

---

## **AC 2012-5416: "WE'RE ALL IN THE SAME BOAT": ACHIEVING AN INSTITUTIONAL CULTURE OF ASSESSMENT**

### **Dr. Sandra A. Yost, University of Detroit Mercy**

Sandra A. Yost is a professor in the Department of Electrical Engineering at the University of Detroit Mercy, where she is active in institutional and engineering program assessment. She teaches in the areas of design, E.E. fundamentals, linear systems theory, mechatronics, control systems, and signal processing. She is currently serving on the ASEE Board of Directors as the Vice President for External Relations.

### **Dr. Laurie A. Britt-Smith, University of Detroit Mercy**

Laurie Britt-Smith is an Assistant Professor in the English Department at UDM. She is the Director of the writing program and writing center and a member of the university's assessment team.

# **“We’re All in the Same Boat”**

## **Achieving an Institutional Culture of Assessment**

### **Abstract**

This paper is the second of two that explores the application of principles of organizational change theory to the problem of achieving valid and sustainable assessment processes in a private, Master’s comprehensive university. In this paper, the results of a pilot effort to achieve systematic assessment activities in a subset of key courses in the institution’s liberal arts core curriculum will be presented, along with the findings from building on these successes.

### **1 Introduction and Motivation**

In response to a mandate from the institution’s regional accreditation body, the University of Detroit Mercy (UDM) is in the process of implementing a new general education core, consisting of student learning outcomes that are based on the cognitive levels in Bloom’s taxonomy rather than lists of courses in various disciplinary areas. The courses that are being designed or adapted to satisfy these outcomes must include an assessment component that will enable the institution to evaluate the effectiveness of this core curriculum. Assessment processes in programs separately accredited by ABET or other external accreditation bodies are often more mature than those in programs that are not separately accredited, so a model of collaboration across disciplines has been adopted as a way forward in developing assessment expertise among colleagues who deliver the liberal education component of the undergraduate engineering curricula.

The goals of this project were (a) to assess the existing capacity for core curriculum assessment, and (b) to design and implement an intervention aimed at increasing this capacity in academic departments not previously required by external bodies to engage in outcomes-based assessment.

This remarkable effort is a largely faculty-driven process which enjoys the enthusiastic support of university administration. It also demonstrates successful collaboration across academic units with very different cultures, with negligible staff support due to fiscal challenges. As such, the approach could serve as a model for smaller institutions whose size does not allow for the appointment of full-time assessment professionals to replicate the successes described here.

For the engineering programs at UDM, this new core curriculum will provide opportunities for more substantive direct assessment of student outcomes (f), (g), (h), and (j), as described in ABET’s Criterion 3.<sup>1</sup>

- (f) An understanding of professional and ethical responsibility;
- (g) An ability to communicate effectively;
- (h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- (j) A knowledge of contemporary issues;

## 2 Summary of Previous Work

The authors of the 2011 paper<sup>2</sup> described the current process used by the UDM's engineering programs for assessing ABET Student Outcomes (f), (g), (h), and (j). This existing process has sufficed for continued ABET accreditation, but a strong core that has an integral assessment/evaluation component would provide a much richer selection of evidence of students' level of achievement of these outcomes. For example, the following five core outcomes related to Historical Knowledge map directly to ABET Student Outcomes (h) and (j):

*Students will be able to:*

- *Recognize and appreciate the forces of historical continuity and change. (Comprehension)*
- *Explain the relationships among historical events, culture and social forces. (Comprehension)*
- *Demonstrate how history and the writing of history influence culture and social perspectives, and how culture and social perspectives influence history and the writing of history. (Application)*
- *Evaluate historical and contemporary perspectives about the world. (Evaluation)*
- *Explain how major historical events shape societies. (Comprehension)*

The following research questions guided the design and implementation of a pilot project to assess, and then build capacity in curriculum assessment:

- What misconceptions about the nature and purpose of assessment of student learning outcomes exist at different levels of the institution? What can be done within the institution to address these misconceptions?
- Do current reward structures imply that assessment activities are a worthwhile investment of faculty time and effort? If not, what change in incentives will achieve faculty support and “buy in?”
- How might organizational change theory literature be applied to bring about an acceptance of assessment as a key tool to design, implement and continually improve a core curriculum that is both responsive to the mission of the university and dynamic?

## 3 Current Status of Core Curriculum Design

In May 2011, the learning outcomes resulting from five years of work by the Core Curriculum Task Force were accepted by the institution's Faculty Assembly, and the focus shifted to implementation. The current, or “old” core is a set of distribution requirements requiring students to take a few common courses, and electives from such areas as “scientific literacy,” “meaning and values,” and “diverse human experience.” Over the years, the list of courses satisfying most of the distribution areas has continued to grow. At the same time, professional programs such as engineering, nursing, architecture, and business have had to respond to accreditation requirements

to engage in assessment of student learning outcomes. This has led to a complicated set of substitutions for various aspects of the core curriculum that varies according to the program in which the student has enrolled. For example, first year engineering students meet a distribution requirement in ethics by taking an engineering course called “The Ethics and Politics of Engineering.” This course is not on the “approved” list of courses for the core, and while taught by an adjunct faculty member assigned by the College of Liberal Arts and Education, does not address ethical theory in as rigorous a manner as the ethics course designed to meet the distribution requirement. But its “home” in the College of Engineering and Science does make it possible to conduct assessment of ABET Student Outcome (f).

