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The Lumina Degree Qualifications Profile (DQP): Implications for Assessment

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Abstract

The Lumina Degree Qualifications Profile (DQP): Implications for Assessment

In January 2011, the Lumina Foundation published its Degree Qualifications Profile (DQP) to challenge faculty and academic leaders in the U.S. to think deeply and concretely about aligning expectations for student learning outcomes across higher education. Since then, the DQP has kindled extensive discussions about what the postsecondary degrees granted by American colleges and universities really mean with respect to what graduates know and can do. But the text of the DQP itself provides only limited guidance to stakeholders with respect to assessment.

In order to render the Profile's potential real, institutions and their faculties will need to develop consistent and systematic ways to gather evidence that the competencies that the DQP describes are actually being mastered at the levels claimed. In this paper, I explore some of what needs to be done in this area and provide a few tools and techniques (some of which are already in widespread use) that may help us move forward. In offering them, I invite faculties at all our colleges and universities to carefully examine what the DQP asks us to do in designing more aligned and integrated approaches to teaching, learning, and determining student competence—as well as to actively experiment with these ideas and techniques with their colleagues.

Foreword

George Kuh & Stan Ikenberry

Assessment and the DQP: A Brave New World Beckons

Shortly after we launched the National Institute for Learning Outcomes Assessment (NILOA) in 2009, Lumina Foundation for Education announced its Big Goal: an increase, by 2025, from 40% to 60% in the proportion of adults in the United States with a postsecondary credential or degree. Because it was soon clear that achieving this landmark would be a hollow attainment if the quality of the learning was substandard, the nonnegotiable target became high-quality credentials in the form of degrees and certificates with well-defined and transparent learning outcomes that provide clear pathways to employment and further education.

Colleges and universities were already familiar with "learning outcomes" language, having been pressed by both regional and specialized accreditors for almost a decade to stipulate in concrete terms what students should know and be able to do and, further, to demonstrate the extent to which their students achieved those goals. In fact, by 2010, surveys by the Association of American Colleges and Universities (AAC&U) and NILOA found that more than three quarters of all institutions had developed outcomes statements to guide teaching and represent student learning. Proving far more difficult for institutions was moving from lofty, broad, and sometimes vague descriptions of student performance to demonstrable evidence that students had, in areas institutions deemed appropriate, indeed become proficient. Getting more faculty involved in assessing student learning was a major challenge, as NILOA's 2009 survey had shown. Moreover, a foreboding prevailed, fueled in part by the Spellings Commission deliberations and studies of undergraduate student achievement claiming that great variation existed, both in institutions' expectations for their students as well as in students' performance. These and other factors prompted the call for greater clarity about what credentials and degrees actually represent with regard to student attainment. Lumina Foundation's Degree Qualifications Profile (DQP) is intended to help colleges and universities address this formidable challenge.

In this thoughtful paper, Peter Ewell explains why the DQP was needed to clarify and describe in behavioral terms what students should know and be able to do at various degree levels, and how the DQP comports with other recent efforts—such as AAC&U's Essential Learning Outcomes—to articulate what the world needs today from its college-educated populace. The DQP says very little, however, as Peter points out, about assessment approaches that would be sufficient to document the skills and competencies expected of students earning associate's, bachelor's, and master's degrees. In fact, one of NILOA's major interests in the DQP is to discover what institutions are doing by way of assessment within the DQP framework and to share the most the promising of these practices across the field.

Forcefully underscoring many of Peter's key points in the Afterword, Carol Schneider persuasively argues that for the DQP to realize its potential as a bold reform vehicle, colleges and universities have to address two nontrivial challenges. The first is their all-too-common reaction to calls for systemic cultural and operational changes: to hunker down and hold fast to familiar ways of understanding and behaving. The second is their tendency to examine students' learning experiences in piecemeal

fashion, thereby missing a signature DQP emphasis: integrating student attainment across the postsecondary years in ways that encompass what students gain from general education, the major program, and out-of-class experiences.

While colleges and universities from one end of the country to the other are experimenting with the DQP, addressing the assessment challenges in implementing the DQP is essential to support and advance their work and, ultimately, to ensure that students are getting what they need from postsecondary education. Peter Ewell and Carol Schneider are the perfect pair to take on this task. Both helped craft the DQP. For decades, both have championed the importance of rigorous assessment of student learning to assure and demonstrate collegiate quality. And both are thought leaders—informing and inspiring as they challenge and enable.

We are delighted to introduce this Occasional Paper, NILOA's 16th and commend it to your attention. We are greatly indebted to Peter and Carol for accepting our invitation to help us understand what assessing student learning might look like within the DQP framework.

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The Lumina Degree Qualifications Profile (DQP): Implications for Assessment

Peter Ewell

In January 2011, Lumina Foundation published its Degree Qualifications Profile (DQP) to challenge faculty and academic leaders in the U.S. to think deeply and concretely about aligning expectations for student learning outcomes across higher education. Together with Cliff Adelman, Paul Gaston, and Carol Geary Schneider, I was privileged to be one of the four primary authors of the DQP. Since it was released, the DQP has kindled extensive discussions about what postsecondary degrees granted by American colleges and universities really mean with respect to what graduates know and can do. With respect to assessment, however, the text alone of the DQP provides stakeholders only limited guidance.

The Profile proposes sets of competencies in five areas of student learning—Specialized Knowledge, Broad Integrative Knowledge, Intellectual Skills, Applied Learning, and Civic Learning—and addresses three degree levels—associate's, bachelor's, and master's.

To exploit the Profile's full potential, institutions and their faculties need to develop consistent and systematic ways to gather evidence that the competencies the DQP describes are actually being mastered at the levels claimed. I prepared this NILOA Occasional Paper to explore some of what needs to be done in this area and to provide a few tools and techniques (some of which are already in widespread use) that may help us move forward. In offering these, I invite faculties at all of our colleges and universities to carefully examine what the DQP asks us to do in designing more aligned and integrated approaches to teaching, learning, and determining student competence—as well as to actively experiment with these ideas and techniques with their colleagues.

Why the DQP?

Like its counterpart "qualifications frameworks" in other nations, the DQP attempts to establish specific learning expectations for graduates receiving a particular degree. The Profile proposes sets of competencies in five areas of student learning—Specialized Knowledge, Broad Integrative Knowledge, Intellectual Skills, Applied Learning, and Civic Learning—and addresses three degree levels—associate's, bachelor's, and master's. At each degree level, the competencies themselves are described in terms of "action verbs" that portray what a student at that level can actually do. For example, competencies at the associate's level may require students to "describe" or "present" a topic, at the bachelor's level to "construct" or "explain" something, and at the master's level to "create" or "assess" something.[1]

These "action verbs" provide important initial guidance to faculty, as I argue later, in constructing appropriate assignments and examination questions to determine student mastery. The language itself of the DQP's competency statements also frequently provides guidance for assessment because, for each competency, it suggests the kinds of demonstrations that might be proper—for instance, a research paper, a class project, or a performance. As DQP authors, we believe strongly that the curriculum at any institution

[1] The resulting hierarchy can be characterized as loosely analogous to "Bloom's Taxonomy," a familiar description of student abilities arrayed in an ascending order of cognitive complexity (Bloom, 1956).

should simultaneously ensure all students adequate opportunities to study an area in depth as well as to master topics that cut across the DQP's five domains. There is plenty of evidence that mastery of these five areas is critical if graduates are to be productive in the workforce and effective as citizens.[2] As a result, although we present each of the five areas of student learning independently, we also believe they interact with respect to both mastery and application. For example, good oral and written skills decisively condition an individual's ability to "develop and justify a position on a public issue," as called for in Civic Learning (Lumina Foundation, 2011, p.16). Students must demonstrate that they can apply their learning in a variety of settings and solve problems spanning a wide range of academic subjects and societal settings.

