June 10, 2010

Richard Morrill
President
The Teagle Foundation
10 Rockefeller Plaza
Room 920
New York, NY 10020-1903

Dear Dr. Morrill,

On behalf of Bryn Mawr, Haverford, and Swarthmore Colleges, it is my pleasure to forward this first interim report on our collaborative grant to develop best practices for effective and sustainable department-level assessment of student learning, to the Teagle Foundation. As expected, the grant served as a catalyst for sustaining institutional momentum following the completion of our respective self-studies in this area and we have accomplished much over the past year. The Bryn Mawr, Haverford, and Swarthmore assessment project has achieved all of the goals envisioned for year one. All nine participating academic departments have produced workable assessment plans and will have any needed assessment measures ready for the fall. In addition, the project has provided each of our institutions with a visible model of direct (as opposed to indirect) assessment, thereby helping to translate rhetoric into reality, even for departments outside the project. Finally, the involvement of faculty and senior administrators at all three institutions has provided seriousness, visibility, and sustained commitment for this work on each of our campuses.

While we are well situated to carry the Teagle project forward into years two and three without any significant conceptual changes to our original plan, we found that grant-related expenditures were less than anticipated in year one. At our first retreat of the 2001-2011 academic year, we will discuss ideas for using available funds and be in touch with the Teagle Foundation about modifying the proposed budget.

Sincerely,

Mark A. Freeman
Director of Institutional Research,
Bryn Mawr College
Beyond the Reaccreditation Self-Study:
Bryn Mawr, Haverford, and Swarthmore collaborate to develop best practices for effective and sustainable department-level assessment of student learning

The grant funding received from the Teagle Foundation for our project has, as envisioned, served as a powerful catalyst for sustaining institutional momentum following the completion of our respective self-studies in the area of department-level assessment of student learning. The fact that Bryn Mawr, Haverford, and Swarthmore had been working hard on the task of educating and engaging faculty in this area prior to our receipt of the Teagle grant meant that our consortium had a foundation on which to build in June 2009. The participating departments are as follows:

- *Bryn Mawr*: English, Geology, Sociology
- *Haverford*: Chemistry, History, Psychology
- *Swarthmore*: English, Computer Science, Educational Studies

**YEAR ONE GRANT ACTIVITIES**

**Tri-college retreats**

After receiving the grant, the institutional researchers from each college began meeting regularly to plan the first of two tri-college retreats (see Appendix for retreat agendas) planned for year one. In the consortial spirit of the grant, these meetings rotated among the campuses. Due to the relatively short lead time after receiving the grant, the initial hurdle of finding a seven-hour period when twelve faculty and six administrators at three colleges were available turned out to be non-trivial – a fact that led us to immediately begin planning dates for subsequent retreats.

The goals of the first retreat were as follows:
Utilize an outside speaker to provide a wider context for our work (Charlie Blaich, Director of the Wabash Center for Inquiry in the Liberal Arts)

- Develop some baseline assessment terminology and models for the faculty participants, to ensure common starting vocabulary and conceptual understanding
- Provide faculty participants with some concrete, explicit models of the "assessment plans" they were to develop by the end of year one to ensure a consistent format
- To remind all participants of the timelines for their responsibilities within the grant

The key section of the retreat was having faculty critique three fictional assessment plans (see Appendix for copies) that were written in the desired format, but were deliberately flawed in a number of ways. The thought here was that this exercise would reinforce the desired common format and language for their own assessment plans, as well as familiarize them with some common methodological weaknesses and pitfalls of assessment plans. Judging by the quality of the assessment plan drafts we received in advance of the subsequent retreat, this exercise achieved its goal.

The second retreat had the narrower goal of improving and providing feedback to faculty participants and improving on the drafts of their departmental assessment plans for the project, and particularly of zeroing in on questions of measurement. Using small groups organized by the topic focus of their assessment plans, we repeated the "constructive critique" exercise from the first retreat, this time using the draft faculty assessment plans and any associated measures. As a majority of the plans proposed using rubrics, we allocated some time for a presentation on this topic as well. The retreat concluded with dinner and with a broader all-group discussion of how the participants viewed the value of the work thus far, and about administrative models for adequately supporting it on a wider scale.

In all of the retreat activities, we were intentional about using the various iterations of small-group activities to promote interactions across institutional roles (institutional research, Provost, faculty), across colleges, and across the academic disciplines (division of the faculty participant). We were also careful not to "overschedule" the time, so as to allow for more casual interaction and free discussion.

On-campus activities
Team meetings. At least once in the fall and spring semesters, the team members from each campus had an extended meeting to discuss progress, share insights, and ensure that timelines were being met. This provided an opportunity for each department to obtain feedback on their assessment plans, to collaborate on measurement tools, and to anticipate the next phase of the work. This team meeting also provided another opportunity in addition to the retreats for the "triangle" of primary stakeholders in assessment work (institutional research, provostial representatives, faculty) to be at the same table and thus develop a better consensual understanding of the roles of each. The creation of this administrative space was a key goal of the grant.

Departmental work and institutional research support. Faculty participants and their academic departments also worked individually with the institutional research staff on each campus. This administrative support and guidance was provided on an as-needed basis, and thus varied in frequency by department, ranging from several meetings, some with the department as a whole, over the course of the semester to just one or two. In addition to face-to-face meetings institutional researchers provided support in the form of revising drafts of assessment plans, implementing online assessment instruments, directing faculty to other resources, and coordinating materials for the retreat.

The typical model was the that faculty participant in the grant might develop the assessment plan as associated measurements, receive feedback from institutional researchers on these materials, then share these with their department (sometimes with the institutional researcher present) and engage in more revisions. In general faculty participants themselves determined the most useful level of engagement from institutional research personnel.

Provost, provostial representatives, and IR staff meeting. This meeting was not planned in the original grant proposal, but was organized by the three institutional research participants in order to lay the groundwork for the "administrative sustainability" portion of the grant, which is planned to be a
focus for years two and three. It proved a useful opportunity to raise the visibility of the project with the Provosts themselves, and to build support for some of the planned work in year two and three.

Reporting out to the full faculty. Another responsibility of the faculty participants was to provide an annual progress report on their work to the faculty at large at an appropriate venue. At Swarthmore this was undertaken within a report of the standing assessment committee to the faculty at their faculty meeting, with more focused presentations planned for the following year; at Bryn Mawr this was scheduled to occur at the final faculty meeting of the year, but due to other pressing issues requiring faculty votes this presentation has been delayed until the first faculty meeting in Fall 2010; at Haverford one of the faculty participants – who also serves as the project's provostial representative – presented the work of the project to the full faculty.

Other year one activities

Project website. The primary function of the part-time administrative staff position funded through the grant was to develop and maintain a project website for participants and for the wider community. This website (http://teagle.blogs.brynmawr.edu/) contains all important materials for the grant received to date and continues to be updated as they are completed. It has also served as an important common logistical resource for participants in the project.

Journalistic summaries of experiences. Institutional researchers and provostial representatives were required to write a journalistic summary of their experiences within the project. These are currently being produced, and will be posted to the project website by July 31, 2010.

YEAR ONE FINDINGS AND LESSONS LEARNED

Results

Faculty engagement in direct assessment. As noted in our project proposal, much of the groundwork had been laid on each of our campuses for faculty engagement in the institutional project of assessment of student learning. At two of the participating campuses (Bryn Mawr and Swarthmore),
academic departments were already required to develop statements of learning goals and assessment plans.

What we have been able to do with faculty participants in this first year of the Teagle grant is build upon that foundation in two important ways with the three participating departments from each institution:

- More deeply appreciate assessment work as a pedagogically central and even intellectually interesting activity
- Understand the difference between indirect and direct assessment, and the challenges of doing the latter well

The assessment plans (see Appendix for examples) represent powerful commitments by three academic departments on each of our campuses to engage in high-quality direct assessment of student learning, and subsequent improvement. This is no small achievement, and we are very optimistic about leveraging the experiences of these departments with our wider faculties.

Better consensual understanding of stakeholder roles. The grant activities provided several opportunities for the "triangle" of key stakeholders in the assessment of student learning to be simultaneously present while engaging this work. Faculty participants are thinking more about the administrative realities of supporting direct assessment across 30-odd academic departments. Provostial representatives have the opportunity to better understand the workload implications of departmental assessment for institutional researchers, and to provide institutional researchers with third-party feedback on how best to navigate sometimes difficult discussions with faculty.

Institutional researchers on our campuses have always worked with departments and provosts on assessment issues, so in their case the benefits of implementing assessment within this triangle less about understanding roles. Rather the important benefit to our institutions has been in buttressing the leadership role of institutional researchers in assessment, because at least two of the most important challenges to effective leadership in this area – sustained faculty engagement and investment with some authority for the wider faculty – are addressed with the visibility and time commitment implied by the
grant. Year one of the grant has clearly met the goal of "developing resident expertise" on assessment in this sense.

Utility of tri-college model. One of the originally envisioned key benefits of the tri-college organization of this work was to provide faculty with a wider view of assessment of student learning at the department level. Indeed, one of the reasons for soliciting Teagle funding for this project was precisely because faculty, when faced with the task of developing assessment plans for their departments, wanted to know "what our peer institutions are doing" in this respect. In that respect, the Teagle project has been a great success, and many departments have commented specifically on the value of connecting with parallel departments on other campuses through the grant work.

For institutional researchers and provostial representatives, as well, the opportunity to interact closely with colleagues on our sister campuses has been rewarding in ways that extend beyond the grant. For many of us, this has been our most substantive experience interacting with the other campuses, and simply understanding the details of how comparable functions are staffed and situated has proven useful in ways that extend beyond the grant.

Administrative sustainability.

Administrative sustainability will be a primary focus of year two of the grant. The concluding portion of the second year one retreat was devoted to discussing this topic, based on the experiences over the first year. The discussion was a wide-ranging one, but it did achieve the goal of having all three categories of stakeholders consider – together – the considerable demand placed on already-stretched administrative structures by this work. Implementing departmental assessment of students learning on even the small, narrowly defined scale of the Teagle project for all academic departments would, it was agreed, require some additional administrative support. The possibility of a single "Assessment Coordinator" staff person serving all three colleges was floated as one model, at least as an interim step.
At the same time, the primary contacts at each institution felt that time with faculty was probably best spent focused on faculty issues related to their assessment projects, and that efforts to engage faculty directly with questions of administrative sustainability may be less useful than originally thought. The model that is emerging for year two of the grant is to continue to use the Teagle project as a "case study" for better understanding the staffing and workload implications of department-level assessment work, but to primarily have provostial representatives and institutional research staff engage those questions, and to perhaps use faculty in limited ways as sounding boards for ideas. We will likely thus structure time during the first retreat in year one with this in mind and have additional meetings for provostial representatives and institutional research staff only.

Summary

In short, year one of the Teagle project has succeeded in achieving all of its envisioned goals. All nine departments have produced workable assessment plans that have value to them, and will have any needed assessment measures ready to go for the fall. As envisioned, the project has provided each of our campuses with a visible model of direct department-level assessment – helping to translate rhetoric to reality – even for departments that are not participating in the project, since most are required to engage in this work in some form already. The engagement of all three primary stakeholders through the grant has also provided a seriousness, visibility, and sustained commitment for this work on each of our campuses. We are well-situated to carry this work forward into years two and three, as originally planned, without major changes.
BRYN MAWR, HAVERFORD AND SWARTHMORE COLLEGES
Budget Narrative

Wages:

In our proposal, we budgeted $5,500 (plus benefits) for an assistant for Bryn Mawr’s Director of Institutional Research, who is serving as the Principal Investigator on the Teagle project. We originally planned to use these funds to hire a professional staff member to assist the Director in sustaining other assessment duties while he is involved in the Teagle project. Due to the nature of the work involved, we discovered that it was not feasible to hire a temporary staff member to carry out these duties, because such a person did not have sufficient knowledge of the Office’s operations to be effective. So instead of hiring an assistant, we used grant funds to pay the portion of the Director’s salary reflective of time spent on the Teagle project. In addition, expenditures were less than anticipated in the administrative support salary line, because we found that we did not require the services of an administrative assistant other than to set up and maintain the Teagle Project web site and to prepare materials for the two retreats. The remaining administrative duties were assumed by existing staff in the participating departments at the three institutions. Finally, some administrative charges incurred late in the project year, have not been billed yet and will appear in next year’s report.

