

A FRAMEWORK FOR ASSESSING GENERAL EDUCATION OUTCOMES WITHIN THE MAJORS

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Introduction

The National Center for Postsecondary Improvement (NCPI) surveyed chief academic officers at approximately 1,400 institutions of higher education. The results revealed that an overwhelming majority of schools reported collecting student assessment data such as basic skills, progress to degree, and academic intentions. However, only about a third of the institutions assessed students' higher-order learning skills, affective development, or professional skills (Lazerson, Wagener, & Shumanis, 2000).

In this era of global competitiveness, it is not sufficient for colleges and universities to train students for mere technical competence. What is required for graduates' professional and personal success is additional attention to the development of knowledge, skills, and attitudes that will support them throughout their lives. General education outcomes, as well as technical skills and knowledge developed through concentrated study in a major discipline, must be developed in every college or university graduate.

To better serve students and to address the heightened call for accountability in higher education, institutions must engage in a comprehensive campus-wide discussion on the specific components of critical thinking, problem solving, writing, and the methods to assess these skills (Maki, 2001). This opening article provides a framework for assessing these types of general education outcomes within the major fields of study.

Purposes of Higher Education

Higher education's purpose and its role in society have been a matter of scholarly and public debate since the founding of Harvard in 1636. Thomas Jefferson advocated public education as the means to enable citizens of the commonwealth to sustain their roles in self-government. He also acknowledged the value of literacy and numeracy for the business of everyday life (Onuf, 2000). When confronted with the relevancy of ancient languages and the liberal arts, the authors of *The Yale Report of 1828* took the position that young people should be required to study a variety of topics so that all areas of their minds would be exercised (Cohen, 1998).

In more recent times, higher education has come under increasing scrutiny by politicians, regional and professional accreditation agencies, funders, the media, parents, students, alumni, and the general public. Business leaders assert that most college graduates are not prepared to enter into today's fast-paced global business environment. While some businesses are satisfied with the technical skills developed by graduates within their major disciplines, many business leaders report that recent graduates are deficient in several areas, including written and oral communication skills, teamwork, and the capacity for lifelong learning (Oblinger & Verville, 1998). Employed alumni also complain about poor preparation in a number of areas.

These criticisms from various stakeholders lead to multiple, and sometimes conflicting, goals for institutions of higher education. According to Jones (2002), "Employers are searching for graduates with strong abilities in problem solving, teamwork, communication, and leadership" (p. iii). Faculty members expect students to develop sophisticated intellectual and written communication skills to enable them to explore multiple fields and modes of inquiry and to acquire substantive knowledge within a specific discipline. Many students and parents view college as the "springboard to employment" and want "job-related courses that will prepare [the students] to enter . . . their chosen careers" (National Panel Report, 2002, pp. ix, 8).

A highly educated population is viewed as the key to economic growth and a stable society. It has been estimated that eighty percent of the jobs in the United States within the next twenty years will be

cerebral and only twenty percent manual – the exact opposite of the ratio in 1920 (Oblinger & Verville, 1998). Oblinger and Verville (1998) call for an educational environment that will develop successful intelligence, moving beyond analytical acumen to include creativity and practicality. As Chickering and Gamson (1991) explain, “the dramatic changes in social conditions and economic requirements make effective postsecondary education a critical requirement for effective citizenship, productive work, and global competitiveness” (p. 1). Institutions of higher education must promote the development of students’ general education outcomes and disciplinary expertise as complementary and mutually reinforcing to meet the diverse requirements of contemporary civilization.

State legislatures are demanding concrete outcomes in exchange for their budget allocations. Peter Ewell (1991) explains that in the mid-80s state officials viewed higher education as a public utility providing a public service to its citizens who desired to advance their careers or improve their quality of life. Legislators now view higher education as a strategic investment that bolsters a state’s economy and infrastructure by developing manpower and attracting new industry. From this perspective, Ewell (1991) points out that accountability is evidence of a tangible return on investment.

Role of Assessment

The call for accountability in higher education has led to a sweeping movement to assess student learning on institutional, state, and national levels. In 1988, then Secretary of Education William Bennett issued an executive order that mandated assessment at institutions of higher education in the United States. The edict requires accrediting organizations receiving federal funds to include “evidence of institutional outcomes” in the criteria for accreditation of colleges and universities (Palomba & Banta, 1999).

