards, it could be significantly better. Colleges and universities need to improve their processes for assuring and continuously improving educational quality.

In our view, making "education quality work" (EQW) a major priority for professors, institutions, and oversight bodies represents the best strategy for change. EQW has become a term of art in a number of countries, where it is used to distinguish between higher education quality assurance and improvement and the processes associated with the actual delivery of teaching and learning. The United States lags these countries in the implementation of EQW.

Vision

Because education quality work may appear abstract at first sight, we shall begin by presenting four scenarios that illustrate EQW in action. Scenarios like these provide a vision of what can be attained. The gap between vision and reality underscores the need for change.

> *Quality as Fitness for Use.* Faculty work teams systematically to research the needs of their students—the ones actually enrolled in their institution and major, not some hypothetical or ideal student. Among other things, the research addresses student preparation, learning styles, and employment prospects. The teams regularly seek data from outside the institution as well as from inside. They analyze the data carefully, then incorporate their findings in the design of curricula, learning processes, and assessment methods.
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> *Assessing Value Added*.. Faculty teams develop, use, and continuously improve their processes for student assessment. They find ways to assess performance on a battery of important variables at student entry, periodically during the college career, and just before graduation (or, if feasible, prior to exit short of graduation). The teams use the resultant value added data as feedback to improve teaching and learning performance. Regular public reporting improves accountability, consumer choice, and market efficiency.

Benchmarking Best Practice. Faculty teams, departments, schools, and institutions actively benchmark curricula, learning processes, assessment methods, and value added. They work continuously to move performance toward applicable best practice. For example, deans insist that lagging departments adopt best practice from elsewhere in the institution. They encourage all departments to seek out and adopt external best practice wherever it can be found.

Rewards and Investments. Departments, schools, and institutions oversee and reward education quality work at both the individual and group levels. Quality work competes effectively with traditional research in faculty salary, promotion, and tenure decisions. Budgeting processes take quality work into account in order to provide incentives and invest incremental funds where they will produce the best quality. Oversight methods are improvement oriented but include an element of accountability— e.g., "trust, but check."

Definition

We define "education quality work" (EQW) as the activities of faculty, academic leaders, and oversight bodies that are aimed at *improving* and *assuring quality*. It applies modern quality principles in ways that are consistent with academic values.
EQW focuses on *performance feedback* and the *organizational processes* needed to act on the feedback. EQW should not be confused with teaching and learning itself. It is the "feedback and control system" that guides teaching and learning. EQW must begin at the departmental level, since working academics are the only ones who can assure and improve quality, but it also includes oversight by schools, institutions, and external agencies. Student assessment is a key element of EQW. Institutions and external oversight bodies should ensure that departments use student assessments to spur continuous quality improvement, and that meaningful assessment data are made available to the public. The oversight should be improvement rather than compliance oriented but it should maintain an element of accountability—as the Swedish higher education quality assurance agency puts it, "trust but check."

General Description

Education quality work begins with the academic activities of faculty—for example, in program or department-level teams charged with improving the curriculum, finding better ways to teach and learn, and assessing learning outcomes. It continues at the school and institutional levels, where committees or quality councils support and on occasion evaluate department-level quality work. External bodies may contribute to quality work by stimulating and evaluating institutional efforts. We shall call this "quality oversight" to distinguish it from the quality work that takes place within institutions, but quality oversight should be included in higher education's overall EQW agenda.

EQW represents a significant departure from higher education's traditional quality model. The traditional model focuses mainly on content: what should be taught, not how it should be taught and learned and how learning should be assessed. Professors, institutions, and the market have bought into the proposition that extensive faculty research is a necessary *and sufficient* condition for high-quality education. Research may benefit educational quality, but it is not sufficient. In fact, research and education are substitutes at the margin because more time spent on research means less attention to EQW. Too much attention to research can actually reduce educational quality—except, perhaps, for the small percentage of students who are preparing for an academic career.

