

ASSESSING THE CORE: LEARNING OUTCOME OBJECTIVES FOR GENERAL EDUCATION AT THE UNIVERSITY OF RHODE ISLAND¹

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Overview

This presentation addresses the theme of assessment options. The University of Rhode Island is devising qualitative and quantitative means to address the early efficacy of our recently revised general education program. We are developing a variety of methods for assessment, including an audit of student assignments, student self-report surveys, and the examination of actual student pathways through the program and consequent exposure to various skill areas. Our approach to program-level assessment can provide useful feedback for reconfiguring course and curricular designs in institutions for which general education requirements are divided into a series of “core areas” (in our case the natural sciences, social sciences, fine arts and literature, and letters) and can have relevance across a wide range of institutions that have similar structures for requirements. How well does a general education program foster the “habits of mind” that enable analysis, discovery, and problem solving within disparate domains?

Our attention to objectives that can be linked to core areas should be of broad relevance. URI has defined a set of generic skills that are embedded across our general education curriculum, but we have chosen to design an assessment system with objectives derived from those that had already been generated by the faculty in the creation of our “core” knowledge domains. The challenge for our chosen focus is to deal with the wide variety of ways students can meet the requirements – that is, many courses in the natural sciences (for example) can be used to meet that requirement, but only two courses from this wide array need be selected by any one student. That makes it very difficult to define outcomes suitable for all students. Yet we have a natural science requirement separate from social science, etc. for important reasons. The divisions have a long history in our institution and have been reaffirmed with some modifications over many attempts at general education reform. Those considerations are relevant for many institutions across the country, and our solution can be broadly applicable.

To define general education learning outcomes, we have developed objectives for each core domain of knowledge (e.g. social sciences, natural sciences, humanities). Students’ abilities to identify concepts, recognize problems, ask questions, collect relevant information, and analyze information to solve problems in each core domain provide the framework for defining outcome objectives within domains, and exemplary course assignments provide the data for assessing our success. In addition, we are using self-report to examine student attitudes toward the domains and their confidence in relevant skills. The pathways students have chosen to meet the

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requirements provide feedback on exposure to our defined skill areas and the timing in students' undergraduate careers. Our focus on core-related objectives can provide an alternative to generic skill assessment for giving useful feedback to those responsible for the general education curriculum.

Background

Our university's General Education program presents daunting challenges for student outcomes assessment. Although the program is knitted together by seven "core" areas and eight "integrated" skills, there are no particular course requirements and only minimal skills requirements that all students are required to meet. Students take only six credits in each of the core areas and because of the variety of courses approved for general education credit, individual students often do not encounter the same substantive content in any of the core areas as other students. Although the consequences of this flexibility serve the University's students and programs well, they make writing specific, content-rich General Education outcomes statements impractical. Further, flexibility of the General Education program makes it equally impractical to assess individual students – programs of study that satisfy the General Education requirements are infinitely variable in both content and skills. The formal statement of our general education program includes an assortment of lofty and concrete goals for each of the core areas, but these were negotiated as political compromises and were not developed in a context of concern for measurability.

Against that backdrop, the Provost formed an Ad Hoc Group on General Education Outcomes Assessment in 2005 to create learning objectives and develop a plan for implementation of assessment. The ideas presented at this conference are largely derived from the work of that group. For a more complete list of the activities undertaken by the group, please see Appendix A.

Key Preliminary Decisions

1. Outcome statements should operationalize the goals and objectives already articulated in the Framework of the program. Existing formal descriptions provide essential information about what students are expected to gain from completion of the General Education requirements at the University.
2. The Learning Outcome Objectives are intended to reflect those expectations and provide a broad framework for the more specific aspirations associated with each Core Area. In a sense, the outcome statements should state in clear language what students will know and be able to do if the General Education program meets the goals the faculty have set for it.
3. The process of General Education outcomes assessment should be directed at the program itself rather than at individual students.
4. Outcome statements should recognize that the University's General Education Program serves two primary functions.

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- a. First, it provides students the opportunity to gain the knowledge and skills necessary for success in further specialized studies at the University within majors and minors.
- b. Second, it provides students the opportunity to gain the knowledge and skills necessary to their roles as thoughtful and engaged citizens in a diverse and complex world.

Accordingly, each outcome statement should imply that students will be able to perform the designated cognitive task in both academic and non-academic settings.

5. By the time of graduation, students are expected to integrate knowledge and skills from general education with learning in the major and the whole array of academic, co-curricular, and non-academic learning experiences fostered by the university. Expectations for added learning resulting from specialization (major, minor) and the integration of the totality of the undergraduate experience would be defined and measured by departmental objectives for their majors.

Rationale for General Education Learning Outcome Objectives

The General Education Program at the University of Rhode Island provides all students with a set of opportunities to gain content knowledge and master skills across a specified set of domains. Content knowledge is provided in four core areas (Fine Arts & Literature; Letters; Natural Sciences; Social Sciences) and skills are provided in three additional core areas (English Communication; Foreign Language and Culture; Mathematics) as well as eight embedded skills (writing effectively, reading complex texts, speaking effectively, examining human differences, using quantitative data, using qualitative data, using information technology, and engaging in artistic activity).