Even if there was a mature assessment program for the “old” core curriculum, the slow upward creep of the number of courses added and lack of continued oversight once a course is approved has only exacerbated the lack of coherency in the core. Many engineering students see the core requirements as a “necessary evil,” and often choose their electives not based on intellectual curiosity, but on part-time work schedules or reputations of instructors for being easy graders. Despite a concerted effort by many faculty members to highlight the importance of the arts, humanities, and social sciences, what could be an exciting process of opening minds to new perspectives and ways of thinking and judging becomes an unenthusiastic and grudging submission to checking off items on a list of requirements.

An implementation proposal drafted by the assembly’s executive committee and the Academic Vice-President was vigorously debated over the summer, and the composition of the new Core Curriculum Implementation Committee (CCIC) and its charge were approved in September 2011. Nominations and elections for positions on the CCIC subsequently took place, and the committee was fully populated before the end of November, beginning their work in December 2011. In April 2012, the assembly expects the committee to submit a detailed proposal that describes the process by which courses will be accepted into the new core curriculum, and the criteria that will be used for approval. These criteria will require proposers to map course outcomes to the relevant core outcomes and to identify a valid process for assessing those outcomes.

#### **4 Conceptual Framework and Related Literature**

Papers on “culture of assessment” are plentiful in the engineering education community, and in the general higher education literature. The reference section points to just a few of the more recent and relevant works relating to this effort.<sup>3,4,5,6,7,8,9</sup>

The fundamental problem has been identified and summarized as follows:

A university faculty might be described as a collection of diverse and self-motivated free agents, each trying to balance a set of responsibilities (teaching, research, service, family, church, and civic) within constraints of time and level of interest. Resistance to change is prevalent in all human organizations. This resistance protects against unwise and capricious shifts in direction, but when it prevents the organization from learning and growing in response to changing conditions in its environment, such resistance is detrimental to the health of the organization.<sup>2</sup>

The authors framed the problem of assisting faculty members in making the shift from a focus on

teaching to a focus on student learning as a change in culture, as in how to “create a culture of assessment.” Several models for organizational change from the Organizational Development literature provided insight into approaches for facilitating desired change. Of the models considered, the systems approach proposed by Senge<sup>10</sup> seemed best suited to addressing the complex issues involved in changing attitudes and behaviors related to the assessment of student learning outcomes.

In *The Fifth Discipline* (1990), Senge described some essential disciplines for building capacity in organizations: personal mastery, mental models, shared vision, team learning, and systems thinking. A later work (1999) identified ten challenges for sustaining momentum in learning organizations.<sup>11</sup> Creating a new general education curriculum based on learning outcomes rather than on accumulating credit hours distributed over certain academic disciplines is a radical change, especially considering that many of the departments responsible for delivering the courses in the existing curriculum are not accredited by national discipline-specific accrediting bodies, and do not have significant or widespread expertise in outcomes-based assessment.

Seeing the complexities and relationships among department and college cultures is necessary if attempts to build assessment into a new curriculum are to be successful. Simply bringing in the nursing, engineering and business faculty to teach their colleagues in the arts and sciences how to “do assessment” might actually hinder the organizational learning needed to create and sustain a culture of assessment. A special issue of *Conversations on Jesuit Higher Education* was titled “Core Wars,” referring to the clash of cultures among faculty from different disciplines.<sup>12</sup>

Another framework that was used to address differences in perspectives across academic units was the four frame approach developed by Bolman and Deal.<sup>13</sup> These authors studied leaders and found a correlation between effectiveness and the ability to see an issue from different perspectives. The structural frame, the human resource frame, the political frame, and the symbolic frame are all important in leading change processes in organizations. A leader may tend to favor one or more of these perspectives over the others, but the authors found that an ability to reframe issues in terms of each of the other frames provides a leader with more options to avoid impasse in change agendas. (Bolman and Gallos<sup>14</sup> applied this model to academic leadership.)

## **5 Study Design and Methods**

### **5.1 Timeline**

The first author received a one-course release in Fall 2011 to undertake this study, and worked with three departments in the College of Liberal Arts and Education (CLAE) that deliver courses in the existing core, and are responsible for key outcomes in the new core. The second author is the Director of the university’s Writing Program, one of the programs identified as a key player in delivery of the core curriculum. Colleagues in the departments of Philosophy and Communication Studies also participated in the intervention efforts. A compressed timeline was chosen for the study, so that the intervention helps the Core Curriculum Implementation Committee to make the shift from determining what will be taught in the core to an evidence-based approach that assesses the Core student learning outcomes already established. Time constraints limited the scope of the intervention to four courses, three of which are typically required of all undergraduate students: PHL 1000: Introduction to Philosophy, ENL 1300: College Writing, ENL 1310: Academic Writing, and CST 1010: Fundamentals of Speech.

