National Institute for Learning Outcomes Assessment

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Catalyzing Assignment Design Activity on Your Campus: Lessons from NILOA's Assignment Library Initiative

Pat Hutchings, Natasha A. Jankowski, & Peter T. Ewell

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NILOA Mission

The National Institute for Learning Outcomes Assessment's (NILOA) 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.

Acknowledgments

We very much appreciate the faculty who set aside time from their very busy schedules to participate in the charrettes. We are in your debt.

The NILOA Team



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Foreword

Back to Basics: Ensuring that Assignments Matter

Among the many pressing priorities facing U.S colleges and universities, two are central to NILOA's mission. The first is providing resources that will help institutions better document the quality of student learning. The second is discovering ways that institutions can improve a wide range of student outcomes. Many local and national initiatives are underway to address various aspects of these two priorities. It is hard to imagine an effort with greater potential to effectively address both challenges than helping faculty design assignments that require students to demonstrate the knowledge, proficiencies and dispositions needed in the 21st century.

Why Assignments?

First, assignments are the sole province of the faculty. Fundamental to the teaching and learning interplay, assignments take a variety of forms that are congenial to and representative of disciplinary intellectual traditions. When carefully structured, they elicit knowledge and behaviors that can be calibrated to the specific proficiencies individual instructors, programs, and institutions deem important. By sharing assignments and collaborating on their design, program faculty and those responsible for teaching general education courses can create the scaffolded learning experiences that their students need to broaden and deepen learning during the undergraduate years.

Second, assignments yield direct evidence of authentic student accomplishment in close to real time. No standardized measurement tool generates better actionable data about what students know and can do than their performance on tasks that their teachers determine to be valid indicators of intended outcomes. Yes, informed observers may quibble about which proficiencies are more or less important. But most would agree that a well-designed assignment evaluated using rigorous standards is the most efficacious manner to determine whether students have achieved the expected outcomes.

Third, by examining student performance on assignments, faculty can determine areas of relative strength and weaknesses in students' mastery of course objectives. Without this kind of information, how can faculty and instructional designers know what to change to improve student achievement? In fact, the absence of this kind of systematic analysis of students' performance on assignments may be one reason student learning outcomes have not improved despite years of assessment work.

Finally, a summative evaluation of student performance on the collection of assignments from courses and other experiences contributing to a program of study -- perhaps in the form of an electronic portfolio -- can provide a cumulative record to assure students, faculty, employers and others of what individuals and groups have learned and can do. Such a record in portable form may well become necessary as the number of students who attend multiple institutions continues to increase.

There are surely more faculty members that I can count who are using challenging assignments that prompt student behaviors that represent the desired outcomes for a given course. And there are many programs with courses and their respective assignments designed and sequenced to add up to more than the sum of their parts. But such carefully planned and enacted learning experiences are not the norm. Many teaching and learning centers and other faculty development efforts have not given assignments the attention needed to improve student and institutional performance. In short, too little attention has been given by our enterprise to assignment design. This observation is not pure speculation.

Indeed, focusing on assignments as a way to identify where improvements in teaching and learning approaches are needed and to reinvigorate faculty involvement in assessing authentic student learning emerged from the field -- faculty and staff attending project meetings hosted by the Association of American Colleges and Universities, the Council of Independent Colleges, NILOA, and other groups. These discussions prompted NILOA to initiate the assignment design work that is the topic of this report.



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Foreword continued

Under the leadership of Pat Hutchings and her collaborators Natasha Jankowski, Peter Ewell, Paul Gaston, and Jillian Kinzie, NILOA has convened two assignment design charrettes to date with more than 40 faculty members from 30+ colleges and universities participating. The NILOA team has also contributed to related work in Indiana, Massachusetts, and several campuses. More charrettes are on the drawing board, including one scheduled for March 9, 2015, in Boulder, Colorado. And NILOA's assignment library now contains more than 40 assignments from different fields calibrated to the proficiencies outlined in the Degree Qualifications Profile that have been vetted by faculty members from around the country. You can see them here: www.assignmentlibrary.org.

One of the more surprising and gratifying outgrowths of this work is requests from institutions for how to conduct their own local assignment design workshops. This paper, authored by several architects of the NILOA assignment charrettes, describes the importance of assignment design for – among other things -- assuring that college students attain the proficiencies that will stand them in good stead in their post-college years. The authors also provide sage counsel for campus leaders and faculty members about how to advance assignment design work at their home institution.

It is difficult, indeed, to imagine a better, more effective use of faculty time than designing assignments that really do matter for all the right reasons.

George Kuh

Director, National Institute for Learning Outcomes Assessment (NILOA) Adjunct Research Professor, University of Illinois Indiana University Chancellor's Professor of Higher Education Emeritus

Catalyzing Assignment Design Activity on Your Campus: Lessons from NILOA's Assignment Library Initiative

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The Degree Qualifications Profile (DQP) first released by Lumina Foundation in 2011 and revised in 2014 sets forth a vision of what students should know and be able to do at the associate, bachelor's and master's levels. It also carries an important message about assessment. Unlike the popular model of assessment as a sampling of average student performance, the DQP requires all graduates to master *all* of the described proficiencies as a condition of being awarded a degree. The most natural and efficient contexts for achieving this are the projects, papers, and tasks that faculty regularly assign in the courses they teach (Ewell, 2013). In short, the DQP puts assignments, and the faculty work of creating them, at the center of student assessment.

With this in mind, the National Institute for Learning Outcomes Assessment (NILOA) set out in the fall of 2013, with Lumina funding, to create an online "Assignment Library" of faculty-designed and peer-reviewed assignments linked to DQP proficiencies. We did so in large part because faculty and campuses getting started with the DQP were asking for examples of assignments that explicitly elicit student demonstrations of DQP proficiencies. Additionally, we wanted to learn from a number of DQP-active campuses that were already working on assignments at that time. Our aim was both to build on their work and to provide models and exemplars to other campuses that were attracted to the focus on assignment design.