The traditional model also shortchanges assessment and other aspects of quality assurance. Teaching evaluations are based mainly on student questionnaires and anecdotal evidence. Accountability is weak and remote. For example, professors are reluctant to judge their peers, reviews occur mainly in connection with promotion and tenure, and administrative interventions are usually limited to crisis situations. Most professors view quality as an individual matter. They see shortfalls as isolated personal failures, not system failures that need to be corrected. Absent evidence to the contrary, they assume everyone is doing a good job. Unfortunately, not all departments do the best job possible given the time and resources at their disposal. Within broad limits, performance variations produce greater effects on learning outcomes than do variations in the student-faculty ratio.

EQW facilitates accountability without micromanagement or loss of academic autonomy. Evaluating educational quality requires detailed and potentially intrusive reviews of curricula and the quality of teaching as actually delivered in the classroom. To be fair and effective, the review criteria should be tailored to academic discipline and institutional mission. The reviews must rely heavily on self-studies because site visit teams cannot dig deeply enough to identify all the important areas needing improvement during a short visit. Education quality work, on the other hand, can be evaluated using criteria that are broadly similar across institutions and disciplines. While self-studies can be helpful to the institutions and the accreditors, exemplary or problematic EQW can be identified directly through interviews.

Excellence in EQW requires a high degree of collegiality and professionalism, and also the balancing of priorities for teaching and research. Such excellence requires that professors work together rather than as individuals and that they devote substantial time to, for example, explicating educational goals, enhancing teaching and learning processes, and implementing performance measurement schemes. Our research shows that few universities' quality work programs are sufficiently well organized and systematic to maximize the benefits for educational quality. Likewise, few quality oversight programs focus on quality work to the extent needed to change institutional and faculty behavior.

EQW will absorb faculty time, some of which will come from traditional research and scholarship. However, good management coupled with the current strong incentives for research will safeguard the nation's research prowess. The effort needed to mount a state of the art EQW program appears small relative to that currently devoted to research. In fact, shifting the emphasis of some institutions and faculty probably would improve average performance in both education and research.

Effective EQW cannot guarantee educational excellence, but a growing body of evidence indicates that it is in fact a necessary condition. For example, well-qualified and dedicated faculty working according to good processes will produce better educational outcomes than counterparts who are inhibited by poor processes. We often remind ourselves that educational excellence cannot be achieved without sufficient numbers of qualified faculty supported by adequate resources. Effective EQW should be added to the list.

Domains

One way to understand EQW is to explore the areas or domains in which it is applied. Our research indicates that EQW spans five broad domains of faculty activity.

(a) *Design of curricula*. What will be taught, in what order, and from what perspective? (This is the traditional model's main area of concentration.)

(b) *Design of teaching and learning processes*. What teaching methods will be used? How will students learn? Who will be responsible for each step in the process?

(c) *Design of assessment measures*. How will student learning be assessed? How will its long-term outcomes be determined?

(d) *Implementation quality assurance and improvement*. How will faculty and other responsible parties implement the designs and work to improve their performance?

(e) *Communication of exemplary practice*. Is the institution or higher education system a "learning organization" with respect to EQW? Does it have effective programs for benchmarking and diffusing exemplary practice across academic units?

Traditional academic quality processes address item (a) by requiring committee approval for courses and to some extent for course content, but the approvals are mostly discipline oriented and rarely involve deep analysis. Individual professors sometimes

address item (b) but, because they usually work in isolation, wide-ranging innovation and organizational learning lag. Item (c) rarely extends beyond traditional grading processes. Item (d) is mostly limited to student course evaluation surveys, which are imperfect and tend to be heavily discounted except in extreme cases. Item (e) rarely gets the attention needed to make quality work a high priority and the institution a learning organization.

Essential Features

The literature (which treats service suppliers as well as manufacturers, and nonprofit as well as profit-making organizations), identifies seven features as being essential for effective quality work. The seven define EQW's core concepts. Our research indicates that they apply to all kinds of colleges and universities. We invite our readers to ask whether one could seriously argue against them as a matter of principle.

