



# *Aligning Goals, Assessments, and Pedagogy: Assignment Design as a Key Faculty Activity*

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# *A Growing “Quality Agenda” in Higher Education Policy World-Wide*

- Concerns About Shortfalls in Graduate Achievement
  - Interest in Aligned Student Learning Outcomes on a National and International Basis
  - Press Toward Common Standards of Achievement
  - Stakeholder Concern About Graduate Quality, Particularly from the Employment Community
- ➔ The Current Challenge is to Raise Completion Rates while Not Losing Academic Quality





# *Changing Notions of “Quality” in Policy Discourse About Higher Education*

- Largely taken for granted until the emergence of formal systems of “quality assurance” like accreditation and national Quality Assurance Agencies
- New conceptions of “quality” emerged gradually as colleges and universities diversified and became more complicated
- Today’s conception of “quality” is thus a sedimentary construction with new notions of what should count “layered in” on top of old ones





## *First Incarnation: Reputation*

- Colleges for “The Quality” (who were members of a privileged elite or entering a professional class like the clergy, law, or medicine)
- “College” as a reserved term: distinct from postsecondary institutions: “institutes,” “normal schools,” etc.
- Alive and well on bumper stickers and big time sports teams [not to mention media rankings]





## *Second Incarnation: Resources*

- U.S. Accreditation Criteria of the 1920s (North Central Association): “The college should:
  - Enroll at least 200 students
  - Should comprise at least eight departments with at least one person of professorial rank
  - Should maintain a live, well-distributed library of at least 8000 volumes”
  
- Quantitative resource-based criteria like these officially a thing of the past...but stuff still matters a lot in popular views of “quality”





## *Third Incarnation: Selectivity*

- The rise of admissions selectivity in the 1950s
- Reputation and exclusivity in a new guise: in the U.S., the role of the SAT was said to be to “uncover the hidden aristocracy of talent”
- An implied theory of education: smart begets smart by association and osmosis





## *Fourth Incarnation: “Fitness for Purpose”*

- “Mission-based” quality review emerges as most appropriate for diverse postsecondary systems
- Peer review and institutional audit become the primary “assessment instruments” under this approach.
- “Purposes appropriate to an institution of higher education...”
- But what happened to standards?





## *Fifth Incarnation: Outcomes*

- An “exo-skeletal” approach: outcomes assessment largely *added on to* the regular processes of teaching and learning.
  
- The resulting paradigm:
  - Statements of intended learning outcomes
  - Various ways to gather evidence of attainment
  - Use of the resulting information to improve
  
- Embedded in U.S. regional accreditation standards by the mid-1990s and national QAA reviews by 2000







## *A Sixth Incarnation: Exit Proficiencies?*

- A common set of graduation proficiencies adopted by all providers
  
- Assessments embedded in the regular teaching and learning process:
  - Signature assignments in key classes
  - Developed in common by teaching staff
  - Graded or rated using standard rubrics
  
- Re-positioned proficiency-based transcripts that show “student learning as academic currency”





# *Key Features of an Intentional Curriculum*

- Learning Outcomes are Known by Both Faculty and Students
- Curricular Designs are Deliberate and Intentional
  - Based on Research and Known “Best Practices”
  - “Mapped” to Address Learning Outcomes
- Curricular Designs are Actually Implemented as Planned
- Teaching and Learning Yields Intended Learning Outcomes Demonstrably and Consistently
- Faculty Talk About the Evidence for Learning to Make Appropriate Changes in What they Collectively Do





## *What Is Needed to Accomplish This?*

- Clear Statements of Intended Learning Outcomes
- Information About Where to Locate “Signature Assignments” in a Curricular Progression
- Guidelines About What a Sound “Signature Assignment” Should Look Like
- Rubrics to Assess Each Goal/Outcome
- Requires a Mechanism for Aggregating Results





# *National Qualifications Frameworks*

- Matrix of Identified Proficiencies by Degree Levels
- Purpose to Align and “Moderate” Academic Standards at Various Degree Levels. Some Examples:
  - Bologna Process Common Outcomes Benchmarks
  - QFs in UK, Australia, Ireland, Scotland, and Many Others
  - Ontario Qualifications Framework (OQF)
  - “Tuning” in Many Disciplines





