GUIDING PRINCIPLES FOR SLO ASSESSMENT

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The Academic Senate for California Community Colleges

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ABSTRACT

The assessment of student learning outcomes (SLOs) is a curricular activity that can be both beneficial and productive. Faculty who engage in SLO development and assessment can acquire concrete evidence upon which to base the collegial review of their programs and the improvement and enhancement of student learning both in individual classes and across a program. If SLO processes are integrated into the culture of the college, the use of assessment data as a basis for decision making can empower the faculty voice in planning and budgeting discussions.

Despite these potential benefits from SLO activities, many California community colleges have struggled to develop and implement effective assessment processes. Pressure from the Accrediting Commission for Community and Junior Colleges and its 2012 deadline for SLO proficiency has further complicated this issue, causing many colleges and faculty to think of SLO assessment only as a quantitative task to complete for accreditation purposes rather than focusing on the quality of their assessment activities. In Spring 2008, Academic Senate Resolution 2.03 called for providing guidance regarding best practices in SLO assessment that could be applied at the local college level. This paper is a response to that resolution.

The goal of this paper is to suggest principles that will help faculty to develop efficient and effective SLO assessment practices as appropriate for their own local colleges. These principles address various aspects of SLO assessment and factors that influence assessment processes, including institutional support, cooperative relationships with other faculty, researchers, and administrations, and alignment of outcomes throughout the different levels of the college curriculum. Above all, the paper promotes and emphasizes the primary role of faculty in all SLO development and assessment activities and the importance of faculty participation and involvement in the development and implementation of assessment processes.

INTRODUCTION AND OVERVIEW

In their broadest senses, neither student learning outcomes nor the concept of assessment are new ideas for college faculty. Effective teachers have long determined in advance what specific skills or knowledge they want their students to obtain from their courses and have designed their instruction and evaluation to meet and measure these outcomes. Teachers have developed means to determine throughout and at the end of a course whether students were successful in reaching those desired outcomes, and effective evaluation has also provided faculty with an avenue to consider how instruction may be improved. In a general sense and at an individual level, good teachers have always developed and assessed student learning outcomes, regardless of the terminology used to identify these processes and outcomes.

Today, however, faculty are asked to develop and assess outcomes for their students in ways that are more systematic, consistent, collaborative, and documentable than individual efforts may have been in the past. While such efforts may have always existed beyond the individual level in some disciplines, this practice has not been the norm. The push for explicit and organized development of outcomes has come not only from accrediting commissions and other outside agencies, but also from faculty members themselves who realize that discussions regarding the establishment of appropriate outcomes and thoughtful analysis of assessment data can lead to improved instruction and thus can enhance student learning.

Still, while the mandate for student learning outcomes assessment ultimately can be beneficial for both faculty and students, it has also produced confusion and frustration for faculty at many colleges. Some faculty feel underprepared or ill equipped for developing the processes needed for outcomes assessment and desire guidance in understanding and establishing the best assessment methods to use or the best types of data to gather. Others have raised questions regarding the use of assessment data in light of accreditation standards that seek to connect SLO assessment processes to faculty evaluation or have expressed concern that influences from outside the community college system may attempt to impose specific SLOs or assessment processes. Some faculty who have been willing and eager to engage in outcomes development and assessment have found that their colleges do not provide the necessary support for their efforts in terms of staffing, technological assistance, research, or funding. These issues and others have created a situation in which the assessment of student learning outcomes, a practice that holds great potential benefit for all involved, has become a point of contention, frustration, and divisiveness at many colleges.

In order to respond to this situation, **Academic Senate Resolution 2.03 S08 called for guidance that would assist faculty throughout the state in establishing effective processes for student learning outcomes assessment:**

Principles of Good Practice for Student Learning Outcomes and Assessment

Whereas, The outcomes and assessment process is heavily reliant on the proper and value-added analysis of student performance data; and

Whereas, The results of this data will directly influence student learning at California community colleges;

Resolved, The Academic Senate for California Community Colleges research and communicate guiding principles of good practice in the collection, analysis, and use of assessment data.

This paper seeks to address the resolution above by presenting a selection of guiding principles and good practices for student learning outcomes assessment that can advise and inform faculty who develop their own processes appropriate to their local needs and by outlining the levels of commitment needed both from institutions and from faculty for effective outcomes assessment.

OUTCOMES AND OBJECTIVES

One important aspect of assessment that has caused confusion in some instances is a matter of definition: the distinction between "outcomes" and "objectives." These terms have been used interchangeably on some campuses and in Title 5, and documents from the Accrediting Commission for Community and Junior Colleges (ACCJC) have sometimes added to the confusion on this issue. The 2002 standards of the ACCJC require that "learning objectives" be included in course syllabi: "In every class section students receive a course syllabus that specifies learning objectives consistent with those in the institution's officially approved course outline" (II.A.6, emphasis added). Despite the specific language used in the standards, most colleges interpreted that the ACCJC intended this statement to refer to student learning outcomes, and indeed the ACCJC itself subsequently corrected the term "objectives" to read "outcomes." This conflation of terms has produced confusion regarding accreditation requirements and debate concerning the application of both terms.