The central message of the DQP is ***intentionality***. Intentionality should govern the goals we develop to define our degrees, the curricula and pedagogies we design and deploy to make the goals real, and the assessments we use to determine if we have been successful. This message is not new. Indeed, many of these points were made at the dawn of the assessment movement in such bellwether reports as *Involvement in Learning* (National Institute of Education, 1984) and *Integrity in the College Curriculum* (Association of American Colleges, 1985). American higher education has been making steady progress on this journey since then, and colleagues at many colleges and universities have contributed. If embraced creatively and sincerely, the DQP provides a rare opportunity, we believe, to go even farther—not just in assessment but in many other aspects of teaching and learning as well.

Intentionality should govern the goals we develop to define our degrees, the curricula and pedagogies we design and deploy to make the goals real, and the assessments we use to determine if we have been successful.

Some Assessment Implications

DQP competencies are offered as statements of mastery, not aspiration. They describe what ***every*** graduate of a degree program at a given level ought to know and be able to do. Regardless of the specific content of these competencies, which will naturally differ among institutions and overlap only partially with those contained in the DQP itself, this posture of universal expectation represents something of a departure from the way most U.S. colleges and universities currently set learning outcomes goals and conduct assessment. Current assessment practice, for the most part, rests on faculty-established goals, developed independently at each institution, for what graduates should know and be able to do.

Whether or not graduates attain these goals is then investigated ***on average*** by using various methods to examine the performance of representative samples of students.[3] Only a few institutions now require a culminating demonstration of mastery as a condition of graduation.

[2] For example, see http://www.aacu.org/leap/documents/2008_Business_Leader_Poll.pdf

[3] Alverno College and similar mastery-based institutions like Excelsior University and Western Governors University are prominent exceptions to this pattern, as they require all students to demonstrate mastery of all outcomes as a condition of graduation.

This dominant approach to examining academic quality reflects one of the central concerns during the mid-1980s, when the assessment movement began—that faculty-awarded grades cannot provide valid and reliable evidence of student academic achievement because they themselves are of uncertain reliability and validity. As a result, purpose-built assessment approaches designed to meet the canons of educational outcomes measurement were needed (Ewell, 2002). As a supplement to grades, these approaches were generally ***added on*** to the existing teaching and learning process. At the outset of the assessment movement, such "exoskeletal" approaches were predominantly standardized tests. In the subsequent two decades, however, standardized examinations were gradually supplanted by more "authentic" assessment methods like capstone experiences or culminating demonstrations, portfolios comprised of student work products, or rubric-based ratings of class assignments. Despite this positive evolution, however, the underlying philosophy of assessment at most institutions, at least for purposes of external accountability, has centered largely on periodic inspection of samples of students.

The kind of assessment that the DQP invites keeps faculty judgment at the center of assessment, rather than surrendering the certifying of student mastery to an external test or authority.

By insisting that all graduates master all of the described competencies, the DQP implies a significant shift in the underlying philosophy of assessment. In place of evidence-gathering activities added on to the teaching and learning process to "check up" on its effectiveness, assessment activities are embedded within the process in the form of progressively more challenging exercises, performances, and assignments for demonstrating student mastery at multiple points. The kind of assessment that the DQP invites, at the same time, keeps faculty judgment at the center of assessment, rather than surrendering the certifying of student mastery to an external test or authority. To be sure, this kind of assessment demands collective discipline and hard collaborative work from faculty to develop assignments and examination questions up to the task of determining student competence. Unexamined, untrammeled academic freedom, in this context, is out of place. Yet rather than fear some form of standardization, faculty will do well to remember that in designing assessment within the DQP they retain as much responsibility as in any other aspect of the curriculum.

This shift in underlying philosophy has a number of concrete implications for assessment practice. In separate subsections of this paper, I flesh out some of these implications in more detail and provide examples of particular techniques and approaches. While many of these, to be sure, have been developing for some time, accelerating these developments are ongoing DQP-associated activities—especially those in the purview of Lumina's follow-on grants enabling institutions to experiment with the DQP.

Curricular Mapping

An important prerequisite to determining the extent to which students are mastering the various DQP competencies is obtaining a clear picture of where and how particular competencies are expected, enhanced, or

assessed across the courses that constitute a given curriculum. The best way to accomplish this is to construct a "map" of the institution's curriculum that clearly identifies intersections between course content and the DQP competencies. Sometimes called an "alignment matrix," such an exercise has become increasingly visible in institutional assessment practice over the last decade. Curricular mapping has been especially common in general education where the coherence of the curriculum is rarely otherwise checked (Allen, 2006; Driscoll & Wood, 2007), but it has also become a feature of assessing individual academic programs (Allen, 2004) and even student affairs programs (Bresciani, Gardner, & Hickmott, 2009).

An important prerequisite to determining the extent to which students are mastering the various DQP competencies is obtaining a clear picture of where and how particular competencies are expected, enhanced, or assessed across the courses that constitute a given curriculum.

At its most straightforward, a "curriculum map" is a two-dimensional matrix that represents individual courses on one dimension and competencies on the other. Entries within each cell can be constructed to communicate many things including

- *Whether or not the competency is taught at the college level in the course.* For example, a typical freshman-level English composition course would presumably address the DQP competency "presents substantially error-free prose in both argumentative and narrative forms to generalized and specific audiences" (Lumina Foundation, 2011, p.14). Entries here might further distinguish the level at which the competency is taught or reinforced—for example introductory, intermediate, or degree-level.[4]

- *The level of proficiency in the competency required to effectively engage course material.* This is, essentially, the level of proficiency that should be expected as prerequisite to passing the course.

- *Whether or not the student's proficiency in the competency is directly tested or evaluated as part of the course.* Many ways to assess competencies will likely be present including examinations, projects, assignments, field placements and internships, or other direct demonstrations. Most institutions using mapping also indicate the specific mode of demonstration used and how the resulting level of proficiency is coded or described.

- *The level of proficiency in the competency at which the passing student exits the course.* Most institutions that use curriculum maps have established several levels of proficiency for key learning outcomes that are below the three degree levels included in the DQP.

[4]This is consistent with (AAC&U, 2008) and best illustrated by the assessment framework of the University of Charleston, an active member of the Council of Independent Colleges (CIC) DQP Consortium (see http://www.ucwv.edu/faculty_center/).

- *Whether or not the passing student demonstrates proficiency in the competency at a level corresponding to degree mastery (e.g., associate's, bachelor's, or master's).* This, of course, is the ultimate application of assessment in connection with the DQP. Achieving the requisite level of proficiency through course examinations, assignments, or other demonstrations—frequently in the context of a capstone experience—constitutes certification that the student has mastered the competency and can be awarded the degree.

