

Assessment in Practice

Using Backward Design and the Assignment Design Charrette
Model for Quality Enhancement
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As an accredited member of the Southern Association of Colleges and Schools-Commission on Colleges (SACSCOC), Longwood University is required to select and implement a Quality Enhancement Plan (QEP). SACSCOC (2012) describes the QEP as a “carefully designed and focused course of action that addresses a well-defined topic or issue(s) emerging from institutional assessment and focuses on enhancing student learning or the environment supporting student learning” (p. 31). In an effort to effectively implement our QEP, Longwood University's Office of Assessment and Institutional Research (OAIR) and the Center for Faculty Enrichment (CAFÉ) designed an instructional development program using Wiggins & McTighe's (2005) Understanding by Design framework, commonly referenced as Backward Design (BD), and the National Institute for Learning Outcomes Assessment (NILOA) Assignment Design Charrette approach. These models engage instructors in processes to clearly identify student learning outcomes, to align these learning outcomes to curriculum and teaching, and to determine key student assessments to inform decisions for learning improvement. The QEP provided an ideal opportunity to introduce intentional course-level curriculum design and laid the groundwork for institution-wide alignment of teaching, learning and assessment.

In 2014, Longwood University selected student research as the topic of our QEP with a specific focus on improving critical thinking, information literacy and communication competencies. Recognized by the Boyer Commission (1998), Hart Research Associates (2010), the AAC&U (2007), and Osborn and Karukstis (2009), undergraduate research is a high-impact teaching and learning practice designed to be “a vehicle for improving students' critical thinking, information literacy, and communication skills” (Longwood University, 2014, p. 1). Longwood's QEP or Research Experience for Aspiring Leaders (R.E.A.L) Inquiry program employs a scaffolded curriculum and teaching approach for the beginning, middle, and end of a student's college career. Academic skill development is implemented in research-enhanced courses at the general education level, at the disciplinary course level, and through individual mentored disciplinary research (Longwood University, 2014). Within the research-enhanced courses, assignments and instructional activities are designed for students to learn aspects of the research process which collectively build students' competencies. More specifically, by the end of these courses, student should be able to exercise critical thinking in setting problems and conducting an inquiry; demonstrate information literacy in finding, evaluating, and using sources and considering evidence; and communicate effectively in expressing results in both oral and written formats.

Faculty Development for QEP Course Instructional Design

The successful implementation of an institution’s QEP requires full campus involvement and close attention to professional development. The intentional design of curriculum and learning experiences to meet these specified goals and outcomes is critical to the development of students’ academic skills and knowledge.

Backward Design Model

Wiggins & McTighe’s (2005) Backward Design (BD) is based on theoretical research in cognitive psychology and student achievement studies. It has gained prominence as a curriculum and course design model focused on learning outcomes and alignment to assessment and instruction. Beginning with the end in mind, instructors design courses by aligning assessment/assignments and related learning and instructional activities to Longwood’s student learning outcomes. CAFE/OAIR has embraced the Backward Design model to serve as the foundation for all curricular design and assessment initiatives, from departmental to institutional levels and including QEP research-enhanced courses and experiences. While not a new practice in higher education, we made the commitment to use the model consistently across different initiatives in order to promote best practices and to communicate a shared philosophy. OAIR and CAFE collaborated with the QEP Director to incorporate BD thought processes at all phases of QEP research-focused course development, from the course proposal process to course design to faculty's reflective end-of-course action plans for improvement. As shown in Table 1, using BD, faculty were to "map" their proposed course assessments, instructional activities and assignments to the QEP student learning outcomes as part of the course proposal process. This process provided a foundation for further BD clarification, peer discussion, and course design feedback in our first QEP workshop in fall 2015.

Table 1
QEP Disciplinary Course Map Proposal

Course Design	SLO-A Critical Thinking	SLO-B Information Literacy	SLO-C Oral & Written Communication
Assignment(s): Choose one or more assignments and explain how it relates to the development of each outcome. If appropriate, the same assignment can be used for assessment of all SLOs.			
Instructional Methods: With the Longwood University competency rubrics in mind, what instructional techniques will you use to aid student learning during this research experience?			
How will library services be involved in student research?			
How will other resources be used to support each SLO?			
Assessment Plan Using Longwood University competency rubrics, what is the expected level of performance for the selected assignments?			

