The University of South Carolina is using assessment to bring about academic change in general education at several levels: the individual student; system-wide courses; and the entire general education program. The approach uses both qualitative and quantitative data, and has enabled faculty to collaborate both across disciplines and all eight campuses to re-conceptualize general education and within disciplines, across campuses to develop instructional modules that integrate assessment within general education courses. The process also shows potential for responding to external mandates, such as those from regional accrediting agencies, the state coordinating board, and legislative initiatives, in a way that maintains faculty ownership and educational integrity. Faculty development and participation were important components of the process used. Focus was on introductory courses in English, history, mathematics, and biology because of their placement within the core curriculum requirements for all campuses. The 3-year project was planned around three 4-week summer workshops, with half the participating faculty involved in the first year, the second half in the second year, and all in the third year. The project is chronicled from inception to completion, and its effects on the institution are discussed. (MSE)
Multiple-campus Assessment of General Education: A Course-embedded Approach

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Jean Endo
Editor
AIR Forum Publications
Abstract

This paper is a case study of using an integrative approach to assessment to bring about academic change at several levels: from the individual students in classrooms, to system-wide courses, to the entire general education program. It also illustrates the use of qualitative and quantitative data for understanding these processes. This project enabled university faculty to collaborate across disciplines and campuses in re-conceptualizing general education abilities, and to collaborate across campuses within disciplines in developing modules that embed assessment in the teaching of general education courses. It also illustrates the possibility of responding to external mandates, such as those from regional accreditations and state coordinating board and legislative initiatives, in a way that maintains faculty ownership and educational integrity.
Multiple-Campus Assessment of General Education: A course-embedded approach

Conversation about assessment as a form of learning seems to have been overshadowed recently by explications of how the academy can satisfy legislative and administrative requirements for accountability. Nevertheless, the power of assessment to bring about real qualitative change seems strongest when it is part of the fabric of undergraduate education. The University of South Carolina (USC) experience provides an interesting case study of using assessment to bring about academic change at several levels: from the individual students in classrooms, to system-wide courses, to the entire general education program. It also illustrates the use of qualitative and quantitative data for understanding these processes. This project enabled university faculty to collaborate across disciplines and campuses in re-conceptualizing general education abilities, and to collaborate across campuses within disciplines in developing modules that embed assessment in the teaching of general education courses. It also illustrates the possibility of responding to external mandates, such as those from regional accreditations and state coordinating board and legislative initiatives, in a way that maintains faculty ownership and educational integrity. Faculty and staff involved in this project experienced first-hand many of the lessons learned and mentioned in the assessment literature over the past 15 years.

Context: USC’s general education assessment project grew out of campus teaching improvement initiatives in the late 1980s and the need to institute a system-wide assessment plan, identified by the 1990 Self Study process. Previously, each of the campuses was accredited separately. The Self Study accredited the Columbia campus and the two-year campuses together as a system for the first time, but suggested that the university needed to clarify the meaning of “University System.”

Although all eight campuses included USC in their names, they were quite distinctive. The Columbia campus, located in the center of the state, serves about 26,000 students, including graduate and professional schools. The two four-year campuses offer bachelor's degrees and a few master's degrees;
function as essentially independent institutions, with their own programs and general education curricula; and have faculty who are fairly autonomous. In fact, they are so autonomous that one four-year campus "seceded" from the System during the course of the project. (Originally the System was comprised of nine campuses, and faculty from all nine campuses remained in the project, even though the System was reduced to eight.) The "Regional Campuses" offer the first two years of baccalaureate education and also function as "learning centers" that provide the resources of the USC System to students throughout the state. These campuses share a general education program with Columbia, although in actual practice the content and delivery of the courses varied significantly from campus to campus. With more than 800 students transferring between campuses each year, there was some concern about course equivalence.