In compliance with this directive, accrediting organizations require institutions of higher education in the United States to undergo self-evaluations accomplished through assessment: a process that critiques programs of study and measures student learning. Several professional accreditors also require evidence that

undergraduates can link technical knowledge with appropriate values and attitudes and that they have developed abilities such as critical thinking, interpersonal skills, and professional ethics (Hagerty & Stark, 1989).

Susan Hatfield (2001) explains that it is no longer sufficient for institutions of higher education to merely assert that their educational process has resulted in student learning. Instead, accreditors are asking for documentation that supports the claim that students have indeed achieved the desired learning goals. Assessment is a process that provides this documentation, and more importantly, leads to institutional strategies that improve student learning.

General Education

Traditionally, general education programs included a variety of introductory courses from several academic departments viewed as foundational courses for specializations or majors. However, the idea that simply taking a sampling of courses from a variety of disciplines can attain general education goals has been challenged. According to a report issued by the American Association of Colleges (AAC) in 1985, *Integrity in the College Curriculum*, “undergraduate education is in a state of crisis and disarray” (Ratcliff, Jones, & Hoffman, 1992, p. 3). The report charged that students’ courses of study were narrowly focused on classes related to their professional and career choices. Dissatisfied with the plight of general education, the AAC report urged colleges and universities to create coherent and well-structured general education programs.

In 1989, Robert Zemesky’s study of student transcripts from thirty colleges and universities revealed that students were not experiencing the traditional general education subjects such as science, mathematics, and the humanities, in a sequential, significant manner. The research found that programs of study were ill structured and lacked cohesion (Ratcliff, et al., 1992).

A subsequent report published by the AAC in 1994 identified a different trend in higher education that advocated the premise that general education should encompass “much more than breadth and

simple exposure to different fields of study.” In fact, the report stated that general education programs should form a “coherent course of study, one that is more than the sum of its parts” (Palomba & Banta, 1999, p. 240). This movement encouraged college and university faculty and administrators to design general education programs to improve critical thinking and communication skills and cultivate the synthesis and integration of knowledge obtained in several disciplines. These programs should also provide the opportunity for “students to study other cultures as well as the diversity in their own culture . . . and develop personal qualities characteristic of all college graduates” (Palomba & Banta, 1999, p. 240).

Students’ general education skills have been a primary focus of assessment since the Secretary of Education issued the directive for assessment in 1988. As Peter Ewell (1991) noted, at the Charlottesville Education Summit in 1989, a panel of the nation’s governors recommended developing “a national performance-based assessment of the ability of graduating college seniors to think critically, communicate effectively, and solve problems” (p. 14).

Recent surveys and focus groups have suggested that there is considerable agreement among employers, policy makers, and faculty regarding which broad areas of non-technical knowledge, skills, and abilities should be attained by undergraduates (Jones, Hoffman, Ratcliff, Tibbets, & Click, 1994). These areas include:

- higher-order applied problem-solving skills
- enthusiasm for learning on a continuous basis
- interpersonal skills, including teamwork and collaboration
- oral and written communication skills
- sense of responsibility for action, both personal and collective
- ability to bridge cultural and linguistic barriers
- sense of professionalism.

The above competencies closely correspond to the commonly held goals of most general education programs. Yet, the meaning and role of general education in college curricula remain at the center of controversy and debate (Palomba & Banta, 1999).

General Education Assessment

At the beginning of the new millennium, many American colleges and universities are actively engaged in general education reform. Nearly ninety-five percent of four-year colleges and universities in the United States now offer some type of general education program. Yet, it is clear that little progress has been made in determining if students are learning what they are supposed to learn in general education courses. While eighty percent of these institutions of higher education have implemented assessment programs to measure other student learning, colleges and universities continue to report minimal assessment activity in general education (Stone & Friedman, 2002).

According to Palomba and Banta (1999), assessment is “a systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development” (p. 4). This definition is strengthened by Huba and Freed (2000) who define assessment as “the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning” (p. 8).

In developing a typical assessment plan, faculty members from one department or major work together to create and administer measurement tools that assess the agreed upon desired learning outcomes for that discipline or major based upon the mission and objectives established for that program. Palomba & Banta (1999) comment that a clear statement of purpose and learning objectives should be articulated for general education as well. Stated objectives and purpose help establish a sense of identity for general education as a department or program.

General education assessment is difficult to design and implement because general education curriculum is the responsibility of all faculty, yet no one individual or group is held accountable for program results. Instructors from many departments across campus teach general education courses making it difficult for faculty members to agree upon desired outcomes, measurement tools, and

administration of measurement instruments for common course requirements of general education.