To further confuse this issue of definitions, the Academic Senate for California Community Colleges' own perspectives have shifted over time, both regarding distinctions between terms and student learning outcomes in general. The Senate's 2004 paper The 2002 Accreditation Standards: Implementation offers the following statement regarding outcomes, objectives, and assessment:

> The SLOs requirement represents two sides of an equation: expectations and measures . . . objectives are the knowledge and skills for which students will be held accountable; outcomes are the evidence of accountability. According to the ACCJC, Student Learning Outcomes are the "knowledge, skills, abilities, and attitudes that a student has attained at the end (or as a result) of his or her engagement in a particular set of collegiate experiences" (ACCJC Standards Adopted 2002, Standards Glossary, p.6). While ACCJC language suggests that many educational elements are measurable, it is unlikely institutions can accurately quantify "attitudes" or anything as amorphous as "abilities." As a result, the standards embody a reductive approach to accountability, and many argue that the practice moves local community colleges ever closer to standardization.

These definitions of outcomes and objectives, which were a response to requirements from the ACCJC, do not establish a clear distinction between the terms. The overall tone of this passage and much of the paper from which it comes is skeptical and resistant.

Over the years since the 2004 paper was written, as faculty have appropriately taken increasingly greater control of SLO processes, the Senate's position has altered. The *SLO Terminology Glossary* produced in 2010 by the Senate and the Research and Planning Group defines objectives as small steps that lead toward a

goal, for instance the discrete course content that faculty cover within a discipline. Objectives are usually more numerous and create a framework for the overarching student learning outcomes which address synthesizing, evaluating and analyzing many of the objectives. (ASCCC, 2010, p. 10)

In contrast, the *SLO Terminology Glossary* defines student learning outcomes as follows:

> Student learning outcomes (SLOs) are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process. An SLO refers to an overarching outcome for a course, program, degree or certificate, or student services area (such as the library). SLOs describe a student's ability to synthesize many discreet skills using higher level thinking skills and to produce something that asks them to apply what they've learned. SLOs usually encompass a gathering together of smaller discrete objectives (see definition on previous page) through analysis, evaluation and synthesis into more sophisticated skills and abilities. (ASCCC, 2010, p. 13)

These definitions offer a more practical differentiation between outcomes and objectives. The *SLO Terminology Glossary* is careful to note that it "does not dictate terminology nor does it seek to be comprehensive." Still, the tone and the content of the definitions demonstrate the shift in the Senate's position from one of skepticism and even resistance to one that promotes faculty ownership and control of SLO processes.

On a local level, certainly the most important aspect of SLO assessment is not the terminology employed but rather the results achieved through the assessment process. No matter what terms are used, faculty engaged in SLO activities must understand the difference between the content of the class and the steps that establish the framework for student learning on one hand and the overarching, observable knowledge, skills, or behavior to which those steps should lead on the other. One must determine exactly what results one wishes to examine before one can decide what data to collect and what methods to use in order to complete the assessment. However, the goal of the Academic Senate is to provide leadership and guidance on a statewide level, and the absence of a consistent vocabulary may inhibit productive discussion of effective assessment processes. For this reason, the distinction between outcomes and objectives as defined in the *SLO Terminology Glossary* is important for the purpose of creating an ongoing statewide dialogue regarding meaningful assessment practices that will enhance both teaching strategies and student learning at the local level.

STUDENT PRIVACY RIGHTS

Another important issue regarding outcomes assessment is the matter of student privacy. If course-level assessment focuses on areas in which learning can be improved by changes in the instructor's practice and methods, then the names of individual students are not relevant. Indeed, compiling data for individual students might even prove detrimental to assessment processes, as it could shift attention to the performance of specific students, each with their own needs and personal obstacles, rather than to the overall effectiveness of the teaching and learning in the course. In addition, even in regard to SLO assessment, information regarding individual student performance remains subject to student privacy rights. Recording of data for individual students is therefore unnecessary to student learning outcomes assessment, and colleges need to exercise great care regarding the ways in which student information is compiled and stored. As software tools become more powerful and subject increasingly to control by external vendors, colleges must take all necessary precautions to safeguard students' privacy.

Although issues involving student privacy, definition of common terminology, confusion regarding effective methodology, and various other matters can make outcomes assessment a difficult and sometimes frustrating activity, all California community colleges are required to develop and implement assessment processes. The Accrediting Commission for Community and Junior Colleges indicates that the Commission "will expect institutions to be at the Proficiency level in the identification, assessment and use for improvements of student learning outcomes by Fall 2012" (Beno 2009; See Appendix A). The ACCJC has defined "proficiency" in the following manner:

- Student learning outcomes and authentic assessment are in place for courses, programs and degrees.
- Results of assessment are being used for improvement and further alignment of institution-wide practices.
- There is widespread institutional dialogue about the results.
- Decision making includes dialogue on the results of assessment and is purposefully directed toward improving student learning.
- Appropriate resources continue to be allocated and fine-tuned.
- Comprehensive assessment reports exist and are completed on a regular basis.
- Course student learning outcomes are aligned with degree student learning outcomes.
- Students demonstrate awareness of goals and purposes of courses and programs in which they are enrolled. (Appendix A, p. 5)

Through these statements, the ACCJC has indicated its position that outcomes assessment is not an optional activity, but rather an obligation to be included in the regular work activities of faculty and other

college personnel and a practice that should be incorporated into decision making and other processes of all colleges.

