

Teagle Grant
March 29, 2005

Measuring Intellectual Development and Civic Engagement through Value-Added Assessment

A collaboration of six highly selective, liberal arts colleges proposes an assessment research project to measure the impact of general-education programs on student achievement in several skills and dispositions. We seek to assess our common claim that a liberal studies curriculum along with rich and varied co-curricular activities transform students intellectually and prepare them for lifelong engagement in their communities. Further, the project will develop or refine methods for doing value-added assessment among multiple institutions on a collaborative basis. The collaborating schools are Alma College (Alma, Michigan), Augustana College (Rock Island, Illinois), Gustavus Adolphus (St. Peter, Minnesota), Illinois Wesleyan University (Bloomington, Illinois), Luther College (Decorah, Iowa), and Wittenberg University (Springfield, Ohio).

We will explore skills and dispositions central to college education and to the liberal arts: writing, critical thinking/analytic reasoning, and civic engagement. Though the consortium institutions state these goals in different ways, we all aim to educate students to become clear and effective thinkers, to communicate effectively, and to productively engage with the world. This connection between intellectual development—particularly consideration of multiple perspectives—and awareness of larger moral and social issues has long been addressed in the literature (Perry, Belenky, Clinchy, King et al) and will be a major emphasis of our research.

Because the curricula of the members of the consortium vary significantly, we have a superb opportunity to measure which approaches to teaching these core general-education skills and dispositions lead to greater student gains. Through this value-added assessment, we will also discover what types of assessment best measure practices of colleges within and beyond the consortium.

The grant is of particular interest to the collaborating institutions because we have been working to create in this group a continuing consortium of highly-selective, Phi Beta Kappa, liberal-arts institutions in the Midwest. The collaborative effort for this grant, in which the institutions will work together to learn more about how well they educate their students, will serve as a critical early step. The faculty expertise and the rich resources of member schools—Luther College's Round Table Room for long-distance group facilitation is an example—will assure the success of our work on value-added assessment.

Approach to Exploring Value-Added Assessment

Our assessment project will use Alexander Astin's input-environment-output model as a framework to delineate and control for input effects and to help us identify environmental factors that most readily lead to student growth. Further, within this framework we will use both direct and indirect measures of student growth, with much of the direct assessment undertaken by faculty evaluators. We will also draw on the expertise of colleagues from student services and student programming on each of our campuses.

Indirect Measures

For indirect measures we will coordinate the use of national surveys already familiar to and being used by most of the schools in the consortium, and where, in most cases, consortium reports can be obtained. For Input we will use the following standardized instrument:

- CIRP Survey of entering first-year students with the College Student Beliefs and Values (CSBV) option as well as locally collected demographic and academic profile information.

For Environment (and some Output), we will administer the following instruments:

- National Survey of Student Engagement (NSSE);
- Faculty Survey of Student Engagement (FSSE);

For Output, we will administer:

- Your First College Year (YFCY);
- College Student Survey (CSS) (seniors);
- Higher Education Data Sharing (HEDS) Alumni Survey.

The CIRP, YFCY, and CSS are all HERI instruments with repeated questions that will allow value-added analysis of changes in values and behaviors, as well as self-assessment of academic and other personal growth.

Direct Measures of Student Achievement

For direct measures of student learning, we will use two approaches that can cross-validate each other, one with a nationally-normed instrument, the second with a novel form of local assessment.

1. To assess student gains in writing and critical thinking/analytic reasoning, the grant will use the Collegiate Learning Assessment (CLA). The grant offers the consortium institutions an opportunity to use what we see as a quality instrument whose open-ended writing assignment approximates real-life problems better than multiple choice instruments alone. Naturally, we hope our use of the CLA by the consortium will help the Council for Aid to Education build a wider user base.

2. Our second direct assessment method is a relatively unique approach which will bring faculty together from the consortium institutions annually to assess representative student work from all institutions. In year one, for instance, we will assess writing: each school will collect representative samples of first-year and senior-year research writing or a small portfolio of writing (the collection protocols will be worked out in the first summer meeting of collaborating schools.) All information identifying the student and institution will be removed, and each paper/portfolio assigned a discrete code. Following training, faculty from all of the institutions will read the work using a rubric approved or created by the consortium (again, work for this summer). Following data tabulation and analysis, each school will receive scores that show how well its students have done, whether there were gains from first-year to senior year, and how the institution compares to other consortium schools.

Cycle of Assessment Research Activities

Year One As described above, the consortium schools will assess writing quality. Consortium schools will meet in Summer 2005 to plan for writing assessment and to start work on the assessment work of years two and three. By the summer of 2006 we will have CLA scores for first-year students and seniors and direct assessment scores by consortium readers. These data will help us to begin to identify schools providing more effective writing instruction, which will then be possible candidates for follow-up work

Year Two. During the second grant year, we will analyze student work to assess critical thinking/analytic reasoning. The CLA will provide a direct measure of this skill. Faculty will collect student work and, using a rubric, assess students' level of critical thinking and related

dispositional traits. We will explore critical-thinking rubrics used by other institutions, though we will develop our own if available rubrics do not meet our needs. In the second year, we will also begin to explore the relation of writing quality to critical thinking. It is an academic truism, though one not often examined, that clear writing and clear thinking are interrelated. However, a 1999 analysis of entry-level and junior writing samples by researchers for the University of Washington's Critical Thinking Project found a statistically significant inverse correlation between writing quality and critical thinking. By examining writing quality and critical thinking together, our consortium seeks to determine more precisely the relationship between perceived quality of writing and clarity of thinking, as well as whether educational approaches at particular institutions more effectively foster growth in both.

