Expert-Driven Assessment:
Making It Meaningful

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Many scholars have spoken of the increasing public accountability demands on institutions of higher education. No one has been more articulate in describing the challenges that higher education encounters in trying to discuss quality education than Peter Ewell. Ewell cautions institutions to pay attention to the accountability demands from state and federal governments but to do so in a manner that informs both the institution and government of meaningful and genuine indicators of quality education.\textsuperscript{1–3}

The many proposals for monitoring quality education brought forward by legislative bodies across the country appear to represent a “watering down” of educational principles because those proposals do not consist of meaningful quality indicators. In addition, the proposals often do not allow for the expertise of faculty and the reality of varying institutional values and resources to be expressed within the indicators. For example, a first-year retention rate (often a factor in the quality education discussion) does not tell much about the genuine quality of the learning that takes place at an institution. Statistically, a first-year retention rate may reveal the academic preparedness of the incoming first-year class or possibly the students’ economic soundness. You might even responsibly infer the extent to which those students have become engaged in the institution, which could facilitate sound judgments about education quality.\textsuperscript{4} If, however, a community college’s first-year retention rate is 67 percent, a private four-year liberal arts college’s is 96 percent, and a large research extensive university’s is 86 percent, what do you know about those students’ ability to reason quantitatively, to communicate orally, or to transfer their technological literacy skills? You guessed it: you learn almost nothing about whether those kinds of learning are taking place.

If indicators do not reveal anything meaningful about learning, why are they used? For the purpose of this bulletin, suffice it to say that they are used because we can capture the information relatively easily. In an effort to be accountable for millions of taxpayer dollars, we try to find a way to let the public know that we are spending their money well. Indicators such as retention rates, graduation rates, student-to-faculty ratios, and percentage of alumni giving have emerged as measures of higher education performance for many reasons, not the least of which is that the data can be readily gathered and merged into statistical equations that result in quality rankings and funding-formula calculations.

The result of some such calculations has distorted conversations about quality, causing many institutions to seek similar types of students and become similar types of institutions, all in an effort to meet the definition of a “quality” institution. As a nation, we need different types of institutions to serve different types of students with varying types of goals. It is impossible to meaningfully compare graduation rates for an institution that educates adult single parents to become more effective managers with graduation rates of a research extensive university where 60 percent of the student body leaves on a two-year religious mission or with those of a private liberal arts college whose students do not typically work more than 20 hours per week and who are most likely to earn their bachelor’s degrees in four years.
The challenge of finding meaningful higher education quality indicators is further exacerbated by a higher education model that dates back to the mid- to late-1800s. This is not to imply that higher education in the United States is based on a poor model but simply that we have been doing what we are doing for centuries. Change, particularly in the delivery of higher education, comes slowly. This is further aggravated by the belief among some faculty and higher education administrators that people outside the academy have no business telling us how to do our work. Therefore, when government officials began asking us to demonstrate how we knew that what we said we were accomplishing was actually happening, we turned up our noses and felt certain they would eventually grow tired and go away.

Obviously, they haven’t, and now we are faced with growing pressures to produce evidence of student learning, while faculty grow increasingly and understandably frustrated that their discipline expertise is underappreciated or, worse, unrecognized. How, then, do we

- report meaningfully on student learning and development?
- “roll up” details about individual student learning so that constituents can understand the quantity and quality of learning that is occurring?
- inform decisions at a higher level while maintaining faculty autonomy and investment in teaching and learning?

This bulletin illustrates how to harness technology to make evaluating student learning and development meaningful to both the expert measuring the intended result and the decision maker trying to inform policy. In particular, the bulletin discusses how technology can assist with mapping student learning to values that are meaningful to instructors; specialists; and institutional, state, and federal administrators. Through technological mapping of values—articulated as intended outcomes—and gathering of meaningful data that can be linked to higher administrative-level standards and used to inform decisions and recommendations for continuous improvement, expert-driven assessment can inform significant decision making, including state and national policies.

**Highlights of Expert-Driven Assessment**

There are many definitions of assessment. The following assessment overview is taken from an in-press piece I coauthored with Zelna and Anderson.