A "curriculum map" is a two-dimensional matrix that represents individual courses on one dimension and competencies on the other.

For purposes of the DQP, mapping is usually done both for general education courses and for some courses in each major field, beginning with courses most commonly taken. Creating a curriculum map generally occurs under the direction of a multidisciplinary committee or task force comprised of representatives drawn from a wide array of academic programs and student affairs offices. Typically, the committee requests the faculty member of record for each course to fill out a standard template for the course that records how the course actualizes each subdomain of the DQP in each of the five competency domains.

Figure 1, prepared for a DQP demonstration project currently under way at nine Historically Black Colleges and Universities (HBCUs) in the Southern Association of Colleges and Schools (SACS) accreditation region, with funding from Lumina, provides an example of such a template. Entries in each cell indicate the mechanism through which student proficiency is demonstrated, such as an examination, assignment, project, performance, and so forth. Maps for courses with multiple sections can be prepared by the lead faculty member, so long as all sections of the course address the same content and contain comparable assessments.

A Course Level Curriculum Map

Intellectual Skills - Bachelors Level

Competency	Analytical Inquiry	Use of Information Resources	Engaging Diverse Perspectives	Quantitative Fluency	Communications Fluency
Course #1 (ex. ENGLISH 101)					
Is it addressed?					
How is it tested or assessed?	*Ex. assignment*		*Ex. performance*		*Ex. examination*
Course #2					
Is it addressed?					
How is it tested or assessed?					
Course #3					
Is it addressed?					
How is it tested or assessed?					

Figure 1. Course Level Curriculum Map Rubric

The resulting map provides an invaluable aid for identifying gaps in curricular coverage with respect to DQP competencies, as well as for planning where particular assignments or other demonstrations should be located. For example, Westminster College, Nebraska Methodist College, and McKendree University—all participants in the Council of Independent Colleges (CIC) DQP project—are using curriculum mapping to determine the overlap between their own student learning outcomes statements and the DQP competencies in order to improve course coverage of each domain.[5] In the demonstration project launched by the Higher Learning Commission (HLC), Marshall University is using a similar mapping process to evaluate overlap and to guide changes in the wording of their own outcomes statements. Meanwhile, Brandman University is using a dual mapping approach to the DQP and to the broadly similar Association of American Colleges and Universities (AAC&U) Essential Learning Outcomes as part of its accreditation process with the Western Association of Schools and Colleges (WASC) Senior Commission, as well as part of its effort design a new general education program.[6] Finally, fellow WASC project participant at The Master's College created a variety of mapping templates designed to help faculty document various ways established competencies are addressed in each course.

Mapping is usually done both for general education courses and for some courses in each major field, beginning with courses most commonly taken.

Other institutions working with the DQP have mapped activities and instructional good practices as well as competencies. For example, several colleges participating in the CIC DQP project have identified and mapped learning activities intended to foster student development in the DQP domain of Broad Integrative Knowledge. Coupled with data about student course-taking patterns, the results enable these colleges to determine the extent to which students are participating in these activities and where changes might be needed to ensure that they are. In a similar effort, San Jose State University employed a technique called "institutional effort mapping" to determine and coordinate campus activities promoting diversity both within and beyond the curriculum (Halualani, Haiker, & Lancaster, 2010).

While curricular mapping is necessary and critical in implementing an intentional curriculum, however, it is only a first step. Too many institutions now engaged with the DQP stop short of the difficult work of developing the needed assignments, examination questions, and projects that enable the collection of meaningful evidence of student mastery.

[5] Examples noted throughout this paper that lack specific citations were obtained through NILOA's ongoing efforts to "harvest" lessons of the many follow-on grants funded by Lumina to demonstrate applications of the DQP (see Kuh, 2012).

[6] See https://www.wascsenior.org/files/Brandman%20University%20Adopts%20the%20Degree%20Qualification%20Profile_January%2031%202012_final.pdf.

Competency Requires Action

Competency statements in the DQP are deliberately and relentlessly couched in "action verbs" that describe what students at particular levels should be expected to **do**. As DQP authors, we avoided using language like "know," "appreciate," or "value" that is common in institutional mission statements in favor of language signifying activity or production. We did so because this kind of language points directly toward aspects of pedagogy that can actually be observed and toward the production of student artifacts that can actually be evaluated.

Competency statements in the DQP are deliberately and relentlessly couched in "action verbs" that describe what students at particular levels should be expected to do.

Assignments or examination questions designed to determine proficiency in particular DQP competencies, consequently, must require students to generate a product of some kind—a research paper, an oral presentation, a dance performance, a translation of a text from one language to another, an engineering design, and so forth. Merely identifying a "correct" answer from a set of posed alternatives is not a production task. Because the assessments associated with DQP competencies require students to directly demonstrate mastery, the assessment really is the competency from an operational standpoint. This is not the case for assessments, like multiple-choice examinations or survey self-report items, where possession of the competency must be indirectly inferred from a respondent's answers.

As DQP authors, following the description of a DQP competency, we frequently provided examples of the kind of demonstration that would be appropriate to show proficiency. We intend these to be illustrative, not exhaustive. For every competency, many different kinds of demonstrations can be envisioned. Probably the most frequent type of example is a piece of writing generated by a student in response to a posed topic or question. Most of the writing examples we offered in the DQP go well beyond exposition or description to specify particular attributes of the written product that should be present—such as competing hypotheses, multiple forms of evidence, and proper citation of sources. But many of the most interesting examples invoke other forms of demonstration—such as building or producing a physical product or performance. Prominent in Civic Learning, for instance, is "collaborates with others in developing and implementing an approach to a civic issue" (Lumina Foundation, 2011, p.16).

The key to determining the adequacy of a given assignment to demonstrate mastery is to revisit the action verbs that describe the competency itself. If the task posed by the assignment does not require the student to concretely perform the required action, it is not adequate. For example, a competency at the bachelor's level for Use of Information Resources under Intellectual Skills reads "incorporates multiple information resources presented in different media and/or different languages…with citations in forms appropriate to those resources, and evaluates the reliability and comparative worth of competing information resources" (Lumina Foundation, 2011, p.13).

This competency requires an assessment prompt asking for these things specifically and a response including each named element (different media or languages, actual citations in appropriate form, and actual comparisons of relative merit). An assessment prompt simply asking students to describe these elements or to select them from a presented list is not adequate. This suggests the importance of developing explicit tools for constructing assignments and determining the adequacy of student responses.

The key to determining the adequacy of a given assignment to demonstrate mastery is to revisit the action verbs that describe the competency itself.

Assignment Templates and Rubrics

Throughout the DQP's text, the authors emphasize that assessment should be embedded in courses throughout the curriculum. The primary vehicle or mechanism for determining whether or not students have mastered the competency, therefore, is a course assignment of some kind. To provide the necessary rigor, focus, and consistency for valid and reliable assessment, however, assignments used as assessments should have specific characteristics. Put simply, the construction of the assignment must unavoidably elicit a demonstration of the competency. Building such assignments can constitute a significant challenge, however, because most college faculty members are not explicitly trained to do this. As a result, too many faculty-made assignments or examination questions fail to elicit an appropriately configured student response. As an illustration of this, the hypothetical, yet typical, open-ended examination question "name and describe three aspects of the Renaissance" provides the student with almost no guidance about what a good answer should actually look like. "They wore funny clothes, they played funny instruments, and they sang funny songs" is an appropriately configured (although not very good) answer to the question posed.