Both authors are members of the University Assessment Team, so were able to address the second research question in team meetings, resulting in implementation recommendations to the Academic Vice President.

## **5.2 Methodology**

This study employed a one group pre- and post-test design, using a combination of assessment artifact analysis and a faculty survey designed by the first author to discover the attitudes of faculty members toward assessment.

### **5.2.1 Survey**

In June 2011, the first author designed an anonymous survey (Fig. 1) that was distributed via an e-mailed link to all full-time faculty members at the university. Time constraints prevented an assessment of the validity and reliability of the instrument.

### **5.2.2 Pre- and post-intervention analysis of assessment artifacts**

During May-July 2011, pre-intervention assessment artifacts were requested from the Dean's Office in the College of Liberal Arts and Education for all courses that have been approved for the current ("old") Core Curriculum. The only such evidence available were course syllabi for some sections of some of these courses. Out of more than one hundred Core courses approved from CLAE, the Dean's Office had copies of syllabi from thirty-three.

### **5.2.3 Interventions with targeted courses.**

In this paper, only the interventions with the ENL 1310 (Section 5.4) and PHL 1000 (Section 5.3) courses are reported, since the status of and approach to the two composition courses are very similar. In November 2011, a colleague from the Department of Communication Studies was identified, and the intervention is underway during the current semester running from January to April. The post-intervention analysis of assessment artifacts from this course will be presented at the conference.

The Writing Program and the Philosophy Department had two very different starting points regarding the assessment of student outcomes, and so the protocols for intervention were customized to achieve reasonable goals for each course. Thus, each course will be addressed separately.

In August 2011, meetings with Chairs and/or key faculty responsible for the targeted courses were requested by the first author to explain the purpose of the project and secure the cooperation of the department faculty in completing the work. These meetings resulted in a closer collaboration with the Director of the Writing Program, who became the second author of this paper and led the intervention with faculty in the Writing Program. The second author serves with the first author on the University Assessment Team, and has experience in assessment from a previous institution. She is also serving on the Core Curriculum Implementation Committee whose charge is to design the process by which courses will be approved for inclusion in the core.

These meetings with faculty members from Philosophy and the Writing Program took place in August 2011, before the beginning of classes. Both agreed to participate in an effort to achieve

Which of the following BEST describes your opinion about assessing student outcomes to guide course and program improvements? You may use the text box at the bottom to either elaborate on your choice or add a different attitude than is in the following list.

|    |  |
|----|--|
| A1 | I am an eager proponent of assessment, and value the information it gives me about what my students are learning.  |
| A2 | It seems like a lot of extra work for me, but I'm open to it if someone can convince me of its value in becoming a better teacher.   |
| A3 | I'm not convinced of the value of assessment, but will do what is needed to help us maintain our accreditation.  |
| A4 | I'm concerned that the university will use assessment results to evaluate my effectiveness as a teacher, so I need to know more about how the data will be used before I buy into this.                  |
| A5 | This assessment stuff is just another fad foisted on us by accreditation agencies and is of no use to me as a faculty member.  |
| A6 | Asking me to participate in assessment activities is or borders on a violation of my academic freedom to teach what and how I want in my classes, and I will resist compliance as a matter of principle. |
| A7 | Other (please specify below)   |

If you selected other, please make your statement here. You may also use this statement to elaborate on the choice you made above.

The program in which I teach is separately accredited by a discipline-specific accrediting body.

Yes  
No

If you selected other, please make your statement here. You may also use this statement to elaborate on the choice you made above.

The program in which I teach is separately accredited by a discipline-specific accrediting body.

With which College/School/Unit are you affiliated?

Figure 1: Survey: Faculty Attitudes Toward Assessment

assessment of the relevant core outcomes.

The intervention began with a preliminary meeting with the Chair/Director of each department to explain the project and to establish a working relationship as an on-demand consultant to the faculty members in departments delivering the targeted courses. At the end of the semester, a second meeting with each Chair/Director took place to assess progress toward a systematic and robust process for assessing the Core Outcomes addressed by the targeted courses.

### **5.3 Introduction to Philosophy (PHL 1000)**

In the original collection of syllabi, only one PHL 1000 syllabus was available. Because this is a required course for all undergraduate students, multiple sections are offered, and several full-time and part-time faculty participate in teaching the course. After identifying PHL 1000 as a targeted course in this study, the first author requested and obtained from the department Chair the PHL 1000 syllabi from all sections offered in Fall 2010.

In August 2011, the first author met with the Chair and another faculty member from the Philosophy Department to explain the goals of this study and its connection to the design of the new Core Curriculum. UDM has a program assessment process in place and is in a second cycle of review, but not all programs fully participated in the first cycle, so the process is not uniformly mature across all units of the university. Using course level instruments to assess Core Curriculum outcomes is new to all of the institution's faculty, because the current Core is based on credit-hour distribution requirements, not on outcomes.