Year Three. For the final grant year, we will explore civic engagement in light of our findings on writing and critical thinking. Because civic engagement is not a form of student development that can be assessed by collecting course work, our primary measures will be indirect and will include tracking student engagement in volunteer work and service learning, as well as gauging changing student awareness of the ethical and social issues related to that engagement. Based on findings from research that address which kinds of activities contribute to student growth, the grant steering committee will create a model of civic engagement. Using the YFCY, NSSE, and CSS, we will determine in what areas students report growth (e.g., greater interest in social issues and racial equality, lower materialism, etc.). In addition, the consortium will use the HEDS Alumni Survey in conjunction with optional questions to measure post-graduation civic engagement. Because our institutions foster civic engagement in different ways, ranging from offices that encourage volunteer work to requirements for community service, by grant's end we should be better able to explain how intellectual gains and civic engagement relate and which approaches work best. For this stage of the grant, we will draw explicitly on the expertise of the student affairs professionals. By the end of the grant, we hope to offer an empirically grounded model of civic engagement with clearer answers to fundamental questions, for example, whether lowered scores for materialism reported on surveys correlate with greater social awareness and greater participation in the community, both in college and after graduation. Our study can make significant headway toward clarifying these important issues, ones that are central to our vision of the value of the liberal arts.

Throughout the three-year project, we will explore which of our institutions' practices, educational approaches, curricular requirements, and extracurricular and co-curricular opportunities lead to greatest student gains. If we discover schools where student growth is ranked noticeably higher than at other schools, these institutions will be assessed in follow-up work. CIRP, CSBV, and other demographic data will help control for input, and the NSSE, YFCY, and other appropriate instruments (FSSE and the HERI Faculty Survey) will detail environmental factors. The analysis of results will be ongoing, with partial reports available at the end of each grant year and more detailed analysis available in the final year of the grant.

Because the added value measured by CLA is most evident when the instrument is given to first-year students and seniors, we plan the final administration of the CLA in the fourth year, one year after the official end of the grant, thereby gaining longitudinal information concerning student change from each institution. Additional analysis will be part of its ongoing cooperative efforts. We will share any additional insights with the Teagle Foundation in a follow-up report.

Intended Benefits of the Project

This research will help consortium schools determine if added educational value is achieved in several areas central to the liberal arts.

1. The project can identify institutions that excel in an area, thus allowing us to investigate the academic and other practices that contribute to their success. What we learn from our analysis if their best practices may be replicated at other educational institutions.
2. Our research will help us estimate the relative impact of educational techniques—the extent to which gains are achieved via classroom work and via extra-curricular or co-curricular activities; how closely gains in one area are linked to gains in other areas, such as the relation of clear writing with more precise thinking or the relation of students’ intellectual gains with the greater understanding required for meaningful civic engagement; and so forth.
3. The approach will also allow us to contribute to efforts to determine the validity of nationally normed instruments, such as the CLA and the NSSE, and how accurately they predict levels of student achievement. Our study will supplement and move beyond such studies as NSSE’s Project DEEP, which examines the campus practices of schools that were outliers in terms of their NSSE scores. Our approach goes further by investigating whether high scores on the factors said by the NSSE to enhance student learning are evident in student work assessed by direct measures.
4. Through its work on the rubrics and other instruments, the consortium schools may be able more precisely to define specific general education learning outcomes. Our work may establish protocols and methods for how to best conduct assessment, approaches that can be replicated at other institutions.

Although not a central purpose of our research, there are other possible benefits to consortium schools:

1. Because direct assessment with peer institutions is novel, such an approach will likely provide faculty members with a vivid sense of how well their schools are doing. Assessment of such central skills and dispositions may help institutions identify areas where they are doing well and where they need to do better. Such knowledge may spur change in ways that standardized tests and institutional assessment alone might not.
2. Consortium schools may gain a more precise sense of their institutional impact between first and senior years along with a more precise sense of what national test scores mean on their campuses.
3. Conversation related to the assessment work may help schools see better ways to do assessment and may spur ideas for curricular refinements and perhaps even innovation.
4. If the proposed model of collaborative direct assessment proves useful for general education, it could be extended to other skills/dispositions. Also, departments or divisions from consortium schools may pursue similar collaborative assessment work in future years—science departments sharing lab reports or independent research projects; pre-professional programs sharing reports from particular classes, such as upper-level marketing or business writing; or psychology and sociology sharing senior projects, for example. By assessing student work with colleagues from peer institutions, individual departments may gain a clearer sense of how well they are doing and new ideas for their curriculum.