One way to avoid this difficulty is to identify the specific properties of an appropriate response and then to configure the assessment prompt so that the respondent has maximum information about what his or her response should look like. This is what an "assignment template" is designed to do. A growing number of institutions are using tools like this to ensure that all students approach the assigned task in a manner that is predictable and that allows them to fully demonstrate what they know and can do. For example, the Indiana University–Purdue University at Indianapolis (IUPUI) University Writing Center offers guides for such familiar kinds of assignments as preparing a literature review that synthesizes multiple sources.[7] Similarly, West Coast University—a participant in the Lumina-funded WASC Senior Commission DQP project—is developing "signature assignments" to assess competencies contained in the DQP Intellectual Skills domain using an alignment matrix.

The basic elements of an assignment template are intended to provide guidance about the specific characteristics of an appropriately configured answer to the posed topic or question. This includes

[7] See http://www.iupui.edu/~uwc/pdf/Literature%20Review%20and%20Synthesis.pdf.

- *The central task that must be undertaken as well as the DQP domain and degree level in which it is located.* For example, a central task to demonstrate DQP competencies in the realm of Analytical Inquiry might involve comparing and contrasting two or more arguments or points of view on a particular topic.

- *How the required task should be undertaken and the results communicated.* For example, communications mechanisms noted in DQP competencies related to Quantitative Fluency include verbal arguments, mathematical algorithms and constructs, and mathematical arguments using accepted symbolic systems.

- *How extensive or evidential the response should be.* For example, DQP competencies listed under Communication Fluency and Use of Information Resources require two or more examples, two or more languages or media, and appropriate citations.

The basic elements of an assignment template are intended to provide guidance about the specific characteristics of an appropriately configured answer to the posed topic or question.

Combining all three elements yields something like the following: "Compare the substance of [argument X] with [argument Y] by means of a written essay [of Z length] that cites at least three examples of important ways in which the arguments differ." Realistically, an assignment or examination question should address not more than two or three competencies. Also, faculty will find it more comfortable to test for DQP competencies, which are by nature generic, in combination with more specific course-based knowledge and skills. Assignment templates of this kind can be constructed so that they cover content questions in virtually any discipline, as illustrated by the following examples[8]

- Prepare an exhibit of not more than five discrete 2-dimensional pieces illustrating the range of chaos in color, drawing on at least two of the major color theory sources, e.g. Goethe, Kandinsky, Chevruel, in a 3-5 page catalogue of your exhibit. You are not required to present in the same 2-dimensional medium across all five pieces. The class exhibits will be displayed from April 1 - 30. It is now January 15. [Associate's level, Broad integrative knowledge]

- Suppose a new form of energy was developed that would emit no carbon, gases, of other pollutants. Critics of the development contend that within a month of its deployment, the earth's rotation would slow from 24 to 26 hours per day. To guard against this and other consequences an Environmental Impact Statement must be prepared. In the space below, outline the chapters and subchapters of such a Statement. [Bachelor's level, Applied Learning, integration, 30-minute examination question]

[8] I am indebted to Cliff Adelman and colleagues at Utah State University for these examples. An inventory of similar assignments and examination questions suited to assessing various DQP competencies at various levels are being collected in the "DQP Corner" of the NILOA website at http://www.learningoutcomesassessment.org/DQPCorner.html.

- [The student is provided a diagram of a cell not at division stage with various structures labeled.] Describe the cell in terms of a) its current stage, b) its morphological signs of activity, and c) the structure that addresses the formation of its nuclear envelope. [Associate's level, Specialized Knowledge, translation of medium, examination question]

- Creationists maintain that the Second Law of Thermodynamics supports their point of view by positing that the natural direction of change is from complexity to simplicity. One implication of this is that human life—a complex form—could not have "evolved" from more primitive forms of life—and, consequently, would have had to have been created. Critique the reasoning of this position by succinctly presenting each of its points in logical order, together with arguments for and against. In a final paragraph, identify and describe the type of argument creationists are making: Is it evidential, logical, analogical, declarative, or some other form? [Bachelor's level, Specialized Knowledge, Analytical Inquiry, short essay assignment].

- You are given a map of the United Kingdom with three (3) airfields marked. You are flying a military interceptor aircraft with the following specifications (weight, fuel capacity, current fuel level, fuel use in different maneuvers), your location at point X, your current speed, the current reading of your fuel guage, the location of a refueling tanker at point M, its current speed, and the rate/time of refueling. You are told that an alien aircraft is approaching a northeast coast radar station at a speed of Y and is currently located at Z. Is it 3 p.m. and the weather is closing. You are instructed to intercept the approaching aircraft, destroy it with missiles you are carrying, and return. At which airfield will you land? at what time? and how much fuel will you have left (the amount must be at or above 500 kg)? For each of these questions, present a symbolic formula that reflects the way you arrived at your solutions. Set a timer, and also indicate how long it took you to arrive at all those answers. All your responses should fit on one page. [Bachelor's level, quantitative fluency]

- [The student is given a walking route map of the Lower East Side of New York City. Students are asked to walk the route and complete the following assignment within at least two weeks.] Prepare a series of short statements about what you see, the connections of what you see to the social and political history of the area, and your own analyses of the successes and failures of attempted changes. Specifically,

An assignment or examination question should address not more than two or three competencies.

a) Identify the structure that most clearly illustrates the concept of "invasion and succession," and present hypotheses about the dominant activities/responsibilities of those who used the structure at each phase. Describe who used the structure, in what sequence, and how.

b) Illustrate the effects of the Tenement Laws of the late 19th century through citations of specific structures and their forms. As you do so, identify the origins and stimuli of these laws.

c) Identify the structures and physical conditions toward which the Public Health Laws of the late 19th century are directed. Provide evidence that these conditions were either eradicated or still exist. For those that still exist, analyze and present the conflicting powers or interests that will affect the extent to which they can be addressed. [Bachelor's level, Civic Learning, integration, class project assignment]

Assignment templates can be constructed so that they cover content questions in virtually any discipline.

Too often, lack of precision characterizes faculty judgments about the quality of a student response. "I know it when I see it" is an all-too-common answer to queries about how faculty process, code, and evaluate student work. About 20 years ago, to remedy this situation and to harmonize the grading of student work, structured grading guides began to emerge in higher education, although for decades prior to this the K–12 testing industry had been using such methods to score students' written work.[9] Now known as "rubrics," these guides typically provide detailed descriptions of specific attributes of the student work along several dimensions.

A rubric, in many ways, is the mirror image of an assignment template. For example, if the latter prescribes a response with "at least three examples" (as in the assignment template above), the associated rubric will reflect this prescription by awarding a full score for a response that, indeed, has three examples and partial scores for responses that have fewer. Another dimension of the rubric would simultaneously enable the scorer to evaluate the quality of any comparison of two arguments that a response provides. A third might provide a metric to evaluate components of the written essay itself including its length, the sophistication and relevance of its analysis, and the consistency of its language with standards of academic discourse. Faculty at IUPUI and Ivy Tech Central Indiana are using just such a process to build common assessment rubrics aligned with the DQP for use in a transferrable general education initiative that is part of a statewide effort in Indiana, and as part of a Lumina-funded DQP demonstration grant to AAC&U.