Each of the Core Areas and Integrated Skills are described in the General Education section of the Undergraduate Catalog as well as in Faculty Senate materials. These descriptions provide essential information about what students are expected to gain from completion of the General Education requirements at the University. The Learning Outcome Objectives are intended to reflect those expectations and provide a broad framework for the more specific aspirations associated with each Core Area.

Furthermore, the knowledge and skills acquired in completing General Education requirements are expected to have lasting consequences. These include both facilitation of success in subsequent specialized study at the University (i.e. majors and minors) and competence for the role of thoughtful and engaged citizen in a diverse and complex world.

To judge the effectiveness of the General Education program, we have identified five relatively proximal learning outcomes from students' direct experience with the courses taken to meet General Education requirements.

Beyond these proximal objectives for the General Education program are expectations for added learning resulting from specialization (major, minor) and the integration of the totality of the

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undergraduate experience. By the time of graduation, students are expected to integrate knowledge and skills from general education with learning in the major and the whole array of academic, co-curricular, and non-academic learning experiences fostered by the University. We anticipate that the latter will be defined and measured in the context of departmental objectives for their graduating majors.

Characteristics of General Education Learning Outcome Objectives

There are five general learning outcomes identified by the committee. These outcome statements:

- Can be seen as a sequence of increasingly challenging cognitive tasks, moving from the relatively simple “identification “ of concepts, theories, and developments to the use of those concepts, theories, and developments in an “analysis” to address questions or solve problems (as in Bloom’s taxonomy of cognitive learning objectives).
- Can be manifested with relatively highly structured problems likely to be presented in General Education courses, as well as in the more sophisticated lines of inquiry directed at applications to self-selected and/or ill-defined problems likely to be found in advanced study.
- Address both the content (knowledge) and skills components of General Education, as the skills are essential for completing work representing mastery of the defined cognitive tasks. Special note should be made that “human differences” skills are expected to be manifested in work used to document learning outcomes across the five cognitive tasks.
- Delimit relatively broad categories of cognitive work, and are best seen as designators for sets of related tasks. For example, “identify” names a category of tasks that also includes “define,” “list,” “articulate,” and so on. Similarly, “analyze” encompasses such tasks as “interpret,” “evaluate,” and “apply.” It is important to recognize that disciplines often use differing terminology to refer to these tasks.
- Can be assessed by applying faculty-generated standards to products (“artifacts”) resulting from activities and assignments in General Education courses.
- Call for ability to apply learning in both academic and non-academic settings, in keeping with the two primary roles of General Education described above (foundation for academic specialization and engaged citizenship).

Statements of General Education Learning Outcome Objectives

Identify:

Students will be able to:

Identify basic concepts, theories, and developments in literature and the fine arts.
Identify basic concepts, theories, and developments in humanistic inquiry.

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Identify basic concepts, theories, and developments in the natural sciences.
Identify basic concepts, theories, and developments in the social sciences.

Recognize:

Students will be able to:

- Recognize aesthetic and literary elements and forms in relevant academic and non-academic settings.
- Recognize humanistic issues in relevant academic and non-academic settings.
- Recognize natural science issues in relevant academic and non-academic settings.
- Recognize social science issues in relevant academic and non-academic settings.

Ask:

Students will be able to:

- Ask questions appropriate to the modes of inquiry in the fine arts and literature in relevant academic and non-academic contexts.
- Ask questions appropriate to the modes of inquiry in Letters disciplines in relevant academic and non-academic contexts.
- Ask questions appropriate to the modes of inquiry in the natural sciences in relevant academic and non-academic contexts.
- Ask questions appropriate to the modes of inquiry in the social sciences in relevant academic and non-academic contexts.

Collect:

Students will be able to:

- Collect information relevant to the questions raised in the fine arts and literature.
- Collect information relevant to the questions raised in the Letters disciplines.
- Collect information relevant to the questions raised in the natural sciences.
- Collect information relevant to the questions raised in the social sciences.

Analyze:

Students will be able to:

- Analyze information in order to address questions or solve problems in the fine arts and literature.
- Analyze information in order to address questions or solve problems in the Letters disciplines.
- Analyze information in order to address questions or solve problems in the natural sciences.

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Analyze information in order to address questions or solve problems in the social sciences.

Steps Toward Approval and Implementation

The outcome statements produced by the Ad Hoc Committee were drafted on the assumption that the program would be assessed through the collection of “artifacts” (assignments, activities, examinations, papers, etc) that embodied particular outcomes, along with student responses to those artifacts. The artifacts would gauge how often students were given the opportunity to develop the cognitive outcomes and the samples of student responses would provide a sense of what constituted adequate performance.