Fringe Benefits:

Benefits associated with the faculty stipends were less than expected. We had budgeted full benefits at a rate of 28%, but Haverford and Swarthmore included only FICA with its stipends. In addition, administrative benefits were less than projected, because we needed less administrative support for the Teagle project than anticipated (see explanation above).

Meetings:

Expenditures for meals related to individual and tri-college meetings and retreats were less than anticipated. In addition, while we had budgeted funds for two outside experts (one at each retreat), we invited only one, so honorarium and lodging/travel expenditures were lower than originally projected.

Assessment Instruments and Resources:

We did not spend the $400 allocated in Year 1, because departments developed their own instruments instead of purchasing standardized instruments or survey.
<table>
<thead>
<tr>
<th>A. Personnel</th>
<th>Year 1 Proposed</th>
<th>Year 1 Actual</th>
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<tbody>
<tr>
<td><strong>I. Wages</strong></td>
<td></td>
<td></td>
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<tr>
<td>Twelve faculty participants ($1,500 / year / participant)</td>
<td>$18,000</td>
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<td>Professional staff (Principal investigator release)</td>
<td>$5,500</td>
<td>$5,500</td>
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<tr>
<td>Administrative support (avg 5.5 hrs/week)</td>
<td>$5,286</td>
<td>$1,553</td>
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<td><strong>II. Fringe Benefits</strong></td>
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<tr>
<td>Faculty</td>
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<td>Professional staff</td>
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<td>Administrative support</td>
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<td><strong>B. Other Expenses</strong></td>
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<td></td>
</tr>
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<td><strong>III. Meetings</strong></td>
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<td></td>
</tr>
<tr>
<td>Materials</td>
<td>$350</td>
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<tr>
<td>Tri-Co retreat meals (rotating across three campuses)</td>
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<td>$1,421</td>
</tr>
<tr>
<td>On-campus lunch meetings (separately on each campus)</td>
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<td>$259</td>
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<tr>
<td>Outside Expert/s</td>
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<tr>
<td>Honorarium</td>
<td>$1,500</td>
<td>$750</td>
</tr>
<tr>
<td>Lodging and travel</td>
<td>$2,500</td>
<td>$930</td>
</tr>
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<td><strong>IV. Assessment instruments and resources</strong></td>
<td>$400</td>
<td>$0</td>
</tr>
<tr>
<td><strong>V. Dissemination</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conference registration</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Lodging and travel</td>
<td>$0</td>
<td>$0</td>
</tr>
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<td><strong>GRAND TOTAL</strong></td>
<td><strong>$46,249</strong></td>
<td><strong>$32,859</strong></td>
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Appendix: Selected materials generated from grant-funded activities

Note: Many additional materials will be available on or before June 30, 2010 at the project website http://teagle.blogs.brynmawr.edu/

1. Agendas from both September 11, 2009 and January 26, 2010
2. Participant list
3. Four sample assessment plans used in September 11, 2009 retreat.
4. Guide for an exercise critiquing the sample assessment plans in retreat 1
5. Summary of key terminology in assessment, framing our work (retreat 1)
6. Nine departmental assessment plans
Bryn Mawr, Haverford, and Swarthmore Colleges
Teagle Foundation Systematic Improvement Grant Retreat

Sustainable Departmental-Level Assessment of Student Learning

Friday, September 11, 2009
12 noon – 7:30 pm

Dalton Hall, Room 300
Bryn Mawr College

12:00-12:45 Assessment Context discussed (lightly) over Buffet Lunch
12:45-1:00 Tri-College Assessment at the Departmental Level
1:00-1:15 Teagle Grant Overview
1:15-2:45 Speaker Dr. Charles Blaich, Center of Inquiry, Wabash College

The Center of Inquiry at Wabash College collaborates with faculty and staff at liberal arts institutions to build stronger assessment programs. The goal of the Center is to help campuses develop and implement approaches to assessment that are consistent with their individual missions and distinct cultures. Charles Blaich will talk with us about how the work of the Center can inform assessment of departmental learning.

2:45-3:00 Refreshment Break
3:00-3:30 Assessment Primer

- Defining the Assessment Loop
- Establishing department-level learning goals and objectives
- Discussion of Assessment Terminology

3:30-5:00 Collaborative Divisional Exercise: Critiquing an Assessment Loop
5:00-5:45 Wine and Cheese, Continuation of Informal Discussion
5:45-6:30 Dinner – Tables of Institutional Teams
6:30-7:00 Speaker Reflection on the day’s discussions and final Q&A
7:00-7:30 Closing Remarks
Focus on Measurements: Part III of the Assessment Loop

2:00-2:20  Welcome and Refreshments

2:20-3:45  Project Selection and Loop Components
          Faculty Breakout Groups: presentation/critiques of projects

          Group I: Disciplinary Focus (on Research or Writing)
          1) Bryn Mawr: Sociology
          2) Haverford: History
          3) Swarthmore: English

          Group II: Course Focus (Embedded Assessments)
          1) Bryn Mawr: Geology
          2) Haverford: Chemistry
          3) Swarthmore: Computer Science

          Group III: Capstone Experience Focus
          1) Bryn Mawr: English
          2) Haverford: Psychology
          3) Swarthmore: Education

3:45-4:00  Break

4:00-4:30  Rubrics: Operationalizing Goals

4:30-5:30  Faculty Share Experience, Challenges, Questions

5:30-5:45  Wine and Cheese

5:45-6:00  Next Steps

6:00-7:00  Dinner and Team Meetings
Tri-College Assessment Project
Teagle Foundation Grant: Effective and Sustainable Department-Level Assessment of Student Learning
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Model for Department-Based Assessment Loop for a Single Departmental Learning Goal

Division: Social Sciences
Department: Psychology

Departmental Learning Goal:¹
Students will understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.

Departmental Learning Objectives:
1. Identify and describe different research methods used by psychologists—including quantitative and qualitative approaches.
2. Design and conduct basic studies to address psychological questions using appropriate research methods.
3. Critique research conclusions appropriately based on the parameters of particular research methods.

I. Learning Strategies
The strategy for achieving goals and objectives is the departmental curriculum, as well as extracurricular offerings and opportunities sponsored by the department.

II. Learning Assessments
1. The department’s Research Methods course uses a rubric to assess achievement of a number of objectives in the final research project. The final research project requires the students to develop a simple research question, identify an appropriate method to address the question, execute the method, analyze the results, and report on findings and implications. A rubric is a rating scale that identifies examples of levels of success for each cognitive dimension, skill, or objective being evaluated.

The department’s rubric for the project rated the research projects on the understanding of the methods available (Departmental Learning Objective #1), appropriateness of method selected (Departmental Learning Objective #2), design of the study (Departmental Learning Objective #2), analytical skills displayed (Departmental Learning Objective #3), and appropriateness of conclusions (Departmental Learning Objective #3). (The rubric also includes evaluation of other departmental learning objectives, such as presentation skills, which fall under different departmental goals related to scholarly communication.) Scores on each of the various ratings are averaged across students so

that the department can identify areas of strength and weakness of the course in preparing students.

2. A faculty member administers a multiple-choice test of appropriate standardized items (e.g. from GRE – items relating to departmental learning objectives 1-3) in senior capstone course. These are tracked and reported longitudinally, and discussed by faculty.

3. As part of an external review four years ago, the department surveyed alumni. Several open ended questions were included:
   a. How well prepared were you for post-baccalaureate endeavors?
   b. What aspects of your psychology education helped with learning and why?
   c. What might the department do differently to help students learn more effectively?
   The results were summarized and discussed by faculty.

One Conclusion:
Through several of these assessments the department discovered that students had good abilities to understand and use quantitative research methods, but did not understand qualitative data and methods as well.

III. Using the Results

Adding an additional course on Qualitative Methods was not feasible. The department instead revised individual course objectives in three core courses to include examples and practice with qualitative research. The department increased the coverage of qualitative techniques in the Research Methods course and added test questions on the final exam which would allow for continued assessment of this area. This finding also led to additional department discussions of their goals regarding research methods and moving to a more standardized curriculum for the Research Methods course, which out of necessity is taught by different faculty members each term. These curricular modifications were assessed by monitoring the rubric results over time.
Model for Department-Based Assessment Loop for a Single Departmental Learning Goal

**Division:** Natural Sciences  
**Department:** Biology

**Departmental Learning Goal:**
Students will understand, develop, and apply appropriate quantitative skills within the context of the biological sciences.

**Departmental Learning Objectives**
A quantitatively literate graduate should be able to:

1. Interpret mathematical models such as formulas, graphs, tables, and schematics, and draw inferences from them.
2. Represent mathematical information symbolically, visually, numerically, and verbally.
3. Use arithmetical, algebraic, geometric and statistical methods to solve problems.
4. Estimate and check answers to mathematical problems in order to determine reasonableness, identify alternatives, and select optimal results.
5. Recognize that mathematical and statistical methods have limits.

**The strategy for achieving goals and objectives is the departmental curriculum as well as extracurricular offerings and opportunities sponsored by the department.**

**Assessment Activities:**

1. **Relevant Senior Exit Interview Questions.** The department asks three questions of senior majors in relation to each objective:
   
a) To what extent did your experience in the biology department improve your performance of objective 1 (etc.)? Scale: 3) to a great extent; 2) to a modest extent; 1) to a minimal extent; 0) to no extent. Summarize for graduating class and track longitudinally.

b) What aspects of your education within the department helped you with your learning of objective 1 (etc.), and why were they helpful?

c) What might the department do differently that would help you learn more effectively in relation to objective 1 (etc), and why would these actions help?

2. **Pre/Post Test:** The department develops an assignment to evaluate proficiency in each of the College’s quantitative literacy objectives which is assigned at the start of the first biology core course. Similar items are incorporated into an end of the semester assignment or exam. A departmentally agreed upon rubric (below) is developed for evaluating these objectives. The pre/post scores are compared for individual students within the course and tracked against other departmental courses which also meet the College quantitative requirement.

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1 Adapted from Mathematical Association of America (www.maa.org)
Student attainment of each capacity listed above is evaluated according to the following rubric:

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<tr>
<th>Score</th>
<th>Rating</th>
<th>Characteristics of student work</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Excellent</td>
<td>Insightful understanding is effectively demonstrated. Whether directly stated or implied, responses are perceptive and appropriately supported by specific details. Support is well defined and appropriate.</td>
</tr>
<tr>
<td>4</td>
<td>Proficient</td>
<td>Well‐considered understanding is appropriately demonstrated. Whether directly stated or implied, responses are thoughtful and supported by details. Support is well‐defined and appropriate.</td>
</tr>
<tr>
<td>3</td>
<td>Satisfactory</td>
<td>A defensible understanding is clearly demonstrated. Whether directly stated or implied, responses are conventional but plausibly supported. Support is general but functional.</td>
</tr>
<tr>
<td>2</td>
<td>Limited</td>
<td>Understanding is vaguely demonstrated or is not always defensible or sustained. Responses are superficial and support is scant and/or vague, and/or redundant.</td>
</tr>
<tr>
<td>1</td>
<td>Poor</td>
<td>An implausible conjecture is suggested. Responses are irrelevant or incomprehensible. Support is inappropriate, inadequate, or absent.</td>
</tr>
<tr>
<td>0</td>
<td>Insufficient</td>
<td>The marker can discern no evidence for the capability. Responses are so deficient that it is not possible to assess the capability.</td>
</tr>
</tbody>
</table>

(Rubric adapted from a guide for assessing writing assignments which appears in the book Assessing Student Performance by Grant P. Wiggins published in 1993 by Jossey-Bass Publishers.)