Over the subsequent year and a half, we have been struck by the high level of interest in the NILOA's Assignment Library initiative, not only among faculty on campuses embracing the DQP, but others, as well, including those who have been involved with Tuning--DQP's "cousin" focused at the disciplinary level. Additionally, the initiative has attracted the attention of assessment leaders and professionals who see assignments as a route to greater faculty engagement, and of faculty developers who recognize the pedagogical power of more intentionally designed assignments linked to clear outcomes. Indeed, results from the 2013 NILOA Provost Survey indicate that campus chief academic officers (CAOs) believe that some of the most valuable and useful information about student learning comes from classroom-based assessments that take the form of welldesigned assignments (Kuh, Jankowski, Ikenberry, & Kinzie, 2014).

Not surprisingly, given this broad-based interest, NILOA has received numerous requests to share what is being learned through the Assignment Library initiative. Campuses are eager to have models they can use to foster and support serious work on assignment design by faculty and others—for instance student affairs staff and librarians—who create, monitor, and evaluate the tasks and activities that shape student learning. Meeting that demand is our purpose in this report.

The report begins with a discussion of the main arguments for focusing on assignments, and then turns to the features of assignments intended to serve as assessments (since some assignments, after all, are intended more as learning activities and not as occasions for judgment of students' abilities in relation to specific learning outcomes). In a section on alignment and scaffolding we argue that "no assignment should be an island," which is to say that an important potential

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contribution of assignments—and one of the distinguishing contributions of assessment—is to illuminate the pathways students take through diverse courses and experiences, which argues for attention not only to individual assignments but to the arc of assignments over time and to the ways that faculty can work together on their design and use. The final section of the report describes different approaches for bringing people together on campus (and sometimes across campuses) to work on assignment design, and ends with six suggestions for doing so successfully.

Throughout the report, we draw heavily on an earlier essay by Peter Ewell (2013), which articulated the DQP vision of assessment and set the conceptual stage for NILOA's work on assignments. That work has involved the full NILOA team, and their thinking is reflected here as well, as are the contributions of the more than forty faculty who have thus far participated in the Assignment Library initiative and generously shared their assignments with one another, with NILOA, and now, through the online collection, with any and all who wish to consult and learn from them (see www.assignmentlibrary.org). We are grateful, as well, to individuals who shared their campus experiences with us and whose lessons are captured in what follows.

Why Assignments

There are four reasons why assignments can play a powerful role in assessment, and all of them are related to the well-known challenge of using assessment results for improvement (Banta & Blaich, 2011; Blaich & Wise, 2011; Kuh, 2011).

First, making assignments a primary vehicle for assessment can serve to remedy a disconnect that has plagued assessment for decades. As Ewell (2009) explains in his retrospective analysis of the tensions between accountability and improvement, in its earliest days assessment was deliberately distanced from the work of the classroom, and especially from faculty judgments of student work through grading. On the one hand, he points out, "This separation helped increase the credibility of the generated evidence because, as 'objective' data-gathering approaches, these assessments were free from contamination by the subject they were examining" (p. 19). On the other hand, this separation from the classroom distanced assessment—both the process and the findings—from the very action it most sought to influence: the education of students. Bringing assignments into play embeds assessment in the ongoing work of teaching and learning where it is most likely to make a difference to student learning. When assessment is about the work students do in their own classrooms rather than on externally designed instruments, it is much less likely to be a compliance driven activity and much more likely to be useful to the ongoing work between teachers and students.

A second and related point is that a focus on assignments puts assessment directly in the hands of faculty, who are, after all, best positioned and distinctly qualified to make judgments about the quality of student work. Moreover, the design of tasks that allow students to demonstrate what they know and can do is serious intellectual work that deserves to be made more visible and valued (Bernstein, 2001: Huber and Hutchings, 2005). Many faculty invest significant amounts of time and energy designing assignments, honing them over time, adding elements and activities to prepare students for them more fully, developing rubrics to judge student responses to them more clearly, and providing Making assignments a primary vehicle for assessment can serve to remedy a disconnect that has plagued assessment for decades.

feedback to students. Higher education will benefit when such work is shared and built on, tying assessment more directly to the ongoing improvement of learning.

Third, assignments are not vulnerable to the vagaries of student motivation one of the most vexing problems assessment faces. As evidenced both by the extensive research literature on this problem (Coutts, Gilleard, & Baglin, 2011; Eklof, 2010; Steedle, 2014) and by conference sessions on the uses of everything from pizza to extra credit to raise the level of student effort when taking assessments, when assessment is disconnected from the real work of teaching and learning—work assigned and counted by faculty—students will not make their best effort, and results will be disappointing and likely discounted. In contrast, where assessment is built into the regular work of a course, in examinations, projects, papers, laboratory work, and other required tasks, student motivation is not an issue. Or, to put it more accurately, it is an issue only in the sense that motivation is *always* an issue in teaching and learning because part of the faculty member's job is to find ways to engage students, to raise motivation. Accordingly, composition scholar John Bean (2011) urges that assignments be characterized by a "TIP"—a "Task as Intriguing Problem," that catalyzes authentic student effort (p. 98).

Finally—and this is perhaps the most compelling reason for turning to assignments as a vehicle for assessment—assignments are not only a source of rich evidence about student learning, they are also pedagogically powerful—sending signals to students about what faculty think matters, and about what they expect from students. At their best, assignments pose interesting, fresh problems that capture students' imagination (Bean's "TIP"). Like assessment itself, they are a means to an end. In this sense, we think of comments by faculty who have been part of the NILOA Assignment Library initiative or of similar campusbased efforts who report that they have not only improved their assignments; they simultaneously have improved the course and the way it is taught—such that students perform more effectively and are more aware of the knowledge and skills the assignment asks them to demonstrate.