Although the same principles that apply to assessment of the major areas of study also apply to general education assessment, assessing general education is more challenging because of the nature and purpose of the program. According to Janzow, Hinni, and Johnson (1997), "General education is almost always the largest academic program, but, unlike the smallest department, has not had a head, a faculty, or a budget" (p. 504).

Assessment of general education has also proven to be problematic because "institutions have had difficulty making explicit what they expect from general education curricula" (Stone & Friedman, 2002). Because faculty engaged in the assessment of general education programs struggle with these organizational issues, course-based approaches are becoming more popular as a way to assess general education programs.

Most general education programs are based on learning goals drawn from numerous disciplines, leading faculty on some campuses to choose to assess this learning as it occurs in individual courses (Banta & Associates, 2002). In this approach, course instructors use assessment to determine whether students in their classes are mastering the skills associated with one or more goals from the general education program (Walvoord & Anderson, 1998).

Many of the courses designated as meeting general education requirements are prerequisites for other courses that students will study later in the major fields. Although general education goals are usually associated with specific required courses taken early in students' college careers, the skills acquired in those courses are crucial to students' success throughout the collegiate experience. General education skills are essential course components across the curriculum, and these vital skills form the foundation for the major programs of study.

Assessment of General Education in the Majors

A crucial first step in developing an assessment plan for general education is to articulate explicit objectives for the levels of knowledge

and essential skills students will develop as a result of their experiences in general education (Banta, Lund, Black, & Oblander, 1996). In addition, faculty of degree programs must also establish degree-specific essential skills and learning outcomes that students will develop and demonstrate in the individual programs of study. These degree-specific skills require application of acquired general education skills. Yet, even when outcomes are specified, assessing them will not likely be accomplished through traditional instruments that are easily administered and scored (Ratcliff et al., 1992). These assessment tools must be designed to assess the stated general education outcomes as applied in students' individual fields of study.

The development of students' general education skills is of interest to faculty in all disciplines; knowledge of basic concepts in the fine arts, humanities, and social and natural sciences is fundamental to a deeper understanding in any field (Banta et al., 1996). Faculty and administrators of degree programs have moved away from the view that they should emphasize only discipline-specific content knowledge, concepts, and theories. Transferable skills, such as communication and problem solving, are now addressed within the majors (Palomba & Banta, 1999).

Assessment plays a critical role in helping to determine whether general education programs are achieving these goals. Focusing on general education outcomes within the major communicates to students that development of these skills is critical to professional competence (Palomba & Banta, 1999). Consequently, assessment of these general education skills in the major fields of study provides evidence of such learning.

Framework for Developing An Assessment Plan

Assessment experts (AAHE, 1992; Bauer, 2003; Huba & Freed, 2000; Palomba & Banta, 1999) support rather consistent recommendations for developing and implementing an assessment program. While the framework discussed here focuses on assessing general education outcomes, this process can be easily adapted to assess student-learning outcomes in any discipline. An effective assessment process should include:

1. beginning with a clear understanding and consensus of the institution's mission,
2. developing student-learning outcome goals based on this mission,
3. designing a comprehensive assessment plan,
4. creating or selecting appropriate assessment measures,
5. implementing the assessments,
6. providing prompt and continuous feedback to various stakeholders,
7. using the assessment data to evaluate the assessment process and make changes to improve student learning on campus.

Assessment planning: An important step early in the planning process is the formation of an assessment committee to develop an assessment plan that is comprehensive and consistent across the institution. This committee must understand the need for coordinating assessment activities throughout the institution and provide opportunities for all parties to have input throughout the assessment process (Palomba & Banta, 1999). The committee must also be cognizant of the desired outcomes and the audiences for whom the results are intended.

“The first element of the assessment process is that, as faculty, we develop a set of intended learning outcomes, statements describing our intentions about what students should know, understand, and be able to do with their knowledge when they graduate” (Huba & Freed, 2000, p. 9). The development of these intended learning outcomes will provide the foundation for implementing an assessment plan. This foundation will guide the assessment process from selecting the appropriate assessment instruments through the use of the results.

Principle One in the American Association of Higher Education's (AAHE) *Principles of Good Practice for Assessing Student Learning* states that “the assessment of student learning begins with educational values” (AAHE, 1992, p. 3). It is essential that the assessment of student learning be based on a shared conception of the institution's mission. All stakeholders, such as trustees, administrators, faculty, staff, students, alumni, and outside publics, must come to an agreement as to the purpose, philosophy,

values, and aspirations of the institution. The determination of departmental goals and student-learning outcomes are then derived from the institution's mission statement.