Tools for evaluating the quality of naturally occurring student work like assignment templates and rubrics are not easy to construct and take a good

[9] One of the most popular of these is the "primary trait" grading approach (Walvoord & Anderson, 1998).

deal of training to apply effectively. They are essential, however, to actualize the approach to assessing student learning outcomes implied by the DQP necessarily embedded in an institution's curriculum or co-curriculum.

"I know it when I see it" is an all-too-common answer to queries about how faculty process, code, and evaluate student work.

Navigating the Curriculum

In the text accompanying the DQP, the authors make many points about what an appropriate college curriculum designed to foster the development of these competencies should look like. More particularly, we believe that the courses constituting the curriculum should be intentional and cumulative and, further, should feature many connections demanding and developing these competencies in different settings. Course sequencing, therefore, is critical—to ensure that the series of courses a given student takes includes successive benchmark assessments that build toward culminating demonstrations of mastery. In this way, adopting the DQP makes assessment the centerpiece of any institution's curriculum, rather than simply one more feature of the courses that comprise it. This particular point of departure—that navigating the curriculum should contribute to an ongoing and cumulative vector of learning for each student—has implications for both curricular design and student advising.

Applying the DQP first makes curricular design more intentional by emphasizing the integration of assessment into planned course sequences. As I described earlier, curriculum maps are commonly used by colleges and universities to identify where in a particular set of courses a given competency is required, taught, or determined through assignments. Such application, of course, is after the fact. But similar curriculum maps can also be used up front as an aid to planning and implementing a yet-to-be developed curriculum. For example, as a specialist graduate-only institution in psychology, Sophia University intends to move its curriculum toward undergraduate programming. Through its participation in the WASC Senior Commission DQP demonstration project funded by Lumina, the institution has adopted the bachelor's level competencies of the DQP as the foundation of its new undergraduate programming and reports that doing so allowed much quicker progress than modifying an existing program. A similar "ground up" curriculum development effort within the WASC Senior Commission group is being undertaken by Golden Gate University in completely redesigning its current undergraduate degree offerings consistent with the DQP.

Taking the vector of student growth and development on each DQP competency as the primary point of departure, in place of the more familiar standpoint of content coverage, is a far more deliberate approach to curricular design than what customarily occurs. Indeed, in the case of Western Governors University (WGU), the sequence of assessments documented in this mapping process essentially defines the curriculum.[10]

[10] WGU is not part of a Lumina-funded DQP demonstration project, but I mention it because it is currently the best example of a postsecondary institution constructed on a competency basis from the ground up.

Most institutions, of course, do not have WGU's luxury to design their curriculum on an outcomes basis from the outset. However, by deliberately constructing curriculum maps to document course/assessment coherence after the fact and by creating more forward-looking revisions of these maps to redesign future course content and sequencing, any institution can increase the likelihood of its students acquiring the requisite skills and competencies.

Course sequencing is critical to ensure that the series of courses a given student takes includes successive benchmark assessments that build toward culminating demonstrations of mastery.

This way of thinking about a curriculum also enables the adoption of a quite different approach to student transcripts in which—rather than the conventional list of courses the student has taken—transcripts are a record of what the student has mastered in what order and at what level. Some of the more sophisticated assessment management systems (see below) provide just such a record of student mastery.

Used appropriately, the DQP also has significant implications for student advising. With a DQP-generated map of their curriculum, students can see more clearly what they are to learn and what will be expected of them at each point along their learning journey. Making prerequisite structures transparent and showing how what is learned and assessed at point X will be applied and tested at point Y helps head off one of the most common questions posed by students considering an institution's general education requirements: "Why do I have to take this class?" Showing how the DQP is enacted throughout the curriculum not only provides students with sound advice; it enhances their motivation and self-confidence as well. Considerable research supports the conclusion that students learn better when they clearly understand the learning expectations of them (Bransford, Brown, & Cocking, 1999).

Documentation

In a DQP context, assessment is ongoing and decentralized. It occurs every time a faculty member examines a particular student response to a posed examination question, demonstration, or assignment—so assessment is happening all the time. Because of this, the DQP approach requires a comprehensive record-keeping system for posting, housing, and manipulating data on what students have learned. As more than a few colleges and universities pioneering approaches like course-embedded assessment and portfolios discovered in the mid-1980s, the paper-and-pencil scoring approach with its myriad associated filing cabinets filled with student artifacts became so cumbersome it was dropped.

An electronic record-keeping system of a kind appropriate for assessment within the DQP context resembles a conventional student record system, but is structured around competencies rather than courses as the unit of analysis. A typical entry for a particular student consists of the following elements

- A faculty-assigned level of attainment on a particular competency, using an identified scale (for example, beginning, intermediate, and culminating);

- At a particular point in time (for example, the end of spring term 2013); occurring in a particular setting (for example, a final examination essay in Biology 302);

- As assessed by a particular method (for example, a rubric associated with the particular competency).

To create these entries, the system needs to have an electronic environment in which the faculty member can pull up the student work to be scored, as well as the rubric for the particular competency against which the work will be evaluated, and can record the resulting score (or scores) that she or he assigns. The system also needs to be linked with the regular student records system so that particular attributes associated with the student (for example, demographics, year of study, major discipline, prior assessment results, and so on) can be retrieved. This allows analytic reports for particular types of students to be generated. A parallel link with course records enables analyses of performance by discipline, class level (e.g., upper or lower division), course type, and delivery mechanism (for example, face-to-face lecture/discussion, online asynchronous, problem-based, internship/practicum, and so on). This also requires the system to have the capacity to generate reports ranging from disaggregated analyses of students' performance of a competency by subpopulation to individual "mastery transcripts" showing what level each student has attained on each competency at a particular point in time.

Many commercial assessment support packages have the requisite features. Examples include eLumen, TracDat, WEAVE On-Line, LiveText, TrueOutcomes, or Tk20. Some campuses, like Brandman University, in the WASC Senior Commission DQP demonstration project, are using the "turn it in" function of an electronic course management system (in this case, Blackboard) to upload student work for evaluation and the system's rubric-based grading tool ("GradeMark") to score student responses.

Benchmarking and Comparison

The DQP goes beyond simply establishing a particular set of competencies for an individual institution toward doing so across multiple colleges and universities. The ultimate vision, as illustrated by the qualifications frameworks established in other countries, is a set of standards describing the explicit meaning of degrees as national reference points on a limited set of carefully delineated competencies.

A first challenge that frequently arises as institutions try to "adopt" the DQP is the relationship between its array of competencies and the institution's own statements of student learning outcomes, usually developed over many years, which contain a host of embedded assumptions and compromises but which institutions are hesitant to give up in favor of a whole new set of competencies their own faculty members have not had a hand in developing. Under these circumstances, frequently, the institution's initial step is to map

With a DQP-generated map of their curriculum, students can see more clearly what they are to learn and what will be expected of them at each point along their learning journey.

the DQP onto its own student learning outcomes statements to ascertain the extent of overlap and to determine if anything is missing. This may uncover areas of distinction, like ethics or collaboration skills, where the institution's own goals address areas not in the DQP. In most cases, though, institutions discover that the coverage of the DQP parallels that of their own statements. Because of this, multiple institutions can confidently benchmark their outcomes to the common reference point of the DQP even though their individual outcomes statements continue to differ from one another.

