Assessment in the Majors 2015-17

UW Seattle

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INTRODUCTION

Every two years, the Dean and Vice Provost for Undergraduate Academic Affairs asks all University of Washington departments that offer undergraduate degrees to submit assessment reports. In these Biennial Assessment Reports, departments provide information about learning goals for their undergraduate majors, details about the methods their departments use to assess student learning, and information about curricular changes that have been implemented over the previous two years or that are planned for implementation. This introduction provides a brief summary of UW Seattle’s departmental assessment reports for 2015-17.

Once reports are submitted to the Dean and Vice Provost, the Office of Educational Assessment (OEA) compiles them into three charts. The Assessment in the Majors 2015-17 chart summarizes the information from the UW departmental reports. As the chart shows, all 69 departments on the UW’s Seattle campus that offer undergraduate majors completed reports.

In addition to compiling the summary chart, OEA uses the learning goals submitted by departments to generate a second chart entitled Departmental Learning Goals 2015-17, which shows general patterns in departmental goals. Two aspects of this table are important to note. First, we have “translated” the discipline-specific learning goals of departments into the generic goal labels on column headers in the table. Second, this chart of learning goals is inductively generated. It is not a measure of how well departments are meeting university-wide goals for student learning; rather, it shows general patterns as they emerge and change across the UW’s rich and diverse undergraduate programs.

The third chart, Assessment Methods 2015-17, tracks the most frequently-given methods that departments use to assess teaching and learning. Again, it should be noted that methods have been translated from reports that use unique disciplinary language for their assessment work into the more generic column headings. Also, the methods noted in this and the summary table are only those assessment practices used to assess all or most majors in the department; special assessment methods that are either optional or designed only for a special group of students (such as honors students or students who study abroad) are not included.
ASSESSMENT IN THE MAJORS

Departmental articulation of learning goals for undergraduate majors is important because it provides faculty members with a framework for curricular and course planning, a set of criteria against which departments can assess the majors they offer, and a way for students to understand and assess their own learning in their majors. As the Assessment in the Majors 2015-17 chart shows, all UW departments offering undergraduate degrees identified learning goals for majors, as they did in 2011. This level of identification of learning goals across departments—100% since 2011—suggests that departmental identification of learning goals has become normal practice.

In addition, the learning goals for 99% of those departments are fully-developed. They clearly convey to undergraduates in language that is consistent with the discipline (as opposed to a set of “generic” goals) what the department hopes students will have learned once they have completed their majors. In 2013, 98% of the departments could be said to have fully developed learning goals for majors, compared with 97% in 2011, 88% in 2009, and 68% in 2007.

DEPARTMENTAL LEARNING GOALS

The Departmental Learning Goals for Majors 2015-17 chart shows the broad learning goals that OEA generated from the unique disciplinary goals that each of the 69 departments listed, as well as the departments whose goals could be classified in those categories. Again, it is important to note that the broad goals are not institutional goals established by university administrators, but categories that emerged through analysis of the learning goals for majors that each department submitted in its own disciplinary terms. Therefore, although we may say that 100% of our undergraduate programs share the goal of critical thinking/problem-solving, the meaning of that goal and the specialized learning tasks that it represents vary across the disciplines. The table below illustrates this point by reproducing some of critical thinking/problem solving goals that four departments included in their learning goals for majors:

<table>
<thead>
<tr>
<th>Dance</th>
<th>Applied and Computational Mathematics</th>
<th>Psychology</th>
<th>Sociology</th>
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</thead>
</table>
| Develop and practice analytic, evaluative, and contextual skills requisite to critical thinking, kinesthetic understanding, and personal growth. | Critical thinking, problem solving, and modeling—casting a real world problem in a way that makes it amenable to mathematical, statistical, or computational analysis, and assessing the merits of the proposed solution. | Demonstrate scientific fluency by gathering information from scientific and/or popular sources, evaluating it (the validity, authoritativeness, relevance and usefulness of sources), synthesizing it, and using it. | Possess the analytic skills necessary to understand and evaluate sociological arguments and relevant empirical evidence. These include:  
  • Ability to identify and assess the logic of an argument (or research design)  
  • Familiarity with methods for systematic observation of the social world  
  • Basic quantitative fluency |
In addition, even within a department, the meaning of general learning goals, such as critical thinking/problem solving, can vary across areas of emphasis, as the following example of critical thinking/problem solving learning goals from three divisions in the Art Department illustrates:

<table>
<thead>
<tr>
<th>Division of Art</th>
<th>Division of Art History</th>
<th>Division of Design</th>
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</thead>
<tbody>
<tr>
<td>• Understand and practice an experimental approach to problem solving.</td>
<td>• Examine and understand art and visual culture through the observation and investigation of formal and stylistic qualities, iconography, provenance and patronage, theory and criticism, and historical context and influence.</td>
<td>• The skills of problem identification, research and information gathering, analysis, generation of alternative solutions, prototyping, user testing and evaluation of outcomes</td>
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<tr>
<td>• Learn to research, question, organize and synthesize information about existing ideas and practices, develop new ideas and areas of inquiry, write about and articulate issues to peers, faculty and the community at large.</td>
<td>• Use the interdisciplinary reach of art history to intersect with related areas of study such as history, philosophy, literature, languages, music, gender studies, cultural studies, anthropology, comparative religion and new technologies, among others;</td>
<td>• Ability to synthesize visual and verbal information into new forms, both 2-D and 3-D, static and interactive</td>
</tr>
<tr>
<td>• Combine critical thinking and problem solving with the development of ideas and conceptual skill.</td>
<td></td>
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Furthermore, it is important to note that sometimes faculty members understand one goal to be included in others. For example, for some departments the goals of thinking critically and conducting research in the discipline suggest the development of skills implicit in life-long learning, making listing “life-long learning” as a goal for majors unnecessary. Obviously, these implicit goals cannot be tracked.

Therefore, OEA’s summary of learning goals across the undergraduate curriculum represents only a bird’s eye view of learning aims across the UW’s undergraduate programs, as well as a view of changes in those aims over time.

With these caveats in mind, we have created Figure 1, which shows the percentage of departments whose learning goals could be categorized under 17 broad learning categories that emerged from the learning goals each department submitted. As the figure shows:

• 100% of the departments include goals related to mastering a body of knowledge, compared with 100% since 2009.
• 100% have critical thinking and problem-solving goals, compared with 100% since 2011 and 89% in 2009.
• 93% have research-related goals for majors, compared with 91% in 2013 and 77% in 2011 and 2009.
• 93% have goals for written and oral communication, compared with 92% in 2013, 91% in 2011, and 89% in 2009.
• 68% have goals related to diversity, multiculturalism, or global awareness, compared with 62% in 2013, 56% in 2011, and 41% in 2009.
• 54% have quantitative reasoning goals, compared with 53% in 2013, 44% in 2011, and 41% in 2009.
• 43% have team and leadership goals, compared with 46% in 2013, 45% in 2011, and 38% in 2009.
• 43% have goals concerning the use of specialized instruments, computer programs, or materials, compared with 39% in 2013 and 28% in 2011 (not tracked in 2009).
• 39% include goals about ethical practice in the discipline, compared with 35% in 2013, 36% in 2011, and 28% in 2009.
• 33% have goals concerning the application of the field to related contexts, compared with 29% in 2013 (not tracked in 2011 or 2009).
• 30% have self-assessment/critique/reflection goals, compared with 26% in 2013, 25% in 2011, and 22% in 2009.
• 28% have goals for students related to career exploration or preparation, compared with 24% in 2013, 25% in 2011, and 17% in 2009.
• 17% have goals about life-long learning, compared with 18% in 2013, 19% in 2011, and 16% in 2009.
• 12% have creativity and innovation goals, compared with 12% in 2013, 17% in 2011, and 8% in 2009.
• 12% have goals related to students’ participation in experiential learning, compared with 12% in 2013 and 8% in 2011 (not tracked in 2009).
• 10% have goals concerning civic engagement or citizenship, compared with 11% in 2013 and 8% in 2011 (not tracked in 2009).
• 10% have goals related to sustainability and environmental or ecological awareness (not tracked in previous years).

In addition to these goals, the following were mentioned by individual departments:
• Advance human rights, social and economic justice
• Build aural skills
• Build web technology
• Develop graphic skills
• Develop and explore imaginative/emotional response
• Increase kinesthetic understanding
• Enhance the State of Washington
• Develop map reading, making, and analysis skills
• Improve networking skills
• Develop performance skills
• Experience personal growth
• Practice and understand the creative processes
• Tolerate ambiguity
• Improve spatial reasoning
• Understand the “non-technical world”
• Understand interactions between living and non-living systems
• Increase visual skills
Students earning undergraduate degrees from the University of Washington Seattle campus have*:

**Undergraduate Curricula**

- Thought critically and defined & solved problems. (100%)
- Conducted research & used appropriate methods of inquiry (93%)
- Written & spoken effectively for specific audiences. (93%)
- Developed awareness of diversity and/or global & multicultural issues and realities (68%)
- Mastered a body of knowledge (100%**)
- Used quantitative reasoning effectively (54%)
- Learned to use specialized instruments, programs, & materials (43%)
- Applied field of study to related contexts (33%)
- Developed career interests, knowledge, or habits (28%)
- Engaged in self-assessment, critique, & reflection (30%)
- Developed awareness of sustainability & environmental/ecological practices (10%)
- Engaged in civic engagement/citizenship (10%)
- Worked effectively as team members, including taking on leadership roles (43%)
- Understood ethical practice in the context of the discipline (39%)
- Participated in experiential learning (12%)
- Developed skills that foster life-long learning (17%)
- Understood and practiced creativity/innovation (12%)

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* This summary was developed from analysis of 2015-17 departmental learning goals for majors submitted by departments in their 2015-17 Biennial Assessment Reports.
** Indicates the percentage of departments stating each goal, not percentage of students.

Figure 1. UW Learning Goals from the 2015-17 Assessment in the Majors Chart

**Assessment Methods**

As the Assessment Methods 2015-17 chart shows, all departments reported methods for assessing student learning. The following direct and indirect methods were reported by departments:

- 100% reported using various kinds of classroom-based assessment, including analysis of student performance on exams, papers, projects, and presentations, as well as clickers and other in-class active learning methods used so that on-the-spot adjustments could be made, compared with 100% in 2013 and 2011.
- 100% reported using student course evaluations, compared with 100% in 2013 and 2011.
- 100% use peer review of teaching, compared with 100% in 2013 (not reported in 2011).

* Confirmation of the prevalence of classroom-based assessment at UW can be found in a research study on changes UW faculty make in their teaching (Beyer, C. H., Taylor, E., & Gillmore, G. M., 2013, Inside the Undergraduate Teaching Experience, SUNY Press).
• 87% reported using exit surveys, compared with 89% in 2013 and 86% in 2011.
• 68% use capstone courses or capstone-like experiences, including senior seminars, theses, projects, shows, and performances, compared with that same number in 2013 and 66% in 2011.
• 46% assess student satisfaction or performance at one or more key points midway through the major, compared with 44% in 2013 and 42% in 2011.
• 39% reported using some kind of experiential learning, such as co-ops, practica, or internships, to assess student learning in the major, compared with 39% in 2013 and 30% in 2011. For several of these departments, these experiences either served as a capstone experience or as part of that experience and included supervisors’ evaluations of students’ performance.
• 36% reported using external reviewers to assess student work, compared with 39% in 2013 and 38% in 2011.
• 33% reported using focus groups, interviews, or formal and informal meetings with students to discuss the quality of their experience in the major, compared with 35% in 2013 and 33% in 2011.
• 30% incorporate student self-assessment, reflection, or critique into their programs, compared with 32% in 2013 and 30% in 2011.
• 28% conduct alumni and/or employer surveys, compared with 30% in 2013 and 23% in 2011.
• 16% gather information on student learning via undergraduate representation on departmental committees, compared with 9% in 2011.
• 12% use external standards, such as those set by proficiency or professional exams, to assess learning, compared with 12% in 2013 and 11% in 2011.
• 10% conducted focused studies of student work as in portfolio review or specifically targeting single outcomes, such as writing, compared with 50% in 2013, 20% in 2011, and 45% in 2009. These numbers include departments participating in OEA sponsored assessment projects.

As was the case with learning goals, assessment methods often varied with the disciplines. For example, the arts integrate student self-assessment and critique into their courses both as a learning goal for majors and as a method for assessing learning. The arts also often make use of external reviewers of student work. Similarly, many engineering majors make use of external reviewers, but they are also likely to include assessment via internships or co-ops in their assessment work.

OTHER MEANS OF ASSESSING LEARNING IN THE MAJOR

In addition to the assessment work reported by departments in 2015-17, all departments use other methods for assessing student learning and the appropriateness of their curricula. For example, all academic departments have curriculum or undergraduate committees that engage in continuous evaluation of their undergraduate programs. These committees regularly consider faculty reports, student feedback, national trends, fiscal constraints, and areas of expertise among current faculty as they evaluate and revise their undergraduate programs.
Also, all departments complete institutional 10-year Academic Program Reviews, which require self-studies that include questions about the quality of undergraduate learning along with external and internal reviewers’ analyses of program effectiveness.

Furthermore, many departments engage in disciplinary-specific accreditation processes that require evidence of student learning and program effectiveness, such as ABET for engineering departments.

Finally, the Office of Educational Assessment provides departments with the results of surveys of UW graduates one, five, and ten years after graduation, along with information on course evaluations. OEA also generates and supports centralized but departmentally-focused studies, such as the UW Academic Challenge and Engagement Study and the UW Senior Research Study, as well as working with academic departments on assessment projects that they initiate.