To say that assignments can and should play a role in assessment is not to say that other approaches have no place. A robust assessment program draws on multiple sources of evidence at multiple levels within the institution and will likely include student surveys, focus groups, and attention to larger patterns of persistence and retention. But when it comes to direct evidence of student accomplishment and demonstrations of proficiency, it is hard to imagine a better source than sound faculty-designed assignments whose results are unambiguously tied to the outcomes the faculty—individually and collectively—care about.

Assignments that Work for Assessment

A great deal of "good practice" literature exists about what constitutes an effective assignment and how to go about designing one. Faculty development professionals and instructional and curriculum specialists have written thoughtfully on this subject (Fink, 2003; Wiggins & McTighe, 2005; Svinicki & McKeachie, 2014). Some fields and disciplines have made especially significant contributions, with composition studies arguably at the top of the list (Bean, 2011; Graff & Birkenstein, 2009; Walvoord & McCarthy, 1990). Indeed, the Consortium for the Study of Writing in College has found that for the purpose of promoting deep learning the amount of writing assigned is less important than the design of the writing assignments themselves (Anderson, Anson,

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Gonyea, & Payne, 2009). In short, anyone seeking guidance about the characteristics of an effective assignment, and the importance of effective design, will find plentiful resources (see http://assignmentlibrary.org/resources).

But not every assignment can serve as an assessment in the sense that one of its primary purposes is to support consequential judgments about the student's progress toward mastering specified course and degree outcomes. Many assignments are, by design, meant to be formative and informal (Bean, 2011); they may be "writing to learn" exercises, for instance, not occasions for the student to demonstrate what she or he knows and can do in a more summative way. Admittedly, there is overlap between these two (formative and summative) types of assignments. Formal, summative assignments can be powerful pedagogical experiences, as noted above, but the opposite may not be true; more informal assignments may not be crafted in ways that make them appropriate for formal assessment.

Indeed, part of the impetus for NILOA's work on assignments was stories from faculty about the design and use of assignments that turned out not to provide evidence that was useful for assessment. This is a case of a phenomenon which is all too familiar: the "critical thinking" assignment that does not in fact require the student to engage in any of the components of "critical thinking." It may be useful for other things and serve other purposes—and it may even be a powerful learning experience for students--but if the aim is to assess critical thinking skills, it has not been effective. So what are the features of an effective assignment designed to serve the purposes of assessment?

As one step toward answering this question, the NILOA Assignment Library adopted Ewell's "assignment template" (2013) to describe the essential features of an effective assignment intended for assessment. It addresses three questions:

- 1. What is the central task that must be undertaken and the DQP domain and degree level in which it is located? For example, a central task to demonstrate DQP proficiencies in the realm of Analytical Inquiry might involve comparing and contrasting two or more arguments or points of view on a particular topic.
- How should the required task be undertaken and the results communicated? For example, communications mechanisms noted in the DQP proficiencies related to Quantitative Fluency include verbal arguments, mathematical algorithms and constructs, and mathematical arguments using accepted symbolic systems.
- 3. How extensive or evidential should the response be? For example, DQP proficiencies listed under Communication Fluency and Use of Information Resources require two or more examples, more than one language or media, and appropriate citations.

The point of the template's three injunctions is not to describe all of the elements that might go into an exemplary assignment but to provide "guidance about the specific characteristics of an appropriately configured answer to the posed topic or question" (Ewell, p. 13). That is, the goal is to keep the student from going astray, to ensure that the assignment "unavoidably elicits a demonstration" (p. 8) of the desired behavior.

The template is deceptively simple, and deserves some commentary. The first point speaks to the need for a clearly identified central task: what is the student to do? The DQP emphasizes the importance of action verbs (compare, contrast)

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and effective assignments clearly articulate to the student exactly what kind of action is expected. Additionally, this first point underlines the importance of clarity; that is, the assignment is "backward-designed" (Wiggins & McTighe, 2005) to elicit particular learning outcomes (and not too many).

The second point in the template focuses on how the task should be undertaken and communicated. The issues here are largely about genre and convention. In math, as noted, one might employ algorithms and symbolic systems. But more generally, one might say, the template is asking: what should the answer look like? Should it (could it) be an essay, a poster, a letter, a video, a diagram? If it matters what form the answer takes, that should be made clear to the student; if the assignment is inviting students to chose a medium to fit the message, that too should be made clear. Further, what is the audience for the assignment? Is it the faculty member? A fellow student? An external stakeholder?

The final point is about "how extensive or evidential" the answer should be. This of course, is the area about which students most famously ask when they insist on knowing "how many examples do I need?" or "how many pages?" These questions can be frustrating (especially from upper-level students who we hope have begun to internalize the expectations of the discipline). But when assignments are being employed as summative judgments of students' demonstration of specific outcomes, it is wise not to leave such matters too open-ended. That said, the level of explicitness about directions should be appropriate to the student's level of development—and to the context of the assignment. Some assignments are clearly intended to elicit creative, divergent thinking, and in those cases, less direction may be more appropriate. Such considerations will also govern the amount of scaffolding built into the assignment: in the early years of study when students may not know the conventions of the discipline, the assignment should provide most of the information needed to construct a good answer; later on, when students have internalized these norms, less scaffolding will allow them to demonstrate this fact.

The template does not and is not intended to capture all of the features that might characterize an exemplary assignment. Appendix A provides a list of features that NILOA Assignment Library initiative participants identified as desirable—including the assignment's ability to engage students deeply, to draw on their creativity, its appropriateness to the student's level of development, and its connection with related assignments in other courses (a topic we turn to below). All of these are important, certainly, and many of them are elegantly and creatively illustrated in the assignments collected in the Assignment Library.