The Academic Senate views outcomes assessment as a productive activity that can improve teaching practices and thus enhance student learning. For this reason, effective assessment practices are important not only to meet accreditation demands but also to benefit the college, the faculty, and the students. This paper attempts to help colleges and faculty meet this need by providing a list of guiding principles for assessment processes. While each college must continue to develop its own specific processes according to its local needs and individual culture, general adherence to these principles should result in the creation of more effective and useful processes for student learning outcomes assessment.

DEFINITION OF ASSESSMENT

In "The Concept of Formative Assessment" (2002), Carol Boston offers the following explanation and definition of the concept of assessment:

> Black and Wiliam (1998b) define assessment broadly to include all activities that teachers and students undertake to get information that can be used diagnostically to alter teaching and learning. Under this definition, assessment encompasses teacher observation, classroom discussion, and analysis of student work, including homework and tests.

The emphasis in this definition is on the activity, and thus any process which produces data that can be used for analysis and improvement of student achievement and learning would qualify as assessment. Such a view of assessment allows for a wide variety of approaches and methods and can include processes that gather data throughout the course as well as those that evaluate student learning at the conclusion of the course.

If the term "assessment" refers to the process of collecting data, then "assessment results" are the data or evidence produced by this process. Such data need not always be quantifiable or measurable in numerical terms. Assessment results may take various forms, including not only quantitative data such as numerical or statistical scores but also qualitative evidence such as portfolios, narratives, performances, or other data that may be more dependent on observation than computation. Any information produced by assessment processes that can be used for analysis and improvement of student achievement and learning would fall under the category of assessment results.

GUIDING PRINCIPLES FOR SLO ASSESSMENT

Principle One: Faculty have the primary responsibility for developing assessment tools and determining the uses of data that are collected, and therefore faculty engagement and active involvement in SLO assessment is essential.

The purposes of student learning outcomes include assessing student achievement, evaluating the strength of courses and programs, and identifying instances in which instruction and student learning can be improved. As such, SLOs are instruments of curriculum development, and therefore both the design and the assessment of SLOs clearly are curricular matters.

California Education Code §70902 (b) (7) makes direct reference to "the right of academic senates to assume primary responsibility for making recommendations in the areas of curriculum and academic standards." Likewise, Title 5 § 53000 lists curriculum as the first of the "10 + 1" areas of academic senate purview, and many local college policies list curriculum as an area in which boards of trustees will rely primarily on faculty recommendations. Because Education Code, Title 5, and local policies indicate that curriculum is an area of faculty primacy, and because SLO development and assessment are curricular matters, faculty should hold a primary role at all colleges in determining how, when, and where to use SLO assessment data.

The specific phrasing of the Education Code's statement regarding the faculty role in curriculum is significant. Academic and instructional expertise and knowledge give faculty not merely the right to primacy in making curricular recommendations, but, according to Education Code, also the responsibility for those recommendations. Participation in curricular development and review, and therefore in SLO development and assessment, are a professional obligation for community college faculty. If faculty abdicate this responsibility and choose not to engage in or become actively involved in SLO assessment, the instructional program of the college and the educational experience of the students will suffer.

This responsibility for SLO assessment extends to all levels of the college's educational programs. Expertise in instructional methods and evaluation is critical for effective SLO assessment, and only faculty have the training, background, and ongoing experience to provide this expertise. This same principle applies not only to classroom instruction, but also to student support services, library services, and all other areas of a student's academic experience. Faculty are in direct contact with students, have the greatest knowledge and deepest understanding of the students' needs and abilities, and have the responsibility for developing and delivering the curriculum and course content, and therefore faculty can better understand the context of the data. For this reason, faculty must take the primary role in all levels and aspects of SLO assessment, including designing assessment processes, selecting data recording instruments such as computer software programs, and analyzing or interpreting assessment results and directing subsequent academic decisions that follow. By accepting and embracing their responsibility for SLO design and assessment, faculty will be in the best position to examine assessment data, ask questions about what the data suggest, and make appropriate changes to classroom and institutional practices in order to improve student learning.

Principle Two: Outcomes assessment is a process that should involve all appropriate participants at each level of the college, not just select groups or individuals.

In order for SLO assessment to play an effective role in the evaluation and strengthening of curriculum and student learning, the entire college must be committed to and involved in the process. All faculty in all departments and disciplines involving instruction or student support should take part in assessment design and implementation for their own programs. Part-time faculty should also be included wherever possible in these discussions, as they compose a significant percentage of the instructional force at almost all colleges. Researchers are important for assisting with valid assessment processes, for extracting and organizing data, and for offering guidance regarding analysis of assessment information and instruments. College administrations must enable assessment practices by providing adequate resources, staff, and other forms of support. All of these constituent groups of the college community must be committed to working cooperatively in order for assessment efforts to be successful.