1. *Define educational quality in terms of outcomes.* Shift from a teaching to a learning emphasis. Learning outcomes should be judged in relation to student needs, not in terms of tradition or strictly discipline-based criteria. Quality definitions should emphasize value added by the educational process and avoid confounding with the talent and preparation of incoming students.

2. *Focus on the process of teaching and learning.* Education represents transformation, and transformation requires process. Process design is important, and so is the effectiveness of implementation. Changed circumstances often require process adaptation, which may trigger significant redesign.

3. *Strive for coherence in curricula and educational process.* View education as an end-to-end process, and make sure the parts interconnect seamlessly. Avoid the tendency to treat one's own part of the process as if it were a self-contained "silo."

4. *Work collaboratively to achieve mutual involvement and support.* Collaboration applies a broad range of skills and experience to difficult problems, and organized teamwork provides impetus for collaboration. Teamwork also implies collective accountability and encourages peers to hold each other accountable for individual performance.

5. *Base decisions on facts wherever possible.* Invest time and effort in the collection and analysis of data—for example, on student needs and learning outcomes—and then organize to use it well. Document the assumptions and logic behind decisions when evidence is not available.

6. *Strive to emulate exemplary practice.* Identify and benchmark such practices both inside and outside the institution, then adapt these practices to local circumstances.

7. *Make quality work a high priority.* The quality principles should be applied self-consciously and systematically to maximize organizational learning and embed good processes in organizational routines. Participants should strive for continuous improvement no matter how good their current performance.

The list of features can help quality workers organize their thoughts and identify opportunities for improvement. The concepts are sufficiently specific to inform the development of meaningful EQW standards, yet sufficiently general to avoid infringing on institutional and departmental autonomy.

Relation to Scholarship

Ernest Boyer's *Scholarship Reconsidered* identified four distinct types of scholarship: the scholarship of inquiry (traditional research), the scholarship of integration, the scholarship of application (now known as the scholarship of engagement), and the scholarship of teaching. The book and its sequel, *Scholarship Assessed*, generated great interest but also some confusion about the scholarship of teaching. Recent work by Lee Shulman and his colleagues at the Carnegie Foundation for the Advancement of Teaching has clarified matters. Scholarship-based teaching is different from the scholarship of teaching. All scholarship, including the scholarship of teaching, must produce generalizable results that advance the field and can be reviewed by peers. Good teaching depends on all four kinds of scholarship, but it is not scholarship.
The same can be said about EQW. All kinds of scholarship can contribute to its five domains. The scholarship of teaching, with its emphasis on learning processes and outcomes measurement, is particularly relevant. The scholarship of teaching includes inquiry into EQW and how to improve it, but quality work itself is not scholarship. We hope that, over time, a market for "EQW scholarship" (i.e., generalizable propositions about quality work) would arise to provide external rewards akin to those from research.

The relation between EQW and scholarship has important implications for faculty reward and incentive systems. Generalizable peer reviewed inquiry into quality work should be recognized as scholarship as noted above. However, EQW itself should not be evaluated according to traditional scholarly criteria. EQW contributes to the stock of institution-specific intellectual capital, not the generalized intellectual capital recognized as scholarship. Insisting on scholarly criteria would kill EQW in its infancy. Faculty should be rewarded for the value that EQW provides for the institution and its students, according to the criteria discussed herein.

Examples

We are compiling an inventory of examples to illustrate the concepts and the relevance of EQW. A brief sampling follows. Each activity is in regular use by exemplary higher education entities with which we are familiar.

- *Stakeholder surveys:* mail, telephone, or focus group interviews with employers or alumni. Stakeholders can provide information relevant to all five quality work domains. The surveys help define educational outcomes (principle 1) and further fact-based decision making (principle 5). They can fruitfully be incorporated into any level of quality work, but they probably are most useful when conducted regularly at the department or program level.