No Assignment Should be an Island: Alignment and Scaffolding

An important lesson of the NILOA initiative is that looking at assignments one by one, in isolation, is an important step, but great benefits accrue when faculty look at assignments together, across settings. Many of the most meaningful and actionable questions about student learning are not, after all, at the level of individual lessons or even at the level of an individual course. There is value in looking across the diverse elements of a given student's educational progression and asking about their cumulative impact on what the student knows and can do. In this sense, one of the distinctive contributions of assessment is to counter what literary scholar (and former Modern Language Association president) Gerald Graff (2010) calls "courseocentricism...a kind a tunnel vision in which we become so used to the confines of our own courses that we are oblivious to the fact that our students are taking other courses" (p. 157) which may leave them with something far short of a coherent, integrated educational experience.

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If assignments are to be part of the solution to this problem, an important step is to design and deploy them in ways that create coherent pathways for students, and that reinforce connections across courses. Careful attention to the design of individual assignments in the context of a particular course is certainly time well spent. But if assignments are to serve the most important purposes of assessment—improving the educational experience of students—they must also be connected to one another and aligned and integrated with a broader curricular and co-curricular set of experiences. Thus, there is much to be gained when faculty come together to look at—and strengthen--the connections among the assignments they give.

Alignment

A significant step in this direction—one that has guided NILOA's Assignment Library initiative—is to anchor the work in an overarching framework of proficiencies, in this case the DQP. Participants selected for the initiative were asked to contribute assignments that assess one or more DQP proficiencies. The goal of their work as a group was to help one another revise their assignments to strengthen that alignment—that is, to make it clearer and more explicit how the assignment elicits the desired outcomes. Thus the DQP provides a shared framework and a common language for linking individual assignments to a particular set of proficiencies and for connecting the collection of assignments across diverse disciplines and fields, and at different levels. As one participant in the process put it, "looking at an assignment through the DQP filter helps make those cross-disciplinary, broad skills more explicit.'

But formally adopting the DQP is not necessary to achieve this kind of alignment. The 2013 NILOA Provost Survey indicates that 84 percent of all campuses now have institution-level student learning outcomes (Kuh, Jankowski, Ikenberry, & Kinzie, 2014), and those can serve a similar purpose by providing a common anchor point for assignment design. This approach is illustrated by what Cabrini College has done with the "signature assignments" they have created for their general education program. A "signature assignment," as Cabrini uses the term, refers to an assignment that meets a set of broad specifications for a particular area of their core curriculum. One area, for instance, is "Individual and Society," and the "Individual and Society Signature Assignment Guidelines" specify that all courses in this area should have at least one writing assignment that: is 3-4 pages in length; requires students to collect, analyze and interpret data that draws students' attention to the relationship between individuals and their society; and that applies a common evaluation rubric for this area of core learning. Thus, faculty in a wide range of fields, from English to Social Work, have developed assignments which "follow their own path," but nonetheless are aligned with common outcomes and share common features that permit Cabrini faculty "to make assessment-informed pedagogical adjustments" to teaching and curriculum (Filling-Brown, Frechie, & Groves, 2014).

Scaffolding

Another notable mechanism for building assignments that work together is scaffolding. Scaffolding, as the metaphor suggests, refers to supportive structures that are used to construct or develop something. The word has become commonplace in educational contexts lately, but it's useful to recall its literal origins, thinking of the multi-story scaffolding assembled around, say, a church, when it is being built or repaired—serving to keep workers safe, and support them while it is under construction. In education, scaffolding refers, similarly, to a set of steps and supports that help students move from one level to another, and give them guidance about what route to take. Assignments can be scafIn education, scaffolding refers to a set of steps and supports that help students move from one level to another, and give them guidance about what route to take.

folded in a number of ways: through sequenced instructions; smaller, phased assignments that build on one another and prepare the student for a culminating task or demonstration; occasions to reflect on learning along the way and thus to build skills and confidence; and the use of rubrics and criteria that give specific guidance about how to move through successive levels of performance.

Scaffolding can exist both within a course and across courses. Many of the assignments submitted to the NILOA library include extensive examples of scaffolding within a single course. That is, the central assignment task may be a final capstone experience, or culminating course project, but it is preceded by a series of more formative tasks designed to lead the student toward that larger culminating assignment and to provide opportunities to test out ideas, practice relevant skills, and assemble the building blocks of a successful response to this culminating task. Often these sequenced, scaffolded assignments are designed and added over time as the instructor discovers through experience the particular supports that students need to succeed. For instance, Professor Susan Taylor from Mount Wachusett Community College teaches a first-year course in computer information systems. Her assignment¹ aims to assess the DQP proficiency of Quantitative Fluency and covers a number of key concepts in the field: internet speed, factors affecting data communications, and internet traffic, to name just a few. Finding that "students have difficulty making meaningful graphs from the data they collect and difficulty interpreting the graphs they make," Taylor added additional guidance and steps to scaffold their progress through the multi-part assignment, which, she reports, results in more successful student performance. In our work with faculty around their assignments, we found many engaged in conversations about how students are (and often are not) prepared to complete the assignment, prompting one another to think harder about how to move students through a series of smaller tasks toward success on the culminating, more ambitious one.

