

ESTABLISHING A ROLE FOR RESEARCH LIBRARIES IN LEARNING OUTCOMES ASSESSMENT PROGRAMS

by Julia C. Blixrud, ARL Director of Information Services

The ARL New Measures Initiative, developed out of a retreat held in January 1999,¹ is responding to two challenges currently facing research libraries. The first is to demonstrate how research libraries have an impact in areas of importance to their institutions; the second is the increasing pressure to maximize the use of resources through cost containment and reallocation by finding best practices upon which to develop benchmarks for services. Learning and its assessment have become a focus of attention at many academic campuses and the role of the library in teaching and learning emerged early in the retreat discussions as an area in which measures are urgently needed. Retreat participants noted, however, it is difficult to measure the library's contribution since, in many cases, the library is one step removed from the teaching and learning process. How to demonstrate the library's impact in this specific area of importance became a subject of discussion at succeeding ARL meetings.

Subsequently, those interested in this topic agreed that ARL should look for a means to develop a strategy for involving research libraries in campus assessment activities and to demonstrate the value of the library to the learning community. To that end and with the financial support of 16 ARL member libraries, Dr. Kenneth R. Smith, Eller Distinguished Service Professor of Economics and Faculty Associate to the Provost at the University of Arizona, was engaged to prepare a paper on the possible roles that libraries can play in the learning process. Dr. Smith has worked widely in the area of outcomes assessment activities and his paper provides the necessary background information about learning assessment efforts in higher education and offers suggestions for possible action by the ARL community.

While libraries have for some time been engaged in teaching through such activities as bibliographic instruction and have worked with faculty in the areas of information literacy, the results of those activities are based on learning objectives the library often defines for itself. Dr. Smith proposes a closer library collaboration with faculty as they address learning outcomes defined at the department level and the development of a shared model for creating and measuring learning objectives that encourages the integration of library offerings into the curriculum. In particular he notes that "shared need creates opportunity" for the library to become an even more central part of the University learning community since this topic is high on the agenda of many institutions.

As with other new measures activities, the next steps for those interested in this topic will be to create a project to take this effort further. Similar to other ARL New Measures projects, this project may be self-supported, grant-funded, or a combination. Individual institutions are also encouraged to consider the suggestions in the paper, since, as Dr. Smith suggests, this is a time for experimentation.

Following are brief, edited excerpts from Dr. Smith's paper highlighting the current role assessment is playing in learning outcomes in the academic environment and some suggestions for what libraries can do to engage their academic department colleagues in conversation about learning outcomes. The full text of the paper appears at <http://www.arl.org/stats/newmeas/heo.html>.

Endnotes

1. Background information on the retreat can be found at <http://www.arl.org/stats/newmeas/nmbbackground.html>

NEW ROLES AND RESPONSIBILITIES FOR THE UNIVERSITY LIBRARY: ADVANCING STUDENT LEARNING THROUGH OUTCOMES ASSESSMENT

by Kenneth R. Smith, Eller Distinguished Service Professor of Economics and Faculty Associate to the Provost, University of Arizona

The Changing Environment

The relevance of learning as a central concept is that it requires us to focus attention on the student's experience. It requires that we rethink the curriculum, moving from a model in which we package knowledge around the expertise of the faculty to a model based on the learning outcomes realized by students. These outcomes include not only what students know, but also the skills they develop, what they are able to do, and the attitudes of mind that characterize the way they will approach their work over a lifetime of change.

This concept of learning requires a shift in focus from the teacher's knowledge to the student's understandings and capabilities. This shift in focus leads to a new perspective on the development of quality in the academic enterprise. More than anything, it requires the faculty to bring the strength of the research paradigm into the learning process. The high quality of research in American universities is, in part, the result of the central role of assessment in the research process. The best evidence of this value is the fact that, in research, faculty put their assessment activities (peer review, participation on peer panels) on their resumes.

In viewing our mission from the student's perspective, we must constantly ask whether student learning is enhanced by the way we teach, by the organization of the university, by the structure of the academic program, and by the activities of faculty and other professionals. The assessment of student outcomes is a means of focusing our collective attention, examining our assumptions and creating a shared academic culture dedicated to understanding what we are doing and how well we are doing it and to improving the quality of learning that results.

