Measuring General Education Learning: A Faculty-Driven, Distributed Network Approach

For three consecutive evaluations by the Aspen Institute, West Kentucky Community and Technical College (WKCTC) has been named a top-ten community college in the nation. This recognition is due in part to the implementation of a challenging yet cooperative strategy that results in high student achievement in learning. Using a multi-pronged approach of (1) inclusiveness and support emanating from the college president and leadership team, (2) developing communication and responsibility among individual and distributed networks of faculty, and (3) creating an effective faculty-administrative assessment infrastructure, significant inroads in using data-driven assessments to improve teaching and learning have been reached. Early on, the WKCTC administrative leadership invited faculty to become intimately involved in the organizational assessment of student learning. Faculty have responded by developing, refining, sharing, and adopting learning measures appropriate for their courses and programs, and as a tenured biology professor, I became one of the faculty leaders for this process.

A Decade of Development

In 2005, WKCTC faculty were asked to write student learning outcome statements to be used for program outcome measures. At that time we asked, what are learning outcome statements? At what level should these statements be developed (e.g., biology, science, general education)? As we asked these fundamental questions, instructors were encouraged to find the answers by attending national conferences. It was imperative leadership be inclusive in strategic development and supportive of faculty professional development for this initiative. Administrative leadership clearly communicated project goals and objectives, which helped with team building and adoption of new activities.

Fiscal limitations at federal and state levels have required educational leaders to plan and implement college strategies with little to no increase in budgets. Legislators are scrutinizing public funding of colleges and expecting more accountability for teaching and learning for the dollars spent. Many students are graduating college weak in essential skills, such as communication and critical thinking, needed in today's society and workplace. Business, as well as legislative and accreditation agencies, also want improved teaching

of these types of skills. By requiring the development of outcome statements along with assessments of student achievement, these outside entities hope colleges will quantitatively demonstrate student learning and use data to improve teaching and learning.

Justification for assessment at WKCTC is based on accreditation and national standards, research literature, and data-informed decision making. Accreditation standards, national conferences, and research data provided the rationale behind general education outcome measurement. How to measure student learning was less clear and the techniques presented at conferences varied. One of the primary challenges was faculty buy in; that is, true faculty involvement in devising effective measures of learning outcomes. How do you ask instructors, who have been effectively teaching students for years, to change their pedagogy? How do you convince them to spend time and effort in collaboration within and across disciplines? In truth, we have not been able to convince 100 percent of our faculty to adopt these strategies, but our college culture has changed, and most, if not all, faculty recognize the goals of assessing learning outcomes and acknowledge the value of faculty collaboration for our students.

A Distributed Network Approach

WKCTC chose to harness the expertise of faculty by organizing a "distributed network" that allows faculty to embrace this process and develop measurement techniques best suited to their individual disciplines and courses. A distributed network is decentralized, or polycentric. Groups of faculty teaching the same course collaborate to develop the outcomes measurements for the course. A typical measure is an embedded assignment in the course, graded based on a common rubric for a written or oral assignment, or a common set of exam questions. A full-time faculty member is given the responsibility as the "course leader" who accumulates the measured data at the end of the semester, coordinates the communication process among instructors to discuss findings, and closes the assessment loop. One of the most valuable aspects of this process has been the multidisciplinary communication network that has formed among faculty through the sharing of experiences, rubrics, and stories about what works and what remains challenging in teaching our students. Our college culture has changed to one in which student learning is emphasized, faculty collaboration rewarded, and administrative responsibilities shared.

A set of focus courses in different disciplines was selected to serve as models for effective embedded

assignments and student learning assessments. The assessment methods used in these focus courses provide the templates for training and dissemination to other courses. Ongoing measures are continuously evaluated by teaching faculty and the list of focus courses expands. Entrepreneurial faculty and those seeking collaboration with others, such as new faculty, readily collaborate and adopt the assessment process. WKCTC's new faculty orientation includes a session on measuring learning outcomes, and the number of faculty participating in the distributed network has grown, thus becoming the norm at our college. Challenges remain as some instructors are not adept at collaboration or fail to recognize the value of assessments. In these cases we have found it important to respect the experience and talents individual faculty members bring to the classroom and work one-on-one with these individuals. The faculty member working alone is now an anomaly. Disagreements and conflicts arise and a few middle managers find it difficult to adjust to lateral communications across the college, but decisions are made based on what is best for increasing student learning.

Administration and Faculty Networks

At the administrative level, the organizational structure of the assessment loop is an ongoing issue. To address this, in 2010, key leaders of Institutional Research and Learning Initiatives created an infrastructure of administrators and faculty named the General Education Outcome Committee (GEOC). I chair this committee with 20 teaching faculty participating in five discipline-based GEOC subcommittees. Each subcommittee chair is a faculty leader who understands administrative strategies and addresses individual faculty concerns. The full GEOC includes subcommittee chairs along with academic deans and high-level administrators who make decisions on subcommittee-based recommendations and dissemination of information. The GEOC evolved from a select group of faculty and administrators working on learning outcomes assessment to a college-wide effort with a mission to help focus college efforts on excellence in student learning. Written procedures outline the structure and responsibilities to provide clarity to all constituents. Along with committee member interaction, intranet digital networks help with the organization and summarization of assessment data. Learning outcomes results are used to formulate action plans for improving each course, and these data are used for responding to faculty requests for resources and to justify academic policy recommendations by the committee. A Learning Outcome eCommunity serves as a repository for outcomes results including annual action plans and is available to full- and part-time faculty, staff, and administrators. Based on a WKCTC faculty survey on learning outcomes, bringing part-time faculty more fully into the process is a current objective of the GEOC.

Continuous Improvement

Ongoing documentation and communication of assessments allow for continuous improvement and identification of problem areas. Data are collected annually in the fall semester for each general education course and data analyses, communication, and refinements occur in the spring resulting in attention to pedagogical improvement by individual teaching faculty. This distributed network approach has contributed to high levels of student learning success as evidenced by internal and external outcomes assessments. Based on a recommendation by the GEOC subcommittees, associate degree candidates are required to take a national learning outcomes exam during their semester before graduation. WKCTC students have consistently met or exceeded national average scores on skills such as math and reading, as well as individual content areas. WKCTC transfer students have met or exceeded term and cumulative grade point averages (GPAs) compared to non-transfer university students for the past five years.

Clear leadership goals, along with trusting in a distributed network of faculty, have resulted in an inclusive organizational structure that is fiscally responsible, transparent, and empowered. With learning outcomes assessment as part of the WKCTC college culture, this organizational structure enhances efficiency in disseminating successful strategies to teaching faculty and findings to other constituents of the college. The WKCTC president leads by example. She communicates college successes and problems and is not above presenting best practices seminars that are typically given by faculty and staff just prior to the beginning of a semester. Faculty professional development opportunities are provided—even in tough budgetary times—by bringing national speakers to campus and through internal seminars.

The entire process from faculty buy-in to administrative tracking of student achievement has not been fast nor easy, but at WKCTC we have been able to turn conflict along with cooperation into positive forces for change with the goal of helping our students. Formal and informal distributed networks are encouraged and supported by WKCTC leadership to foster participation and synergy. We look forward to accepting new challenges, such as identifying effective strategies for student equity, as our college culture of innovation, communication, and assessment networks of dedicated people lends itself to meeting these challenges.

Bobby Ann Lee, *Professor, Biology*

For further information, contact the author at West Kentucky Community and Technical College, 4810 Alben Barkley Drive, Paducah, KY 42002. Email: Bobby.lee@kctcs.edu