At each level of SLO assessment throughout the college's overall instructional program, faculty should take the lead in developing assessment processes, analyzing data, and implementing improvements. At the course level, these discussions should include at minimum all faculty involved in teaching and developing the curriculum for the course in question. At the individual program level, the faculty in that program should be engaged in reviewing data, drawing conclusions based on that data, and making decisions regarding possible changes in curriculum or delivery. At the college level, discussion of outcomes should be broad enough to include the faculty as a body under the leadership of the academic senate and should build on the information and conclusions that are developed at the course and program levels. In no case should the responsibility for SLO assessment decisions and implementation be left to a small group of representatives who do the work that should rightfully be shared with their colleagues. One of the greatest values of SLO assessment is the collegial discussion it can generate among peers who reflect on data and practices together in order to improve their instructional programs. If the entire faculty is not engaged in the assessment process, then this value is diminished or lost.

In addition to assessing classroom instruction, colleges must also develop processes for assessing student support services, which are equally necessary for many community college students to succeed in the classroom and to make progress toward their educational goals. Instructional faculty and student support faculty should collaborate and share perspectives and knowledge in developing processes for assessment of both instructional and student support services and in analyzing data produced by those assessments. The paper *Basic Skills as a Foundation for Student Success in California Community Colleges* (2007, p. 19), produced by the Research and Planning Group's Center for Student Success under phase one of the Basic Skills Initiative, notes the importance of this connection among its suggestions for effective practices: "A comprehensive system of support services exists, and is characterized by a high degree of integration among academic and student support services". Instructional and student support services faculty should not work

in isolation from each other, but rather should collaborate and share information at all levels in order to more fully inform and strengthen the delivery of all aspects of a student's educational experience.

While faculty hold the primary responsibility for SLO assessment, other members of the college community should also play appropriate roles in assessment processes. Most notably, assistance from college researchers can be beneficial even when the design of assessment methods and discussion of results remain under faculty purview. Although researchers should yield to faculty expertise regarding curriculum and instructional methods when assessment instruments and approaches are chosen and created, faculty who may have less experience with formal research practices and standards can benefit from the technical expertise of researchers in designing and implementing the assessment instruments faculty have selected. Researchers may also play an important role in collecting, extracting, and aggregating or disaggregating data prior to analysis at various levels of the college's instructional program. In addition, researchers can assist faculty in evaluating the validity or applicability of specific assessment methods in order to ensure that assessment processes are most effectively serving the faculty's intent and expectations. Researchers and faculty must therefore work in a cooperative relationship, with each contributing to assessment processes as appropriate based on their own training and knowledge. Discipline faculty have the responsibility to lead all SLO-related efforts and should assume the primary role in selecting and designing assessment instruments and analyzing assessment data, but efficient and knowledgeable research support can help to make the faculty's efforts as productive as possible.

College staff can likewise play various roles in SLO assessment. Staff support is necessary for recording and preserving data, for managing, maintaining, or even developing data recording tools such as software systems, and in numerous other ways that support assessment efforts. However, staff should participate in assessment processes not only in a support role but also in developing processes for areas in which the staff's own involvement is an aspect of the assessment, whether as a lab assistant, as office staff that welcomes and guides students or helps schedule student appointments, or in any other capacity. The perspective of staff is a valuable source of input that should be included whenever staff plays a role in helping students to achieve their academic goals.

Administrators can also play an important role in supporting and facilitating SLO assessment. Effective assessment processes require a commitment of resources involving staffing, technology, compensation, and other needs. However, administrative support for assessment is more than just a budgetary matter; it also includes organization, scheduling considerations, facilitating processes, coordination, encouragement, and other areas in which administrative approval and sometimes involvement are necessary. It includes allowing researchers and other staff sufficient time to focus on their contributions to assessment efforts rather than diverting their energy to other projects. If the administration does not embrace and support the faculty and staff's work regarding SLOs with appropriate resources and organizational assistance, enthusiasm and encouragement, and a commitment to authentic inclusion of assessment data in college planning and decision making, the effectiveness of that work will be compromised.

College-wide cooperation is also necessary for the development and assessment of outcomes in the areas of administration and administrative services, as these areas impact the success of the overall academic program. Some administrative services have a direct connection to instructional programs, such as the office or system in charge of duplicating curricular materials. Others, such as payroll, do not offer a readily evident impact on instruction. Such administrative services may face a more difficult challenge in describing how the work they do contributes to student success and determining how those contributions can be assessed. These difficulties are the very reason that college-wide dialogue is important for such areas: if the conversation regarding the role and performance of service areas includes voices who connect to the instructional program and other aspects of the students' experience, administrative services will be better able to determine how they can make the most relevant and necessary contributions to support the specific student populations served by the college and how their goals can tie into the campus learning environment as a whole.