What has become clear is that there is a broader view of the learning outcomes that is necessary for success. It is recognized that universities provide their graduates with an excellent base of knowledge. It is a measure of our success that their knowledge, to a significant extent, does not differentiate among our graduates. Their ability to apply knowledge in new situations, their skills (communication, teamwork, information and technical literacy), and the values and attitudes that affect how they work have become more critical factors in determining how effective graduates are as they apply themselves throughout their careers.

The University Response

To respond to these new expectations involves developing the scholarship of teaching and learning. With an understanding of student learning objectives, the scholarship of teaching and learning identifies critical issues, uses research methods, and applies results to understand and improve learning outcomes.

For over a decade, institutional and professional accreditation bodies have been shifting their attention

from input measures (faculty, courses, books) to outcomes measures (what students learn). Universities and colleges are required to develop and implement a student outcomes assessment program. Assessment requires academic organizations (departments, colleges, universities) to:

- make expectations and standards for quality explicit and public;
- systematically gather evidence on how well performance matches those expectations and standards;
- analyze and interpret the evidence; and
- use the resulting information to document, explain, and improve performance.

More than anything, assessment is a means for organizing a conversation among the faculty and other professionals responsible for an academic program. The objectives of this conversation are to:

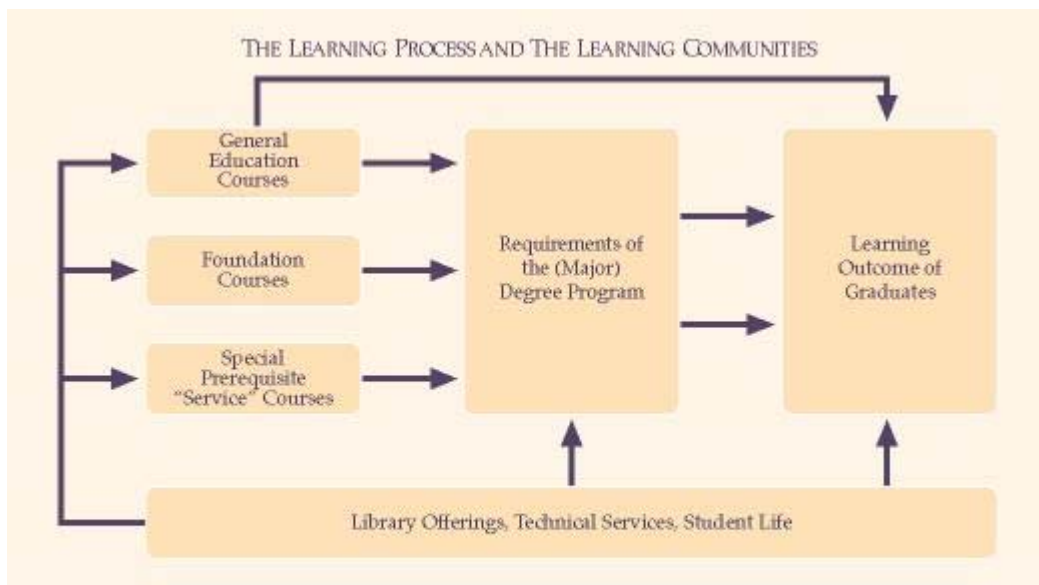
- understand our students;
- determine learning outcomes required for student success;
- identify how the academic program achieves desired learning outcomes;
- measure the extent to which outcomes are achieved; and
- use the knowledge to improve academic programs.

Faculty have always assessed the performance of individual students within their individual courses. The focus of outcomes assessment is on the collective success of the program in developing the competencies of the students in the program. The faculty are being asked to accept responsibility for a broader set of outcomes. To a significant extent this represents a new challenge because, while faculty are knowledge experts, they are not necessarily learning experts.

The focus on learning outcomes leads to a consideration of the learning process and the learning community. Consider the accompanying figure. The learning outcomes represent a set of competencies of the graduate. From the University's perspective, they are achieved as a result of a total experience over a period of four (or more) years. Each element of the educational program contributes, directly or indirectly, to their achievement. Looking at the learning process allows us to recognize the various activities that contribute to learning. On the far left of the figure we see how foundational courses (math, composition, etc), general education courses, and special prerequisite service courses prepare the student for the major. The requirements for the major are designed to produce the learning outcomes necessary for the graduate to be successful. Across the bottom of the figure we see how the program offerings of the library, student life and technical services can contribute to the learning outcomes of the graduate.