The legislature had just passed the first accountability bill, which required the state institutions to report on 17 aspects of higher education. USC had just completed its first iteration of a comprehensive strategic planning process; the Self Study had just been completed; and a new president had taken office. One of his first tasks was to develop a consensus regarding the definition of the new USC System. This was difficult, both conceptually and politically, because each campus had its own local board, in addition to the overall University Board of Trustees. The campuses were tied structurally to Columbia, but politically and financially they and the state legislators were strongly influenced by the local groups. Local supporters of the campuses, as well as some of the faculty and staff, strenuously objected to a more precise definition of the "University System" if it meant more control coming from Columbia. At the same time, others saw more coordination as highly advantageous.

**Purpose:** This project was funded through a three-year grant from the Fund for the Improvement of Post-Secondary Education (FIPSE) and the University Provost's office. The overriding goal of the project was to institute assessment of general education across a system made up of nine campuses that differed in size, mission, faculty-reward structures, and types of students served, and which would be owned by faculty, inform teaching practice, and help clarify the ways that the campuses
actually comprised a system. When the project was instituted, communication between faculty at the various campuses was rare. There was very little ongoing assessment of student learning; most assessment activities were one-time summative efforts, and there was no assessment across the system. Although the campuses shared a cafeteria-style general education curriculum on paper, the definition of “system” was fluid, at best. There were no models on which to base system-wide assessment, so one purpose was to develop a model for assessing general education that would be useful to the USC System and to other multiple-campus systems as well. To do so, we were guided somewhat by living-systems theory, which suggests that when one part of an organism changes, all other parts and the organism as a whole, also change. This theory also suggests that, the more complex the system is, the more likely it is to disintegrate, and the stronger the need for integrative mechanisms to maintain it.

Other goals were to ensure coherence in courses with identical or similar titles across the nine USC campuses, to empower faculty, to improve relationships among faculty across campuses, and to develop teaching modules that could be used in a variety of settings to improve student learning.

**Process goals:** An important goal for the project was faculty development. We wanted the processes used in the project to result in other, ongoing processes that would encourage interaction among system faculty. We wanted a process that would, in itself, be valuable to faculty and that would be consistent with the goals and values of faculty regarding teaching and learning. We hoped that this would include a new understanding of collaborative learning. Other important process goals were to increase faculty knowledge of classroom assessment and to disseminate assessment information throughout the system; to train faculty to serve as assessment resource people on their home campuses; and to improve faculty collegiality across the system.

A Project Advisory Committee, with representation from most general education disciplines and most USC campuses, advised the project directors in the initial phases of the project and helped emphasize the system-wide nature of the project. They also helped devise a process for selecting
participants. The grant award was announced, and the project was publicized through mailings, posters and newspaper articles. Interested faculty applied through their department chairs, who recommended to their deans those they considered outstanding, well-respected faculty committed to teaching. The advisory committee assisted in making the final selection.

The selection of the course as the focus of assessment led us to base our workshops around the methods developed by Pat Cross and Tom Angelo (1988) and the work done by the faculty of Alverno College (1985) in Milwaukee. The classroom research activities suggested by Cross and Angelo were chosen because they provided opportunities for faculty to envision conducting research on their own classrooms. Assessment conducted in this manner addresses two major objections often voiced by faculty in early encounters with assessment: one, that assessment would be used against them, and two, that "they" could be interfering in "my" classroom. Also important was the fact that the information gained is clearly and immediately useful to faculty in their teaching. We tried to incorporate this approach into the more radical vision of Alverno. Assessment as conceptualized at Alverno College appeared to offer the greatest potential for improving student learning and creating structural change within the university. We believed that, in order for faculty to value assessment as an educational activity, they had to understand assessment as learning. In order for teaching and learning to become a basis for structural change, they also had to be the subject of public conversation, and the Alverno approach to assessment seemed to require that. The Alverno faculty had successfully integrated content and assessment process, a concept important to making assessment part of the fabric of undergraduate education. We chose two Alverno faculty, one English professor to work with the two humanities groups, and one biology professor to work with the math and science groups, to be the primary project consultants. With their help, the project plans were drawn up and carried out.

Introductory courses in English, history, mathematics and biology were selected for the project because they satisfy the core curriculum requirements for all programs on all university campuses. A
total of 60 faculty members were selected to participate, including at least one faculty member from each of the four disciplines on each of the nine campuses. The three-year project was planned around three, four-week summer workshops, with half the selected faculty participating one year, half the next, and all 60 the third. Faculty participants received a stipend roughly equal to what they would have earned teaching summer school, because we realized that this opportunity also had a cost which would have been prohibitive for many. As it turned out, several faculty participated all three years, and more would have if there had been more spaces.