But students often need support moving from course to course, as well. Professor Leslie Reynard, at Washburn University, teaches communication studies. In 2011, her department initiated a research-centered capstone, which includes a one-semester research and writing project. What she found, she says, was that "students' ability to apply the theoretical learning they took from [earlier courses in] the curriculum in the one-semester senior project" should be defined and bolstered in those prior courses. What they needed was practice with related tasks and assignments—including the non-cognitive skills of goal-setting and time management, to complement their academic skills. They particularly needed to develop a practical understanding of how that learning would need to be applied in the capstone. Thus, she set out to develop an assignment that serves as a bridge between the research methods course (taught in the junior year) and the senior capstone, "giving the student a strong foundational plan for scholarly research which can be completed in one semester." The "bridge assignment"² epitomizes what is meant by scaffolding, providing step-by-step directions to move students through a process and prepare them for a next step at a higher level of performance.

Scaffolding may also involve removing supports along the way or signaling to students that they are expected to integrate and demonstrate their learning on their own. J. Lee Brown, a faculty member in business and economics at Fayetteville State University, and one of the participants in the NILOA initiative, reported that he had been struggling with a senior capstone project in business where students were not pulling from the previous semester's coursework as desired. Upon conversation with other faculty members, he realized that he

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¹ http://assignmentlibrary.org/assignments/542df2fcfc280e6c0400002c

² http://assignmentlibrary.org/assignments/542defb6fc280e6c04000028

had not communicated to students what a capstone experience entailed or how it differed from their previous assignments. Thus in a revised version of the assignment he included a signal to students in the instructions that in order to complete the semester-long project they would need to integrate and apply various aspects of their courses from throughout their full experience with the program. While it was not explicitly outlined what they needed to incorporate, or how many courses, what was conveyed was the expectation that they would follow the disciplinary norms that they should have learned at this stage and that their previous coursework should serve to help them address unscripted problems. After incorporating these signals into the assignment instructions, Brown found that students began submitting projects that were more aligned with program expectations.3

This kind of scaffolding often invites collaboration within and across departments (see Albertine and Gubbins, 2014), and reminds us that assessment (like teaching) is not a solo activity. Indeed, one of its virtues is to promote interaction among faculty across different disciplinary and program contexts as they focus together on students' progress toward learning goals they value in common. This is where bringing faculty together can pay significant dividends, resulting not only in better individual assignments but in more connected assignments, and more integrative *learning*, across the curriculum.

Stimulating Assignment Design Work

Designing projects, examinations, performances, writing prompts, and other tasks that allow students to demonstrate what they know and can do is one of a faculty member's most consequential roles. But it is not one for which most have any explicit training, and many, we have learned, would welcome opportunities for reflection with colleagues on the design of their assignments. Indeed many participants in the NILOA initiative reported that they wanted to use that model with colleagues back home on campus.

The NILOA Charrette Model

The NILOA initiative brought together two groups of faculty in October 2013 and February 2014, respectively. These faculty, 41 in all, applied to participate and were selected based on the assignment they submitted, which was treated as a draft. The purpose of the face-to-face meetings was two-fold: 1) to help the NILOA team develop a design for the online Assignment Library, and 2) to engage in a process of collaborative peer review which would provide each member of the group with ideas for improvements that could be made before submitting a final version of the assignment to the Library.

In advance of the face-to-face meeting, participants read one another's draft assignments. At the meeting, they met in groups of four or five drawn from similar disciplines, which we called "charrettes," a term from architecture education used to denote collaborative design work undertaken under pressure of time. Each charrette allocated its time for the task according to a simple but set protocol:

- •Introduce your assignment to the group, setting up discussion—5
- •Facilitated Q&A, feedback—15 minutes
- •Written feedback—5 minutes

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Several elements contributed to the success of this process. First, participants wanted to participate in the event; they applied to the program and saw it as an honor (though a somewhat daunting one, some of them told us). Second, the process was facilitated; each small group had a facilitator from NILOA whose job it was to keep the discussion moving, on target, and constructive. Third, discussion was concrete and focused—not about assignments in general, that is, but about the *particular* assignments in front of the group. Fourth, each person left with feedback about how to improve her or his assignment, both oral, from the discussion, and in writing (see appendix B for the written feedback form employed for this purpose). That feedback was then used to make revisions to the assignment before it was actually posted to the online Library. After participating in the charrette, faculty returned to their campus with the revised assignment and implemented the revision with students before making any final or additional modifications and submitting the resulting revised assignment to the library.

Models for Organizing Assignment Design Work on Campus

As noted earlier, many charrette participants were eager to take the process back to their own campuses. But they were aware, too, that the charrette approach would need to be modified to fit local circumstances. With this in mind we have now collected a number of examples of how colleges and universities might organize to support work on assignments. (A number of them are based on work undertaken by AAC&U's Quality Collaboratives initiative, which involved pairs of institutions working with the DQP to facilitate success in student transfer.) The approaches are not mutually exclusive, but, for the sake of simplicity, we present them here as distinct.

1. Start a general conversation about assignments and what makes them effective. Some campuses may want to start with an open call, inviting any faculty member who wants to talk about assignments to a conversation, encouraging but not requiring that they bring one along. The goal would be modest but important: to start a dialogue about why assignments matter, what makes them effective, the different forms they can take, and so forth. This kind of approach makes sense at institutions (like one we talked with) where there is a sense that faculty are ready to talk but not quite ready to show one another their assignments. A natural sponsor for such an event would be a teaching and learning center, but it might also be a good candidate for co-sponsorship by the assessment office, highlighting a faculty-driven approach to assessment and using the occasion to identify a group of individuals who want to work further on assignments as a vehicle for assessment.