The following subsequent steps have been taken (see Appendix A for more details):

- Faculty Senate Executive Committee endorsed the plan to proceed using the proposed statements of objectives and the general approach.
- Faculty Senate Executive Committee appointed a planning committee (a subcommittee of the Senate’s General Education Committee, with some representation from that committee as well as other selected members).
- The General Education Subcommittee on Learning Outcomes Assessment was charged to accept the general approach and the proposed statements, with procedural modifications as needed.
- The Subcommittee devised plans for data collection and analysis and developed a sample of general education courses stratified by core knowledge domain and class size. For each of the sampled courses, we have collected (1) a sample of courses assignments designed to address key objectives of the course, and (2) student responses to a set of questions embedded in end-of-semester course evaluations. (see Appendix B)

Planned next steps include:

- Classification of sampled course assignments into the designated learning outcome objectives (that is, does a given course assignment deal with identifying, recognizing, asking, collecting, and/or analyzing?).
- Development of rubrics to judge adequacy of student responses to assignments.
- Review of student responses to questions embedded in course evaluations
- Generation of descriptions of patterns of student fulfillment of our general education requirements (timing, exposure to skills) for each of our degree programs.

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Appendix A Detailed Timeline for Progress on General Education Assessment

Spring 2005

We elicited student responses from a small sample of “content” area general education courses. Students reported on their perceptions of the appropriateness of the course content (given the general education descriptions), their acquisition of both general education skills and general education content, and changes in their interest in the content and skill areas. They also described assignments that they thought were good examples of general education skill acquisition.

Summer 2005

An ad hoc group (sponsored by the Provost’s Office and the Davis Education Foundation Grant), developed five broad leaning outcome statements for the content areas of general education. These outcomes incorporated what have become known as the “\$20,000 verbs.” As a result of their general education course work, students are expected to be able to *identify, recognize, ask, collect, and analyze* in the content areas in both academic and non-academic (citizenly) settings.

Fall 2005 – Spring 2006

The work of the ad hoc committee was approved by the Faculty Senate and a “permanent” sub-committee of the University College and General Education Committee was formed. The delightful acronym **S**(ub-committee) for the **A**(ssessment) of **G**(eneral) **E**(ducation) was an unintended consequence of this decision.

Summer 2006

The SAGE group (supported by the Davis Education Foundation grant) developed a strategy for assessing general education that relies on assignments and student responses to those assignments (artifacts). In addition, the group developed a questionnaire soliciting student responses (see Appendix B) regarding their general education experiences. The SAGE group also developed a sample of general education courses for a fairly extensive trial of the assessment strategy (following a small pilot project involving summer school general education courses).

Fall 2006

With the help of the Provost’s office and the Davis Foundation grant, the instructors in the sample of general education courses (four content areas, three class sizes, two class levels) gathered to hear about and agree to participate in the project. Each instructor has agreed to submit assignments and student artifacts (15 of 26 received so far) and to administer the questionnaire as part of the SET process.

There are also other initiatives underway to assess the general education program as it exists “on the ground” rather than in its various catalogue and brochure descriptions. Institutional Research staff are working to provide an accurate assessment of the role of non-continuing faculty in the delivery of gen ed courses as well as the “real” distribution of skills across the program. Enrollment Services is working to develop the means to look at how, when, and how many gen ed courses students actually take during their academic careers. There are also data available on grade distributions in gen ed courses (yet another means of outcome assessment, especially when combined with “representative assignments”).

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APPENDIX B

Additional Items for Student Evaluation of Teaching

The University is in the process of assessing the effectiveness of the General Education Program. Because this course is part of that program, we would appreciate your responses to the following questions. Your responses will be anonymous and will not be tabulated until the course is completed and grades have been submitted.

For each question, please use the following response key:

- A. Strongly agree**
- B. Agree**
- C. Disagree**
- D. Strongly Disagree**

30. As a result of taking this course, I gained knowledge of the facts, concepts, and/or vocabulary used in this area of study.

31. As a result of taking this course, I improved my ability to find useful information and/or do research in this area of study.

32. As a result of taking this course, I improved my ability to apply concepts to solve problems or analyze situations in this area of study.

33. My interest in this area of study has increased as a result of this course.

34. I gained academic skills in this course that will help me in other courses at the University.

35. I gained knowledge in this course that will help me better understand events and/or developments or discoveries in the world around me.

36. I have a good understanding of what I need to do to satisfy the University general education requirements.

37. I have a good understanding of why the University requires me to take general education courses.

Thank you for your help in this project.

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APPENDIX C

University-wide Student Learning Outcomes University of Rhode Island

As a consequence of the interaction between General Education and major programs, the University of Rhode Island expects that all programs will lead students toward:

1. the ability to think critically in order to solve problems and question the nature and sources of authority;
2. the ability to use the methods and materials characteristic of each knowledge area with an understanding of the interrelationship among and the interconnectedness of the core areas;
3. a commitment to intellectual curiosity and lifelong learning;
4. an openness to new ideas with the social skills necessary for both teamwork and leadership; and
5. the ability to think independently and be self-directed; to make informed choices and take initiative.

** Language embedded in the General Education legislation, effective fall 2004