3. **Standardized Test:** A faculty member administers a multiple‐choice test of appropriate standardized items (e.g. from GRE – items relating to these learning objectives) in the senior capstone course. These are tracked and reported longitudinally, and discussed by faculty.

**One Finding**
Through several of these assessments, the department was pleased with the problem‐solving abilities of their students, but their abilities to choose appropriate representations for data and communicate their findings orally and graphically needed strengthening.

**Using the results**
The department revised individual course objectives in three core courses to include practice with data presentation and communication skills. To consistently evaluate performance across courses, a specific rubric was developed by the department that guided faculty grading and feedback on all presentations. Mean scores on the rubric components were compared for each student level (first‐year, sophomore, etc).
Model for Department-Based Assessment Loop for a Single Departmental Learning Goal

<table>
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<th>Division:</th>
<th>Department:</th>
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<tbody>
<tr>
<td>Humanities</td>
<td>Philosophy</td>
</tr>
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</table>

**Departmental Learning Goal:**
Familiarity with the most important topics in ethics and the related field of political philosophy.

**Departmental Learning Objectives:**
1. Distinguish morality from other sets of requirements (e.g. those of etiquette or law or self-interest).
3. Understand the contributions of contemporary philosophers such as Korsgaard, Nagel, Scanlon, and Williams to ethics.
4. How should an industrial society organize its economy and its welfare system.
5. Apply ethical concepts and theories to debate controversial social issues.

**The strategy for achieving goals and objectives is the departmental curriculum as well as extracurricular offerings and opportunities sponsored by the department.**

**Assessment Activities:**
1. The required course in Moral Philosophy has an end of course evaluation form that asks students to indicate their level of satisfaction with the course (on a 1 to 5 scale), and to reflect on how much (on a 1 to 5 scale) the course has contributed to their understanding of the philosophy of ethics.

2. The department has identified key instructional units across two courses that address the contributions of classic and contemporary philosophers to moral and political thought. At the end of each of these units a quiz developed by the department (all instructors use the same quiz) is given to assess students' understanding of the contributions of these philosophers. Scores on these quizzes are part of the students’ graded work, but they are also tracked over time and used by the department to assess the extent to which objectives are met.

3. Faculty members were increasingly concerned that papers about moral reasoning offered by graduating seniors reflected little understanding of the contributions of contemporary scholars (as opposed to those by major historical figures). They held a number of focus groups with seniors to ask for their feedback about the points in the curriculum where learning about contemporary work occurred and how instruction might be improved.

**One Finding:**
Two of the assessments (the third was not clear on this) indicated that students were not able to trace the relationships of the work of earlier to contemporary philosophers or to understand the importance of the contributions of the more contemporary scholars.
Using the Results:

The department made changes both to the key instructional units (in the two courses) and to the quizzes that were used. The development of thinking that led to contemporary scholarship was traced more explicitly in those key instructional units, and the quizzes were modified so that students would have to demonstrate the understanding of this development, and not just recite and recognize facts.
Model for Department-Based Assessment Loop for a Single Departmental Learning Goal

Division: Social Sciences  Department: Political Science

Departmental Learning Goal:¹
Demonstrate skills for reflective engagement in political activity.

Departmental Learning Objectives:
1. Demonstrate the ability to question political decisions.
2. Understand the significance of collective political action.
3. Participate as contributing members of political organization(s).
4. Demonstrate leadership in political processes and events.
5. Demonstrate the ability to persuade others.
6. Reflect on political information and events and one's contribution to them.

The strategy for achieving goals and objectives is the departmental curriculum as well as extracurricular offerings and opportunities sponsored by the department.

Assessment Activities:
1. The institution conducts an annual, standardized "Senior Survey", one section of which asks the student to report the extent to which one has made educational gains in the area of "effective leadership skills". 54% of Political Science majors over the last 10 years said their skills in this area are "much stronger now" than when they entered college. This value:
   - Has not changed substantially (for Political Science Majors) over the last ten years
   - Is lower than the typical 61% average value reported for Political Science Majors at a set of seven close peer institutions.
   - Is comparable to the institutional average for other Social Science majors, and higher than the value for Natural Science and Humanities majors at this institution.

2. The institution keeps track of student membership in on-campus clubs, and also maintains records of club officers. The institutional research office merges this information with the data for student majors at graduation, and the data reveal the following:
   - Political Science majors are twice as likely to occupy positions in student government than are majors in other Social Science disciplines, and roughly four times as likely to do so than majors in the Humanities or Natural Sciences.

¹ Adapted from College of Saint Benedict and Saint John’s University, Department of Political Science: http://www.csbsju.edu/assessment/lgm/pols.htm
• Fully 50% of members of student political clubs (College Republicans, College Democrats, etc.) are Political Science majors, a value much higher than any other major.

• Political Science majors are much less likely to belong to other kinds of student clubs and organizations (issue-based clubs, ethnicity or identity-based clubs,) or to assume leadership positions on these types of clubs.

• There has only been one Political Science major on the 10-member Debate club over the last eight years of its existence.

3. The college Development office produced a recent report on graduates of the classes of 20, 30, and 40 years ago. The department sought to examine these data for their majors with an eye to assessing whether their majors were more likely to be "leaders" in their chosen career. Political Science majors, relative to alumnae that majored in other fields, are over-represented in the careers of lawyer and journalist, and underrepresented in the fields of college instructor, manager (business).

One conclusion:

In the course of evaluating their assessment data, the department concluded that, upon reflection, the goal of "leadership in political processes and events" was too narrowly defined. Though the evidence from the student leadership participation on campus data was encouraging, the self-report data were discouraging, and the department felt they could do better there. The department felt upon review that the major attracted some "natural leaders", but the majority would benefit from a more formal introduction to practical leadership skills in politics and in organizations.

Using the results

After modifying their departmental learning goals and objectives to reflect their new understanding, upon review of their curriculum they felt that their required courses did not directly address this refined objective. As a result they developed a required course directly focusing on theories of leadership, half of which was organized around outside speakers (mostly alumnae) discussing their experiences of leadership in real-world settings. In some years, based on student interest, the course would be structured around a specific on-campus effort to effect change in college policy, with attention to understanding the campus leadership.
Assessment Loop Critique Exercise Guide

I. ARTICULATION OF GOALS AND OBJECTIVES
   a. Are the departmental learning goals and objectives appropriately written?
      i. Do departmental learning objectives describe what a student will be able
         “to do” rather than what was taught or presented?
         1. Writing example: present coherent/logical claims; clearly organize
            links between claims and support; use standard American English;
         2. Ecology example: critically review and synthesize the findings in
            scientific literature and make appropriate ecological
            recommendations based on current knowledge;
         3. Math example: given data, students will analyze information and
            create a graph that is correctly titled and labeled, appropriately
            designed, and accurately emphasizes the most important data
            content;
      ii. Verb context: “Demonstrating an understanding of” or “demonstrating an
         awareness of” are difficult to measure and would not normally be
         appropriate for a learning objective. However, “demonstrating successful
         venepuncture” in a nursing course would be appropriate.
   b. Do the goals take into account the three dimensions of student learning (and the
      spectrum from “basic” to “sophisticated” within each)…Bloom’s Taxonomy?
      i. cognitive—what students know
      ii. affective/attitudinal—how students feel or what they care about
      iii. behavioral—what students can do
   c. Do the objectives suggest assessments?
   d. M& M: Are the objectives meaningful and measurable?

II. LEARNING STRATEGIES

III. ASSESSMENT OF LEARNING
   a. Are there multiple measures?
   b. Are there both direct and indirect measures?
   c. Quantitative and qualitative measures?
   d. Are embedded assessments specifically aligned with departmental learning
      objectives?
   e. Are there useful non-embedded assessments to consider?
   f. Are the assessments appropriate for the level (institutional/departmental) of the
      objectives?
g. Is the approach to assessment—value added or standards based—reflected appropriately in the measure?

h. What kind of benchmark is appropriate?
   i. Exceeding some minimum standard?
   ii. Measuring level of success for comparison to other groups?
   iii. Documenting value added (improvement)?

i. Have the implications of particular benchmarks been considered?
   i. e.g. What are the educational implications for seeking a certain level of graduate school attendance?

j. Is the rubric appropriate for the objectives?

k. Would different measures than the ones selected been better choices?

IV. USING THE RESULTS
   a. Is the finding reasonable/conclusive?
   b. Is the plan for using the results appropriate?
   c. If the results are to be used for monitoring, is the monitoring appropriate?
      i. Should students at different points in their education (first year/soph/etc.) be compared?
      ii. Should students at the same point in their educational careers (senior classes) be compared across time?
      iii. Should a single group or cohort be followed over time to document improvement?
   d. Is the loop complete?
**ASSESSMENT TERMINOLOGY**

1. **DIRECT VERSUS INDIRECT**

   Direct measures of student learning *intrinsically* demonstrate mastery of a particular skill or competency. Winning a debate competition provides direct evidence of effective oral communication; publishing a research article in a peer-reviewed journal demonstrates mastery or research and writing skills; obtaining a job after graduation as an assistant editor in a publishing house demonstrates mastery of writing skills.

   Indirect measures of student learning are perceptions, behaviors, or attitudes that should, in theory, be evident in proportion to the extent that mastery of a particular learning outcome has been achieved. But they do not *intrinsically* demonstrate mastery. A student self-report on a questionnaire that they have "very much" improved their skills in effective writing; alumni saying that their college years were responsible for enhancing their quantitative reasoning skills; a transcript indicating completion of multiple lab science courses may demonstrate mastery of research methodology.

   In reality these are a continuum, not a dichotomy: all measures of mastery involve a subjective element, a "leap of faith" that the test site provides and appropriate context to assess mastery. In educational domains, direct measurement is usually an unattainable goal that is approximated to varying degrees.

2. **TRIANGULATION**

   Because all measures of student learning are flawed, the use of *multiple methods* for assessing student mastery is advisable, so as to better "triangulate" on the truth. The term triangulation comes from seismology: seismographs can assess distance from an earthquake epicenter, but not *direction* to the epicenter; thus, one detector can substantially narrow the range of possible epicenter locations, but only by using distance estimates from at least *three* geographically separated detectors can the true location of the epicenter be determined. Student self-report, course taking behavior, focus groups with graduating seniors, measures of time-on-task in relation to a particular learning outcome are all (individually) imperfect measures, but taken together, if they all suggest the same interpretation, confidence in that interpretation is greatly increased.

3. **QUANTITATIVE VERSUS QUALITATIVE**

   Quantitative assessment methodologies utilize tools to measure student learning numerically, so that results can be manipulated statistically. Qualitative research uses texts – samples of student work, interview or focus group transcripts – as the raw "data" for assessing student learning. Each approach has its strengths and weaknesses, and the strongest assessment plans employ both (see above). Quantitative techniques are often best for large groups or programs, and for testing competing hypotheses about student learning, though in assessment work they can produce a false sense of precision; qualitative research can provide richer content, particularly when assessing outcomes in areas that are more holistic in nature (e.g., understanding diverse cultures, ethical reasoning) but, though it is often assumed to be "easier", it is just as difficult for non-specialists to do well, and is often more suited to generating good hypotheses about student learning than it is with *testing* them or demonstrating that learning has occurred.

4. **EMBEDDED ASSESSMENT**

   Assessment techniques that are integrated with coursework or other learning experiences, but are designed in such a way that they yield direct evidence of mastery of learning outcomes. A senior thesis project, evaluated
according to a rubric that is aligned with departmental learning goals, can provide direct evidence of student mastery of those goals; in some contexts simply being more explicit about grading in a manner that is aligned with departmental or course learning goals can be considered embedded assessment; so-called "signature assignments" such as externally evaluated exhibitions of student work, service learning experiences, and the like are examples of "embedded assessment".