The Chair was provided with some recommendations for preparing her faculty for the assessment component of the new Core. These verbal recommendations included:

1. Begin to require all faculty teaching PHL 1000 (and other core courses) to include student learning outcomes in their syllabi.
2. Come to a consensus on a common set of outcomes across all sections and instructors that address the relevant outcomes in the new Core Curriculum.
3. Identify how the course outcomes link to the Core Curriculum outcomes.
4. Ask each instructor to identify one or more assessment (e.g., paper, assignment, quiz, test items) for at least one of the outcomes that link to the Core Curriculum outcomes.
5. Ask each instructor to collect evidence of student achievement of that outcome and report that to the department in a format that will allow a straightforward analysis of the results across all sections. Provide or encourage the use of rubrics to improve inter-rater reliability. (A sample course assessment sheet and rubric from another program was provided.)
6. Meet with faculty members to identify and document any needed changes to the course, based on this analysis.
7. Communicate these changes to all faculty members teaching the course in the next offering, and ask them to make any necessary adjustments to increase the proportion of students who achieve the outcomes at an acceptable level.



At the end of the semester, the first author discussed progress with the department Chair. She provided all of the syllabi from the Fall 2011 sections of PHL 1000 and explained how she approached the assessment issue with her faculty.

#### **5.4 Academic Writing (ENL 1310)**

UDM has a two course sequence for first year writing, or composition, College Writing and Academic Writing. The major difference between the two is whereas College Writing focuses on basic expository and analytical writing, Academic Writing focuses on the rhetorical aspects of argument. One of its main objectives is the production of research papers and projects that require students to create a clear thesis and support their claim with a well reasoned argument supported by outside sources. While College Writing provides a necessary step toward students producing college level writing, Academic Writing is the class that actually satisfies the current core requirement for written communication. On average, 48% of the university's incoming freshmen place directly into Academic Writing based on the result of summer placement exams.

##### **5.4.1 Pre-assessment learning outcomes**

Prior to assessment intervention, instructors were given a handbook that had a basic course description and set of course objectives that were a mix of goal and task based statements.

For Academic Writing (ENL 1310) these were:

1. Write substantial essays of more than five pages, demonstrating in particular a clear mastery of rhetorical contexts and rhetorical strategies in arguments.
2. Develop as critical thinkers and writers.
3. Locate, evaluate, and incorporate outside sources (e.g. critical essays, interviews, statistical information, websites, etc.) into their own writing as a means of furthering their own purpose and goals.
4. Demonstrate an awareness of audience in writing.
5. Demonstrate a mastery of MLA documentation style and be aware of other forms of documentation (e.g., APA, Chicago Style.)
6. Integrate the words and ideas of sources into their own writing, knowing both how to recognize plagiarism and how to avoid it.
7. Become increasingly proficient in word processing and electronic editing both in revising their own work and in offering peer reviews of the works of others.
8. Illustrate revision skills by submitting at least one revision of an essay written for the course.

Although the ideas expressed in the objectives do demonstrate the activities that should go on in these types of classes, they are difficult to assess in any measurable terms. Additionally there is no uniformity to the language, particularly as the university has adopted Bloom's taxonomy as the language of assessment. There was no requirement that instructors demonstrate that they actually considered, let alone fulfilled, the objectives in the construction of their courses, nor were students made aware of the existence of these objectives.

### **5.4.2 Past Writing Program assessment processes**

The Writing Program does not report assessment data to the University Assessment Team because it is not a standalone department or program, but part of the English department, which has historically been assessed on the merits of its Literature classes. There is no major in writing at this point. However, the writing courses are an important piece of the core curriculum for both accredited and non-accredited programs, and so need to be assessed as well. Pre-intervention assessment was done through the time consuming task of portfolio review. Every instructor and faculty member created a class portfolio to be reviewed by the writing program director. These portfolios contained each instructor's major homework and essay assignments and student samples of each assignment. This resulted in a lot of information gathered about the instructors and how a handful of students responded to that instructor.

The process was not very effective in terms of time spent performing this task or as a means to gather programmatic assessment data. As far as is known, no rubric was created in order to guide the assessment of these portfolios, and so interpretation of the program varied depending on who was acting as writing director during any particular term. Such a chaotic and random system was not beneficial to the English department and was a considerable source of stress in inter-departmental relationships, particularly when attempting to produce evidence for a program undergoing accreditation review.

### **5.4.3 Moving toward a system of learning outcomes assessment**

During the 2009-2010 academic year, the English department drafted course and program outcomes that reflected the then ongoing conversation about revising the core curriculum. The goal of drafting the new outcomes was to write them so that they both align with the new outcomes based core document for eventual implementation into the new core curriculum, and can also used to assess and improve the program in the meantime.

The new learning outcomes for ENL 1310:

Students will:

- Demonstrate an ability to read actively, analyze, question, and respond to readings.
- Recognize the importance of audience for their writing: identifying their audience, evaluating its needs, and applying those needs to their own rhetorical goals and purposes.
- Create thesis statement/main claim and supporting claims for academic presentation and argument.
- Locate, evaluate, and incorporate outside sources (e.g. critical essays, interviews, statistical information, websites, etc.) into their own writing as a means of furthering their own rhetorical purpose and goals, knowing how to recognize plagiarism and how to avoid it.
- Demonstrate competency in standard, academic language.
- Demonstrate a mastery of MLA documentation style and be aware of other forms of documentation (e.g., APA, Chicago Style.)
- Use computers to engage in exploration and discussion of ideas and concepts.