Participants: The assessment of general education outcomes through academic majors can be accomplished with a coordinated effort among administrators, faculty, and students. Palomba & Banta (1999) state, "of all the important factors in creating a successful assessment program, none matters more than widespread involvement of those who are affected by it" (p. 53).

Huba and Freed (2000) state that, "administrators who set the tone for the institution and implement policies play a critical role in creating the type of culture of evidence that will allow assessment to flourish" (p. 85). The administration must realize the importance of the assessment plan as an on-going process and not merely an activity that meets the requirements of a five-year program review cycle or a ten-year accreditation cycle. By realizing the evolutionary process of assessment, an institution can still complete time-constrained goals such as catalog revision and maintain the process of striving to improve learning outcomes through constant assessment. Administrators will be instrumental in the role of leading and encouraging the faculty to participate in assessment activities. An effective assessment program is a long-term commitment. Administrators can assist faculty to make incremental improvements and encourage them to look to the future rather than the past (Huba & Freed, 2000).

The importance of the role of faculty cannot be understated. The responsibility for a coherent curriculum rests on the shoulders of all faculty members working cooperatively (National Panel Report, 2002). The framework of the assessment process should allow faculty to define the relationship between teaching, curriculum, learning, and assessment. The curriculum should be in line with the mission of the institution and be coordinated among faculty and programs to develop an incremental formula for outcome-based learning. To assess student learning in general education, faculty from various disciplines work collectively to determine general education goals and objectives, implement appropriate assessment methods, and use assessment results to improve general education programs. The faculty may approach their assessment responsibility

by taking on a variety of roles. Each department will usually need a faculty coordinator, some faculty will be involved with development of the assessment tools, and other faculty members may be responsible for analyzing the data, interpreting the information and completing the reports.

Students also play an important role in successful assessment programs. "Assessment must be seen as an activity done with and for students, rather than to them" (Palomba & Banta, 1999, p. 71). A successful assessment must actively involve students throughout the process. Students can serve on committees, provide comments on activities and programs they participated in, and provide direct evidence of outcomes assessed. The students can also participate in the analysis of results and make recommendations to the institution. One way to accomplish a high level of student participation is to include the assessment process in classroom activities. "If assessment is seen as a natural part of the teaching and learning process, students are motivated to do well" (Palomba & Banta, 1999, p. 83).

Methods of assessment: A variety of assessment techniques should be used to ensure validity in the collection of the data. These techniques need to be consistent with the overall goals of this assessment and may be nationally designed and/or locally developed, whichever is appropriate for the particular outcome to be measured. Legitimate types of assessments will require students to make connections between the abilities and skills they have developed in the core or general education curriculum and the discipline-based knowledge and skills they have acquired in their majors (Jones, 2002).

Faculty must determine if there is a commercially developed assessment measure that will adequately assess the identified learning outcomes, or if they must consider designing their own method. The major advantage of national instruments is that they provide reliability and validity to the institution. They also provide the institution the opportunity to compare their results to similar institutions. Some of the national instruments provide norms by institutional type to allow administrators and faculty the opportunity to examine their students' performance and compare the results to those of similar students. While locally developed instruments may take a great deal of time to construct they can be developed with specific needs of the

institution in mind. They also offer the opportunity for involving faculty in the assessment process. The ultimate decision on which instruments to use must be made by the institution after defining the intended outcomes from their assessment process. Many institutions adopt plans that incorporate a combination of nationally available and locally developed instruments to meet the specific needs of the institution (Palomba & Banta, 1999).

It is important that the assessment methods selected include both direct and indirect assessments of student learning (Palomba & Banta, 1999; Jones, 2002). Direct assessments of student performance include exams of all types, projects, papers, and exhibitions. Direct measures also include performance assessments that require students to demonstrate competencies through exhibits, demonstrations, academic portfolios, or other activities related to the subject matter. These provide an opportunity for students to actively practice their skills, synthesize their knowledge, and engage in self- and peer-evaluation (Palomba & Banta, 1999). Performance assessment is used to assess student learning in general education as well as the major, particularly in areas such as speech and writing (Palomba, 1999). Some other direct assessment techniques are internship evaluations, scores on national standardized tests and learning outcomes from a capstone experience. Such assessments ask students to demonstrate what they know and can do with their knowledge. Students typically draw on their disciplinary knowledge as well as certain skills such as teamwork, oral and written communication, and reasoning (Jones, 2002).