5. **Sampling**

When assessing large programs (many students) or numerous examples of student work, **sampling** – selecting and evaluating a subset of students or work samples – can reduce the assessment workload. The key is that the sampling must be done systematically (usually with the guidance of a research methodologist), to ensure that the sample being evaluated truly represents the larger group to which conclusions will be generalized.

6. **Portfolios**

Portfolios of student work can provide direct evidence of student learning, particularly if they are organized in a way that permits assessment of improvement in terms of departmental learning goals over time. In order to be considered "assessment", however, academic departments must also systematically evaluate the content of student portfolios against a set of departmental learning goals, and use the results of those evaluations to inform program changes and improvements.

7. **Value-added versus Standards-based**

This is an institutional as well as a departmental issue, and it refers to whether student learning is assessed at the student level by comparing mastery at program completion with mastery at program entry (value-added), or relative to a standard at program completion only (standards-based). The usual answer is, "both".

8. **Benchmarks**

Performance is always assessed relative to a standard, whether is internal or external (see above). While is it probably not worth obsessing over precisely where to set the benchmark for "success", since the primary goal is *continuous improvement*, departments and institutions do vary in ways that have important implications for curricular design and resource allocation. Using an "exceeds minimum standards" benchmark, for example (as opposed to value-added), may prompt a department to focus more resources on students with below-average aptitude; using "graduate school admissions" as the benchmark for success, conversely, might encourage a department to dedicate relatively more mentoring and curricular resources to the preparation of "star" students; finally, a benchmark that emphasizes having the greatest *proportion* of graduates exceed a given performance benchmark may encourage a focus on the "middle 50%" of students in terms of aptitude, as the "stars" would exceed the threshold anyway, while lower-aptitude students might require a disproportionate amount of departmental resources on a per-student basis.

9. **Levels of Analysis**

Departmental learning goals exist within a broader framework of institutional learning goals, while at the same time they subsume course-specific learning goals. Ensuring that learning goals across these three levels of analysis are aligned is an important and sometimes difficult task.
10. Cost to benefit ratio

A favorable cost to benefit ratio is what defines "good" assessment. Focusing on assessment quality (high benefits) without realistically considering high costs (time, money, opportunity costs) required to produce it is no more likely to produce meaningful program improvements than is lower quality, low-cost (e.g., self-report surveys, enrollment counts) assessment work if those costs are unsustainable.

"Good enough" assessment is indeed often good enough in that it can provide accurate guidance for program improvements, particularly when multiple methods are used (see #2). Assessment work should go beyond the anecdote, the "gut sense", and conventional wisdom, but peer-reviewed scholarly research is in most circumstances not the model for assessment work with a favorable cost to benefit ratio. The perfect should not be the enemy of the good.

The cost / benefit ratio also relates to the degree of standardization versus customization in an institution's overall assessment processes. Quantitative data allow for economies of scale in reporting and analysis across academic departments, but only if they are willing to accept some degree of standardization in those reports. For example, it may take x hours to produce a quantitative data analysis in support of assessment for one department, but it may take just 3x hours to develop a template that will generate the same report for all 35 academic departments, though this reduced institutional cost in staff time will involve reducing the benefit somewhat for any single department, as the reports are less customized to their unique needs.
English Department:

Assessment Loop directed toward assessment of the senior experience

Each senior will be asked in September to bring to the first meeting of the Senior Seminar, English 398, a paper written during the junior year that she is especially proud of and that illustrates her most powerful work as an English major thus far. We will ask that the paper be accompanied by a paragraph-long statement of what she takes its particular strengths to be.

We will use these essays, in conjunction with the senior essays that come in to us in May, to help us assess the effectiveness of English 398-399 relative to the “umbrella goal” of an English major that is most directly relevant to the senior thesis: “ Writes thoughtfully and persuasively about a topic of her choosing in literary, cultural, and/or media studies.”

We have already developed a rubric for the senior thesis that its two readers use to gauge its success relative to this umbrella goal, unpacked into more specific learning outcomes that are assessed on a 5-point scale. In this rubric, under Critical Engagement, some of the strengths of a successful essay are described as follows:

- a. Introduces a clear critical question
- b. Critical question is appropriate to project
- c. Critical question is effectively explained
- d. Critical question is anchored in interpretation
- e. Critical question is original and engaging.

Under Methodology, a set of closely related outcomes is described as follows:

- a. Cites from secondary sources
- b. Effectively incorporates secondary sources
- c. Effectively defines and applies key theoretical terms
- d. Effectively identifies a theoretical methodology or methodologies
- e. Effectively incorporates a theoretical methodology in the service of the larger critical question.

We are proposing to assess the “value added” by English 398/99 with respect to this set of interrelated learning outcomes. Together they capture a dimension of what English majors learn to do that is major-specific, comes into play at a relatively advanced level, and is directly associated with the senior experience—i.e., with capacities that are called into action by the process of developing and executing a viable thesis project.

The assessment process will unfold as follows:
• In September the senior seminar facilitators will discuss with each senior the essay she has selected to represent her strongest work. They will rate the essay using the same rubric that is used again in May to assess the senior thesis. They will also produce a short paragraph of commentary that speaks to the essay’s strengths and limitations relative to “Critical Engagement and Methodology,” the dimensions that are paramount for the learning that occurs in 398-399.

• In May the entire rubric will be used to assess each senior thesis by its first and second readers. At this time, the ratings given for the learning outcomes specified under Critical Engagement and Methodology will be used to compare each student’s thesis with the essay that same student submitted in September.

Possible outcomes of the assessment process:

We expect to find that most of our majors learn from the entire thesis-writing process to deploy critical methodologies more self-consciously, ambitiously, and creatively. But what if we find, for instance, that whereas one third of our seniors did not use theory at all or did not use it effectively in the essays they chose in September to exemplify their best work, three quarters of them (30 out of 40) did this at least adequately by April/May? At that point we might decide to take a closer look at the other ten. Did most of them wait till the senior year to do most of their 300-level work? Did several of them go abroad in the junior year? Do most of them have GPAs below the college median? etc. etc.

Whatever we find out through comparing each cohort of majors not only with previous cohorts, but also with itself at an earlier stage of the major, these findings will contribute toward a departmental re-assessment of the senior experience. Our discussion of these findings could yield changes in the way English 398 is structured; it could prompt us toward changes in our 200- and 300-level courses; it could suggest to us that some of our majors would be better served by a different kind of capstone experience. At the very least we would expect it to speak to whether, in relation to this particular goal of the English major, English 398 and 399 are serving us well.

Assessment Loop summarized:

September: An essay chosen by each student to exemplify her strongest work is assessed by the 398 facilitators using the rubric that will be applied in May to the senior thesis.

May: Senior theses are assessed and graded. Ratings each thesis receives from its first and second readers for Methodology and Critical Engagement are compared with those received by the essay its author submitted in September to exemplify her strongest written work.
<table>
<thead>
<tr>
<th>Category</th>
<th>Assessment¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Presentation:</td>
<td></td>
</tr>
<tr>
<td>a. Paper is largely error-free (grammar, spelling)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. Paper is appropriately formatted</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. Paper has effective paragraph-level organization</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>d. Paper has a logical and systematic overall structure</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>e. Paper is well-written, critical, creative</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>II. Use of Text</td>
<td></td>
</tr>
<tr>
<td>a. Cites from the primary text(s)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. Citations are appropriately formatted</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. Citations move beyond summary/description</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>d. Citations are placed in appropriate context</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>e. Citations are used to establish interpretive claims</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>III. Critical Engagement</td>
<td></td>
</tr>
<tr>
<td>a. Introduces a clear critical question</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. Critical question is appropriate to project</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. Critical question is effectively explained</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>d. Critical question is anchored in interpretation</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>e. Critical question is original and engaging</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>IV. Methodology</td>
<td></td>
</tr>
<tr>
<td>a. Cites from secondary sources</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. Effectively incorporates secondary sources</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. Effectively defines and applies key theoretical terms</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>d. Effectively identifies a theoretical methodology or methodologies</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>e. Effectively incorporates a theoretical methodology in the service of the larger critical question</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>V. Context(s)</td>
<td></td>
</tr>
<tr>
<td>a. Locates critical question in context of critical tradition</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. Places critical question in dialogue with other critics</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>c. Places critical question in larger context(s): social, cultural, political, aesthetic, etc.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>VI. Additional Contexts (if applicable)</td>
<td></td>
</tr>
<tr>
<td>a. Places critical question in dialogue with other media</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>b. Places critical question in both disciplinary and interdisciplinary contexts</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

¹ Scale: 1= not applicable; 2=weak performance; 3=meets expectations; 4=strong performance; 5=very strong performance
Assessing the Geology Department’s statement of learning outcomes and goals

The What: One of the four major themes in the Geology Department's learning outcomes and goals statement (attached at end of document) is that 'students will learn the fundamental concepts of Geology'. Supporting this statement are seven bullets that describe the different areas in which the Geology Department feels our students need to demonstrate expertise. To date the Geology Department has simply taken it on faith that our colleagues are doing an effective job at teaching to these goals, and that our students are leaving Bryn Mawr with value-added in the seven sub-fields of Earth Science.

For this assessment loop the Geology Department plans to focus on three of the seven fundamental concepts over the next three years. It is our intent that over the next several years all seven concepts areas will be evaluated using similar methodology. The first three concepts are:

1. Each graduate will demonstrate an understanding of plate tectonics and be able to describe how it operates;
2. Each graduate will demonstrate an understanding of the geologic time scale and the timing of major events in Earth history;
3. Each graduate will demonstrate an understanding of global climate change on various time scales.

Each of these three assessment efforts will be spearheaded by a different faculty member whose expertise addresses the stated concept area (Prof. Weil for concept 1; Prof. Marenco for concept 2; Prof. Barber for concept 3). Specifically, we hope to assess the effectiveness with which the geology major curriculum teaches and reinforces the stated concepts.

The How: Assessment of these outcomes will take place at several different stages of a student’s progress in the Geology Major.

First, a basic multiple-choice concept test will be given on the three concept areas during the first week of our introductory geology courses. Each of the three intro Geology classes, Physical Geology (101), Historical Geology (102), and Earth Systems and the Environment (103), deals specifically with one of the three stated goals above. These tests will be graded, tallied and kept on record according to student ID#. The test will have a mix of basic fact questions, nomenclature questions, and higher-order concept questions. The entire Geology faculty will agree on the final test content. As a secondary outcome, the tests will be repeated at the end of each introductory course as a way to assessing the effectiveness of the individual course in teaching the stated concepts.
Second, two course-embedded assessment assignments (CEAA) in each of the three concept areas will be tracked for each student major. Course-embedded assessment gives useful feedback on what, how much and how well a student is achieving an instructor’s stated learning goals. In the ideal, the two CEAAs will be given at different stages of the student’s major experience. All CEAAs will be scored using a standardized rubric that will be compatible across concepts and quantifiable. Using a rubric that evaluates at different stages of learning/understanding will hopefully make the scoring of CEAAs as objective as possible - though the Geology Department fully realizes that it is impossible to collect fully unbiased objective data. The students’ scores will be tallied and recorded according to student ID#. Using student ID#s is a further step in trying to remove as much bias from the evaluation process as possible.

Finally, a senior-exit concept test will be given on the three concept areas at the end of the required senior seminar. Similar to the introductory test, this test will be graded, tallied and kept on record according to ID#. The test will have a mix of basic fact questions, nomenclature questions, and higher-order concept questions. Questions from the first test will be repeated, and additional more advanced questions will be added. Again, the entire Geology faculty will agree on the final test content.

Closing the Loop: At the end of every academic year the department will have data from incoming majors concept tests, that year’s CEAAs, and from senior-seminar concept tests. Where concept deficiencies are identified, we will meet as a faculty on our annual faculty retreat to discuss how best to reinforce the concepts' coverage in the coming year’s curriculum. The curriculum will be adjusted accordingly until the Geology Department’s learning outcomes and goals statement have been adequately met by our graduating seniors.