Baseline data: Participants were asked to discuss the course with others on their campus who taught the same class or were closely involved and to send, before the first meeting, their consensus about the goals of the course. These were compiled and used as context during the opening retreat. They also brought their course syllabus. Before the project began, all participants were surveyed regarding their understanding of the role, goals, and content of the courses, and well as their understanding of the project and their reasons for participating. We used the Briarcliff Scale to record their perceptions of the work of faculty on the other types of campuses, including how faculty members spend their time and their attitudes toward teaching. Also, we interviewed students then enrolled in the introductory courses on all the campuses, regarding their goals, expectations and experiences in taking the courses.

Method: Faculty worked together for four weeks during the summer. The first two summers began with an intensive three-day retreat at a beach resort. During the remainder of the four weeks, the participants worked every afternoon and some mornings in Columbia, where part of a classroom building (including five classrooms, a computer lab, and an impromptu assessment library) were dedicated to the project. The mornings were spent in the library, visiting relevant University facilities, or working individually. That structure gave the project staff time to prepare for scheduled speakers, to develop or collect needed materials, and to attend to other project management activities.

The data collected from faculty and students, along with the university’s newly proposed goals
for general education, provided some context for connecting the new assessment ideas with existing curricula and courses during the retreat. Consultants from several public institutions, along with the Alverno consultants, set the stage and introduced faculty participants to this approach to assessment. During the retreat, faculty worked mainly as a whole, using the core curriculum/general education program as a common focus. Our major goal for the retreat was to communicate the Alverno concept of assessment and to provide a setting not tied to any particular campus, where they could have time to get to know each other. Faculty modeled the entire process they were to use during the rest of the summer workshop and gained some experience in collaborating, articulating desired learning outcomes, developing criteria, self-assessing, and integrating the assessment of general education abilities and skills with academic content. We had asked the faculty to keep journals during the summer and to hand them in at the end of each week. By the end of the retreat, we obviously had their attention. They described the retreat as “very fruitful as well as fun,” “more productive than I ever thought it could be,” “excellent,” “perfect,” “exciting,” and other equally positive terms.

For the next several weeks, these faculty worked together by discipline to redesign their courses in ways that specifically addressed general education abilities and goals, and included explicit assessments of those abilities in the course context. By the end of the first week, they found that actually trying to transfer the ideas they had encountered into their own courses was difficult. Some had trouble working as a group, and there were predictable disciplinary differences in this regard. In their journals they reported being exhausted, frustrated, intrigued, skeptical, resistant, angry, feeling inadequate, i.e., “you want us to invent a rocket and we can’t even spell it!” Some were excited and cautiously optimistic at that point, but they lacked confidence in their own authority to proceed. As project staff we were intentionally non-directive because we wanted the faculty to make their own ideas and understandings explicit, rather than trying to “get it right” by addressing our expectations. Although this was a source of consternation for a few, most appreciated our continually recognizing their authority.

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Most of the disciplinary groups chose to incorporate assessment of written communication, oral communication, and either small-group communication or critical thinking into their courses. The use of collaborative learning was common to all of them. The Alverno consultants visited twice each summer. In addition, several consultants met with the discipline-based groups about assessing their particular academic area, or with the entire workshop group on a more general aspect of assessment.

The workshops included reading, research, and long and intense conversations about curriculum, teaching, and learning. After feeling frustrated and disoriented the first week, by the end of the four weeks, faculty were intellectually challenged and excited about the implications of assessment for profoundly changing their teaching. They left the workshop with at least part of their courses redesigned and with the tools and confidence to incorporate assessment into their classes. And, in fact, some faculty members had redesigned all their courses to incorporate assessment.