NILOA Assignment Design Charrette

According to Hutchings, Jankowski, and Ewell (2014), the NILOA Assignment Library 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” (p. 5). The NILOA Charrette Model provides faculty developers with a peer review based approach to help faculty design effective course assignments aligned with desired student learning outcomes. Ideally, prior to meeting face-to-face, instructors review each other’s assignments. Gathering in small face-to-face groups called “Charrettes” and organized by a simple timed protocol, instructors have the opportunity to discuss their individual assignments and receive both oral and written feedback (Hutchings, Jankowski, and Ewell, 2014). In February 2016, Longwood University’s OAIR staff and two faculty leaders participated in NILOA’s Assignment Design Charrette workshop. Recognizing the link to Backward Design, the value of assignments as evidence of student learning, and the excitement and engagement of faculty in an assignment design process, OAIR and CAFE decided to incorporate this assignment design approach in our future QEP course design workshops. To further develop their expertise, CAFE and OAIR Directors along with four faculty participated in the State Council of Higher Education for Virginia (SCHEV) and NILOA’s “train the trainer” assignment design workshop.

Assignment Design Charrette Integration

We redesigned our QEP instructional design workshop to include the Charrette in conversation with BD. Due to time constraints, we focused on aligning the assignment design with one QEP student learning outcome—critical thinking. This one outcome approach also served as a model for how to design other assignments/assessments aligned with the remaining two QEP outcomes. In preparation for the workshop, participants were asked to consider a primary course assignment connected to the QEP critical thinking student learning outcome and to submit their responses to the following assignment related questions:

- Briefly describe the assignment.
- What is the main purpose of this assignment?
- What do you hope students will learn as the result of completing this assignment?
- How is this assignment related to the QEP critical thinking outcomes/objectives?

During the workshop, instructors were introduced to BD and, moving from theory to practice, engaged in cross-disciplinary facilitated Charrettes. Using NILOA’s Charrette protocol (2014), participants introduced their assignments, asked questions, and offered written feedback to their colleagues in response to the following prompts:

- What are the main strengths of this assignment for assessing the QEP student learning outcome?
- Thinking about the assignment from the point of view of students, what questions or suggestions do you have?
- Other suggestions and possibilities—especially in response to the instructor’s questions/thoughts on improving the assignment?

Post-workshop evaluations indicated that participants valued time spent with their colleagues “thinking about the major assignment,” receiving “wonderful ideas on improvement,” and receiving “valuable feedback” and “ideas from others’ work.” The Charrette provided a much-needed time for reflection and peer-to-peer learning which helped faculty “think more about goals and assessments” in relationship to the desired student learning outcome.

From Assignment Design to Learning Activity Design

While faculty feedback about the Charrette process was positive, we recognized that we were not able to have meaningful discussion about the third prong of BD design, planned learning experiences and instruction. We decided to continue with the assignment charrettes and to develop a model similar to assignment design for discussing and generating effective learning activities to facilitate scaffolded learning. Prior to the next QEP instructional design workshop, participants completed an assignment and learning activity design worksheet to be shared with their colleagues as shown in *Appendix A*. The worksheet layout encouraged alignment between assignment design and learning activities.

During the workshop, instructors were introduced to BD and participated in cross-disciplinary assignment and learning activity Charrettes using the same protocol employed in the previous QEP workshop. Table 2 shows the question prompts for the separate assignment and learning activity written feedback forms provided for peer feedback.

Table 2

Assignment and Learning Activity Design Peer Feedback Question Prompts

Assignment Question Prompts	Learning Activity Question Prompts
1. What are the main strengths of this assignment for assessing the QEP student learning outcome?	1. What are the main strengths of the course learning activity for supporting active learning and promoting achievement of the QEP student learning outcome?
2. Thinking about the assignment from the point of view of students, what questions or suggestions do you have?	2. Thinking about the learning activity from the point of view of students, what questions or suggestions do you have?
3. Other suggestions and possibilities – especially in response to the instructor’s questions/thoughts on improving the assignment?	3. Other suggestions and possibilities – especially in response to the instructor’s questions/thoughts on improving the learning activity?

Similar to earlier workshop feedback, participants reported value in “discussing assessment strategies and ensuring our outcomes are being measured” and having “the opportunity for developing new ideas.” Both Charrettes helped them “organize their thoughts on assignments.”

Lessons Learned

Recognizing that assessment is an essential component for continuous faculty development planning and improvement, we developed QEP instructional design workshop evaluations. Survey results, especially qualitative comments of faculty participants, are utilized to inform

decisions and changes to better meet identified faculty needs and preferences. Our observations of faculty engagement and nonverbal cues served as further evidence for QEP workshop changes.

While overall post-survey results for the three QEP Instructional Design (ID) workshops confirmed that participants felt they were very prepared to develop assignments, instructional materials, learning activities, and assessments with a research focus, the survey comments and observations provide a bigger picture of faculty desires and needs. Survey results revealed that faculty were more engaged in thinking about the design and improvement of teaching and learning when there were opportunities for collegial discussion and feedback on course assignments; a finding validated by NILOA literature (Hutchings, 2010; Hutchings et.al, 2014). Reflecting on the Charrette approach, faculty identified as valuable the collegial group discussion; reflective and intentional thinking about goals, outcomes, assignments/assessments; access to feedback and ideas for improvement; sharing and stimulating new ideas; and discussing assessment strategies and ensuring goals are being measured. From CAFE/OAIR observations of the QEP Disciplinary Course Assignment Design Charrettes and the faculty post-survey comments, there was more faculty engagement and enthusiasm during the assignment discussions and more reflective and positive survey comments than from the first Backwards Design only workshop.