The objective of this loop is to give the department a way to add a developmental perspective to our assessment of learning goals. That is, as an outcome of Loop#1 the Geology Department will have quantifiable data over the career of a student’s time in the Geology major in order to evaluate how a student has progressed through the instructional material and what has been added through her time in contact with Bryn Mawr Geology faculty.
Student Learning Outcomes and Learning Goals for the Bryn Mawr Geology Major

- Provide a high-quality undergraduate education that combines transdisciplinary problem- and process- oriented, and quantitative approaches to the Earth Sciences.
  - Develop highly competent geoscience students prepared to analyze and comprehend the linkages among Earth system components and their physical and social context
    - Each graduate will demonstrate the ability to apply knowledge, concepts and techniques from complementary disciplines to solve problems
    - Each graduate will employ accepted laboratory and field techniques, protocols, and safety procedures
    - Each graduate will demonstrate the ability to read, construct, and comprehend thematic maps as well as derive conceptual perspectives from existing maps
    - Students will demonstrate the appropriate use of quantitative data through graphs, spreadsheets, and statistical analysis
  - Students will learn the fundamental concepts of geology
    - Each graduate will demonstrate an understanding of plate tectonics and be able to describe how it operates
    - Each graduate will demonstrate an understanding of the geologic time scale and the timing of major events in Earth history
    - Each graduate will demonstrate the ability to identify and characterize important earth materials, and to interpret the physical, chemical and biological processes by which they formed
    - Each graduate will demonstrate an understanding of the geologic time scale and the timing of major events in Earth history
    - Each graduate will demonstrate an understanding of evolution and its evidence in the fossil record
    - Each graduate will demonstrate an understanding of the internal structure of Earth
    - Each graduate will demonstrate an understanding of the hydrologic cycle
  - Educating our students about Earth's natural systems, its resources, and the impact of humans on the planet
    - Applying geoscience knowledge to address problems affecting human society, locally and globally
    - Each graduate will demonstrate the ability to make informed, scientifically based decisions regarding environmental issues, resource exploration and extraction, and anthropogenic effects on the natural world
  - Develop and communicate new knowledge to the broader community through fundamental research that uses current technologies
    - Each graduate will deliver oral presentations, demonstrating the ability to effectively communicate discipline-specific concepts
    - Each graduate will write scholarly papers using acceptable format and organization with citations to appropriate literature
    - Students will deliver presentations making appropriate use of visual or electronic media
Sociology 303 – Junior Writing Seminar – Research Design and Writing

I. Articulation of Goals and Objectives Most Relevant to this Course

Departmental Learning Goal 2:
Graduating sociology majors should think sociologically. Specifically she should be able to:

Departmental Learning Objectives for Goal 2:
1. Distinguish between responsible and irresponsible generalization, and engage in the former.
2. Pursue a research question through systematic sociological analysis, including theorizing, conceptualization, operationalization, measurement, and data-gathering.

Departmental Learning Goal 3:
Graduating sociology majors should be able to follow and contribute to the ongoing sociological conversation. Specifically she should be able to:

Departmental Learning Objectives for Goal 3:
3. Read and comprehend the various methods used by sociologists to conduct research (statistical, content analysis, ethnography, textual analysis, socio-historical analysis) and appreciate the strengths and weaknesses of each.
4. Organize ideas and research into presentations (both written and oral) that are well-argued, clear, and insightful.

II. Learning Strategy

The purpose of the Junior Writing Seminar is threefold:

- To expose students to the basic mechanics involved with a variety of non-statistical research methods used by contemporary sociologists
- For each student to identify their own sociological research question and propose a research methodology designed to
answer this question, situated in the relevant sociological body of literature

- To learn the conventions of sociological writing and to effectively practice them in the aforementioned research proposal

These course goals align most closely with the Departmental Goals and Objectives listed above. This is not an exhaustive list of all Departmental Goals or Objectives that occur in this course, only the most prominent. Furthermore, this course is not the only place in the curriculum where any one of these objectives exists but it is the course where they all are addressed most explicitly.

III. Learning Assessments

*Direct assessments of specific objectives:*

Assignments in this class are cumulative - from the development of a research question to the writing of a research design. Thus, a rating-scale rubric will be developed to directly assess students' learning as exhibited by their performance on the assignments in this course. The rating-scale will include categories from “strongly agree” to “strongly disagree” and will be applied to learning objectives 1-4 as indicated below. (Other learning objectives more specifically related to the quality of students’ writing, such as grammar and paragraph organization may be added to the rubric):

1. Distinguish between responsible and irresponsible generalization, and engage in the former.
   - Students will write a response paper to each of the specific readings that explicitly address the issue of responsible generalization
   - Students will state clearly and explicitly in their research proposal what they believe to be generalizable from the data they propose to collect

2. Pursue a research question through systematic sociological analysis, including theorizing, conceptualization, operationalization, measurement, and data-gathering.
   - Students will do a series of assignments to identify a question and progressively narrow it, beginning with a brainstorming assignment that takes a general topic area
and breaks it down into 3 subtopics – each with 2 different potential research questions, and ending with the final research proposal that explicitly outlines a strategy for gathering and analyzing data that answers a sufficiently narrow question that is situated in a relevant sociological literature.

3. Read and comprehend the various methods used by sociologists to conduct research (statistical, content analysis, ethnography, textual analysis, socio-historical analysis) and appreciate the strengths and weaknesses of each.

  o Students will write a response paper to a set of readings devoted to each methodology – at least one reading on how to conduct the methodology and at least one example of a journal article employing the methodology.

  o Students will practice at least two of the methodologies via mini research projects over the course of the semester and write up their reflections on their experience.

  o Students will select the best methodology to use to answer their research question and justify their selection in the written proposal.

4. Organize ideas and research into presentations (both written and oral) that are well-argued, clear, and insightful.

  o Students will orally present their ideas to their peers and to the instructor on a weekly basis, culminating in a final oral presentation of their research proposal.

  o Students will peer-review multiple drafts of their initial literature review and final research proposal.

  o Students will submit a final research proposal.

*Indirect Assessments of All Objectives:*

  o We will analyze data from sociology majors who participated in the senior survey and the senior exit interviews with respect to their learning of these goals (to the extent possible).

  o We will create and distribute a survey to seniors to ascertain if they achieved these specific learning goals during this course.
At the end of the spring semester of their senior year, we will have a departmental conversation with our graduating seniors about their experiences in the major, the successes and challenges they faced and their suggestions for future improvements in the department. In this conversation, we will specifically ask about their perceived mastery of the goals outlined for Junior Seminar.

After we have completed these assessments of student learning, we will have departmental discussions about these findings to ascertain if any major changes are necessary in our curriculum with respect to Junior Seminar to enhance students’ achievement in this area. We will attempt to implement any changes as warranted to the extent that staffing and funding permit.
Departmental Mission Statement

Our major goal is to provide our students with the most rigorous education in the core concepts of chemistry. We strive to provide a meaningful and relevant education in which the core concepts are framed in the most exciting science topics of today, including materials and energy research, nanotechnology, computational chemistry, natural products, drug design and protein research. We strive to provide our students with a broad range of interdisciplinary learning and research opportunities. At the same time we provide our students with a solid foundation in the core traditional areas of chemistry.

Assessment Loop #1: Research Methods in Chemistry

Learning Goal
Students will understand and apply basic research methods as used professionally in chemistry, including research design, data analysis, and interpretation.

Specific Student Learning Objectives
1. Identify, describe, and demonstrate research methods used to probe chemical reactions.
2. Design and articulate an independent research project.
3. Critique conclusions presented in the primary literature.

Comments on Learning Objectives.

1. Identify and describe research methods used to probe specific chemical motifs.
   This Learning Objective involves the correct use various instrumental analyses in the full characterization of different reaction types. This Learning Objective most likely fits into Superlab.

2. Design and articulate an independent research project.
   This Learning Objective is designed to probe a student’s ability to digest the chemical literature, formulate new ideas and articulate them clearly. This objective will take the form of an independent research proposal that is based upon the primary literature and includes new ideas and directions. This would serve a few purposes. First, it would provide preparation for senior thesis experience in that they need to be able to propose future experiments in current projects. Second, it would provide another source for the evaluation of their critical thinking skills.

3. Critique conclusions presented in the primary literature.
   This Learning objective is designed to measure a student’s ability to analyze and critique the primary literature. This is performed routinely in the advanced level courses offered by the chemistry department.
The Measures

Direct:

1. **Rubrics.** We will develop a consistent rubric for the evaluation of fixed Superlab components related to instrumental analyses (objective 1). Also, if all students are asked to write a research proposal in Chem 301 (objectives 2 and 3), a common rubric that does not change from year to year will be used (some revisions are, of course, fine). We will also develop rubrics for 36x, senior research grades in order to better assess the development of research skills in the senior year. Emphasis will be placed on critical problem solving skills and not necessarily on advancement of the project.

2. **Standardized tests.** We could give our students old versions of the GRE chemistry tests, focusing on items related to research methods, research project design and critique of literature (objectives 1, 2, and 3). Most who enter graduate school will be given these tests.

3. **Experiment design.** Evaluation of the first objective will take the form of student driven reaction procedures in which students will be required to design methodologies for specific reactions. They will be given terse experimental sections from the primary literature and charged with successfully conducting the experiment.

Indirect:

1. **Alumni Surveys.** We will target alumni who are either employed as professional chemists or are graduate students in chemistry. The surveys will be designed to focus on the skills used by chemists, not necessarily those used in health fields. Some questions would relate to their preparation at Haverford for the research world related to the three learning objectives.

Linked Planning

The Chemistry department will use the outcomes to measure student learning and to further refine our curriculum at the junior and senior levels. This could take several forms:

1. **Student – research mentor interactions during the senior thesis experience could reflect a student’s strengths or weaknesses, as determined in junior level assessments. This would allow the Chemistry department to feed such data back into improved student learning.**

2. **The use of standardized tests and rubrics in our programs will allow for the determination of longitudinal correlations between program design and student performance.**

3. **Student performance in the first semester of senior research should reflect past experience in writing an independent research proposal in junior level Superlab. The Chemistry department will probe the effectiveness of this added requirement by comparing current and past student performance. We will focus on the use of the primary literature, formulation of ideas and articulation of research goals.**
4. The results of the alumni surveys will be used to assure that our curriculum provides sufficient coverage of modern chemistry. As graduate school and industrial research areas evolve more quickly than most undergraduate programs, we will use this information to ensure that our curriculum remains current.
Assessment Loop #2: Evaluation of the Introductory Curriculum

Learning Goal
Students will understand the fundamental basis for the structures and reactivities of atoms, molecules and non-molecular solids and the analytical techniques used for their determination.

Specific Student Learning Objectives
1. Demonstrate the strengths and limitations of different models for bonding.
2. Identify characterization tools to probe bonding motifs.
3. Collect, analyze and interpret spectra using various forms of instrumentation.
4. Access and search the primary literature for examples of functional molecules.

Comments on Learning Objectives.

1. This learning objective is designed to probe student understanding of the different models of chemical bonding, with focus on the strengths and weaknesses of each. This objective will be targeted in first semester general chemistry and first semester organic chemistry. A strong foundation in chemical bonding is critical for the understanding of molecular reactivities and structures.

2. As the Chemistry department revises the introductory curriculum, we plan to create a laboratory program that is more focused on connections between chemical structure, reactivity and methods of characterization. We plan to completely reconstruct the first laboratory experience such that characterization tools are integrated into discussions of structure. For example, UV-Vis spectroscopy is used to observed electronic transitions and it will be described and implemented as the courses discuss the electronic structure of molecules. We have identified several techniques to introduce, each of which probe a different structural motif. These include UV-Vis spectroscopy (electronic transitions), IR and Raman Spectroscopy (bond strengths), atomic absorption (electron structure), NMR spectroscopy (molecular connectivity and nuclear structure) and X-ray diffraction (solid state structure).

3. As described above, we plan to create a series of laboratory experiments that will give students hands on experience with a wide range of instrumentation. These techniques are currently not integrated into the lab program or the lecture courses. They tend to be taught as a ‘Spectroscopy’ unit in which many are described. We believe integrating them into the lecture courses and creating a new laboratory sequence will strengthen the connections between techniques and the chemistry.