At the end of each summer workshop, participants conducted a series of presentations and poster sessions for invited deans and department chairs, the provost and associate provosts, faculty colleagues, and others. One purpose of this presentation was to provide practice in communicating the important concepts of assessment to others who had not been so deeply involved. We also wanted to promote understanding of the project and of the excitement it had generated, among the larger university community, and to provide public recognition for the accomplishments of the participating faculty in improving teaching.

Faculty kept journals during the summer workshops and into the following year. The journals were extremely helpful. Not only did they provide a clearer understanding of what individuals were learning and thinking for project staff to use the following week, or to improve the program the following summers, but they were also a useful way to document changes in understanding over time. At the outset of the project, some administrators found themselves unwilling to say the word “assessment” out loud. They were afraid that faculty would reject the project out-of-hand if it was presented as an
assessment project. The administration wanted assessment to "happen" while they also wanted to avoid being associated with causing any negative reactions. The journals and interviews made it clear that faculty are profoundly interested in teaching and in improving student learning, and that the processes by which they are engaged in assessment as the bases for that improvement really do matter. Many of them had become used to administrative requirements for change which were simply announced, and to which their responses ranged, predictably, from outrage to feeling undervalued and discounted like unimportant drones by bureaucratic know-nothings. From the journals it became evident that the faculty appreciated being respected as creative collaborators in the change process.

The Other data were collected from both faculty and students in the revised courses, including videotapes of some of the classes being taught using the new modules. The differences were obvious. The faculty from the first group re-convened in February to exchange information about what was working and how, and what needed to be revised. Their reflections on the previous summer were used to modify the subsequent summer workshop. The following year, we repeated this process with the other half of the 60 faculty. By the third year, all the participants had been through an entire cycle of creating and using the modules and practicing both assessment and collaborative learning in their classes.

During the third summer, most of the participants from the previous two years worked together. Originally we had planned for the first-year group to develop modules for about a third of the course, the second-year group to develop another third, and the third year, a team selected from the first two years would complete the modules for a course. Interest in working on the project the last year was so high that we included the entire group and reduced the time to ten (full) days. The disciplinary groups were given the task of taking the modules designed the first two years and, based on student response and their own experience using the modules, keeping or modifying the best and discarding others. The weakest area of the draft sets of modules was the criteria for assessing student performance, so the Alverno consultants and project staff provided additional training in that area. After two weeks of intensive work
and editing, the faculty had produced 70 instructional modules for the targeted courses.

The work of the four disciplinary groups has been published in a single volume containing the course modules in a format that can be easily adapted by others, both at this university and elsewhere. The biology group's modules are also being published as a lab course manual. Their instructions about what a module might be had been intentionally vague, because it was anticipated that their shape would depend on the subject matter, the needs of the courses, and the rhythms of the faculty member's own teaching. The resulting module formats are consistent within disciplines, but their organization and presentation varies between disciplines. They can be used in classes of different sizes and with students varying in ability. Locally, use of the modules and faculty discussions have resulted in far greater course comparability and assessment across the University than existed at the outset of the project. On each of the eight campuses, faculty who were involved in the project have done presentations for other faculty about assessing general education and about the work they did in the FIPSE project.

Results: We collected data on all aspects of the project during the course of the three years. We were interested in what and how faculty learned; some of those data were from individual interviews and faculty questionnaires, some were from group interviews by discipline and questionnaires on certain aspects of the program. A final questionnaire evaluating the entire program, addressed several of the project goals. Their overall evaluations were highly positive. Comments indicate that, in addition to assessment, they learned new teaching methods, become more sensitive to their own expectations regarding students and to involving students in learning. About three-fourths said they now talk more or in greater depth with System colleagues as a result of the project, although the data suggests that the communication in primarily with project participants, rather than System faculty in general. The transcribed interviews provide evidence in depth about the major paradigm-shift that resulted for most of the faculty.

An important project goal was the breaking down of barriers and stereotypes. Our
participant/observations of the processes convinced us that the expected status barriers either did not exist or were, at least, not operational during these workshops. The ideas and work came from faculty at all campuses and all participation seemed to be equally valued. To evaluate this in another way, faculty completed a scale developed at Briar Cliff College, which assesses perceptions of positive teaching/professorial characteristics. The eleven items measure the extent to which:

1. Courses are revised,
2. Professional journals are read
3. Students are encouraged to adopt alternate perspectives
4. Issues in other fields are followed
5. Student participation is encouraged
6. Active learning is modeled
7. Critical thinking is encouraged among students
8. Connections among fields of study are made
9. Professional scholarship is sought
10. Teaching skills are refined.