- *Value-added performance indicators:* assessment measures for learning outcomes (domain 3). Such indicators may take the form of criterion-referenced tests, skill assessments, or unobtrusive observations of learner behavior. They are best developed and used at the departmental or program level, where they help define educational quality in terms of outcomes (principle 1), highlight educational coherence (principle 3), and further fact-based decision making (principle 5). School and institutional quality work, and educational quality oversight, should stimulate and support local performance indicator development rather than supplant local with central measures.

- *Peer evaluation of teaching:* systematic involvement of professors in the mutual evaluation and improvement of teaching (principles 2, 3, and 5). Professors observe each other's teaching and collaborate to improve both individual and systemic performance. They view shortfalls as symptoms of systemic failures that need to be corrected, not simply as isolated events that can be blamed on individuals.

- *Benchmarking programs:* systematic identification and evaluation of educational provision and quality work in other departments and institutions, followed by efforts to adapt their best features to local conditions. Benchmarking focuses attention on exemplary practice (principle 6) and applies to all five quality work domains.

- *Faculty teams with cross-disciplinary charters:* working parties that are empowered to design and implement change with a minimum of outside interference, subject to ex-post accountability. (Teams should be distinguished from committees, which typically determine policy or regulate the work of others.) Collaborative work teams (principle 4) can be used effectively in all five quality work domains. Cross-disciplinary teamwork also improves coherence (principle 3).

Organizing for Change

Quality work requires strong leadership and a supportive rewards and incentive system. Presidents, provosts, deans and other academic leaders need to put quality work at the core of their visions and strategic plans, and support it vigorously with both words and actions. The faculty incentive and reward system should celebrate and reinforce education quality work, and never subordinate it to other objectives. (Research incentives will coexist in some institutions, but they should not eclipse the incentives for education quality work.)

Our research has identified a number of conditions and actions that can help improve EQW. A partial list follows.

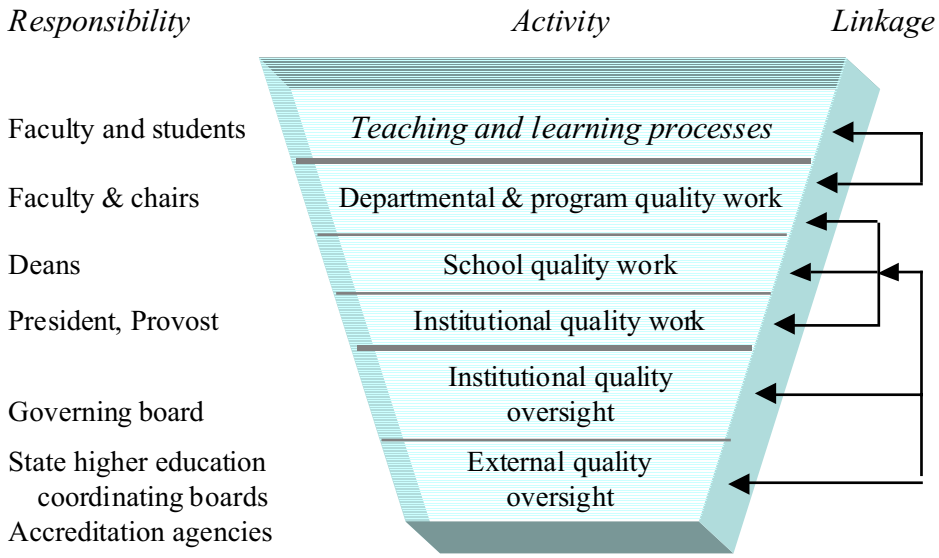
- clearly assigned responsibility for quality work at every level
- organized venues, sometimes called quality councils, to focus attention and discourse on quality work
- human resource development at all levels, including the instruction of doctoral students, with respect to quality work principles and practices
- internal advocacy and consulting centers for education quality work
- short-term project funds for high-leverage quality work improvement
- positive linkages between quality work and on-going budget-making criteria
- periodic audits of quality work performance

Audits may be performed by external agencies as part of quality oversight, by the institutions themselves as part of their quality work, or both. Audits performed by institutions may benefit from external inputs—for example, the inclusion of visitors from other institutions or from industry.