4. The primary literature will be used to demonstrate the breath of molecular structures and to further develop correlations between structure and reactivity. The primary focus of the learning objective is to introduce standard portals used to search the literature, including SciFinder Scholar and the Web of Knowledge.

The Measures
Direct:

1. American Chemical Society Standardized tests (objectives 1 and 2). Questions from established standardized tests will be incorporated into the final exams of our introductory courses. These questions
will be designed to cover a wide range of topics. We will track student performance on these questions in a longitudinal fashion. We believe that the effectiveness of our curriculum will be reflected in student performance on these questions.

2. **Laboratory performance (objective 3).** The Chemistry department’s ongoing reorganization of our introductory curriculum includes significant changes to our first and second year lab sequences. We will develop a series of experiments to probe student understanding of the use of different spectroscopic techniques. Emphasis will be placed on the analysis and interpretation of collected data.

3. **Poster presentations (objective 4).** The Chemistry department routinely asks second year students to research, create and present posters on independent topics. This exercise provides an introduction to the chemical literature and the methods used to search the literature. A standard rubric will be developed to evaluate these posters.

**Linked Planning**

The Chemistry department will use the outcomes to further refine our curriculum at the introductory level to improve student learning. This will take several forms:

1. The degree to which we have made the primary literature accessible to students in our introductory courses will be evident from their posters. We will use the quality of the citations to understand student use of SciFinder Scholar.

2. Student performance of the standardized tests should reflect the quality of the curriculum. We will collect data from class to class to see the effects of course structure variations. The results will be used to elucidate the strengths and weaknesses in our curriculum and will feed back into course revisions.

**Institutional Support**

The Chemistry department will require institutional support in a number of initiatives. These include:

1. The creation, distribution and analysis of alumni surveys. We plan to use established social networking sites to collect current contact information. Specifically, Facebook and LinkedIn groups will be created and populated with our alumni. Administrative assistants will be able to invite alumni to these groups by using past lists of majors. In addition, we will ask each senior class to join these groups before graduation.

2. The science library staff has been very helpful in the past with introducing standard search mechanisms for the primary literature. We will continue to require this assistance.

3. The collection of scores from direct measures (standardized tests or common questions on different exams) could result in the construction of a small database. This database would contain longitudinal data and allow for the comparison time dependent data. The set up and maintenance of this database would require institutional support.
Haverford College History Department

I. Statement of Departmental Mission: In an integrated fashion, students will develop and refine expertise in historical research skills and knowledge of the Americas, East Asia, and Europe.

II. Statement of integrated Departmental Learning Goals:

a. Students will learn to think critically about the nature of historical knowledge.

b. Students will build and master a foundation of knowledge about specific places and societies over time.

c. Students will develop, refine and master disciplinary research skills.

The objectives related to this goal include:

i. The ability to conceptually understand and critically evaluate arguments within historical scholarship and ways of pursuing historical scholarship.

ii. The mastery of disciplinary writing skills in making persuasive responses to arguments.

III. Learning Goal to be assessed: The mastery of disciplinary research skills.

In academic year 2010-2011, we will investigate the mastery of disciplinary leading up to and culminating in the senior research experience, History 400a and 400b. History 400a focuses upon researching the senior thesis and 400b focuses on writing it. During this year, we plan on conducting three surveys, one at the beginning of 400a, one at the conclusion of 400a and one at the conclusion of 400b. These surveys will measure our effectiveness in fulfilling our departmental goals in coursework prior to 400a, in 400a and after 400b and the conclusion of the senior research experience.

a. Assessment Loop #1: Learning Objective 1: The ability to understand and critically evaluate historical scholarship

i. Mastery involves three components related to the construction of historical arguments.

1. Conceptualization--were the concepts and insights at the heart of the analysis clear, perceptive, well thought out, surprising, original?

2. Evidence--does the author question the nature of evidence and demonstrate
knowledge of the evidence relevant to the issue(s) discussed, and does the author successfully use the relevant evidence, even when it apparently contradicts her/his line of argument?

3. Synthesis and Integration—does the essay integrate concepts and ideas into a well-reasoned and forcefully presented whole?

   ii. Strategies: revised curriculum, close readings of primary sources, writing assignments on those primary sources, engagement in historiographical debates.

   iii. Measures

1. Direct: development of departmental rubric to articulate the expectations and evaluation criteria for the Senior Capstone project, specifically related to the components of strong historical arguments.

2. Indirect:

   a. survey items to rate the effectiveness of specific assignments/coursework in developing historical arguments and assumptions (among other research skills).

   b. Focus groups/exit interviews with majors to assess effectiveness of courses/assignments in developing and rethinking historical arguments (among other research skills)

   iv. Link to planning

1. Evidence will be analyzed and discussed at departmental meetings to inform curricular adjustments for furthering student research skills.

   b. Assessment Loop #2: Learning Objective 2: Writing within the Discipline and reimagining arguments.

   i. Mastery of disciplinary writing is assessed by level.

1. Basic/introductory: summarize and respond critically to a scholarly argument, writing short papers (2-8 pages) with a concise thesis, systematic use of evidence and coherent argument.

2. 200-300 levels: deeper analysis and organization of more complex writing assignments, culminating in an approximately 50-page senior thesis written in accord with disciplinary and interdisciplinary conventions.
3. All levels: students progress in their evaluative work with primary and secondary sources, advancing skills in critique and synthesis. Also, students demonstrate an ability to carry knowledge across courses and make connections between them.

   ii. Strategies: assignments and feedback throughout the curriculum.

   iii. Measures.

1. Direct:

   a. Introductory/intermediate levels: each faculty member will select an exceptional, an average, and an insufficient paper for anonymous discussion (one set of papers for each level). In departmental discussion, the characteristics of each level of writing will be noted to assist faculty in providing more detailed and departmentally consistent feedback to students.

   b. Senior Capstone project: a component of the evaluative rubric under development will specifically address the writing of the project. Writing scores will be monitored over time and brought into departmental discussions of student accomplishment.

2. Indirect:

   a. survey items to rate the effectiveness of specific assignments/coursework in developing writing (among other research skills).

   b. Focus groups/exit interviews with majors to assess effectiveness of courses/assignments/departmental initiatives in developing writing (among other research skills)

   iv. Link to Planning

1. Evidence from these exercises will inform our ongoing discussions about writing.

IV. Institutional Support.

1. Assistance in conceptualizing and revising appropriate assessment mechanisms such as surveys will be useful. In addition, collecting and compiling data in ways that can be effectively discussed at department meetings will also be helpful.
Psychology Mission and Goals

From the Psychology Department webpage:

The aim of the Psychology Department is to provide students with an understanding of human behavior that will support their ability to participate as informed members of our society, to help others, and to add to scientific knowledge.

One path to this goal involves mastery of the theoretical concepts psychologists use in describing and understanding behavior; the other involves competence in the use of the scientific methodologies employed in the study of behavior. We emphasize the importance of both concepts and methods across diverse topic areas within psychology, including biological, cognitive, social, and personality.

From the description above, there are 3 general goals for student learning.

Goal 1: Students will gain a broad understanding of human behavior, from a variety of perspectives.

Strategies for achieving this goal:
A) A common introductory Psychology course that all majors and minors take covers a broad range of perspectives within the discipline. All faculty members in the department teach a section of the course—each member (representing a distinct specialty within the field) contributes a set of readings and concepts to be covered in the class.
B) A breadth requirement in the curriculum requires one course from each of three areas: Biological, Cognitive, Complex Human Behavior

Goal 2: Students will learn to treat questions and claims about behavior rigorously, with an empirical approach.

Strategies for achieving this goal:
A) A required research methods and statistics course, with lab
B) Two additional laboratory methods courses

Goal 3: Students will master the skills to contribute new knowledge in the field

Strategies for achieving this goal:
A) General research training described above
B) Senior capstone experience—two-semester empirical research project, which involves developing an original empirical question, designing a study to address the question, presenting the study and its results on two occasions, collecting data, analyzing data, writing a major thesis.

Assessment Project

Project #1: Assessment of preparedness for senior research experience

Goals and Objectives:

We will focus our assessment efforts on our third learning goal, described above. Our investigation will assess the extent to which our pre-senior laboratory curriculum adequately prepares students for senior research.

All Psychology majors must complete a set of three research courses prior to embarking on the senior thesis. These include Psychology 200: Experimental Methods and Statistics (or its equivalent at Bryn Mawr, Psychology 205), plus two specialized laboratory courses, each taken concurrently with its 200-level topic course.

Psychology 200 is required of all majors, and it must be taken prior to completion of the specialized lab courses described below. Most students take this course during their sophomore or junior years. The course has a required weekly laboratory section, during which students implement the statistical techniques that they learn in class. The laboratory sections also involve study design, and original data collection using both survey instruments and experimental manipulations. This course is intended to prepare students for the area-specific lab courses, ½ credit courses that are taken concurrently with the topic course with which it is associated.

Presently, the curriculum includes 7 such courses, 3 of which are typically offered in a given year:

- Psychology 313: Laboratory in Memory and Cognition
- Psychology 315: Laboratory in Personality Psychology
- Psychology 317: Laboratory in Biological Psychology
- Psychology 320: Laboratory in the Psychology of Time
- Psychology 324: Laboratory in Social Psychology
- Psychology 341: Laboratory in Pain and Pain Inhibition
- Psychology 360: Laboratory in Cognitive Neuroscience

Each course requires students to develop an original research project that is carried out over the course of the semester, perform the data analysis, and write a research paper describing the study and its results. The specific technical skills acquired, and the nature of the study designed (e.g., correlational or experimental), depend entirely on the specific courses that are available over a given 2-3 year period. For those students that are unable to enroll in a lab course prior to the senior year, we also allow students to complete one of their lab credits by working on an
independent study research project with a faculty member. The student must meet weekly with the faculty member and perform all of the same assignments as a student taking a regular laboratory course.

Students with interest in carrying out senior research in a particular area are advised to take the specific lab course in that area. However, this is not always practical, due to leave patterns, study abroad plans, and enrollment pressures. Students rarely have freedom of choice over which particular lab courses they take to satisfy major requirements. Furthermore, although we strongly recommend that students satisfy their lab course requirements by the senior year, occasionally, seniors enroll in a lab course while completing their senior research. The effects of such enrollment patterns on the overall preparation for the senior thesis should be examined.

In sum, the learning objectives of the pre-senior laboratory curriculum:

- Students will be able to:
  - Identify a novel research question that arises from the primary literature.
  - Design a coherent experimental study, with clearly operationalized independent and dependent variables, and appropriate experimental controls.
  - Create a survey instrument with reliable items.
  - Write a proposal for IRB (or IACUC) approval, demonstrating attention to the ethical principles of research involving humans (or animals).
  - Determine the appropriate data analysis technique for a given study design.
  - Analyze data using SPSS, and create graphical representations of results.
  - Produce a write-up of a research study, in APA style, with appropriate components (abstract, introduction, methods, results, discussion).

Assessment

The quality of the senior thesis project itself is considered a primary assessment of how well our students have mastered the learning objectives described above. Given our current evaluative structures, this project includes two key assessment components.

Direct Assessment: Diagnostic Assessment Connected to Student Learning Objectives

Although the Psychology Department maintains a rubric for assigning senior thesis grades, this is an imperfect direct measure of student learning (since they are intimately tied to students’ proficiency as a writer in general and not directly to the learning objectives stated above). A separate diagnostic assessment has been designed, and administered during the Fall semester of the senior year. We will begin to implement this project in Fall 2010. This assessment will critically examine students’ learning and retention of research design and analysis issues. Some critical examination questions from past Psychology 200 tests appear on this assessment, plus a set of questions that are used to practice for the comprehensive Psych GRE have been adapted. Students are presented with scenarios in which they have to design a study to answer a specific research question, designate an appropriate data analysis tool, and comprehend the results.
section of hypothetical research study. The items in the diagnostic assessment directly reflect stated learning objectives.