- Critique their own and other students work as part of the writing process.
- Illustrate growing confidence and competence as a writer through revision of essays.
- Provide reflection of individual strengths and weaknesses as a writer.

## **6 Assessment and Evaluation**

The following list provides the metrics used to determine the level of “buy-in” to core assessment by faculty members who deliver the current core. Some of these questions have not yet been answered because the instruments used to collect the data have only recently been designed. They remain in the list for the sake of completeness in moving forward.

- How many of the syllabi of core courses contain well-formulated student learning outcomes?
- How many of these syllabi articulate a linkage between the course outcomes and the newly established core outcomes?
- To what extent do instructors of the core courses identify and carry out a plan to assess the core outcomes in these courses?
- How many faculty who teach core courses submit, present, and/or publish papers on assessment?
- What percentage of faculty who teach core courses agree that assessment of student learning is useful not just for accreditation purposes, but (a) to have a positive impact on student learning, and (b) for their own professional development as teachers?

The results from this pre-/post-intervention assessment will be analyzed, and plans for future action will be identified.

Finally, the new outcomes as determined by the Core Curriculum Task Force will be mapped to courses in the existing Core, and a subset of these outcomes will be targeted for assessment within these existing courses.

## **7 Results**

### **7.1 Syllabus analysis**

Prior to the intervention, the first author went to the CLAE Dean and requested to examine syllabi for a recent offering of every course that had been approved for inclusion in the core curriculum. These syllabi were analyzed to determine to what extent they contained explicit, and measurable student learning outcomes. Fig. 2 summarizes the results from this analysis.

Since the intervention focused on only three courses, another set of syllabi were obtained so that pre-/post-intervention assessment could be conducted. The chair of the philosophy department

| Description   | % of syllabi |
|---|--------------|
| No objectives/goals/outcomes stated.  | 27.3%        |
| Course goals or objectives exist, but are not stated as student learning outcomes. For example, "the course is designed to increase student understanding of or ability to ..."   | 12.1%        |
| Learning outcomes can be found, but they may not be stated as measurable/observable behaviors that map to Bloom's taxonomy; e.g., "understand" or "be aware." An outcome might be found embedded in a paragraph, but not referred to as an outcome. | 42.4%        |
| Explicit, measurable/observable learning outcomes are listed prominently in the syllabus, using action verbs that map to Bloom's taxonomy.  | 18.2%        |

*Based on thirty-three syllabi (out of more than 100 core courses) provided by CLAE office*

Figure 2: Results from pre-intervention syllabus analysis.

provided the syllabi from all sections of PHL 1000 from both Fall 2010 (pre-intervention) and Fall 2011 (post-intervention). The same rubric used for the results shown in Fig. 2 were applied to both sets of syllabi, and the results are shown in Fig. 3.

| Description   | Pre   | Post  |
|---|-------|-------|
| No objectives/goals/outcomes stated.  | 40.0% | 20.0% |
| Course goals or objectives exist, but are not stated as student learning outcomes. For example, "the course is designed to increase student understanding of or ability to ..."   | 0.0%  | 20.0% |
| Learning outcomes can be found, but they may not be stated as measurable/observable behaviors that map to Bloom's taxonomy; e.g., "understand" or "be aware." An outcome might be found embedded in a paragraph, but not referred to as an outcome. | 20.0% | 10.0% |
| Explicit, measurable/observable learning outcomes are listed prominently in the syllabus, using action verbs that map to Bloom's taxonomy.  | 40.0% | 50.0% |

Figure 3: Results from pre-/post intervention analysis of PHL 1000 syllabi.

## 7.2 Survey on faculty attitudes toward assessment

The number of participants ( $N = 95$ ) represents a response rate of nearly 50%. This is remarkable given that the invitation to participate occurred in the summer, when many faculty are off campus. Furthermore, only two days were allowed for responses. The high response rate reflects the collegial culture at the institution and an abiding sense that despite the sometime fractious disputes arising from different perspectives, we really are "all in the same boat."

For the purpose of this paper, the aggregate result shown in Fig. 4, and results by academic unit were analyzed. The most interesting comparison is shown in Fig. 5, which compares responses of faculty members from the College of Liberal Arts and Education (CLAE) to those from

|    | Response   | #  | % of Respondents |
|----|--|----|------------------|
| A1 | I am an eager proponent of assessment, and value the information it gives me about what my students are learning.  | 56 | 58.9%            |
| A2 | I'm not convinced of the value of assessment, but will do what is needed to help us maintain our accreditation.  | 10 | 10.5%            |
| A3 | It seems like a lot of extra work for me, but I'm open to it if someone can convince me of its value in becoming a better teacher.   | 8  | 8.4%             |
| A4 | I'm concerned that the university will use assessment results to evaluate my effectiveness as a teacher, so I need to know more about how the data will be used before I buy into this.                  | 4  | 4.2%             |
| A5 | This assessment stuff is just another fad foisted on us by accreditation agencies and is of no use to me as a faculty member.  | 4  | 4.2%             |
| A6 | Asking me to participate in assessment activities is or borders on a violation of my academic freedom to teach what and how I want in my classes, and I will resist compliance as a matter of principle. | 1  | 1.1%             |
| A7 | Other  | 10 | 10.5%            |
| NA | no answer  | 2  | 2.1%             |

Figure 4: Survey results: all participants,  $N = 95$

colleagues in the College of Engineering and Science (CES).