The Quality System

Education quality work takes place at a number of different levels inside and outside the institution. The "pyramid" shown in Figure 1 depicts the elements and interactions that make up what we are coming to call the higher education quality system.

Figure 1. The Higher Education Quality System



The pyramid contains three major regions. *Quality work* within the institution sits in the middle, *teaching and learning processes* at the top, and *quality oversight,* at the bottom. By inverting the pyramid and flattening its bottom, the graphic calls out that EQW provides the foundation for teaching and learning quality. Putting the teaching and learning processes at the top and in larger type emphasizes that they represent the quality system's reason for being.

Quality work takes place mainly at the department and program level, where it interacts strongly with the processes that deliver teaching and learning. This interaction can be viewed as "hands-on" because quality delivery and local quality work involve substantially the same people. Such close interaction is essential because teaching and learning are so complex and vary so much among departments, programs, and institutions. Effective quality work requires more than professionalism—it requires a change of culture. To borrow the phrase coined by our colleague Frans van Vught, an authority on European quality processes, EQW should "engage the academic heart" in a passionate quest for improvement.

Local quality work combines feedback with problem solving. Gaps between performance and expectations should stimulate a search for better processes, and good performance should boost expectations. In other words, EQW should produce a self-reinforcing cycle of rising aspirations and performance.

School and institution-level EQW support and stimulate departmental and program level work. Providing leadership, resources, incentives, information, training, and interdepartmental venues for discourse on quality work provide examples of school and institution-wide activities. Such activities also should include periodic evaluation of work at the grass roots, to ensure accountability and provide impetus for improvement.

Quality oversight is designed to energize institutional EQW and assure its effectiveness. Oversight begins with the institution's governing board. By establishing the quality work agenda and monitoring progress, boards can stimulate improvement without micro-management. Audits by state higher education coordinating boards and accreditation agencies can do the same. By focusing on quality work, institutions and oversight bodies can discharge their accountability obligations without resorting to disruptive assessment practices or intrusive regulation.

Evaluation Methods

Worldwide interest in "academic quality evaluation" has been growing for more than a decade. The term includes "assessment," which means the evaluation of teaching quality, learning quality, or both. It also includes "audit," which means the evaluation of quality work. Research evaluations are important as well, but they fall outside our current scope.

Outcome assessments are critical elements of quality work because they provide the feedback needed for improvement. While professors often complain that assessment methodologies are too primitive, context-specific, or costly to be useful, such concerns apply more to externally mandated assessment vehicles than to those operated hands-on by departmental and program faculty. We believe that outcome assessment should be required as part of departmental EQW but that centralization of assessment methods and criteria should be discouraged.

Audits of EQW, on the other hand, can work well at any level of the quality system. Audits are not difficult and need not be costly or intrusive. Our research indicates that they can combine improvement and accountability objectives to an extent not possible with assessment. Refinement of the quality work concept will make audit even more effective. Looking at quality work systemically will improve both evaluation and performance in a self-reinforcing way.

Martin Trow offers the fourfold typology for quality evaluation shown on the left side of Figure 2. He argues that supportive reviews initiated by institutions (Type I) will produce the greatest improvements in teaching and learning. Conversely, externally driven evaluative reviews (Type IV) produce little academic value and may lead to evasive strategies.

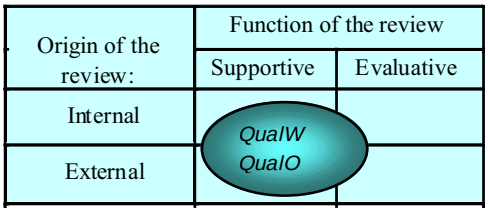
Figure 2. Quality Evaluation

Fourfold Typology

Origin of the review:	Function of the review	
	Supportive	Evaluative
Internal	I	II
External	III	IV

Martin Trow, *Academic Reviews and the Culture of Excellence* (Stockholm: Kanslersämbetet, 1994), p.21.