At the University of Massachusetts Amherst, for instance, assignment design was the focus of three sessions on the work the campus had been doing around integrative and reflective thinking at the upper-level--the new "Integrative Experience" (IE) requirement. The plan was to have instructors share their IE assignments in pairs and get feedback from one another. As it turned out, very few of them brought an assignment. While it might have been that such sharing was not a sufficient part of the culture, the workshop leaders concluded it was more that they had "jumped the gun." The IE initiative was still so new that faculty needed more fundamental guidance on course design for the IE. As a consequence, discussion focused largely on the kinds of activities and assignments that would prompt integrative and self-reflective thinking. Participants were more interested in the types of questions or prompts that were likely to be most useful (e.g., a blog, essay, charting, short answer) than in the particulars of any fully developed assignment. The lesson for the workshop leaders, they told us, was to be sure to consider the instructional development context when designing this kind of assignment-sharing activity. For example, is the activity Some campuses may want to start with an open call, inviting any faculty member who wants to talk about assignments to a conversation, encouraging but not requiring that they bring one along.

focused on facilitating course-development for a new initiative where learning goals are still being clarified (as in the UMass case) or for well-established courses whose instructors are open to making changes, or for some other instructional design purpose?

2. Focus on student work. A number of campuses and groups have found it helpful to focus initially on student work as a stimulus for designing or redesigning assignments. This idea emerged, for instance, in work at Middlesex Community College and the University of Massachusetts-Lowell where faculty participants suggested that seeing actual student work (say, a particular essay that demonstrated critical thinking or problem solving) could help them work backwards toward assignments that would elicit such performances. In this spirit, the two campuses hosted a one-day institute (attended by seven other institutions in the state) that began with exemplars of student work, invited discussion of the key components of that work in different disciplines, and then focused on generating assignment prompts that would elicit those components at different degree levels.

A similar approach emerged in the collaboration between Indiana University-Purdue University Indianapolis and Ivy Tech using a process of Dynamic Criteria Mapping, which involves groups of faculty from specific disciplines examining samples of student work at various levels of their educational experience. The faculty are then asked to discuss what they appreciate, value, and find useful about the students' work and what they see as areas of needed improvement or places for growth. These judgments are mapped and used to generate collective descriptors to talk about specific elements that faculty want to see in "good student work." The lists developed from the mapping process can then inform assignment design or serve as starting points to review assignments. As one faculty participant stated, "If we haven't asked them to demonstrate it, can we really fault them for not including something we value?"

3. Approach assignments through curriculum mapping. In his paper on the assessment implications of the DQP, Ewell (2013) notes the importance of curriculum mapping as a way to determine where and how particular proficiencies are expected, explicitly taught for, and assessed. Most institutions have established various levels of learning outcomes for students that are ideally aligned with and support one another - such as general education, institutional, and programmatic learning outcomes. To ensure that these outcomes are aligned and addressed in appropriate courses, many institutions engage in a process of curriculum (and co-curriculum) mapping. (We have been struck by the fact that although institutions begin work with the DQP in various ways, almost all of them sooner or later engage in some kind of curricular mapping.) The point of doing so is not simply one of documentation; indeed, if two different faculty members mapped the same curriculum, they might well end up with two different maps. The greater value lies arguably in the process of consensus building whereby groups of faculty collectively identify where and when the different learning outcomes are addressed and how they align over time and across settings. In this sense, creating a curriculum map--essentially a twodimensional matrix representing courses on one axis and proficiencies on the other--is a useful route into work on assignments. It can be used to identify gaps, places where an assignment needs to be re-examined, revised, or sometimes created de novo, or where scaffolding across assignments or courses is needed.

The power of this approach is nicely illustrated by work undertaken at the California State University Monterey Bay a number of years ago. Under the auspices of the Center for Teaching, Learning and Assessment, in what came to be called "course alignment projects," faculty met together over an academic year to talk A number of campuses and groups have found it helpful to focus initially on student work as a stimulus for designing or redesigning assignments.

about their learning outcomes in a selected course, what activities and assignments in the course were designed to advance those outcomes, and to look together at samples of student work (Driscoll & Wood, 2007). Less formal than curriculum mapping and focused on an individual course rather than the larger curriculum, the process often ended up focusing attention on assignments and assignment design. One of the most productive activities was the development of a "course alignment grid" with course elements (e.g. readings, class activities and discussions, and other resources) on one axis and outcomes on the other. The grid allowed faculty "to chart the relationship between their course activities and course learning outcomes" (p. 162) and provided insights about how assignments (and other course elements) could be modified or added to help students achieve intended course outcomes more successfully.

4. Align existing assignments with shared learning outcomes. This is the model employed in the NILOA Assignment Library Initiative. We invited faculty to come with an assignment that aimed to address a specified learning outcome, or outcomes, from the Degree Qualifications Profile. Many DQP campuses have taken this same approach, bringing faculty together to look at an assignment of their choosing, and sharpen its focus and alignment with selected DQP proficiencies.

For instance, in the Quality Collaboratives project between Fitchburg State University and Mount Wachusett Community College, faculty met together for two day- long workshops related to improving student learning and transfer readiness around outcomes that map onto the DQP; they engaged in assignment design, rubric development and norming, assessment, and curriculum development activities focused on civic learning and engagement, critical thinking, information literacy, quantitative reasoning and written communication. On the second day of the event faculty were asked to bring assignments, which they shared in a charrette based on the NILOA model, and facilitated by faculty who had attended one of the NILOA events. Conversation focused around local campus issues and the particular needs of their own students, but participants used the more general framework of review and commentary employed by NILOA. For most, this was the first time they had been involved in conversations about their assignments with other faculty. Their task was to take existing assignments designed to address specific general education or transfer outcomes and modify those assignments to be in fuller alignment across settings and levels.

5. Create assignments de novo. Some campuses have found it useful (and perhaps easier in some ways) to approach assignment design from the ground up rather than reworking existing assignments. Clearly there are occasions where this is necessary—for instance where new courses or areas of the curriculum have been created, for which no assignments yet exist.