Despite the very different content areas, the faculty themselves share a similar profile in the following sense. CES is home to ABET-accredited engineering programs that have been through two cycles of accreditation review since EC 2000 was required. It also houses the university's science, mathematics, and computer science programs, none of which are separately accredited. (As of the 2011-2012 academic year, UDM offers a Bachelor in Software Engineering, which will replace the computer science program, and will seek ABET accreditation under the Engineering Accreditation Criteria.) CLAE's programs also split between those with external accreditation (e.g., psychology, education, addiction studies), and those that do not have separate disciplinary accrediting bodies.

Still, it is not surprising to the authors that the results are so different. UDM has a part-time Director of Assessment who holds a joint appointment as a faculty member in the Department of Chemistry and Biochemistry, and her influence on colleagues must be considered. Another factor in the difference between the two sets of data likely comes from a history of engaging mathematics and science (especially chemistry and physics) faculty members in the ABET process. These colleagues have provided valuable assessment data for Student Outcome (a) in Criterion 3 from the beginning of the outcomes based assessment era.

### 7.3 Effect of intervention with PHL 1000

The chair of the philosophy department decided on an incremental approach to introducing concepts of assessment into the Introduction to Philosophy course, making a modest start in Fall 2011, with the intention of building on the efforts each term. Here is her written summary of the status of PHL 1000 course assessment as of the end of the Fall 2011 semester:

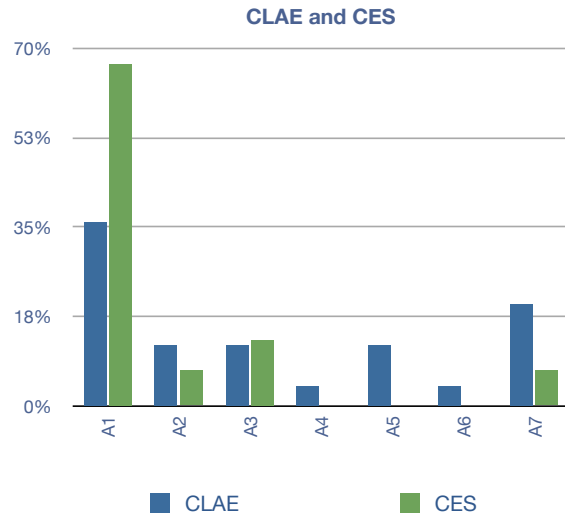


Figure 5: Survey results from Colleges of Liberal Arts and Education (CLAE) and Engineering and Science (CES)

I asked all FT and PT faculty teaching our core courses to add a learning objectives part to their syllabus. By asking them to add that, of course we were also encouraging people to think about the skills they were wanting our students to develop, since before that the emphasis was usually on content mastery more than skills development. My memory looking over the syllabi was near-total compliance with adding learning objectives to the syllabus. There is probably a lot of overlap in the skills we articulated but then there is also individuality in the way faculty members articulated their goals. But we did not discuss assessment of the learning objectives. Our only step was to raise awareness about the need to focus on skills development. We encouraged faculty to think about how they measure these skills when creating their grading requirements but we did not coordinate and we have not met to evaluate any best practices or any outcomes of measuring.

Here's a copy of my August 23 email to FT and PT faculty teaching PHL 1000:

*Dear Faculty teaching Intro to Philosophy this fall (both Full Time and adjuncts),*

*Hello! I appreciate all of your work in preparing your syllabus. I wanted you to think about adding a certain (possibly new) aspect to your syllabus and assignments for Intro to Philosophy, if you could. As you know, this course is a requirement of the current core curriculum. The whole core curriculum is undergoing revision. The new emphasis is on our students gaining skills (as expressed in Bloom's Taxonomy) rather than the old emphasis of covering material. Now, we still want you to cover Plato and Descartes and one non-Western source, and to introduce students to ethics, epistemology, metaphysics and logic. But in addition I would like you if possible to articulate some of the skills development we hope to achieve in the Intro course. Here are the learning outcomes for philosophy in the new core*

*curriculum:*

*Philosophical Knowledge (approved unanimously 9/7/10) Students should understand the various ways in which philosophy achieves its insights and the kinds of questions it addresses, its major areas of study, and its importance in rationally evaluating their own beliefs and the beliefs of others. Students will be able to:*

- *Define the basic elements of the logical analysis of arguments. (Knowledge)*
- *Recognize the role of philosophy as a foundation for other modes of inquiry. (Comprehension)*
- *Identify and discuss central issues of philosophy, that is, questions concerning truth and knowledge, reality, moral values, and social justice. (Comprehension)*
- *Recognize the rich diversity of philosophical viewpoints. (Comprehension)*
- *Provide rational support for their beliefs, and fairly and reasonably evaluate the positions of others. (Application)*