# *The “Degree Qualifications Profile (DQP)” in the U.S. Background*

- Qualifications Frameworks in Many Other Countries
- AAC&U LEAP Outcomes Statements and Rubrics
- State-Level Outcomes Frameworks in U.S. (e.g. UT, WI, CSU, ND, VA)
- Some Alignment of Cross-Cutting Abilities Statements Among Institutional Accreditors





## *What Does the DQP Look Like?*

- Matrix of Identified Proficiencies by Degree Levels
- Three Degree Levels: Associate, Bachelor's, and Master's
- Five Learning Areas: Specialized Knowledge, Broad/Integrative Knowledge, Intellectual Skills, Applied Learning, and Civic Learning
- Framed as Successively Inclusive Hierarchies of **Action Verbs** to Describe Outcomes at Each Degree Level





## *Why Action Verbs?*

- They lead *directly* to assessable language; if you describe what students should do to demonstrate competence, then
- You can bring on stage a range of appropriate assignments (papers, exhibits, laboratories, performances) and/or examination questions that will elicit the demonstration
- The action verbs that describe what a student can do are a good place to start in constructing an effective assignment





## *Verbs Are Different for Different Levels*

- **Associate's**: identifies, categorizes, and distinguishes among elements of ideas, concepts, theories, and/or practical approaches to standard problems.
- **Bachelor's**: differentiates and evaluates theories and approaches to complex standard and non-standard problems within his/her major field;
- **Master's**: disaggregates, adapts, reformulates, and employs principal ideas, techniques, or methods at the forefront of his/her field of study in the context of an essay or project.







## *An Example: Communication Skills*

- **Associate Level**: The student presents substantially error-free prose in both argumentative and narrative forms to general and specialized audiences
  
- **Bachelor's Level**: The student constructs sustained, coherent arguments and/or narratives and/or explications of technical issues and processes, in two media, to general and specialized audiences
  
- **Master's Level**: The student creates sustained, coherent arguments or explanations and reflections on his or her work or that of collaborators (if applicable) in two or more media or languages, to both general and specialized audiences





## *An Example: Engaging Diverse Perspectives*

- **Associate Level**: Describes how different cultural perspectives would affect his or her interpretations of prominent problems in politics, society, the arts, and/or global relations
- **Bachelor's Level**: Constructs a cultural, political, or technological alternative vision of either the natural or human world, embodied in a written project, laboratory report, exhibit, performance, or community service design; defines the distinct patterns in this alternative vision; and explains how they differ from current realities
- **Master's Level**: Addresses a core issue in his/her field of study from the perspective of either a different point in time, or a different culture, political order, or technological context, and explains how the alternative perspective contributes to results that depart from current norms, dominant cultural assumptions, or technologies—all demonstrated through a project, paper, or performance





# *The Role of Curricular Mapping*

- Frequently Used to Plan Where “Signature Assignments” Should be Located
- A Map is a Two-Dimensional Matrix with Courses on One Dimension and Proficiencies on the Other
- Entries Note Whether the Proficiency is Taught, Required, or Mastered at a Given Level in the Course
- Usually Done for the Highest Enrollment Courses in Both General Education and the Major







## *Embedded Assessment Approaches*

- Targeted “Signature” Assignments in Selected Regular Classes
- Existing Student Work Assembled via Electronic Portfolios
- Capstones and Demonstrations
- All Student Work in Above Examined and Scored by Rubrics





## *But There is a Non-Trivial Problem...*

- Agreed-Upon Rubrics or Scoring Guides Can Help Faculty Achieve Consistency in Assessing Student Work to Determine Proficiency; This is Why they Have Become so Popular
- But Use of Rubrics Does Not Ensure that a Given Selection of Student Work Will ***Actually Exhibit*** the Proficiency In Question...So Responses May Not Be Able to be Scored