Often, the definition of assessment is found in the motivation for doing assessment. In other words, if you want to engage in assessment to improve your programs, you will see the desire to improve embedded in how you practice assessment, and those reasons will be woven into campus conversations. If you are occupied with assessment to meet accreditation standards only, then assessment may be very compliance-driven and thus less inclusive of those who are delivering the student learning. Marchese defined assessment as “the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and
development.”

Mentkowski explained that “assessment is a set of processes designed to improve, demonstrate, and inquire about student learning.”

Palomba and Banta wrote that the “the overriding purpose of assessment is to understand how educational programs are working and to determine whether they are contributing to student growth and development.” Huba and Freed defined assessment as “the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning.” These definitions emphasize gathering information about a program to improve that program while improving student learning.

Another definition of assessment, adapted from the North Carolina State University’s Committee on Undergraduate Program Review’s guidelines, relates to implementing a systematic, ongoing process to answer the following questions:

- What are we trying to do and why?
- What is my program supposed to accomplish?
- How well are we accomplishing our stated goals? How do we know?
- How do we use the information gathered to improve or celebrate successes?
- Do those improvements work?

With this operational definition, which frames the discussion in this bulletin, assessment becomes embedded in the day-to-day work of faculty members and administrators. The questions require them to reflect on what they believe they are accomplishing. They must ask why their program exists and what it intends to achieve.

Figure 1 represents a diagram of this systematic assessment process.
Assessment can cover a variety of purposes and benefits, including the following:

- Reinforce or emphasize the mission of your unit
- Modify, shape, and improve programs and/or performance
- Critique a program's quality or value compared to the program's previously defined principles
- Inform planning and decision making
- Inform policy discussions at the local, state, regional, and national levels
- Evaluate programs, not personnel
- Aid in procuring additional funds from the university and external community
- Assist in resource reallocation
- Assist in meeting accreditation requirements, models of best practices, and national benchmarks
- Manage expectations
• Celebrate successes
• Reflect on the attitudes and approaches to improving teaching, learning, and development
• Create a culture of continuous improvement—a culture of accountability, of learning, and of improvement

Most importantly, assessment must be:

• **Meaningful**—must be useful to faculty and co-curricular specialists (experts) in articulating the outcomes and gathering the evidence. These experts must have ownership in determining what they are evaluating and how it is being evaluated.

• **Manageable**—must consider the varying resources of the institution or program engaged in the process, including financial resources committed to the process, the institution’s assessment expertise, and faculty and co-curricular specialists’ time.

• **Flexible**—must account for institutional culture and the learning curves of people involved with implementation. Through assessment, those involved will learn more about what they value and about the degree to which their actions impact student learning. They will learn that some activities are not as effective as they had thought, and they will need time to make changes. Often, this means that reporting and data gathering schedules get off track. Delayed schedules do not necessarily imply that people are trying to avoid improvement—they are simply part of the improvement process.

• **Trustworthy**—must be characterized as truth-seeking/objective/ethical. You can only improve a program if you gather data that will lead to an honest assessment of whether the program is doing what you believe it is doing.

• **Accountable**—must inform decisions for continuous improvement or provide evidence that what you believed was being learned is, after all, being learned.

• **Influential**—must help institute a culture of accountability, learning, and improvement at the institution.

When these attributes are observed, assessment is meaningful and can be used to inform decisions based on the expert evaluation of student learning.

**Potential Pitfalls of Outcomes Assessment**

Given the many purposes of assessment, why don’t more institutions use it? It is primarily because the process in which they engage produces meaningless results. Assessment is not meaningful when

• It is implemented as if it is the goal, rather than a process to improve student learning and development. In other words, if you are engaging in assessment just for the sake of having some accountability process, then the process...
becomes the focal point rather than the improvement of student learning and development.

- It is approached with a one-size-fits-all mentality. Every institution has its own culture and therefore goes about its business differently. Thus, it is very challenging for institutions to share the same values and standards.

- It is implemented apart from those facilitating the learning. Sometimes, accountability measures are imposed on those who are responsible for the student learning. While the measures may make sense to those doing the imposing, they have little value and/or meaning to those in the classroom.

- The results are not understood or are too cumbersome to review. As Hanson stated, reporting assessment data in a manner that is understood by all program constituents is an art. Faculty and co-curricular constituents often need assistance in presenting results in ways that decision makers and constituents understand.