In this way, the DQP acts first in a benchmarking function as a kind of "universal translator" with respect to learning outcomes across a range of diverse institutions. For example, Bethel University and Holy Names University—participants in the CIC DQP project—used the DQP as a mechanism for improving internal communications among faculty who teach general education courses and to better integrate faculty advisory groups associated with general education. Meanwhile, Berry College used it to help foster better communication between academic affairs and student affairs personnel. Among HLC DQP project participants, Illinois College reports that discussions among different campus constituencies framed around the DQP helped diverse academic and co-curricular programs focus more intentionally on the overall campus experience. AAC&U and Oregon DQP project participant Portland State University also noted that DQP-based discussion is helping foster cross-department communication and alignment. In the WASC Senior Commission project, finally, The Master's College is using the DQP to promote more explicit communication and collaboration across a range of campus groups to highlight the role of the co-curriculum in developing appropriate bachelor's level competencies.

As noted earlier, in the section on curricular mapping, simply translating one set of competency statements into another by way of the DQP is not enough. Acting on the DQP's assessment implications requires an array of assignment templates and rubrics that can be used consistently and reliably across settings—and there are many different ways this can be accomplished. Beginning with the most complex, institutions have used the following approaches to achieve alignment and to boost the reliability of obtained results.

- *Multiple Third-Party Raters.* Under this approach a number of raters examine a particular student artifact against a previously developed rubric and then reconcile their results. Raters may be drawn from different institutions or different academic units within the same institution. Alternatively, they might be constituted as a third-party review panel of content experts selected especially for this purpose.[11]

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[11] Members of the program advisory committees that are frequently recruited by professional and vocational programs can be ideal for this purpose.

Artifacts, in turn, can be student papers, answers to a posed examination question or assignment, observed performances in a professional or capstone setting, or portfolio entries. This approach is likely to provide the most valid and reliable results but is likely to be expensive because it is so labor intensive.

- *Cross-Rating*. Under this approach, faculty members at a given institution arrange with counterpart faculty members teaching the same course with the same assignment at another institution to rate each other's student artifacts using a previously developed rubric. They then can discuss results to determine consistency and draw out any implications for improvement. This approach provides some degree of inter-institutional external validation with only the additional costs associated with the exchange's logistics.

- *Multi-Institutional Rating*. Under this—most common—approach, faculty members at a number of institutions use the same rubric to rate similar student artifacts independently at their own institutions. In this case, external validation is obtained by disciplined use of the rubric, by substantial prior training, and by prior collective applications of the rubric to different kinds of student work.

The ultimate vision, as illustrated by the qualifications frameworks established in other countries, is a set of standards describing the explicit meaning of degrees as national reference points on a limited set of carefully delineated competencies.

Although most examples of the use of rubrics to examine student work in regular classes or assembled in portfolios involve individual faculty members acting alone, some examples of externally validated applications of rubric-based scoring are beginning to emerge. One prominent example is a multicampus initiative currently being undertaken under the auspices of the Massachusetts Board of Regents using rubrics developed by AAC&U (Ewell, 2013). Under this initiative, teams of faculty members are using the Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics, developed by AAC&U, to rate student artifacts on selected assignments in an aligned fashion across seven state public universities and fifteen community colleges. In this initiative, scoring alignment is being achieved through ongoing training and selective double-scoring of student responses.

Conclusion

As these examples illustrate and as I emphasized at the outset of this paper, engaging assessment in the context of the DQP requires faculty to be much more systematic and intentional than is currently the case at most colleges and universities. From the standpoint of curricular and course design, considerable planning and attention is needed to ensure that the appropriate competencies at the proper levels are developed or demanded across course sequences. From the standpoint of assessment design, assignments and associated rubrics must be carefully scripted to elicit the proper kinds of student responses and to judge their adequacy. Both standpoints also require a great deal of collaboration within and across campuses as well as collective ownership of the undergraduate teaching and learning process. Because

this is not the prevalent culture among American higher education faculty, implementing these ideas at scale will require considerable investments in faculty development. These faculty development efforts, moreover, must be premised on an important shift of perspective. The DQP asks faculty members to examine the entire instructional process from the inside out—starting from the perspective of learners and what they learn instead of the perspective of teachers and what they teach.

Finally, the assessment philosophy and approaches implied by the DQP described above allow institutions to transcend the much-discussed dilemma of assessment for accountability as opposed to assessment for improvement (Ewell, 2009). Because assessment results are high stakes in the sense that they certify (rather than merely indicate) particular levels of attainment against a common and publicly established set of standards, these approaches provide built-in accountability. At the same time, assessment results amassed and examined over time can reveal observable patterns of strength and weakness in particular competencies or for particular kinds of students that can inform improvements in curriculum or pedagogy at any level.

At this point, we are just beginning to see how far the transformations in teaching, learning, and assessment implied by the DQP will go and how much of their potential can be realized. The Lumina-funded follow-on projects launched earlier this year now involve roughly 220 institutions and, as indicated by the examples cited here, are already suggesting different ways forward. My purpose in this brief paper is to provide a few of their experiences as a "tasting menu," while encouraging *all* institutions to experiment and communicate. If we do this together, we can learn a great deal.

The DQP asks faculty members to examine the entire instructional process from the inside out—starting from the perspective of learners and what they learn instead of the perspective of teachers and what they teach.

Afterword

The DQP and the Assessment Challenges Ahead

Carol Geary Schneider

Peter Ewell's paper provides a timely and much-needed guide both to the Degree Qualifications Profile (DQP) and to the assessment challenges that the DQP presents. He accurately describes the kinds of assessment that the DQP promotes: faculty judgments of student performance using standards that challenge students to reach and demonstrate high levels of authentic accomplishment.

But Ewell's essay may be a bit too logical, systematic, and reasoned for this fraught and overburdened moment in higher education history. My purpose here is to discuss directly and candidly the uphill battle that the DQP faces to promote more intentional learning and richer forms of demonstrated student achievement.[1] I believe that we will need an organized and strategic campaign, not just good assessment tools, if colleges and universities are to be more intentional and more effective in graduating students who are demonstrably well prepared—for work, for civic responsibility, and for realizing their hopes for a better life.

We will need an organized and strategic campaign if colleges and universities are to be more intentional and more effective in graduating students who are demonstrably well prepared for work, for civic responsbility, and for realizing their hopes for a better life.

Specifically, this campaign will need to strongly affirm the DQP's clear focus on assessment of students' authentic work as the best way to strengthen students' college learning and to document the quality of their achievement. Concurrently, the campaign will need to directly refute knee-jerk assumptions that the DQP invites an increase in standardized testing at the college level. It does not.