# *Rubrics and Assignment Designs*

- Rubrics Array Multiple Criteria for Judging Student Constructed Responses (to an Assignment, Test Question, etc.) at Various Levels
- Assignment Designs Support the Development of Assignments that Unavoidably Elicit Demonstration of a Particular Proficiency
- Assignment Designs “Mirror” Rubrics by Noting the Central Task to be Undertaken, How the Answer Should be Communicated, and How Extensive or Evidential the Response Should Be





## *Points About Assignment Designs*

- Basic Format: “Compare the Substance of [Argument X] with [Argument Y] by Means of a Written Essay [of Z Length] that Contains at Least Three Examples of Important Ways in Which these Arguments Differ”
- Should Address No More than Two or Three Proficiencies
- Should Combine Broad Generic Proficiencies Consistent the PULs with Subject-Specific Competencies Tied to Course Content







## *An Example*


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, Chevrueil, 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.





## *Another Example*

You are given a map of the United Kingdom with three 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 gauge, 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 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, provide a formula that reflects the way you arrived at your solutions. All your responses should fit on one page.





# *Questions About This Assignment*

- What is the Central Task Students Must Perform
- Does this Assignment Effectively Combine “DQP-Like” Proficiencies with Subject Specific Proficiencies?
- Does this Assignment Describe the Form that a Good Answer Should Take (e.g. Essay, Diagram, etc.) and How Extensive it Should Be (e.g. length, elaboration)?
- Is It Potentially Subject to Misunderstanding by Students?





## *Questions for Reviewing Assignments*

- How Difficult Should the Central Task Be?
- How Much “Scaffolding” Should the Assignment Contain?
- Is there Anything in the Language that Might Mislead?
- Can Intermediate Credit be Granted for Partial Answers? Or is the Assignment “All or Nothing?”
- How Will You Provide Feedback to Students?





## *Some Resources for Further Work*

- Sample Rubric for Assessing Assignments
- NILOA On-Line Assignment Library
- NILOA Guidelines for Conducting an Assignment Design Workshop
- NILOA Occasional Papers





# *A Sample Rubric for Assessing Assignments*

## **Five Levels for Each Attribute:**

Unable to Judge the Extent to Which the Assignment Addresses the Outcome  
The Assignment is Not At All Applicable to the Outcome  
The Assignment is Not Very Applicable to the Outcome  
The Assignment is Somewhat Applicable to the Outcome  
The Assignment is Very Applicable to the Outcome

## **Attributes:**

The assignment clearly describes what the student is supposed to do in response.  
The assignment is demonstrably related to one or more Outcomes (which?)  
The assignment provides guidance about the form or medium for response and how extensive or detailed the response should be (e.g. a written essay of five pages with at least three supporting examples).  
Instructions provided in the assignment are not susceptible to misunderstanding on the part of the student.





# *A Library of Model Assignments*

- NILOA Project Funded by Lumina  
(<http://www.assignmentlibrary.org/>)
- Based on Six Assignment Design “Charrettes”  
Convened with Faculty from DQP Pilot Institutions
- Faculty Document their Assignments with Contextual  
Information and Tips on How to Use or Adapt
- Result is be a Web-Enabled Library Searchable on a  
Range of Tags/Criteria
- Increasing Numbers of Campuses Doing this Locally



## *Some Additional NILOA Design Resources*

- Relevant “Occasional Papers” on this Topic
  - Ewell – *Assessment Implications of the DQP*  
(<http://www.learningoutcomesassessment.org/documents/OccasionalPaperSixteen.pdf>)
  - Adelman – *To Imagine a Verb*  
(<http://www.learningoutcomesassessment.org/documents/OccasionalPaper24.pdf>)
- Guidelines on Conducting a Campus or Discipline-Level Assignment “Charrette”

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(See <http://degreeprofile.org/assignment-design-work/>)





## *In Sum...*

- Enacting this Approach Requires Substantial Levels of **Intentionality** and a Great Deal of Work
  - Careful Planning of Embedded Assignments in Course Sequences
  - Assignments and Rubrics Carefully Scripted to Elicit and Judge Student Responses Regularly and Consistently
  - Done in Collaboration Across Faculty within and Across Disciplines
- But the Result is a Powerful Way to Demonstrate Mastery and to Improve Teaching and Learning