One of the best examples here pertains to the growing popularity of integrative capstone experiences, be it in the major or in general education. As campuses put such experiences in place, they face the challenge of creating truly crosscutting assignments and assessments (papers, projects, or demonstrations) that will call on students to pull together their learning across multiple contexts and over

For example, Oregon Institute of Technology requires that students "demonstrate an understanding of professionalism and ethical practice." In 2009, the institution's Assessment Commission, comprised of 45 faculty members, charged a small group with creating a signature assignment that would assess this outcome. The result was a two-part assignment using a discipline-related

Some campuses have found it useful (and perhaps easier in some ways) to approach assignment design from the ground up rather than reworking existing assignments. scenario and code of ethics (adaptable to each field) along with a corresponding common rubric. The assignment was created and piloted in 2009, then administered institution wide that fall. Minor revisions were made in 2012. The current version is available in the NILOA Assignment Library.³

As this example suggests, creating assignments *de novo* can be especially important in situations where no one faculty member or department would or reasonably could naturally take responsibility—for instance general education capstone courses and assignments which are designed to be integrative (there are several of these in the NILOA Assignment Library—one of them at the AA level).⁴ Almost by definition these must be designed collaboratively as part of a fuller course design process, guided by a shared vision of learning goals and the construction of an appropriate rubric or criteria for assessment. Often these kinds of integrative experiences can benefit from the expertise of faculty outside of the usual academic disciplines. Librarians can play a critical role, for instance, as can educators from student affairs, experiential learning, community-based and studyabroad programs.

6. Organize by discipline or related fields/outcomes. One of the reasons that assignments are an engaging approach to assessment for faculty is that they are course-embedded. They are not about learning in general, that is, but about learning the content, concepts, and skills that matter in this course, this field. As one person we spoke to put it, "the impulse for faculty is always to think of the course they're teaching—the content they love." So one way to organize assignment design work is to tap into this reality by bringing faculty together by discipline.

This approach has shaped the work of James Madison University (JMU) and Blue Ridge Community College (BRCC)—partner institutions in the Quality Collaboratives initiative sponsored by the Association of American Colleges and Universities. A one-day workshop brought together JMU/BRCC faculty in matching (or closely related) disciplines to develop proposals for aligning course objectives and undertaking assignment redesign over the subsequent academic year. For instance, two faculty members from art history, one from fine arts, and one from drafting and mechanical design are working together on a variety of course materials, all with a goal of promoting increased transfer success.

This approach also brings to mind the work of DQP's close cousin, Tuning. Tuning is a faculty-driven process that identifies what a student should know and be able to do in a particular discipline at various degree levels. The experience of faculty working in discipline-specific Tuning groups (in history, biology, mathematics, engineering, nursing, and communications, to name just a few of the fields that have been active in the US in recent years) underscores the power of a focus on what the DQP (with its larger, cross-cutting focus) calls "specialized learning."

7. Build attention to assignment design into program culture and processes. Catalyzing serious attention to assignment design through a special event or professional development opportunity is a useful move on any campus. But it is important, too, to think about how to sustain what is accomplished and how to build attention to assignment design into ongoing routines as part of program or campus culture. In our research for this report we turned up an interesting example of this in the architecture program at Academy of Art University in San Francisco.

Catalyzing serious attention to assignment design through a special event or professional development opportunity is a useful move on any campus.

³ http://assignmentlibrary.org/assignments/542d9e9ffc280e6c04000005

Like many institutions, Academy of Art University has put a strong emphasis on assignment design (design is after all central to its mission) in its approach to the DQP. This includes looking carefully at student work as a lens for examining and revising assignments. This process was driven in part by requirements from various accreditation bodies, including the National Architecture Board, which specifies in great detail the student learning outcomes required. Hence there was an expectation clearly in place for looking at outcomes and documenting student achievement of outcomes. But what was most striking to us when talking to program faculty was the degree of shared understanding and accountability apparent around their expectations for student work. The architecture program is, we were told, "not à la carte." The curriculum is highly structured—an "arc," in which it is critical that all faculty (and students) understand how the pieces fit together. Toward this end, one notable departmental practice is that faculty actually present their assignments to one another. They also attend one another's final review sessions where students present their work for critique and commentary, and thus become familiar over time with one another's expectations, assignments and standards. Even the open design of the building in which all of this takes place contributes to a sense of shared understanding and awareness: "We see each other at work," one faculty member told us, "and faculty are curious about what's going on in other classrooms." Beyond the architecture program, the campus is exploring new ways to visually represent how one course is connected to another. In short, there is a sense that assignments, like other aspects of pedagogical work, are shared intellectual property, understood and valued by the community.

Strategies for Success

Based on our ongoing work with faculty in creating sound assignments to assess student proficiency in connection with the DQP, we suggest the following strategies for success. Again, these are mutually reinforcing and can be undertaken in any order to create helpful opportunities for faculty eager to work with colleagues to strengthen and share their assignments.

- 1. Build on faculty interests and values. Assignments are reflections of what faculty care deeply about: their discipline and what it means to know and understand it thoroughly and engage in its central practices. But they are not widely shared on most campuses, and it is therefore important to create a climate in which such exchange feels safe, collegial, and respectful. Avoid approaches that treat assignment design in a formulaic fashion. Recognize the challenges entailed in creating truly engaging, powerful assignments and treat such work as intellectually worthy and important.
- 2. Define "faculty" (and "assignments") broadly. Students learn from a wide variety of experiences, inside and outside the classroom, on and off campus. Thus, ensuring that the full range of campus partners ("faculty") are involved in assignment design efforts can reinforce and help integrate the proficiencies students need to succeed. In addition to involving contingent faculty in work on assignments, look for ways to include librarians, student affairs staff, and athletic coaches. Similarly, taking a broad view of the experiences in which students can build and demonstrate their learning ("assignments") to embrace field placements, internships or practica, or similar performances in non-classroom settings can uncover many untapped opportunities for improvement.
- **3. Facilitation and leadership matter.** The kind of work described in this paper does not happen spontaneously. True, a small number of faculty may find one another on their own and begin a conversation about assignments, but to engage larger groups across the campus, or to catalyze work in a department or program,