Quality System



William Massy and Andrea Wilger, NCPI Project 6 emergent conclusion

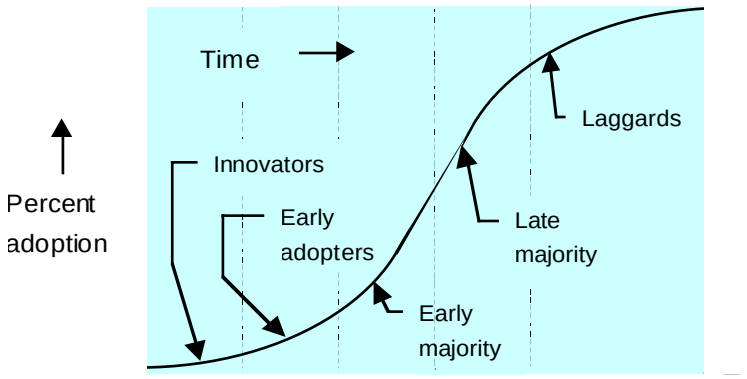
The right side of the Figure depicts our conclusion that a good quality system intersects all four quadrants of Trow's typology. The shaded oval represents the quality work (*QualW*) and quality oversight (*QualO*) elements of the quality system. The system is mainly internal and supportive, but it contains external and evaluative elements as well. Internal quality work is designed to produce improvement. However, quality shortfalls that are not mitigated in a reasonable period of time will elicit an evaluative response with appropriate consequences—hopefully within the department but at the decanal or institutional level if necessary. (Exemplary quality should produce positive consequences.) Bodies outside the institution's internal governance apparatus perform quality oversight. Such oversight should be mostly supportive but retain the capacity for evaluation and action when necessary.

The Adoption Cycle

Acceptance of EQW won't take place overnight. Even under optimal conditions, it may take years to refine the concepts and methods, build expertise, and change the academic culture. People who seek a quick fix will be disappointed. The adoption of innovations usually starts slowly and then accelerates once a critical mass of successful experience has been achieved. We should not expect the adoption of EQW to behave differently. Figure 3 presents the so-called "s-curve of adoption"—the classic diffusion curve for innovations—together with the category names usually associated with successive adopter groups. The *innovators*, which represent a few percent of the population of eventual adopters, are more likely to seek out and experiment with new ideas than people who adopt later. Usually they are part of informal information networks that include other innovators. The *early adopters*, the next 15 percent or so, may be moved to adopt once the innovators have perfected the innovation and demonstrated its benefits.

Typically they are more tightly connected to others in the field, and they often are viewed as opinion leaders. Members of the *early majority,* roughly the next third of the population, display less leadership than the early adopters but they are open to new ideas and tend to be respected by their peers. The late majority are the 33 percent of people who adopt after half the population has already done so. They are the followers, either through conservatism or because their attention was focused elsewhere during the earlier adoption stages. The last 15 percent or so, the laggards, resist adopting the innovation despite its advantages and the risk of becoming isolated from the population mainstream.

Figure 3. The Diffusion of Innovations



Adapted from Everett M. Rogers, *Diffusion of Innovations* (New York: Free Press, 1964), p. 61

The EQW adoption curve can be applied to a country's higher education system as a whole, to the departments and programs within a particular university, or to individual professors. Our research indicates that EQW has become well established at the innovation stage, but it appears that only a few countries, universities, and departments have progressed further.

Quality systems always will need an element of oversight, but in steady-state conditions such oversight will be of lesser importance than the quality work itself. But because EQW remains at an early stage of diffusion, quality oversight is especially important now. Effective oversight can stimulate diffusion, although crude accountability exercises may well do the opposite. Some critics have urged that quality oversight should be deferred until EQW has become better established within institutions. We believe this would be unwise. Well-designed quality oversight processes can safely precede the widespread adoption of EQW and they can accelerate its diffusion