In all areas—instructional, student support, or administrative services—cooperation among all units of the college is essential to effective outcomes assessment. Faculty hold the primary responsibility for SLO assessment, and assessment efforts should rely on the expertise of all faculty, both full-time and part-time, in all instructional departments and disciplines. Dialogue and exchange of knowledge among instructional and student support services faculty will strengthen those efforts by making them better informed and more comprehensive. Staff and administrators also have important roles to play in supporting assessment processes, and discussion that connects assessment in non-instructional areas to academic programs and services will make all areas stronger. If the entire college is involved in assessment efforts, with each area or constituent group fulfilling its appropriate role while understanding and respecting the faculty's primacy in SLO processes, all areas will be able to work cooperatively toward the common goal of serving students in the most effective ways possible.

Principle Three: SLOs and SLO assessment should be connected to the overall culture of the college through the college vision or values statement, program review processes, and college curriculum, planning, and budgeting processes.

The American Association of Higher Education and Accreditation states in "AAHE 9 Principles of Good Practice for Assessing Student Learning" that assessment is "not an end in itself but a vehicle for educational improvement" (Appendix B, para. 1). Such improvement requires a commitment to SLO development and assessment by the entire institution. Faculty are more likely to invest their energy and passion into assessment processes if they feel confident that the college will provide appropriate resources to support the projects and ideas for curricular enrichment and innovation that arise from assessment activities. The SLO rubric developed by the ACCJC (see Appendix A) emphasizes the importance of using assessment data as a basis for decision making throughout the college: "Results of assessment are being used for improvement and further alignment of institution-wide practices" (p. 5). In order to maximize the value of SLO data, assessment discussions at both the developmental and analytical stages should be integrated into the overall values and culture of the college, including program review, planning processes, and budgeting.

Perhaps the highest level at which SLOs and SLO assessment can be incorporated into the culture of a college is by connecting general education outcomes directly to the college vision, values, or mission. Colleges might establish this connection by revising their vision statements to make explicit mention of the college's institutional outcomes. Alternatively, institutional outcomes might be appended to the college mission statement or to college value statements. Through whatever method is deemed most appropriate for the local culture, colleges should consider ways in which they can establish a connection between the institution's vision or mission and outcomes assessment.

Likewise, colleges should clearly integrate SLO assessment results into program review processes. In Spring 2010 the Academic Senate passed Resolution 9.05 to stress the importance of this connection:

> *Embedding Program SLOs in Program Review*
>
> Whereas, Program student learning outcomes (SLO) assessment data are useful to inform program review;
>
> Whereas, Examples of using Program SLO assessment are provided in the adopted Academic Senate paper *Program Review: Setting a Standard (Spring 2009)*;
>
> Whereas, Effective practice with program SLO assessment embeds the process within the existing process of program review in order to reduce workload and to link learning outcomes to budget and planning decisions; and
>
> Whereas, The recommendations of the 2010 Spring regional SLO coordinators meeting highly supported embedding program SLO assessment in program review processes and supported a resolution to encourage local colleges to consider this as a viable means to both reduce workload and link outcomes assessment work to budgeting and planning decisions;
>
> Resolved, That the Academic Senate for California Community Colleges encourage local senates to consider embedding program student learning outcomes assessment in program review processes.

By connecting SLO assessment to program review, colleges will have concrete information regarding curricular practices on which to base their analysis of programs, making their program review processes more data-driven. Assessment activities will also be more meaningful because they will be used to inform the college's evaluation and discussion of program successes and needs. Both the assessment process and program review will therefore be enhanced by their mutual connection.

If assessment results are used to inform program review, then SLO assessment can also connect logically and meaningfully to college planning. Once assessment data have been used to analyze successes and areas for improvement of programs, the data can then serve as a basis for setting goals, developing strategies,

and allocating resources to address program needs and promote improvement. A college-wide planning discussion rooted in SLO data may help to determine areas in which different instructional areas can work cooperatively to address issues or serve students, or it may identify areas in which multiple disciplines are in need of similar attention or assistance and thus lead to a focused institutional initiative. Budget discussions can be better informed, as departments or programs will be able to provide concrete information to support their resource requests. In addition, SLO assessment will become more meaningful for faculty and for everyone involved if it connects directly to resource allocation and other decision-making processes.

In order to best inform institutional planning, SLO assessment should be an ongoing activity rather than a periodic exercise. To be most useful, data must be current, and for data to remain current the collection of that data must become a regular and consistent aspect of instructional practices. The Academic Senate's *SLO Terminology Glossary* (ASCCC, 2010, p. 4) notes the importance of establishing an assessment cycle and of "closing the loop," which the glossary defines as

> the use of assessment results to improve student learning through collegial dialogue informed by the results of student service or instructional learning outcome assessment. It is part of a continuous cycle of collecting assessment results, evaluating them, and using the evaluations to identify actions that will improve student learning, implementing those actions, and then cycling back to collecting assessment results, etc.

If faculty see SLO assessment as a periodic activity that occurs only at certain times or in certain circumstances, then they likely will also see it as a chore to complete and set aside until the next time the task arises. On the other hand, if SLO assessment becomes an integrated and ongoing part of the institution's curricular program and an expected aspect of instructional delivery, then data will be collected and analyzed more frequently and more effectively. The more complete and substantive the data, the more successfully the data can inform college planning discussions at all levels.