#### **7.4 Effect of intervention with ENL 1310**

The new assessment outcomes discussed in Section 5.4.3 were introduced to the writing instructors prior to the beginning of the Fall 2010 academic year. Although they are still in need of some revision, they better reflect Bloom's taxonomy, and acknowledge the fact that nearly half of the students will not take College Writing, but need to be able to have the same cognitive knowledge and writing skill at the completion of Academic Writing as if they had taken both courses. At this phase of the process, instructors, 75% of whom are adjunct faculty, are asked to reflect on their class assignments in relation to these new outcomes and are given a chart that allows them to identify which outcomes their major assignments are meeting. This is to be done at two points during the term; once during the planning stage and then after the term as they reflect on what actually happened during the term and how they can adjust their pedagogy based on these results. If an outcome is never met, or only rarely met, instructors must revise their assignments to meet that requirement at least three times per semester.

The writing program director gathers these charts at the end of the term and is able to address individual instructor's weaknesses in meeting particular outcomes. This is not done as a form of evaluation, but rather as a way to help that particular instructor become more aware of best practices in the discipline of composition and rhetoric. This is important for the local situation as the majority of the adjuncts hold degrees in Master of Fine Arts (creative writing). Although they are all solid writers, there is a difference between having the knowledge and ability to write and having the knowledge and ability to teach writing. The charts give the writing program director a snapshot of what is being taught in the program and where the strengths and weaknesses are in the program. It helps tremendously when planning professionalization workshops for writing instructors. Finally, the outcomes help to define the program to those outside of the English department who may be apt to believe that teaching writing is synonymous with teaching grammar and documentation.

At this point, the program is not using the outcomes to directly assess student learning, but that

foundation has been laid and is the next planned step in the process. Students are already being made aware of the learning outcomes as they are published in the required customized grammar handbook all students must purchase, and it is a requirement that instructors list the outcomes on their syllabus. During the 2012-2013 academic year, instructors will be required to have their students fill out a chart similar to the one that the instructor creates. Students will be asked to identify which outcomes they felt were met by the individual assignments given. This next step will identify strengths and weaknesses from the student perception and will further guide us as we work to improve the program.

Writing is not a subject that can be easily translated into a step by step learning process. It takes years of practice for a writer to mature, and no first year course will ever be able to produce fully competent writers, but we do provide a very important first step. Students are presented with the same concepts, for example audience awareness, in each class, and are expected to show increased mastery of the concept through the creation of increasingly sophisticated writing over the course of the term. There is no direct test for that can demonstrate the nuances of critical thinking as expressed through writing, which is one of the reasons the humanities in general is so difficult to assess. We are still wrestling with ways to demonstrate quality of learning through assessment tools, but the development of learning outcomes has been a huge step forward in our ability to articulate what we expect our students to learn.

## **8 Rewards for assessment excellence**

Prior to this study, recognition for assessment was minimal. Every faculty member completes an annual activity report that is reviewed by the department Chair and the Dean, and is then submitted to the office of Academic Affairs. The main categories for reporting activities are teaching, scholarship, and service. It is left to the individual faculty member if and where to report on assessment activities.

In the internal Program Review process which has just completed its first five-year cycle, the self-study template includes a section on program assessment. Most of these self studies are written by one or two people, which makes it difficult to tell how engaged in assessment (either program or course-level) individual faculty members are, even if the self-study is exemplary regarding the program assessment summary.

In the summer of 2011, the Assessment Team recommended that the Annual Activity Report be amended to specifically ask faculty members to discuss their level of activity with respect to course and/or program assessment. The Academic Vice President implemented the recommendation, and the report for 2010-11 that was to be submitted this past fall included this section.

The mechanism for collating the responses for analysis has not yet been established, and the reports are not always submitted by the published deadline, but including this section in the report template sends a message that assessment is an important part of the duties of faculty members.

The Assessment Team also recommended that awards for Excellence in Assessment be established, one for programs, and one for individual faculty members. Even if there is not sufficient funding for a nominal monetary award, a certificate and some form of public recognition could highlight the institution's valuing of this activity. This recommendation has not



yet been implemented, and will likely require the team, perhaps in collaboration with the Faculty Development Team, to draft a formal proposal for the establishment of the awards.

## **9 Discussion of findings and next steps**

Given the lively discussions about Core Curriculum and assessment that have mobilized faculty members to advocate passionately for diverse positions, the authors and the Assessment Team were pleasantly surprised that only about 10% of respondents to the “Faculty Attitudes Toward Assessment” survey expressed a lack of openness to compliance to assessment processes, as long as they have input into how they are designed. The data may be skewed due to the lack of time to assess the validity of the instrument, so this may be an interesting direction for further study. Note that since the intervention was limited to a small set of faculty members, the post-intervention survey will be conducted after the process for approving courses for the new Core Curriculum has been approved and distributed to faculty, and after they have had an opportunity to receive clarification on what exactly is expected for the assessment component, perhaps even after the courses have been approved and a Core assessment cycle has been completed.