Indirect assessments of student learning include surveys, interviews, or focus groups that ask students about their own experiences and self-report their satisfaction with their academic programs. These indirect methods of assessment ask students to reflect on what they have learned and experienced rather than to demonstrate their knowledge and skills. In addition, students' perceptions about their learning and development can be useful (Jones, 2002).

Reporting and using results: It is important to identify the internal and external audiences who will assist in shaping the assessment process. A comprehensive assessment will provide the institution with information that can be shared and utilized both internally and externally.

Internal audiences include faculty, students, assessment committees, administrators, and alumni. The internal audiences should benefit from the results of the various assessments even if the assessment has been prompted by outside interests. Internally, information can detail usage of activities, program, and facilities. Sharing assessment data is instrumental in defining successful on-going programs, implementing similar programs, and improving less-successful programs. Assessment data should enable the institution to compare their outcomes to those of other institutions in evaluating institutional effectiveness. Institutional assessment results can also be compared to national standards to assess the cost effectiveness of programs.

Externally, assessment data is disseminated to regional or professional accreditation organizations, government officials, governing boards, and other constituents to demonstrate institutional effectiveness and accountability. Regional accreditation agencies include entities such as Middle States Association of Colleges and Schools and the North Central Association of Colleges and Schools. While no accrediting body requires a specific assessment process or instrument, they all require member institutions to collect and use assessment information for improvement (Palomba & Banta, 1999). This is significant in that it requires the member institutions not only to gather data, but also use it for improvement.

Many professional accreditors have also begun to require schools to set goals and provide evidence they are meeting these goals. The AACSB International (The Association to Advance Collegiate Schools of Business) explicitly asks its members to provide an analysis of educational outcomes, including information from stakeholders such as alumni and employees. Although the Association does not prescribe how stakeholder and student assessment is to be conducted, it does expect a program of assessment to be in place (Palomba & Banta, 1999). Professional accrediting bodies have provided an impetus for assessment-based change at the division or department level. This has led to an increase in institution-wide assessments, driven by faculty who gained experience and expertise in the discipline-specific assessments.

Another critical external audience that drives assessment is state government. The legislatures have become increasingly concerned

with accountability. As legislators are pressured by constituents for more responsibility in spending public funds, they are looking for demonstrable evidence to reinforce their appropriations to higher education. Institutions realize the importance of answering questions and demonstrating accountability to legislators who control funding necessary to the institution's future success. Such information can be acquired and shared through a well-planned assessment program.

When reporting the results of an assessment, the author or writing committee must identify who is going to read the report and the interests of these intended audiences. If multiple audiences are going to utilize the data for varying purposes, the author may need to prepare different reports for individual audiences. The report can be compiled as a comprehensive report for the entire institution or written to address a specific need or interest. Whatever the case, a successful report should include an introduction and definition of the project objectives, the methodology of the report, the actual results summarized in an understandable format, and the conclusions of the report with specific recommendations (Palomba & Banta, 1999).

Evaluation of assessment: Principle Eight in AAHE's *Principles of Good Practice for Assessing Student Learning* states that "Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change" (AAHE, 1992, p. 3). Institutions concerned with improving student learning use the assessment process to reflect on learning outcomes, analyze data to determine if the outcomes are being achieved, and utilize assessment results in decision making to enhance student learning. In this way, assessment is not an end unto itself, but rather a means to increasing student learning. Routine examination of the assessment results and ongoing review of the process will lead to adjustments required to ensure that the purposes of assessment are realized.

Conclusion

Opposing groups in society continue to argue the basic purposes of education. Some view education as a process of socialization into a dominant culture and others the development of one's own value

system and unique perspective. Faculty views of discipline boundaries and inquiry methods are regularly in flux, and the individual disciplines have their own methods of achieving coherence. The challenge is to find a balance that will provide choice while preserving culture; one that will provide exposure to alternative perspectives while avoiding fragmentation (Stark & Lattuca, 1997).

Higher education institutions must undertake a comprehensive plan of assessment to define their role in society and to demonstrate accountability to stakeholders. Samuel J. Messick (1999) states, "... let me simply recognize how critical it is that our assessment methods and strategies become sufficiently sophisticated to meet the needs of our rapidly expanding knowledge and information society" (p. 33). The development of an effective assessment plan specifies general education learning outcomes and details the process for ensuring these desired skills are developed in all students, regardless of major field of study.

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