Assignments are reflections of what faculty care deeply about: their discipline and what it means to know and understand it thoroughly and engage in its central practices. some group or office needs to organize and support the effort. This might be a center for teaching and learning or an office of assessment—or, perhaps better, a collaboration between them. Individual academic departments might also organize and sponsor such work, as might special programs or initiatives (such as the work on the Integrative Experience at the University of Massachusetts Amherst). The point is that some group or office (or more than one) needs to initiate, coordinate, facilitate, and champion this work if it is to be sustained. The same point can be made about leadership: someone needs to be visibly *responsible* for such initiatives, serving as the indispensable "go-to" person to resolve difficulties and maintain momentum. At least as important, campus leadership needs to ensure that faculty participation in such efforts is recognized, celebrated, and ultimately rewarded.

- **4.** Offer multiple entry points and ways of engaging. Depending on the readiness of a faculty or an institution for this work, and the campus culture (for example, is there a tradition of sharing pedagogical work and artifacts?), different starting points may be needed. For some institutions it may be a university-wide event. For others it may be better to start with small groups that share a common interest for instance in a particular pedagogical approach or specific topics within the curriculum. Some of the most productive examples of campus-based work that we uncovered in the process of developing this report employed a faculty learning community model in which participants worked together over time to accomplish a shared, but carefully bounded, goal. Finally, online facilitation and communication may prove fruitful in maintaining conversations and interest in the work, especially in settings where participants do not regularly meet with one another.
- 5. Think about how students might contribute. One model mentioned earlier suggests beginning the process of assignment design by looking at student work, which we heartily encourage. Another possibility is to invite students to engage in "user testing" of draft assignments. This might be done as part of a revision process by each participant or it might be done more publicly—inviting students to constitute a panel and react to selected assignments: a sure way to generate discussion about the gaps between what faculty think they're asking for and what students understand.
- 6. Create mechanisms for sharing exemplary assignments on campus. These might include occasions to share assignments during department meetings, invitations to capstone presentations by students, or even the development of a local assignment library. The latter might provide inspiration and models, and also give visibility and recognition to those who develop assignments worthy of sharing. Finally, we urge you to explore assignments in the NILOA Assignment Library at http://www.assignmentlibrary.org and consider submitting your own as it becomes possible to do so in the future!

Conclusion: It's About the Learning

In most of the DQP and Tuning work that we have observed, the process is often at least as important as the product. The immediate goal of the NILOA Assignment Library is to create an accessible collection of exemplary assignments that educators will find useful as models, examples, templates, and inspiration. But the ultimate goal of such work is not to create perfect assignments; it is to stimulate better teaching and learning. This point is well made by a report we heard from leaders of assignmentdesign work at Middlesex Community College and the University of Massachusetts-Lowell. After a year of such work, participants from those campuses reported two outcomes. First, they said that they realized they could further revise each assignment to better elicit student demonstration of intended learning outcomes, and

In most of the DQP and Tuning work that we have observed, the process is often at least as important as the product.

most signed on to do this revision during the following year. Second, they saw that there were changes they could make to the design and delivery of the course and to their teaching that would allow students to perform significantly better on the newand-improved version of the assignment. It is the cumulative effects of those two outcomes that really matter; the first without the second would be empty indeed.

This account of the impact of assignment design work is typical of what we have seen in working with faculty in many settings. Assignments have a way of opening up questions about learning goals and expectations, as well as the respective responsibilities of students, teachers, and institutions in a way that few other vehicles can do. As one charrette participant told us, "this work made the implicit, explicit – for me and my students. It was an exercise in being clear with ourselves as faculty about what we want and expect, and about being reflective in our own practice around student learning." Like assessment more generally, a focus on assignments raises all the right questions about what learning matters most, how we recognize that learning when we see it, and the best ways to foster and develop such learning over time and across contexts. Strong assignments are not only the best assessments; they are powerful pedagogy.

Assignments have a way of opening up questions about learning goals and expectations, as well as the respective responsibilities of students, teachers, and institutions in a way that few other vehicles can do.

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Appendix A

Desirable Characteristics of Assignments, Generated by Faculty Participants in the NILOA Assignment Library Initiative

Form:

- o Simple and easily understood
- o Focused, with minimum distractions from the main task
- o Contains appropriate information needed to frame a good response
- o Does not address too many DQP proficiencies
- o Appropriate balance between DQP and course/discipline outcomes

Content:

- o Engages student interest and supports learning
- o Helps student see underlying structure of the problem
- o Reflects the actual learning experiences that students have had
- o Provides opportunities for small successes within the main task (e.g. for partial credit)
- o Provides opportunities for correction after feedback
- o Is unbiased with respect to student backgrounds and circumstances
- o Allows originality in response

Level of Challenge:

- o Is appropriately located on a developmental continuum
- o Contains scaffolding appropriate to the level of challenge
- o Might be a series of related assignments with ascending levels of challenge as the student progresses through them
- o Can determine what level of performance signifies mastery of the proficiency

Appendix B

NILOA ASSIGNMENT-DESIGN CHARRETTE FEEDBACK SHEET

10
Assignment
From
1. What are the main strengths of this assignment for assessing DQP (and other important) proficiencies?
2. What questions do you have about the assignment and its use?
2. What questions do you have about the assignment and its use:
3. Suggestions and possibilities?

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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.

Comments and questions about this paper should be sent to njankow2@illinois.edu.

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 contains free assessment resources and can be found at http:// 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.

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