Participants completed the scale before and after each of the first two summer sessions. They evaluated their own campus, and what they thought a faculty member on two-year, four-year or the Columbia campus was like. Three ratings were thus obtained: a self-rating, and ratings for the two kinds of campus settings that were different from their own. Table 1 lists the Briar Cliff summary scores for the baseline versus post-workshop perceptions of faculty for whom both administrations were available. Table 1 shows that the expected changes did occur, but only for the two-year campus faculty rating the four-year campus faculty. Interestingly, all faculty rated themselves (or their own campus type) higher than the other two, both before and after the project.

Table 1  Summary Scores on Briar Cliff Scale (means)
### Ratings of 1992 participants

<table>
<thead>
<tr>
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<th>N</th>
<th>Baseline</th>
<th>Post-workshop</th>
<th>Difference</th>
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<tr>
<td><strong>Self</strong></td>
<td>22</td>
<td>37.00</td>
<td>37.08</td>
<td>.08</td>
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<tr>
<td>2-year about</td>
<td>11</td>
<td>33.45</td>
<td>34.73</td>
<td>1.28</td>
</tr>
<tr>
<td>Columbia</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2-year about</td>
<td>10</td>
<td>31.80</td>
<td>34.58</td>
<td>2.78*</td>
</tr>
<tr>
<td>4-year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Col &amp; 4-year</td>
<td>9</td>
<td>31.67</td>
<td>32.00</td>
<td>.33</td>
</tr>
<tr>
<td>about 2-year</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

### Ratings of 1993 participants

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Baseline</th>
<th>Post-workshop</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self</strong></td>
<td>22</td>
<td>33.59</td>
<td>38.18</td>
<td>-.41</td>
</tr>
<tr>
<td>2-year about</td>
<td>12</td>
<td>35.25</td>
<td>36.75</td>
<td>1.50</td>
</tr>
<tr>
<td>Columbia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-year about</td>
<td>12</td>
<td>36.17</td>
<td>37.44</td>
<td>1.16</td>
</tr>
<tr>
<td>4-year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Col &amp; 4-year</td>
<td>9</td>
<td>38.00</td>
<td>37.43</td>
<td>-.57</td>
</tr>
<tr>
<td>about 2-year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant differences at alpha=.10 (two tailed)  
Note: Higher scores indicate more favorable perceptions. Both years, not all participants rated their own types.

The evaluation of the modules themselves provides another indication of faculty learning. In
surveys conducted after the final summer, faculty reported that the modules are useful, very good-to-
excellent products, adaptable to different teaching situations, and effective based on student feedback. 
Others note that the modules are always open to improvements over time. The modules for each 
discipline were evaluated by two external reviewers to provide additional perspective, and while they 
made minor suggestions, generally rated them as a “rich resource.” The faculty using the modules 
reported that the first time around, class preparation and evaluation of students required more time, but 
that students’ attitudes and attendance improved, student anxiety decreased, and more students 
participated actively in the learning process.

Student learning with the modules was assessed by a comparison of students who took the course 
incorporating the modules with those taking the traditional course, faculty estimates of student learning 
and observations of behavior, and analysis of specific course data submitted by faculty. Before the 
project began a small random sample of students taking the courses to be targeted by the project were 
surveyed to represent a baseline of how typical students viewed these courses. About 77 percent were 
moderately satisfied with the courses and 12 percent reported little or no satisfaction. The majority 
thought that course objectives had been met, but several indicated that course objectives, especially in 
English and history, were not clear.