Institutional Support Needed: This project must be implemented by the faculty themselves, most likely guided by the Department Chair (with consultation of all members of the department in design of the assessment). Certainly the administrative assistants will be called upon for certain aspects of the implementation (such as web posting, if an online assessment is used, or photocopying if it is given in paper form). The administration must consider whether activities of this sort are to be expected as part of the faculty member’s regular duties. If so, the Professional Activities Form should be modified to allow for reporting of such activities. If the burden falls primarily on the chair, then this should be reflected in the existing proposals for chair duties and compensation.

Indirect Assessment: Enrollment History and Student Performance Analysis

In addition to the diagnostic assessment we will provide to gauge student learning, we wish to use the assessment above to delve deeper in examining specifically, the following questions:

- Are students adequately prepared for independent research if they have completed Psychology 200 and both lab courses prior to the senior year?
- Does the particular set of courses that students take make a difference in preparation for the thesis in a particular area?
- Does the timing of the courses taken matter? Does completing the labs too early leave students unprepared for senior work? Are students with labs left to complete during the senior year at a disadvantage for senior work?
- Is the independent study format for the thesis an appropriate substitute for one lab course?

We will examine the pattern of lab course enrollment since 2006 (the first year when all of the current lab courses were in existence), the grades that students received in these courses, and students’ subsequent performance on the senior thesis. Our grading rubric for the senior project is attached for reference. Of particular interest is whether students that enrolled in the lab course in the area of study of their senior thesis perform better on the senior thesis than those that take unrelated courses.

We can also examine senior thesis grades among students that took independent study credit as preparation, and those that took their laboratory courses at different times during their academic careers.

Institutional Support Needed: Registrar must provide access to enrollment and grading data. Administrative assistance needed to track and compile data and format it for statistical analysis. Must consult with faculty members to ensure accuracy of data obtained.

Linking Assessment to Planning
Analysis of this evidence will be used in departmental discussions and curricular planning. We may decide to hold “data analysis workshops” or other kinds of refresher training for students during the Fall semester of senior year if we determine that students’ skills are somewhat rusty. The results of our examination may also lead to policy changes regarding the number and type of laboratory courses we require, the timing of such offerings, and our priorities for the lotteries in our courses.

Project #2: Comprehensive impact of the curriculum on student outcomes:

Goals and Objectives:

Evaluate student choices in post-graduate life in relation to one component of the department’s mission, particularly the ability of graduates to add to scientific knowledge and to help others. This includes the development of the interest, disciplinary skills of thought, and mastery of research techniques valuable in a variety of post-graduate settings.

Student will be able to:
- Enter and complete doctoral programs in psychology
- Contribute to the field of Psychology through their life’s work

Direct Measures:
- Collection and tracking of alumni PhD data, placed in a comparative context where possible through NSF Baccalaureate Origins data.
- Study of citations within the psychology literature.

Indirect Measures:

Indeed, for many students that do not continue as scholars of human behavior, the curriculum (and in particular, the senior research project) can have a powerful impact on students’ lives post-graduation. One alumnus, from the class of 2007, recently reported in an e-mail correspondence with her thesis advisor:

"... I want you to know that working on my thesis with you was the best learning experience of my college career. It may seem silly to say this, but you taught me how to think -- how to develop and take ownership of an idea and see it through. I still feel that sense of accomplishment to this day -- you would be amazed to see how often I am able to sneak bits of my thesis and personality psychology into conversations these days! (Last Spring, I even taught an entire staff meeting about Maslow's Hierarchy of Need!). Learning from, and with, you has truly shaped by sense of self and my understanding of those around me . . ."
We seek to obtain further indirect measures of the impact of the Psychology curriculum in general, and the senior research experience, in particular, from a large set of Haverford Psychology alumni.

- In-house tracking of alumni career activity via surveys and/or focus groups which ask alumni how their plans and goals following graduation were informed by their experience as majors (individual curricular components—mastery of theoretical concepts, competence in the use of scientific methodologies employed in the study of behavior, writing and presentation within the discipline; interactions with faculty; co-curricular experiences).

Linking Assessment to Planning: Analysis of these results will be used in departmental discussions and curricular planning.

Institutional Support Needed: Department assistants would play an important role in helping us track our alumni, by gathering contact information from students before graduation, maintaining databases and sending outreach emails to students periodically to track their movement and employment history. They also would maintain a departmental presence on online social networking sites, like Facebook and LinkedIn.
Psychology Department Senior Thesis Grading Rubric

In grading the first semester paper, the following scale applies:

- **4.0** work for the first semester indicates a paper that has gone above and beyond a summary of the relevant literature in terms of scope, synthesis and integration. In addition to reflecting a nearly flawless paper that provides a coherent rationale for the experiment to be undertaken, this grade can also represent exceptional or original independent contributions, or individual effort that has gone beyond what is normally expected. A grade of 4.0 is not commonly awarded during the first semester.

- **3.7** work for the first semester indicates an extremely thorough, coherently organized, and generally well-written summary of the literature that identifies all of the seminal work that has led up to the current study. In addition, this grade reflects that the rationale for the current study is abundantly clear and the procedures to be used are well-described. There may be improvements that can be made to this paper, but there are no major areas of deficiency.

- A **grade of 3.3** for the first semester reflects a good to very good paper that needs improvement in one or more areas. The literature review may need to be more thorough, or the literature better summarized or integrated. The writing may be choppy or difficult to follow in some areas. There may be conceptual gaps that lead to an incomplete rationale for the study to be undertaken.

- **3.0** work for the first semester indicates that although the paper is good, there are several areas in which improvement can be made. For example, the literature review may have been too scant or poorly integrated. That is, the paper may have included summaries of appropriate studies without integrating how those studies support an important point or how they relate to the study that you are undertaking. The literature review may not have been thorough enough or may have relied too heavily on non-primary sources. In general, the reader may have had a difficult time understanding how the literature review culminates in the problem to be addressed in the current study.

- A **grade less than 3.0** for the first semester work indicates that the paper is deficient in terms of our expectations for thesis-caliber work.

In grading the second semester paper, we evaluate the extent to which your paper has improved and addressed any problems identified in your first semester thesis, as well as evaluating the scholarship of the Results and Discussion sections.
1 Departmental learning goals

The Department’s primary goal is to increase students’ proficiency in computational thinking and practice in a liberal arts context. We’re focusing on our introductory courses (21 and 21B), with the aim of teaching both non-majors and majors algorithmic problem solving, abstraction, design, and analysis by drawing on concepts fundamental to computer science. An additional goal is to expose students to how computation can be used to solve problems from many different disciplines. These broad goals are enumerated in more detail in the next section.

2 Departmental learning objectives

A student completing our introductory courses should be able to:

1. Use top-down design to sub-divide a large problem into reasonably sized sub-problems.

2. Given a problem described in English, design a clear, concise, and correct pseudocode algorithm to solve it.

3. Given a pseudocode algorithm, successfully implement it in a high-level programming language.

4. Given several algorithms for solving the same problem, analyze which would be more efficient.
5. Given a program, simulate on paper how a computer would execute the program. Show the internal state of the program during execution and show the program’s output.

6. Apply algorithmic problem solving skills to a variety of real-world applications.

Most of these goals (2-6) are easily assessed through traditional methods such as quizzes and lab assignments. However, the goals most closely linked to our overall aim of teaching computational thinking—using top-down design and developing algorithms—are the hardest to assess through standard methods. Our assessment activities are designed to measure how well these particular computational thinking skills are affected by taking our introductory courses.

3 Assessment activities

We propose a new assessment activity to get a better quantitative view of whether students’ computational thinking has improved. We will create a pre-test and post-test of algorithmic problem solving ability. The pre-test would be given in the first or second week of the semester and the post-test would be given in the twelfth or thirteenth week of the semester. We plan to give each student a unique id to allow us to easily compare their pre and post test scores while maintaining anonymity of responses. Each solution would be coded by a grader who will not know whether a response was from the pre or post test.

These problems should be designed so that they are general enough that students with no computing experience, but with already good problem solving skills, could solve them. We are currently exploring using problems available on the Math Forum, which has an archive of Problems of the week that may provide a good starting point.

We also currently do an end of the semester course evaluation as well as requesting a short bio from the students early on in the semester. We propose to tie these two activities together more directly. On the bio we ask students to say why they are taking the introductory course and to describe any prior computing experience. We will add an additional question asking them to assess their current problem solving ability. In addition, we will add a follow up question to the end of semester course evaluation to ask them to assess their problem solving abilities before and after taking our course. This will provide some useful qualitative data.
4 Using the results

Having both a quantitative and qualitative measure of how much students’ algorithmic problem solving abilities improve in our introductory courses will help us determine whether the current format of these courses is working well or needs to be modified.

Currently the course uses a mix of lectures and in-class exercises. The in-class, hands-on work is designed to give students frequent practice at taking a description of a problem and figuring out how to break it up into reasonable sub-problems, and how to implement the sub-problems computationally. We would like to have a better sense of whether these hands-on exercises are having the desired effect.
The Department of Educational Studies assessment plan focuses on senior students’ abilities to select, implement, and provide a rationale for research methods employed in their thesis, the department’s senior comprehensive requirement. In the thesis, students are expected to address a research question by: 1) anchoring it in the relevant research literature(s); 2) using appropriate methods to collect data; 3) analyzing and critiquing these data; and 4) explaining how their findings complement, extend, and/or refute the literature reviewed. Questions that inform the proposed assessment plan include: How much support do students require in order to use effective methodologies to address the research question they pose? Where in the curricular and/or extracurricular offerings (e.g. summer research) are they learning to make informed choices about selecting and using research methods? What aspects of the curricular and/or extracurricular offerings could be changed in order to improve student performance in this aspect of the senior comprehensive? In which areas/on what competencies are students most easily successful? In which areas do they struggle? Are there patterns that emerge in the analysis of the work of different groups of students (e.g. those pursuing certification versus those pursuing policy research)? The proposed assessment plan has three parts. First, members of the department will develop a rubric for assessing the students’ selection, implementation, and rationale for the methods employed in their theses. They will use student work from previous years to develop the rubric and will use the rubric to assess work being conducted presently. Second, members of the department will discuss course assignments to determine how research methods are taught in each course, and how students are prepared for the comprehensive. Finally, members of the department will both examine the thesis work of a subsample of students and interview them about methods: those learned in coursework, those for which they feel they need the most support, and those on which they feel that they needed additional support.
Tri-College Teagle Foundation Systematic Improvement Grant: Sustainable Departmental-Level Assessment of Student Learning

Background: (from the Teagle website): The Teagle Foundation was established in 1944 by Walter C. Teagle (1878 – 1962), longtime president and later chairman of the board of Standard Oil Company (New Jersey), now Exxon Mobil Corporation. Mr. Teagle gave the Foundation a broad mandate, "to advance the well-being and general good of mankind throughout the world," mentioning many areas of concern and possible recipients of its support. Over the intervening decades the Foundation has pursued many of these avenues, always, however, including among its grants the aid Mr. Teagle envisioned for institutions of higher learning and research.

The focus of the Teagle Foundation's work for the last several years has been on the quality of liberal education, especially through grants to explore the use of evidence to improve student learning. A large number of awards have supported collaborative projects among colleges to develop new practices and try novel approaches in gathering and using evidence. Other collaborative work has focused on developing fresh ideas about the purposes and practices of liberal education.

Teagle Outcomes and Assessment Program: (excerpted from the Teagle website): The Teagle Foundation's Outcomes and Assessment program is based on the belief that nothing has the potential to affect students' educational experience as much as the systematic assessment of what they learn, along with the use of such assessment to frame discussions on learning and to drive continuous improvements in teaching practices. High priority is given to faculty-driven, ground-up assessment of student learning outcomes in the liberal arts and sciences, especially as they are achieved in academic courses, majors, institutions, and whole sectors of higher education. Our approach to assessment has been shaped by listenings with college and university administrators and faculty, leaders of higher education associations and consortia, assessment experts, and others. It continues to be informed by ongoing conversations with these stakeholders.