However, while closing the loop on assessment processes is important, the process and the SLOs themselves must remain open to revision and adjustment. Student needs and curricular practices change, and colleges must continuously reflect on their practices and expectations in order to serve students as fully as possible. The job of SLO development and assessment is never finished, and SLOs should not be seen as fixed or unchangeable. For SLO data to be effective in informing decision making at all levels of the college, the SLO assessment process should be revised as necessary to reflect changes in the college's curriculum, needs, and culture.

The primary purpose of student learning outcomes assessment is to improve student learning. Assessment processes can serve this purpose more effectively and efficiently if they are connected to the overall culture and decision-making structure of the college. When SLO assessment is integrated into the college's program review, planning, and budgeting processes, those processes and the practice of assessment itself will benefit through greater efficiency and relevance.

Principle Four: SLOs should be clearly mapped and aligned throughout a course sequence and among various levels (course, program, institution) to achieve the most efficient and effective assessment.

Although student learning outcomes at various levels of a college's organizational and curricular structure may be developed by different groups and assessed using different methods, the design of the assessment approach should identify clear connections among all levels. If SLOs are aligned from one level to the next, then course outcomes may lead to program outcomes or directly to general education outcomes, while program outcomes may then lead to general education outcomes or to institutional outcomes, which may in some cases be determined by a college to be the same thing.

The *SLO Terminology Glossary* (ASCCC, 2010, p.1) defines alignment as "the process of analyzing how explicit criteria line up or build upon one another within a particular learning pathway". By highlighting analysis as a feature of alignment, this definition implies that the mapping of outcomes from one curricular level to the next should be a thoughtful, direct activity involving dialogue among all parties involved. The *SLO Terminology Glossary* goes on to note, "When dealing with outcomes and assessment, it is important to determine that course outcomes align or match up with program outcomes; that institutional outcomes align with the college mission and vision" (ASCCC, 2010 p.1). Such alignment from the course level up to the institution's values and mission requires wide participation and discussion not only among all faculty groups but with administration and staff as well.

If a college clearly and coherently aligns its outcomes across different curricular levels, SLO assessment for each of those levels can become more effective. For example, if program outcomes are designed and mapped to reflect direct connections to the SLOs of the courses that comprise the program, then assessment of the program outcomes may be conducted using data provided through the process of course SLO assessment. If the program outcomes align directly with outcomes and data from specific courses in the sequence, the program assessment may be completed without compiling and analyzing assessment data from every course that comprises the program. If the outcomes for a course at the end of a sequence include mastery of a skill that is introduced in previous courses, then the program assessment might focus analysis only on the course that completes mastery. Such sequences exist in both transfer disciplines, such as math and English courses which build upon each other level by level, and in many career technical education programs, such as nursing, in which coursework leads to a final class or set of classes after which students exit the program. Instead of expending time and energy in dissecting all of the assessment information compiled at the course level, program faculty can employ this more specifically focused data to identify program successes, possibilities for improvement, and areas in which additional assessment would be beneficial. In this way, alignment from course to program level can simplify outcomes assessment and provide faculty with more clearly focused data for analysis.

Course and program outcomes are often the levels of assessment with which faculty are most comfortable because they directly reflect the discipline expertise faculty bring to the classroom and may be subject to analysis by groups of faculty with specific training and experience in the subject matter under consideration. By contrast, assessment of general education and institutional outcomes requires a broader dialogue,

since institutional learning outcomes, as defined by the *SLO Terminology Glossary* (ASCCC, 2010, p.9), reflect "the knowledge, skills, and abilities a student is expected to leave an institution with as a result of a student's total experience" and therefore often combine expertise found in a combination of academic areas rather than the knowledge and training of a specific discipline group. The *SLO Terminology Glossary* goes on to note that institutional outcomes "May include outcomes relating to institutional effectiveness (degrees, transfers, productivity) in addition to learning outcomes", thus moving even farther from a direct connection to faculty's instructional background. However, outcomes alignment at these levels remains valuable and important. Successful attainment of general education and institutional outcomes depends on the overall educational experience that is founded on the course and program level. If students do not achieve the expected outcomes at the course and program level, then they are also unlikely to attain the college-level outcomes. For this reason, colleges should work to establish explicit alignment between program outcomes and those at the general education and institutional level. If students are successful in achieving course and program level outcomes, and if those outcomes provide direct and clear connection to the general education outcomes, then assessment will once again be simplified and the overall educational experience of students will have greater coherence and will therefore be enhanced.

In working toward alignment from the program or course level to general education or institutional outcomes, faculty must be careful not to cede their responsibility for the instructional program and the assessment thereof. Course and program outcomes should not be forced to correspond to a set of expectations developed at and imposed from the college level. Discipline faculty must retain the right to develop course and program curriculum according to their own expertise and knowledge. Broader discussion of the student's overall experience is certainly appropriate at the college level, but in order to respect the professional training and experience of faculty, that college-level discussion should be rooted in outcomes developed by faculty for courses and programs. Alignment established through such a process will respect the primacy of faculty regarding curriculum while enhancing the efficiency and effectiveness of outcomes assessment at all levels of the institution.

Principle Five: SLO assessment should be as authentic as possible and should be minimally intrusive to the educational experience of students and the instructional planning and performance of faculty.