During the first fall semester in which the modules were used, 140 students were surveyed. 
Course satisfaction with the revised courses was 89 percent, and only 1.4 percent reported little or no 
course satisfaction. About 95 percent of the students indicated that they learned as much or more than 
they expected. Following the second summer session in 1993, student questionnaires were completed by 
516 students in 25 “revised” courses. Questionnaire items 1, 6, 7 and 9 were analyzed separately, while 
to simplify the analysis and reporting, items 2 through 5 were combined into one summary factor, 
because all deal with student opportunities to demonstrate what they have learned; items 10 through 26 
were combined into another summary factor because they reflect various skills acquired and other course
outcomes. The principal components factor analysis yielded an eigenvalue of 2.06 and 9.90 for Factors one and two, respectively. In particular, item 21, dealing with confidence in remembering the material learned loaded highly on Factor 2.

Table 2 Summary Data from Student Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>N = 516</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent are course objectives met? (1 = completely, 5 = not at all)</td>
<td></td>
<td>1.67</td>
<td>.81</td>
</tr>
<tr>
<td>How much did you learn? (1 = great deal, 5 = less than average)</td>
<td></td>
<td>1.98</td>
<td>.94</td>
</tr>
<tr>
<td>How satisfied are you with your involvement? (1 = completely, 5 = not at all)</td>
<td></td>
<td>1.90</td>
<td>.99</td>
</tr>
<tr>
<td>How satisfied are you with instructor involvement? (1 = completely, 5 = not at all)</td>
<td></td>
<td>1.49</td>
<td>.84</td>
</tr>
<tr>
<td>Opportunity to demonstrate learning (factor score) (1 = great extent, 3 = little extent)</td>
<td></td>
<td>1.35</td>
<td>.48</td>
</tr>
<tr>
<td>Acquisition of skills (factor score) (1 = high, 5 = low)</td>
<td></td>
<td>2.49</td>
<td>.91</td>
</tr>
</tbody>
</table>

The means and standard deviations for items 1, 6, 7, 8, and 9 and for the two factors mentioned above are shown in Table 2. Not shown in the table are the two items that stand out on factor 2, acquisition of skills, is that 85 percent of the students reported that they could see a clear relationship between course objectives and content, and 89 percent reported that they were given immediate opportunities for feedback on course objectives. The data in Table 3 compare the results of an additional administration of the same questionnaire to two control classes, one in English and one in calculus, taught by faculty not involved in this project using their normal methods. They are compared with students from the revised courses taught on the same campus using the modules. Table 3 indicates that
students in the modular classes see the instructor as more involved than students in the traditional classes, but otherwise no other means are significant. The students in the revised classes also rated the courses higher on meeting their objectives, learning more, instructor involvement, and acquisition of relevant general education abilities and skills.

Table 3  Ratings on Student Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>All Module Students (n = 516)</th>
<th>Matching Module Students (n = 37)</th>
<th>Control Students (n = 42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives Met</td>
<td>1.67</td>
<td>1.84</td>
<td>1.93&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Learning</td>
<td>1.98</td>
<td>2.16</td>
<td>2.29&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Satisfaction with their involvement</td>
<td>1.90</td>
<td>1.87</td>
<td>2.17</td>
</tr>
<tr>
<td>Satisfaction with instructor involvement</td>
<td>1.49</td>
<td>1.43</td>
<td>1.76&lt;sup&gt;a,b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Demonstrate learning</td>
<td>1.34</td>
<td>1.58</td>
<td>1.32</td>
</tr>
<tr>
<td>Acquire skills</td>
<td>2.48</td>
<td>2.73</td>
<td>2.78&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> mean group differences significant at p < .05 by t-test, matching students versus controls
<sup>b</sup> means group differences significant at mean p < .05 by t-test, all students versus controls

Other comparisons (which usually involved either one faculty member or two on one campus, and can't be aggregated for reporting purposes) of classes using the new and old course formats showed that the new formats resulted in equal or higher student grades, higher satisfaction for both students and faculty, and better information about students' abilities to apply what they learned in other settings. In the calculus course, for example, faculty put much less emphasis on lecturing and multiple-choice testing, and much more on interactive learning methods and written reports, so that students actually demonstrated their ability to communicate quantitative information effectively, both orally and in
writing, in the context of mathematics. Faculty report, and their syllabi show, that they are now more concerned with depth and are sometimes willing to forego breadth of coverage to ensure student learning. Students are gaining experience in assessing their learning using the criteria made explicit to them throughout the course.