As with Ewell, I write as one of the DQP authors, but also as someone who heads a national organization that has assiduously focused on learning outcomes for over a decade and that now, under a Lumina grant to AAC&U, is partnering with two- and four-year campuses in nine states to test ways of assessing students' DQP learning outcomes, with a focus on transfer. I also am working with educational leaders across the country and in Washington, DC, speaking in many contexts about the DQP, reading reports on other organizations' DQP experiments, and, above all, listening with increasing concern to what my colleagues have to say.

In a nutshell, what we are learning is that the while the DQP was designed to be a promising beacon for transformative change, a seemingly growing number of influential leaders do not see it that way. In addition, the DQP faces very real challenges on campus, especially when it comes to assessment. This is not for lack of conscientious commitment by faculty members working to operationalize the DQP on campus, but rather because the level of educational intentionality and collaboration implied in the DQP

[1] The current version of the DQP is being beta-tested by about 220 colleges, universities, and community colleges, the majority working under Lumina grants, but about 60 at last count simply trying it on for size. The DQP will be revised and offered in a second edition informed by campus experience and advice.

assessment principles contrasts so much—as Ewell's essay gingerly points out—with deeply-rooted campus norms. What I think we are seeing is that the habit of treating college learning as a set of separate, discrete, and even "siloed" units—individual courses, the majors, general education, the co-curriculum, and so on—works at cross-purposes to the DQP's conception of a more intentional and, ultimately, integrative educational experience. If higher education is to move beyond the DQP's "bold concept" stage to realize its intended purpose—that colleges and universities adopt a shared framework to guide student progress through college and to promote new and more authentic approaches to assessing learning—we must address two key issues:

- The fear of what comes next if higher education signs on—both to the idea of a shared degree framework and to the DQP itself.
- The danger that the "sudivide and get it done" approach to DQP experiments may obscure the DQP's intended role as a catalyst for fostering and assessing students' ***cumulative and integrative learning***.

The DQP was designed as a clarion call to move faculty judgment and students' own work back to the center of assessment and accountability.

Fearing What Comes Next

Let's deal with the fear first. Many leaders—especially those at research universities—both assume and worry that once the DQP is established—let's say, through accrediting organization endorsement and/or by state systems adopting it—the next thing to follow will be imposition of DQP-calibrated standardized test(s).

The logic of resisters is straightforward, based directly on what transpired in the K–12 system. First came "Common Core Standards," then the development of standardized tests to measure student progress against the standards. Resisters further point out that Lumina Foundation for Education, even as it supports a variety of campus-based DQP experiments, is also funding (with others) the development of standardized tests for college-level learning across the globe.[2] It is not much of a stretch to assume that if Lumina—in concert with ministries of education in other countries and the U.S. Department of Education as well—is promoting the DQP and also investing in international tests that almost surely will be used for international rankings, then it is only a matter of time until the foundation brings these two wings of its enterprise together.

But the DQP is orthogonal to standardized tests. Indeed, as Lumina's senior leaders readily affirm, the DQP was designed as a clarion call to move faculty judgment and students' own work back to the center of assessment and accountability. The centerpiece of DQP assessment, as Ewell makes clear, is

[2] Source: ahelo@oecd.org

supposed to be the assignments that faculty develop and give to students. The DQP seeks to change what counts as the most important evidence of student competency, away from the standardized metric and toward the work students do on nonstandard tasks.

To clarify and to ensure that this intended change prevails, Lumina and those involved in the DQP effort need a communications and cultural change strategy, not just an assessment strategy, that says plainly, repeatedly, and insistently: The DQP promotes transformative change in what counts as evidence of student learning and in mainstream strategies for developing and documenting student achievement.

Its fundamental purpose is preparing students to tackle nonstandard, unscripted problems and questions. Unscripted problems, by definition, are those where "right answers" are not known and where the nature of the problem itself is likely uncertain at best, and often actively contested. Standardized testing is antithetical to assessing the adaptive and inventive competencies that are the core of the DQP. This is because the available standardized tests often disguise rather than illuminate what students can actually do with nonstandard problems. Yet nonstandard problems are the ultimate test of students' competence—at work, at life, and in the community.

Health care "reform" in the U.S. offers an instructive illustration of the kind of adaptive and context-attentive learning that the DQP seeks to promote—and to assess. What seems "best" in health care reform depends on the questions and assumptions one brings to the debate, and individuals themselves may need to address these issues both against the tangle of passionate but competing public disputes and also in the context of potential implications for self and loved ones.

College must prepare learners to deal with the complex and uncertain, not just with the rote and routine. Assessments ought to show how well students can integrate context, inquiry, evidence, applications, and implications. Multiple-choice tests will not meet this standard.

For all these reasons, the performance-based tasks faculty assign to students—in their courses and field-based learning—must be the centerpiece of 21st century quality assurance in terms of student learning. These performance-based tasks need to give students collaborative practice in addressing complex questions. They also provide the best evidence of students' growing proficiency both in analyzing significant problems and in applying their learning in field-based as well as academic settings.

Ewell cogently described the steps involved in assessing the DQP competencies, with students' work as the required evidence both of their

College must prepare learners to deal with the complex and uncertain, not just with the rote and routine.

achievement, and, ultimately, of their meeting the expected qualifications for a degree. But make no mistake. Unless a campus moves students' actual work to the center of the DQP endeavor, there's really not much use in adopting an outcomes framework—whether it's DQP or the Essential Learning Outcomes advanced in AAC&U's LEAP initiative or another variant.

In sum, to promote the kind of learning today's students need, those advocating using the DQP must make the case that it is a transformative framework for

- Promoting far-reaching change in what counts as the primary evidence about students' learning gains in college;
- Foregrounding performance-intensive assignments, anchored in academic and pre-professional studies, through which students practice, develop, and demonstrate the competencies they need to address nonroutine problems in work, civic participation, and their personal lives—all of which is beyond the capacity of standardized tests as currently constructed;
- Putting faculty judgment back at the center of efforts to strengthen student learning and foster educational excellence;
- Fostering integration and application of learning—from multiple courses and contexts—as the best evidence of competency and the best way to prepare students to grapple with new and unscripted problems.

Fears are not easily dispelled. DQP leaders need to have the courage of our shared commitments to lead transformative change for 21st century learners. That courage will require us to explain why, in a global era marked by dizzying complexity and volatility, we need to create forms of assessments in which standardized tests are no longer the center of the accountability action.

DQP leaders need to have the courage of our shared commitments to lead transformative change for 21st century learners.

Subdivide and Get It Done:
The Fragmentation of Campus DQP Experiments

The second obstacle confronting the transformative potential of the DQP is the "subdivide" to "get-it-done" strategy that most of the DQP assessment experiments have adopted. (This same observation applies to the DQP curricular projects as well.) The problem is that this strategy may have the unintended consequence of obscuring the DQP's intention to frame a more integrative and cumulative design for college learning.

In order to document the outcomes described in the DQP, many campuses experimenting with the DQP have focused their assessment work on a specific subset of the curriculum, such as the business or biology program in a

transfer context, or writing in general education, or quantitative reasoning in four or five disciplines. These are "subdivide assessments," meaning that they tackle only a subset of the five DQP areas of learning and, in the case of the Intellectual Skills area, take on only a couple of the five complex Intellectual Skills—analytic inquiry, communication fluency, quantitative fluency, engaging diverse perspectives, and use of information resources—for which the DQP maps out illustrative competencies.