While some of the previously listed valuable aspects were noted in faculty comments, it was observed that the energy and enthusiasm dwindled during the second learning activity-focused charrette. Of notable interest, within both facilitated groups, discussions were muddled over what constitutes or separates an assignment and the learning activity. These challenges seem to reflect 1) faculty participants with less familiarity of Backwards Design, 2) lack of explicit descriptions for each faculty's new or enhanced course assignment and course learning activity, and 3) workshop content and course design overload within a short timeframe.

Expanding the QEP Faculty Development Initiative

As part of the campus-wide initiative to incorporate intentional curriculum and assignment design, in January 2017, CAFE and Longwood's Greenwood Library designed and facilitated the workshop, Teaching Research Process from Research Focus to Literature Review for interested QEP instructors. This workshop focused on designing courses to support teaching information literacy, one of the QEP student learning outcomes. After discussing some of the challenges faculty face in teaching the research process, facilitators discussed effective instructional strategies and available resources. Instructors were introduced to information literacy and specific strategies for teaching students how to find, evaluate, synthesize and use research sources to help them select research topics, design research questions/hypotheses, and develop comprehensive literature reviews. Backward Design served as the framework for effective course design and NILOA's Assignment Design Charrette was the model used to help align this outcome with course assessment/assignments. Faculty were asked to bring a current research-based assignment to revisit during the workshop and to complete a teaching research assignment questionnaire by answering the following questions.

- Briefly describe the assignment.
 - What is the main purpose of this assignment? What do you hope students will learn as the result of completing this assignment?
 - The context in which it is used—in what course or courses, with what students, at what point in the curriculum?
 - Your experience of the assignment at this point? How have students responded? What do they do well? What do they find especially challenging?
 - Questions you have about the assignment: What kinds of feedback on the assignment are you hoping for from colleagues attending the charrette?
- In the afternoon, faculty met in cross-discipline based small groups for the Charrettes.

We followed the same NILOA Charrette discussion protocol; however, these groups were not facilitated. Faculty reported that the Charrettes provided them with “a non-threatening way to learn,” “very specific advice tailored” to their course and assignment, and an opportunity to “work on assignments to help administer quality and get better results.” Faculty requested more preparation for this portion of the workshop. In the future, we will require faculty to submit assignment drafts and complete a pre-workshop assignment questionnaire.

Next Steps

Based on lessons learned, CAFE and OAIR plan to incorporate the following next steps in future QEP instructional design workshops.

- Conduct a pre-assessment to identify faculty knowledge of Backwards Design and plan accordingly. We might need to provide resources and/or consultation for novices of Backwards Design prior to the QEP ID workshop.
- Conduct a post-workshop syllabi and assignment review to provide feedback and to assess their use of BD and intentional assignment design.
- Develop two separate QEP ID workshops with the first workshop focused on assignment design and the second focused on learning activity/s to support assignment expectations.
- Prior to the assignment design workshop, participants will need to provide explicit assignment descriptions for their colleagues to review. After the assignment design workshop and prior to the second workshop, assignment revisions will be made and shared back with a member of the CAFE/OAIR staff. For the second workshop, the same process will occur but the focus will be the learning activity aligned with and in support of the assignment and desired student learning outcomes.

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Appendix A

Assignment and Learning Activity Design Planning Matrix

In preparation for the QEP Instructional Design Workshop, please answer the following questions regarding 1) the major course assignment that is connected to the QEP student learning outcomes (SLO) and 2) a primary learning activity to promote students' successful achievement of the QEP student learning outcome/s.

Course Subject/Number (i.e. COMM 400) _____

Check **one** QEP SLO as the focus for the assignment and learning activity described below:

- Critical thinking Information literacy Oral Communication Written communication

Briefly describe the <i>major course assignment</i> .	Briefly describe a <i>learning activity</i> planned for active engagement of students in the learning process.
What is the main purpose of this assignment?	What is the main purpose of the activity?
How is this assignment related to the QEP SLO/s?	How might the learning activity help students to achieve the QEP SLO/s?
What specifically is desired for students to learn as a result of completing this assignment?	What do you hope students will learn as the result of engaging in the activity?
What questions/thoughts might you have for input/improvement for your assignment?	What questions/thoughts might you have for input/improvement for your learning activity?