In his 1990 article "The Case for Authentic Assessment," Grant Wiggins defines authentic assessment as a practice that "simulates a real world experience by evaluating the student's ability to apply critical thinking and knowledge or to perform tasks that may approximate those found in the work place or other venues outside of the classroom setting." This statement indicates that in order to be authentic, assessment must be meaningful and must demonstrate students' ability to apply their knowledge rather than simply to reproduce decontextualized information. The ACCJC's 2012 SLO Rubric notes the importance of authentic assessment as an aspect of SLO proficiency: "Student learning outcomes and authentic assessment are in place for courses, programs, and degrees" (p. 5). In order to be truly useful and effective, SLO assessment processes at all levels should allow students to demonstrate their progress in ways that reflect not simply memorization but rather comprehension of the course material.

One of the most productive ways in which assessment practices can achieve authenticity is when they are integrated into the structure of the class itself. As the American Association of Higher Education and Accreditation notes in "AAHE 9 Principles of Good Practice for Assessing Student Learning,"

> Assessment works best when it is ongoing not episodic. Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. (para. 5)

Such ongoing assessment is beneficial for compiling useful data that can inform instructional practices. The AAHE document further states that

> to improve outcomes, we need to know about student experience along the way—about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning. (para. 4)

In addition, ongoing authentic assessment can improve the input that faculty provide to students as an aspect of instruction throughout their classes. As Arthur Chickering and Zelda Gamson's (1987) "Seven Principles for Good Practice in Undergraduate Education" states, "In classes, students need frequent opportunities to perform and receive suggestions for improvement" (Appendix C, para. 15). Assessment in a variety of forms can help faculty to diagnose student difficulties regarding individual SLOs or a specific aspect of an outcome as the course progresses and therefore provide more precise feedback that will improve student learning. Thus, in addition to developing assessment processes that occur at the end of a course or at other designated intervals in a student's education, faculty may also consider integrating assessment processes as a regular aspect of course curriculum.

However, if SLO assessment is incorporated into the curriculum of a course, it should be done with the least disruption possible to the students' educational experience and the instructor's preparation and delivery of the curriculum. The *SLO Terminology Glossary* (ASCCC, 2010, p.4) describes some possibilities for such non-intrusive assessment practices as "Classroom Assessment Techniques" (CATs) which the Glossary defines as "short, flexible, classroom techniques that provide rapid, informative feedback to improve classroom dynamics by monitoring learning, from the student's perspective, throughout the semester". Such assessment methods often are not designed to capture and document the types of complex thinking abilities generally included in SLO assessment, but they might still yield useful information that can both produce immediate feedback for students and inform the classroom practices or planning of the individual instructor. This information also might be considered and shared among faculty within a discipline or department during discussions regarding instructional strategies and curricular planning. Therefore, while results from CATs may not be included in the official data preserved for college recording purposes, they nevertheless might play a role in helping students meet the expectations of the course.

Other, more formal assessment practices also might be developed as a part of the standard instructional program for a course. Assessment data can be collected from work students do as required course activities, projects, or assignments, requiring minimal additional course preparation or student performance documentation. If assessment expectations are developed in advance and agreed upon by the department or program, faculty can plan for and incorporate the assessment exercises into their instruction. Such an agreement may not necessarily designate the exact assessment instrument, and even if department faculty agree on a common assessment approach, individual instructors might remain free to determine the specific content of their own exams or assignments. Of course, some programs or departments by their own choice may agree on a common assessment instrument to be used by all faculty involved. Whatever the assessment approach and implementation faculty may choose, any program or department agreement should be careful not to intrude on faculty's academic freedom, but overall guidance in terms of assessment processes and appropriate methods agreed upon by discipline faculty can serve as a tool for instructors as they plan and design their instruction according to their individual pedagogical preferences or philosophies. In addition, by including faculty-determined guidelines for SLO assessment in the program's instructional planning, faculty can maintain closer control over the design and implementation of assessment practices. Integration of SLOs and assessment into the regular expectations of course instruction is therefore the most efficient and practical method of making assessment as non-intrusive and non-disruptive to the classroom experience as possible.

Authentic, non-intrusive classroom assessment data can also feed into SLO assessment processes at the program level. An instructor's use of CATs or other in-class assessment methods can provide information to that instructor about students' mastery of outcomes for that specific course. If instructors teaching different sections of the same course choose to share and analyze data together, they might discover that students are performing more or less successfully on the same outcomes in different sections taught by different faculty members, thus inspiring a collegial exploration of instructional approaches in the areas under consideration. A similar exchange and analysis of data among instructors of different courses within a sequence or department might yield information regarding the overall performance of the department regarding SLO attainment. Discussions of classroom assessment data should include methods of protecting the anonymity of individual faculty members: the focus must remain on the overall achievement of students in the course or the program, not the comparative performance of individual instructors. Such safeguards are especially important for any data released outside the program level, but even within a department dialogue will be more honest and productive if the identities of specific instructors are removed from consideration. Such discussions of classroom assessment results would provide faculty with program-level data through which they can evaluate both the successful aspects of their instruction and the areas of their curriculum that need development or revision, thereby improving instruction without disrupting the students' educational experience.