Looking at the learning community allows us to consider how faculty, students, and other learning professionals can contribute to learning outcomes. The faculty responsible for the major is in the best position to develop the complete set of learning outcomes, since those outcomes will depend on the specific objectives for the degree program. In doing so they will need to incorporate the outcomes that the faculty of the University have concluded are important for all students. They will also recognize that the department can take advantage of the contributions of colleagues throughout the university.

The American Association for Higher Education's *Principles of Good Practice for Assessing Student Learning*¹ recognize that "student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Faculty play an especially important role, but assessment questions can't be fully addressed without participation by student affairs educators, librarians, administrators, and students....assessment is not a task for a small group of experts but a collaborative activity; its aim is wider, better informed attention to student learning by all parties with a stake in its improvement."



The Library and Student Learning Outcomes

How does the focus on learning outcomes affect the mission of the library? Like other communities at the University, the library must move from a content view (books, subject knowledge) to a competency view (what students will be able to do). Within the new environment, we need to measure the ways in which the library is contributing to the learning that the University values. Like the general education program, the library has a direct and an indirect interest in the learning outcomes for all the students at the University. Like the Physics Department, for example, the library should be able to contribute to the achievement of learning outcomes for various academic programs across the University.

It is useful to begin by asking, within their own expertise and their understanding of what will make students successful, what do library professionals consider key learning outcomes. One potential answer to this question is provided by the *Information Literacy Competency Standards for Higher Education*², approved by the Association of College and Research Libraries on 18 January 2000. As an alternative, I asked two groups of librarians to help me define a set of learning outcomes. My goal was not to achieve a definitive answer but rather to provide an example that would help me discuss how academic libraries might begin to participate in this campus-wide activity. The following list is illustrative of what might be produced in such an exercise.

Student Learning Outcomes

- Become self reliant (comfortable and confident) in information literacy skills including:
 - identifying information needs;
 - finding/locating information;
 - selecting relevant information;
 - assessing and evaluating information;
 - synthesizing information;
 - using information effectively; and
 - presenting information.
- Understand and use the information search process (e.g., Kuhlthau model).

- Understand different formats of information and deal with them effectively.
- Be aware (have an accurate mental model) of the structured nature of information.
- Understand how to evaluate bias and the credibility of information.
- Appreciate the way the quality of information varies along an historical continuum.
- Understand the social/ethical/political/economic implications of information and intellectual property.
- Understand the research process through which new knowledge is created.
- Understand the scholarly communications cycle and its application to scholarly research.
- Become self-confident and comfortable in information-rich environments.
- Develop attitudes of openness, flexibility, curiosity, creativity, and an appreciation of the value of a broad perspective.

Developing a set of learning outcomes will allow libraries to determine the extent to which their interests are aligned with the expectations of other academic communities in the University. They will find that faculty responsible for the general education program as well as those responsible for many of the academic degree programs also are interested in critical thinking, the effective use of information and technology, the search process, and collaborative reasoning.

We have described above how current expectations require consideration of a broader set of student learning outcomes, not simply the subject material of a particular program. We discover that some of these outcomes are common to programs across the University. What students need to be able to do (critical thinking and creative ability), their ability to manage technology and implement an efficient information search, and their skills in communicating and collaborative reasoning are fundamental across many subject domains.

The library can build on a shared view of what are important student learning outcomes. All the individual communities are being asked to prepare students in ways that go beyond their expertise in their fields. It is this shared need to go beyond our traditional focus on what students need to know that creates an opportunity for the library.

Consider for a moment the way in which a department faculty might look at the learning outcomes for their degree program and how they are achieved through the course requirements. Having agreed on what outcomes they believe are important to their graduate's future success, they can ask the faculty responsible for each course to identify the extent to which each outcome is a focus of the course. Collectively, across the curriculum, they can determine which outcomes are covered to a major, moderate, or minor extent. At this point, while they haven't yet assessed how well their students have developed on each learning outcome, they can evaluate whether enough attention is being paid to individual outcomes.

Departments may be very receptive to including in their courses, "offerings" developed and delivered by the library to increase the emphasis on a number of shared outcomes, especially where the expertise of the library complements the expertise of those in the academic programs. By "offerings," we mean units of learning materials designed to develop competency in specific learning outcomes that are considered important by the library and by other academic programs. They are a way to give the library a curriculum (its own set of course segments) and an opportunity to connect this curriculum to other

academic programs.