The subdivide assessment strategy is attractive as it allows faculty and staff to connect the DQP with real questions or problems that the experimenting campuses want to address. This is a politically smart, understandable choice, and perhaps the only way that the DQP could be introduced at all, given the other issues with which all collegiate institutions are grappling such as cost-cutting, completion, and digital innovations. These challenges, along with "initiative fatigue"—due to the ever-growing number of state or system mandates or organization-sponsored innovations—are realities that educational leaders have to manage.

Even so, wide use of this practical strategy—the commitment to "subdivide and get it done"—may mean that we will learn less than is needed from the various DQP assessment experiments under way. Moreover, it may limit the number of people actually working with the DQP. The faculty involved may be working only with a particular discipline—the "Specialized Knowledge" part of the DQP. Or they may be working only on general education, or even on ways to assess a particular skill such as writing that is seen as part of general education.

The downside of a subdivide assessment strategy is that experimenting campuses tend not to deal with the DQP as a whole, either as an educational framework or "profile" or with efforts to enact the intended connections across the five DQP areas of learning designed into the DQP framework specifically to intentionally foster integrative and adaptive learning. Thus, the experiments may overlook the task of assessing the integrative learning—across fields of study or between analytic and applied learning—that the DQP design was intended to actively promote.

To be specific, a 21st century postsecondary education must help students develop the capacity to see and make connections between broad and specialized knowledge and between knowledge and skills. Graduates must also be able to integrate knowledge and skill with the kinds of situated judgments (and new learning) required to apply their learning in different contexts and for civic inquiry and problem-solving.

For these reasons, none of the five areas of DQP attainment is self-contained. Minimally, each of the five DQP areas of learning requires the integrated deployment of broad knowledge, field- or topic-specific knowledge, and

When a campus assesses intellectual skills only within general education courses or a major, it misses an opportunity to explore how the curriculum overall can help students actually connect the different parts of their educational experiences and learning.

intellectual skills. Applied Learning and Civic Learning call for even more complex forms of integration, application, and—implicitly—for reflective and evaluative learning as well.

Said another way, when a campus assesses intellectual skills only in general education courses, or knowledge and skill only within a major, it misses an opportunity to explore how the curriculum overall (including field-based learning) can help students actually connect the different parts of their educational experiences and learning. Indeed, the subdivide strategy may inadvertently signal to students that integrative learning is not necessary to prepare them for the complex and unscripted problems they will encounter in the workplace, the public sphere, and in their personal lives. Just the opposite is actually true!

I also worry that, across all the DQP experiments, too much of the campus discussion is centered on "outcome list alignment," whereby institutions line up their DQP outcomes with institutional or general education outcomes, state or community college system-level outcomes (which, when they exist, usually are described as general education outcomes), and specific program outcomes for major fields, such as business or engineering, that may also be influenced by outcomes specified by a program-specific accreditor.

While aligning such outcomes is a necessary first step for campus leaders—if only to ask the question whether the DQP gets at issues the system, campus, or discipline considers priorities—there is a huge distinction between "outcome list alignment" and the kind of curriculum/competency/assessment mapping that Ewell sets forth in his guide to DQP assessment.

Curriculum mapping asks whether the educational experience is designed to effectively foster the intended learning. In terms of the DQP, curriculum mapping ought to explore whether the educational experience was implemented well enough for students to demonstrably acquire the integrative and applied learning the DQP describes.

Outcome list alignment, thus, is necessary but far from sufficient for the kind of integrative educational planning and assessment that the DQP outlines. The curriculum mapping Ewell describes so well in his paper is the critical key, both to the quality of DQP competency development and to the assessment of students' cumulative and demonstrated achievement.

To say the obvious, students learn what they practice. The DQP is a design for a hands-on, practice-rich, integrative education. To foster this kind of intentional and integrative learning, and to demonstrate its attainment through assessment, faculty collaboration across the usual curricular boundaries is indispensable to success.

To foster intentional and integrative learning, and to demonstrate its attainment through assessment, faculty collaboration across curricular boundaries is indispensable to success.

Last Words

One way to address both the fear and the fragmentation that threaten the current DQP experiments is to make sure that all the DQP projects view their particular initiatives—outcomes articulation, curriculum planning, assessment, transfer collaborations, and the like—as micro-explorations of the larger questions that the DQP poses to higher education: What kinds of learning will actually prepare students to contribute and thrive, both in a turbulent economy and in a globally engaged democracy? What practices—both in the curriculum and in off-campus sites for learning—best foster the intended competencies? How do we help students see the larger aims of their education, and what would tell us best whether students have developed the ability to deal with unscripted, nonroutine problems?

If every campus and organization now working with the DQP moves such discussions to the top of its agenda—for faculty, staff, stakeholder, and board-level debate—then it will become far more likely that leaders at all levels will actually engage in the kind of creative educational work—generative innovation—that the DQP was designed to elicit.

The DQP is a bold effort to help higher education move beyond credit hours to competency and beyond the fragmented learning too many students experience to intentionally preparing students to integrate and apply their learning to unscripted problems and responsibilities. The DQP was deliberately written as a first-draft "beta" version, with revisions and improvements both anticipated and welcomed.

Those involved with this bold transformative experiment need to ensure that the micro-experiments become connected, within each campus and across the participating experiments, so that the potential educational value of the DQP's intended assessment strategy becomes both visible and widely debated.

Many of us learned long ago that situated and collaborative reflections about what we are "learning by doing" are a critical and even indispensable key to both professional development and competence. The DQP experiments are more likely to take root if integrative, reflective, and collaborative dialogue and learning become central themes in the next phase of this very important educational experiment.

Carol Geary Schneider
President, Association of American Colleges and Universities

The DQP is a bold effort to help higher education move beyond credit hours to competency and beyond fragmented learning to intentionally preparing students to integrate and apply their learning to unscripted problems and responsibilities.

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NILOA Mission

NILOA's primary objective is to discover and disseminate ways that academic programs and institutions can productively use assessment data internally to inform and strengthen undergraduate education, and externally to communicate with policy makers, families and other stakeholders.

DQP

The Degree Qualifications Profile was created by the Lumina Foundation in 2011. The DQP illustrates clearly what students should be expected to know and be able to do once they earn their degrees — at any level: the associate, bachelor's and master's degrees — which constitute the great majority of postsecondary degrees awarded by U.S. colleges and universities — regardless of a student's field of specialization. The Degree Profile describes five basic areas of learning: Broad, Integrative Knowledge; Specialized Knowledge; Intellectual Skills; Applied Learning; and Civic Learning.

About NILOA

- The National Institute for Learning Outcomes Assessment (NILOA) was established in December 2008.
- NILOA is co-located at the University of Illinois and Indiana University.
- The NILOA website went live on February 11, 2009. www.learningoutcomesassessment.org
- The NILOA research team has scanned institutional websites, surveyed chief academic officers, and commissioned a series of occasional papers.
- One of the co-principal NILOA investigators, George Kuh, founded the National Survey for Student Engagement (NSSE).
- The other co-principal investigator for NILOA, Stanley Ikenberry, was president of the University of Illinois from 1979 to 1995 and of the American Council of Education from 1996 to 2001.
- Peter Ewell joined NILOA as a senior scholar in November 2009.

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