Videotapes show students working in groups, with faculty coaching. Within the groups, when lectures were used, the students felt sufficiently confident to ask questions, and others felt confident in providing answers for each other. Faculty who compared written or oral demonstrations of student learning in these courses with productions of students in their “before” courses, found that their students’ work was more thoughtful and more accurate and showed more depth of understanding. By applying theory to practice, talking with their colleagues on their own campus and other campuses, and listening to students, the FIPSE faculty developed a sense of what would work to improve both student learning and their own teaching.

The most important results of the project are not the products on paper but the changes in faculty teaching and in the understanding of assessment as an important intellectual and educational activity. Judging from the journals and interviews conducted over the course of the three years, the FIPSE project was, indeed, an important form of faculty development. Those whose departments were not initially involved have requested to become involved in the next phase.

Use of Findings: Faculty who participated in the project indicate that they now spend more time talking about teaching with colleagues on their own and other campuses. Many now systematically self-assess their own teaching and integrate student feedback obtained during the courses into their teaching throughout the course. They almost unanimously report that they have a new energy for teaching. A few have mentioned concerns that students who are accustomed to passive learning in lecture situations find this approach to require too much work, and worry that the fact that some of these students have transferred into more traditional sections may not reflect well in their teaching evaluations. However,
they expect this concern to diminish as more faculty adopt the model.

Aspects of the project are being replicated within other departments on all USC campuses; several of the project participants have become the assessment specialist for their department. One department chair requested workshops for the entire math department, because the FIPSE project participants were so far ahead of the rest of the faculty. Another said she dreaded teaching the part of the course for which there were no modules because both she and her students found it boring in comparison. The importance of administrative support for assessment has been reported elsewhere, and was clearly illustrated in the project through the differences between the nine campuses. The extent to which the effect of the project spread throughout the faculty of an entire campus depended, to some extent, on the chief academic officer’s enthusiasm. But the when that was president, the willingness of non-project faculty to initiate conversations about using this kind of assessment was evident.

Another result of the project is the new respect faculty have for individuals on other types of campuses. This was an important goal of the project, the achievement of which has been verified by observation, self-reports of behavior, and changes in attitudes as measured on the Briarcliff Scale. The regional-campus faculty, the four-year campus faculty, and the research-campus faculty were equal partners in this endeavor. Faculty deeply value the opportunity to spend time in serious conversation about teaching with their colleagues, and universally lamented that this experience was unique in that regard. They found the project intellectually and personally rewarding.

It was evident that the integrative function, in the form of coordination on the part of some individual or office, is needed to make it work. Especially in cases where collaboration is not the norm, we found that faculty from various System campuses are quite willing to work together if someone else provides the occasion. The primary staff for the project were in the Office of Institutional Planning and Research, which regularly plays an integrative role through the planning process and the development and distribution of information. The project manager was also the Director of Assessment for the
Columbia campus, and as a result of this project, that role has expanded considerably. It also provides the opportunity and challenge of trying to apply this course-level assessment model to an entire program. In the realm of institutional effectiveness reporting to state agencies, the results of this kind of assessment are difficult to report, yet their very richness suggests that they may be more compatible with the nature of general education than are standardized tests. We may need several more years to understand the real results of this project. In the meantime, attempts to use standardized tests and other out-of-class approaches have only served to highlight the authenticity and benefits of the assessments gained through the project.

The integrating effect of the project can be seen in other small ways. There is now coordination of assessment at the system level, and in the everyday life of the Columbia campus, where most System administrative decisions originate, people are more likely to remember that “the faculty” is all across South Carolina. They are more likely to include representation from other System campuses on committees as a matter of routine. The university’s Assessment Advisory Committee has used a similar process to develop criteria to assess general education broadly, and the model and process used in this project is continuing with support from the Provost’s Office. The committee is currently the most broadly representative one on campus, with an active member from every college and school on the main campus and at least one active member from each regional campus. Several members of the committee were participants in the FIPSE project and brought valuable insights to the process of developing assessments of general education at the institutional level.
References