To be effective, these "offerings" must be incorporated into required courses. Thus, there is a need for the library to engage in a dialogue with departmental faculty in order to identify ways in which they can contribute to the learning outcomes of the academic program. The library must take the initiative in determining what the library has to offer that will help the department achieve greater success in achieving their learning outcomes. It is unlikely that the department on its own will identify the library as a place to turn for help.

To pursue this strategy also requires that the library create new roles for its learning practitioners. To some extent and in some libraries this process of change has begun. Libraries have developed organizational strategies to serve the various academic communities. But the focus to date is primarily on making information more and more accessible rather than addressing specifically the learning outcomes important to student success. The library needs to ask what kind of expertise is required to be actively engaged in the learning process and an effective partner in achieving learning outcomes. It then will be in a position to adapt roles and responsibilities of its professionals to take full advantage of the opportunity.

What works best at this stage is experimentation. At the University of Arizona, we have developed a pilot initiative to learn how to help academic departments respond to expectations for assessment of student outcomes. The strategy was to begin with volunteer departments interested in the assessment of student outcomes, provide them with information and support and make their experiences available to others. Participants agreed that stories and examples are helpful. These stories and examples are being shared through periodic meetings and through the organization of a "tool kit." A description of our tool kit is included in the appendix [to the full paper]. It is important for libraries to understand the processes that are used to define learning outcomes, to select measures, to collaborate with other academic departments, and to use the results to improve their programs. In time, a tool kit will include a composite of best practice ideas that can be adopted by other departments.

As more and more major research universities are successful in using outcomes assessment to improve student learning and to demonstrate the way they are preparing students, it will be important that libraries are an effective part of their campus assessment program. Within the community of research universities, there are a number who are already leaders in the assessment of student outcomes. The University of Colorado at Boulder has almost a decade of experience, a testament to the impact of a mandate by the Governor. Others who are significantly engaged are the University of Wisconsin-Madison and the University of Illinois at Urbana-Champaign.

A Role for ARL Libraries

A pilot process for ARL would involve a number of libraries working through a sequence of activities and sharing experiences in periodic meeting and, more importantly, in a best-practice tool kit. The activities would include:

- Develop learning outcomes from the library's perspective.
- Develop curriculum segments or "offerings" through which the library would achieve the outcomes.
- Understand the learning outcomes of academic degree programs.

- Consider how library offerings can be integrated into academic courses to achieve shared outcomes.
- Identify ways to measure how well outcomes are being achieved.
- Collect data and use information to modify curriculum strategies.

To be successful in this new era, the library must contribute to student learning. This represents an expanded responsibility and a more active role in the learning process. The focus has moved beyond access to content or to tools. What is important is how the library's capabilities can provide solutions that measurably impact the quality of learning. It will require a significant period of learning new ways to participate and new roles for the library professionals. To make this period of learning effective, ARL needs to organize a pilot initiative and share creative solutions with all its members. In this way, member institutions will be better able to turn student outcomes assessment into an important opportunity to make the library an even more central part of the University.

Endnotes

1. The Principles can be found at <http://www.aahe.org/principl.htm>.
 2. ACRL has made the standards available at <http://www.ala.org/acrl/ilcomstan.html>
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LEARNING OUTCOMES WORK IN PROGRESS

ARL libraries working in the area of learning outcomes include:

University of Arizona-Information Literacy Initiative
<http://dizzy.library.arizona.edu/infolit/InfoLit2000/infolit.shtml>

University of California, Berkeley-The Teaching Library
<http://www.lib.berkeley.edu/TeachingLib/>

University of Washington-UWired Program
<http://www.washington.edu/uwired/>

The Association of College and Research Libraries (ACRL) is working in this area, as well, and has received a National Leadership Grant from the federal Institute of Museum and Library Services (IMLS) for its project, "Assessing Student Learning Outcomes in Information Literacy Programs: Training Academic Librarians." The purpose of the project is to give librarians the skills to create baseline data that support the merits of information literacy programs. The \$150,000 grant will fund the training of academic librarians to work with faculty to design, implement, and evaluate tools for assessing student learning outcomes resulting from information literacy courses taught by librarians and faculty.

Also, see ACRL's Institute for Information Literacy (ILL) website <http://www.ala.org/acrl/nili/nilih.html> and ACRL's "Student's Guide to Evaluating Libraries in Colleges and Universities" at <http://www.ala.org/acrl/evalguide.html>.

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