The Trico Grant: The grant is to be used to “refine and develop tools to evaluate learning at each campus. . .Project leaders will identify assessment tools already in use. . .Faculty members, institutional research officers, and staff will undertake meetings, discussions, and research opportunities to identify areas of cross-campus evaluation, to discover and adapt assessment tools, to perform assessment of each program’s components, and to share strengths and weaknesses of the tools and programs.”

Departments Involved

BMC: English, Geology, Sociology
HC: Chemistry, History, Psychology
SC: Education, English, Computer Science
The Overall Plan: Each of the departments will identify an element of its program to focus on. The departments will list a number of pedagogical goals which they want to achieve and then explain their methods for achieving these goals. Then they will set up a system of evaluation and assessment for measuring whether they are meeting those goals. Members of the departments will meet regularly to discuss these goals, strategies, and assessment designs. Two members from each department (Peter and Craig for English) will meet regularly with representatives from the other two departments at their home institutions involved in the program and also with the representatives in the participating departments from the other two Trico colleges. During the first year (2009-10) departments will articulate their goals, their methods for achieving these goals, and their assessment strategies. During the second year (2010-11) they will evaluate and assess their strategies to see how well they are achieving their stated goals. An overall report involving all nine departments at the three Trico colleges will be submitted to the Teagle Foundation.

English Department Plan: The Swarthmore Department of English Literature has chosen to focus on its first-year seminars and in particular on the students’ writing of papers for these seminars. The seminars are designated as “writing intensive” which means that they include the writing and revising of several short papers with feedback from various sources between drafts. These sources will include the instructor’s discussion of the writing assignment in class and comments on the first and final drafts of the student’s papers. They may also include written and verbal comments by a student Writing Associate (WA) assigned to the class, peer reading and review of student drafts, small group discussions of drafts, individual conferences with the instructor and/or WA, class sessions on writing techniques, etc. The seminars are normally evaluated by students in a standard evaluation form prepared by the department and by a WA evaluation form when a WA is assigned to the seminar (see copies of these in the Appendices). These evaluations give the department a good idea of whether students think that they are learning from our seminars, and faculty discussions provide us with information about whether faculty believe the seminars are working well or not. We don’t, however, have any substantial or codeable feedback about whether the students’ written work is actually improving apart from our own system of grading and comments on the papers.

English First-year Seminar Goals for Student Writing: The department has met and discussed the writing goals for our first-year seminars and articulates them as follows:

Writing Goals in First-year Seminars: Students will write thoughtful, cogent, compelling, imaginative essays about texts, whether literary, critical, or cultural. For the purposes of this assessment project, we will focus on our first-year seminars that introduce both potential majors and other students to our curriculum and what it means to study literature and literary/cultural history at the college level.
Objectives: Students in our first-year seminars should be able:

To develop a useful, interesting thesis which is
Specific in scope
Capable of development in component parts
Supportable by means of sustained argument
Important and provocative

To marshal an argument in support of the thesis which
Has components related to the thesis and to each other
Follows a logical development
Presents textual evidence with interpretation
Analyzes the evidence
Draws where appropriate upon criticism, theory, etc.
Takes account of possible counter arguments
Ends with a conclusion which summarizes and offers new reflections

To use textual evidence in support of the thesis and argument—for example, analysis of
Characters, actions, settings, imagery, etc.
Relation of the narrator to the story and/or implied reader
Important passages to be parsed and explained
Beginnings and endings, transition moments
Relation of the work to historical, critical, or cultural backgrounds

In quoting from the text or from outside sources, be sure to
Quote appropriately, explaining the context of the quote
Explain or analyze the passage quoted, showing its relevance to the argument
Occasionally take into account alternative readings
Use proper manuscript form for quotes

In using the proper elements of style, be careful to
Conform to the rules of grammar, usage, spelling, and punctuation
Keep a formal and appropriate diction
Avoid common errors such as comma splices, run-on-sentences, lack of subject-verb agreement, etc.

Each faculty member teaching a first-year seminar will make this list of goals available to the students at the beginning of the seminar.

Methods of Achieving these goals: Faculty in the department employ different strategies to enable students to improve their writing and achieve these goals. Among the strategies used are:

Assigning first drafts followed by feed-back and a final revised draft
The assistance of a Writing Associate to help students with their drafts
Extensive comments on student papers by the instructor
Peer reading and evaluation of papers
Individual or small-groups conferences to discuss student writing
In-class presentations, often with hand-outs, on such topics as “Crafting a thesis statement” or “Developing a good argument”
Development of an online archive of writing handouts for use by faculty and students

Evaluation strategies and procedures: A number of evaluation strategies are already in place such as grades and student course evaluations. The department will continue to refine and deploy these strategies; it will also add new assessment strategies. The strategies, old and new, will include the following:

1. Student course evaluations at the end of the seminar. Students are asked to rate the course in a number of components. See Appendix A for a sample evaluation form.

2. The department will add to its existing course evaluation forms a new section geared to the stated writing goals stated above. See Appendix B for this additional section.

3. Most of our first-year seminars use Writing Associates, and the WA program has its own evaluation forms. See Appendix C for this form. The WA program also asks each WA to give a written evaluation of her or his work in the class.

4. Each faculty member will be asked to rate the student’s achievement of the individual writing goals stated above on two separate papers: a first-draft early in the course and a final draft late in the course. The department will examine these ratings to see whether there is improvement between the early and late papers in the course. See Appendix D for this assessment form. The department will also ask each WA to complete this part of the evaluation and will compare the WA assessments with those of the faculty member.

5. The department will use all of these tools of evaluation (including grades) to discuss whether we are actually meeting our stated goals and to determine whether the student writing is actually improving. We will compare this outcome with the students’ assessments of whether the seminar helped to improve their writing. We will also examine the various techniques used by individual instructors to meet these goals to see which ones have been most effective.
Appendix A: Student Course Evaluation Forms

SWARTHMORE ENGLISH DEPARTMENT COURSE EVALUATION FORM

Please fill in this course evaluation form and place it in the return envelope provided by the instructor. Do not put your name on the form. The form will be read by your course instructor and by the English Department chair. Questions in Roman type are those asked about all English Department courses.

PART I

Course number and title_____________________________   Semester & Year____________
Course Instructor _______________________________
Your current class (circle one)       1st year          2nd year          3rd year           4th year
Major or intended major_________________________
Number of English courses you’ve taken (including this one)  _________

PART II

Please give your evaluation of the various course elements by circling ONE number for each of those elements (or N/A for any element which is not applicable).

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization &amp; Structure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Primary Readings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Theoretical, Critical, Historical, or Cultural Readings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Lectures</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Class Discussions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Individual or Group Projects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Writing Assignments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Feedback on Writing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Overall evaluation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
PART III

Below are some questions which address the primary aims of the course. Please indicate how well you think these goals have been met.

**Did this course help improve your:**

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of the literary texts</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>Knowledge of a particular writer, form, or period</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>Knowledge of contexts—critical, cultural, or Historical</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>Ability to do close textual readings</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>Critical &amp; analytical writing about texts</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>Ability to shape a clear thesis and sustain a cogent and compelling argument</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>Ability to participate in literary or critical discussion</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
</tbody>
</table>

PART IV

<table>
<thead>
<tr>
<th></th>
<th>Not Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>How likely are you to take another English course as a result of this one?</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
<tr>
<td>How likely are you to recommend this course to another student?</td>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
</tbody>
</table>

PART V

1. What was the most valuable aspect of this course? Why?
2. What was the least valuable aspect of this course? Why?

3. What were your expectations for this course? How were they met, not met, or changed as the course went along?

4. What changes, if any, would you like to see made in this course?

5. Use this space to make any additional comments about the course.
Appendix B: Additional Evaluation Component on Student Writing

An important goal for this course is to help students improve their writing so that they can write thoughtful, cogent, compelling, imaginative essays about texts, whether literary, critical, or cultural.

**Did this course help improve your ability to:**

<table>
<thead>
<tr>
<th>Ability</th>
<th>Not at all</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop an interesting, specific, supportable thesis</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Marshall an argument which is logical, well-developed, and compelling</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Quote appropriately with explanation and analysis</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Analyze textual evidence</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Use appropriate criticism or theory</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Consider alternative readings or counter-arguments</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Craft a suitable conclusion</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
<tr>
<td>Use acceptable grammar, style, spelling and punctuation</td>
<td>1 2 3 4 5 6 7</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Appendix C: Writing Associates Student Evaluation Form

Please take a few minutes to let us know about your experiences with the Course WA Program. Your feedback means a lot as we think about ways to improve the program. Thank you for your time and cooperation. —Jill Gladstein, Director, WA Program

Writing Associate: _______________ Course: _______ Instructor: ____________________

1. How many papers of the following types were assigned in this course? Please indicate your response with an X.

<table>
<thead>
<tr>
<th>Type of Paper</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Papers (&gt;15 pages)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short papers (&lt;15 pages)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify type):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. For which paper(s) did you have at least one conference with your WA? Please indicate your response with an X.

<table>
<thead>
<tr>
<th>Type of Paper</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Papers (&gt;15 pages)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short papers (&lt;15 pages)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab reports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify type):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How many times did you meet with your WA over the course of the semester?

4. On average, how long did your conferences last? _____ min

5. For up to the first 5 writing assignments reviewed by your WA, describe the state of the assignment when it was submitted to the WA. Please indicate your response with an X.

<table>
<thead>
<tr>
<th>Paper</th>
<th>Pre-writing</th>
<th>Rough draft</th>
<th>Revised draft</th>
<th>Carefully revised draft/best effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. How helpful was your WA in the following areas?

<table>
<thead>
<tr>
<th>Area</th>
<th>Not at all helpful</th>
<th>Somewhat helpful</th>
<th>Very helpful</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus and argument</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logic or critical reasoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics (spelling, punctuation, grammar, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. What were your expectations and goals for working with your WA? Did your WA help you achieve your goals?

8. The final draft of my papers was an improvement because I made (check all that apply):

   __ substantial organizational changes  
   __ changes mainly within paragraphs  
   __ changes in individual sentences  
   __ minor changes (e.g. punctuation, word choice, etc.)

9. What strategies did your WA use to help you see possibilities for revision?

10. Please tell us about the personal dynamics of your conferences. Did you feel comfortable with your WA? Was your WA a good listener and responsive to your questions and concerns?
11. How would you rate your overall experience with the WA Program for this course? Please indicate your response with an X.

<table>
<thead>
<tr>
<th>Very poor (1)</th>
<th>Poor (2)</th>
<th>Fair (3)</th>
<th>Good (4)</th>
<th>Excellent (5)</th>
</tr>
</thead>
</table>

12. Please add any further comments or suggestions you would like to make. Thank you for taking the time to complete this survey.
**Appendix D: Faculty Evaluation and Assessment of Student Papers**

This form is to be filled out by first-year-seminar instructors (and, where applicable, by the WA working in the seminar) for an early, first-draft paper, and a late final draft paper for the course. Instructors (and WA’s) should not look at the student’s initial evaluation results while making the final evaluations. Results of the two evaluation forms should be collected by the instructor and then shared with the Dept. chair.

<table>
<thead>
<tr>
<th>Course_____________________</th>
<th>Instructor_____________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student_____________________</td>
<td>Term____________________________</td>
</tr>
</tbody>
</table>

How well does this paper (or draft) achieve its goal to

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 N/A</td>
<td></td>
</tr>
</tbody>
</table>

| Develop an interesting, specific, supportable thesis |
| Marshall an argument which is logical, well-developed, and compelling |
| Quote appropriately with explanation and analysis |
| Analyze textual evidence |
| Use appropriate criticism or theory |
| Consider alternative readings or counter-arguments |
| Craft a suitable conclusion |
| Use acceptable grammar, style, spelling and punctuation |