As for the intervention with the PHL 1000 course, it is clear that the first author’s expectations exceeded the ability of the department culture to absorb the radical changes that were recommended. In retrospect, the initial conversation with the Chair may have been more productive had the explanation of process not been presented all at once, and if the recommendations had been written rather than verbal. In fact, the Chair’s comment that “before the emphasis was usually on content mastery more than skills development” provides an insight into a common misconception that often makes conversations about assessment within the arts and sciences difficult. This comment suggests that assessing outcomes represents a fundamental movement away from content mastery, and a focus on “skills development,” as if this were an “either/or” proposition. The authors plan to follow-up with the Chair and/or department faculty members to learn more about the choice of phrases when discussing assessment, and the assumptions that form the basis for judgments about its value.

Clearly the Writing Program has a much more mature assessment process, including a mechanism for collecting data from each instructor. Many of the faculty teaching these courses are part-time contingent faculty members, and tend to be more responsive on the whole than full-time tenured faculty members. While the assessment, evaluation, change, reassessment cycle has not yet been fully implemented, a clear roadmap for bringing all parts of the cycle on board is in place, and could serve as an exemplar for faculty members from other disciplines who wish to include core assessment in their course proposals.

## **10 Summary**

An effort to transform attitudes to and practices of assessment of student learning at multiple levels within a Master’s comprehensive institution was applied in the context of the design of a new outcomes-based Core Curriculum. Survey results indicate that support for assessment efforts is high, although not consistently so among all academic units. An intervention with an Introduction to Philosophy course resulted in an increase in the number of sections whose syllabi have explicit and measurable learning outcomes, but the complication of not adopting a common set of course outcomes prevented department faculty from taking the next steps of linking course

outcomes to Core Curriculum outcomes, and developing plans to assess the identified outcomes. The authors believe that reframing the results as “continuous improvement” and continuing to work across disciplinary boundaries to encourage more systematic and thoughtful assessment of student learning outcomes will lead to more mature evidence-based processes.

## References

- [1] (2011, January) The ABET Inc. website. [Online]. Available: <http://www.abet.org/forms.shtml>
- [2] S. A. Yost, P. Zarkowski, and E. Roberts-Kirchhoff, “‘We’re all in the same boat’: Promoting an institutional culture of assessment,” in *118th ASEE Annual Conference and Exposition*. Vancouver, BC, Canada: American Society for Engineering Education, June 2011.
- [3] W. F. Weiner, “Establishing a culture of assessment,” *Academe Online*, vol. 95, no. 4, 2009.
- [4] T. A. Eppes, I. Milanovic, and F. Sweitzer, “Outcome assessment of liberal education skills,” in *ASEE Annual Conference Proceedings*, Vancouver, BC, Canada, 2011.
- [5] W. W. Wentzheimer, G. E. Ermer, J. J. Vanantwerp, and S. H. VanderLeest, “An optimal engineering education: The base at a liberal arts college,” in *ASEE Annual Conference Proceedings*, Salt Lake City, UT, 2004.
- [6] D. Riley, L. Claris, N. Paul-Schultz, and I. Ngambeki, “Learning/assessment: A tool for assessing liberative pedagogies in engineering education,” in *ASEE Annual Conference Proceedings*, Chicago, IL, 2006.
- [7] L. J. Bechtel, S. L. Cross, R. S. Engel, R. L. Filippelli, A. L. Glenn, J. T. Harwood, R. N. Pangborn, and B. L. Welshofer, “An objectives-based approach to assessment of general education,” in *ASEE Annual Conference Proceedings*, Portland, OR, 2005, pp. 10915 – 10925.
- [8] G. L. Downey, J. C. Lucena, B. M. Moskal, R. Parkhurst, T. Bigley, C. Hays, B. K. Jesiek, L. Kelly, J. Miller, S. Ruff, J. L. Lehr, and A. Nichols-Belo, “The globally competent engineer: Working effectively with people who define problems differently,” *Journal of Engineering Education*, vol. 95, no. 2, pp. 107 – 121, 2006.
- [9] J. Munakata-Marr, “A case-study approach to introducing engineering students to nontechnical wastewater engineering constraints: Comparison across courses and controls,” in *Proceedings - Frontiers in Education Conference, FIE*, Arlington, VA, 2010, pp. S2J1 – S2J5.
- [10] P. M. Senge, *The Fifth Discipline: the Art and Practice of the Learning Organization*. New York: Doubleday/Currency, 1990.
- [11] P. M. Senge, A. Kleiner, C. Roberts, G. Roth, R. Ross, and B. Smith, *The Dance of Change: The challenges of sustaining momentum in learning organizations*. New York: Currency/Doubleday, 1999.
- [12] *Conversations on Jesuit Higher Education*, vol. 38, 2010. [Online]. Available: <http://epublications.marquette.edu/conversations/vol38/iss1/>
- [13] L. G. Bolman and T. E. Deal, *Reframing Organizations*, 4th ed. San Francisco: Jossey-Bass, 2008.
- [14] L. G. Bolman and J. V. Gallos, *Reframing Academic Leadership*. San Francisco: Jossey-Bass, 2011.