- The values of the decision makers differ from those of the faculty and co-curricular specialists. When you allow faculty and co-curricular specialists to evaluate student learning, they might invest in teaching and learning that does not map to the outcomes that high-level decision makers value. The solution might simply be better management of expectations. If high-level decision makers can understand, through specific examples, the types of learning that are occurring in various programs, they might conclude that the problem is not one of mismatched values but one of misplaced expectations.

Making Outcomes Assessment Meaningful

How can faculty maintain the autonomy they require to perform well, yet provide the level of accountability needed by high-level decision makers? First and foremost, assessment has to be about improving student learning and development or about improving a program. If assessment is about improving student learning, then the student learner is the focus of the evidence gathering rather than the organization or individual who needs the accountability measures.

Second, those facilitating the learning must influence the articulation of learning outcomes and therefore must be able to gather the evidence to measure their stated outcomes. This is the faculty-driven assessment model that has proven effective at institutions including Alverno College, University of Central Florida, Indiana University– Purdue University Indianapolis, North Carolina State University, and Isothermal Community College.

Third, there must be ways to “roll up” the various student learning evidence—from one student to all the students within a course, to the program, department, division or college, university, trustees, legislature, and finally to the federal government. Without this roll-up capability, the meaningful information collected by faculty and used to make decisions for continuous improvement is lost to the higher-level decision maker.
Fourth, for this learning to be rolled up and understood, electronic means must be in place to document and report the evidence. In addition, the electronic means must be user friendly and easy to access throughout the student’s academic career. While this process can be documented on paper, the ability to collate and represent findings from several students, across disciplines and institutions, becomes increasingly cumbersome and unmanageable. Web-based data storage and retrieval processes are essential.

Fifth, high-level decision makers need data rolled up into easy-to-understand “talking points” and numbers. Often pressed for time, these individuals typically respond to quick performance indicators such as retention and graduation rates. Most indicators used for funding formulas and quality determinations are in the form of numbers. Translating aggregated data into numbers enables legislators to switch from performance indicators to scores that are rich in meaning—scores that explain the meaning behind the performance indicators. It is important, though, to ensure that decision makers understand the depth of the learning data that went into the easy-to-understand talking points and numerical scores so they can understand how to improve student learning and the resources that may be required to improve that learning.

Finally, the data gathered, which articulates learning values of faculty and co-curricular specialists, must relate to the educational values and reporting expectations of high-level decision makers. A crosswalk of these values must be constructed so that the electronic reporting system can be built with these relationships in mind.

The Technology of Expert-Driven Data Collection

Why build technology to collect expert-driven assessment data? Some reasons include:

- Documenting decisions made from assessment can be a major stumbling block because it can be very time consuming. Documenting outcomes, methods, results, and decisions can and should be an annual process that informs meaningful decision making. Database-management tools and data-mining tools provide faculty with time-saving techniques. Faculty enter information as they gather it, and it is stored such that data-mining tools can retrieve it in ways that can serve a number of constituents’ needs across time.

- Feeding expert-driven learning outcomes and decisions through organizational bureaucracy to influence funding and policy decisions requires coordinated reporting of meaningful assessment.

- Transforming an organization into a learning institution requires that experts communicate what they learned from their assessment.

- Documenting assessment findings promotes reflection about the student-learning and development-evaluation processes. If documentation fails or is done in a manner that findings are not easily accessible, the reflection process is undermined. Electronically storing and retrieving findings and decisions made encourages meaningful reflection.
Harnessing existing evidence and resources requires communication across divisional lines.

Understanding expert-driven, discipline-specific values to inform institutional common-outcomes conversation can be done more effectively if the expert-driven values can be mapped to institutional values. This mapping is cumbersome if not done within the relational database where findings of outcomes are stored.

In designing an electronic assessment-management and reporting system, institutions must focus on the goals of the system. It should

- document the process of assessment, allowing faculty and co-curricular specialists to evaluate where programs or institutions need to improve education and support.
- pull in evidence that faculty have gathered and document the decisions made about how to improve student learning and the evaluation process.
- identify common outcomes across disciplines and divisions.
- provide the opportunity to share ideas and examples of best practices of assessment within the institution.
- present meaningful and manageable ways to document evidence gathered and decisions made to improve student learning.
- facilitate the use of assessment results for a number of purposes (for example, improve student learning, budgeting, or policy discussions).
- promote reflection among the students, faculty, and administrators on how assessment improves student learning and programs.
- facilitate the documentation of individual student learning, as well as the rolling-up of the individual student learning to the program and institutional level.
- facilitate the sharing of student learning evidenced in electronic portfolios across discipline and division outcomes.

In order for all these needs to be met, the electronic system should consist of several Web-based modules.

- A student portfolio that is “owned” by the student and can serve not only as a reflective learning tool for the student but also as a portal for evidence of the student’s learning and development by each outcome articulated. Access to this portal can be granted to all those who have a need to access evidence of the student’s learning by each outcome.
- An outcomes-assessment process and database-management system allows for storage and retrieval of individual student learning and development by course, program, college, institutional, and system outcomes, as well as by
regional and federal quality indicators. In this system, students can link their educational outcomes and values with those identified in courses, programs, and institutions. In so doing, the data gathered to demonstrate individual student learning in a course can also be evaluated holistically to determine whether outcomes for programs and institutions are being met. This system allows courses to link to outcomes articulated by programs and the institution, as well as intended outcomes of a state system, regional accreditors, and the federal government.

- A reporting tool allows students, faculty, and co-curricular specialists to extract and examine their information from the database to make the best and most appropriate decisions. Those decisions are documented also and allow each program to demonstrate the ongoing nature of improvement.

- A data roll-up tool is the key to making the link between what faculty value and what high-level decision makers value. This tool mines the detailed faculty evidence and decisions made and presents the information in a manner that can be quickly understood by the high-level decision makers.

A diagram of these modules and this process would look like Figure 2.

Figure 2. Modules and Processes of an Electronic Assessment System
What It Means to Higher Education

When the learning outcomes being measured by an institution both influence and reflect the values of the state and region, legislators and decision makers have much more information on which to base educational policy decisions. When a learning outcome is not being met to their satisfaction, these decision makers can delve into the assessment database to find out why. Through the rich, detailed data that underlies the outcome score, reviewers may find that the institution is struggling with leadership turnovers or perhaps has implemented a new curriculum design that the entire faculty have not yet mastered. Decision makers might also learn about funding discrepancies between departments and what the institution is planning to do to address those discrepancies. Or they may learn that the institution simply has too many students packed into an environment that is not conducive to learning. In each case, faculty determine their values, evaluating them and deciding on the best solutions. The values are not dictated by an agency that has little understanding of the institutional mission and culture. Thus, faculty are both empowered and accountable for what they do on a day-to-day basis.

While this may appear to be extremely simple, in order to make this process work well we must allow experts (for example, faculty and co-curricular specialists) to define what they are looking for, how to make it happen, and how best to measure it. In doing so, they can identify exactly what needs to be improved. Then, they can improve it or provide the evidence to seek the resources they need to make those improvements.

This process allows faculty to add and connect to other key performance indicators, thus building the bridge of what faculty value to what an institution may value to what legislators may value. As faculty articulate their values in outcomes, measure the extent to which they achieve those outcomes, and set their plan of action for improvement, they demonstrate accountability for their expertise. As technology enables data-driven decision making to inform higher level decision making, substantive conversation can take place in regard to identifying what constitutes quality education, and decisions to reallocate resources and inform policy discussions become more meaningful. Expert-driven assessment can inform significant decision making, including state, national, and international policies that affect student learning.

Key Questions to Ask

- What are our institutional expectations for continuous systematic campus-wide assessment?
- Do we have the support pieces in place to educate faculty and administrators about articulating meaningful outcomes, gathering manageable data, and reporting decisions and successes?
- Do we have the technological infrastructure to manage such data and to mine it in a way that we can assist higher level decisions makers with their conversations?
Where to Learn More

- M. E. Huba and J. E. Freed, Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning (Boston, Mass.: Allyn and Bacon, 2000).

Endnotes

10. M. Mentkowski, “Creating a Culture of Assessment: A Look Through the Lens of Assessment Update: Assessment Trends: What Have We Learned from a Decade of Assessment?,” an interactive session at
the American Association for Higher Education Assessment Conference, Cincinnati, Ohio, June 13–17, 1998.


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