Principle Six: Rather than relying on one assessment method for all situations, effective assessment may benefit from a variety of methods, even within a single course, that can respond to different learning outcomes, teaching styles, and student learning needs.

Any single assessment method is unlikely to satisfy the requirements of all instructional situations. The needs or constraints of any curricular circumstance may vary according to the cultural demographics of the student group, the point in the semester at which the assessment takes place, the discipline in which the course is offered, the nature of a particular assignment, the specific instructor's approach to the course material, and many other factors. In order for SLO assessment to be most effective, faculty must be allowed the freedom to develop and employ the assessment methods that work best in any given situation.

Even within a single class, instructors may employ a variety of formative assessment approaches that respond to specific aspects of the course material. Karee Dunn and Sean Mulvenon (2009) base their definition of formative assessment on previous work by Stephen Chappuis and Richard Stiggins when they state, "Formative assessments are assessments designed to monitor student progress during the learning process (i.e., assessment for learning)." Carol Boston puts the point more succinctly: "Assessments become formative when the information is used to adapt teaching and learning to meet student needs." (p.?) Such assessments may occur at various points throughout course instruction, and the specific nature of these assessments will depend on the instructional style of the individual faculty member and on the particular material or lesson regarding which the students are being assessed. To mandate a specific formative assessment approach without allowing for these factors might well be equivalent to mandating instructional practices and interfering with the academic freedom of the instructor. Such interference very likely would inhibit the course instruction and negatively impact the feedback given to the students. Certainly departments and programs may set standards according to which instruction is delivered, but individual instructors should retain the right to meet those standards and to assess their students' performance as best fits their own style. Results of these assessments will not only benefit students with ongoing and productive feedback tailored to the instructor's individual approach and the specific instructional situation, but they may also be shared with other faculty as a part of ongoing discussion of effective practices within the program or department, thus connecting to the overall assessment process of the college.

At the end of a course, faculty may also administer summative assessments, which Dunn and Mulvenon (2009) define as "those assessments designed to determine a students' academic development after a set unit of material." The intent of summative assessments is not to provide specific direction for improvement to students but rather to arrive at a final determination of a student's performance. As with formative assessment, no single summative assessment method is likely to meet the demands of all instructional circumstances. Various types of summative assessments exist: final exams, course portfolios, performance, capstone projects, and others. Programs and faculty must be allowed to determine the most appropriate assessment method for any given course. Individual departments and programs will decide the appropriate level of consistency among courses within a program or even among different sections of a given course. Some may agree on a common instrument developed jointly by the program and used by all faculty. Others may decide on a particular type of assessment tool to be employed but leave the specific content of that tool up to each individual instructor. Faculty should also consider whether multiple types of assessment for a given course might be used in conjunction with each other to achieve more comprehensive results and

allow greater instructional autonomy. Such issues should be a subject for discussion by faculty within the department or program, who must be allowed the freedom to develop and implement the most appropriate and authentic assessment tools to meet the needs of their curriculum.

At the program and institutional level, faculty should also recognize that a variety of assessment options may be both available and appropriate. If program and general education outcomes have been constructed from those developed at the course level, the assessment results at the course level may be mapped upward through the outcomes for the program and institution. Colleges may also select capstone courses which students take at the conclusion of a program and use the results from those courses to assess program or institutional outcomes. Other approaches to assessing program and general education outcomes might involve portfolios that showcase a collection of student work or surveying of students after they leave the program or institution.

None of these assessment methods should be viewed as exclusive of the others, and the combination of several instruments may yield more complete results while allowing for greater instructional freedom. Multiple approaches to assessment, both formative and summative, used in conjunction with each other may offer the most effective, comprehensive, and useful results at any level of the instructional program.

Principle Seven: Assessment data do not exist in a vacuum and must be analyzed alongside all other factors that may impact achievement of outcomes.

SLO assessment data can contribute significantly to curriculum development and improvement, program review, and other college processes. However, assessment results should never be considered in isolation. Many other factors contribute positively or negatively to student learning and success, and colleges should always remain aware of these other variables when analyzing assessment information.

Because a wide variety of factors can influence both the results of assessment practices and student performance in general, faculty should remain conscious of other variables while developing assessment processes. Both prior to assessment and after the collection of data, faculty should discuss authentically all possible factors that may influence the results. These variables may involve aspects of the assessment process itself, such as the sample size of the data set or the benefits or weaknesses of the specific assessment method. They might also include external factors, such as student demographics within the data set, student preparation, student services or tutoring assistance for the sample group, or non-academic personal impediments that impact student performance. While none of these potential influences will necessarily distort or invalidate the assessment results, the possible effect of additional variables should be an explicit aspect the analysis of assessment data at any point in the process.

In addition, assessment data cannot answer all questions at one time and may not be able to provide answers to some questions at all. Faculty who create assessment processes and analyze the results must recognize the limitations of the practices and instruments they employ. They should consider carefully what kinds of questions can be asked of assessment results in general and of the particular assessment method in question

at any given time. They must also identify the questions assessment data cannot answer in order to focus their data and their analysis productively. Discussions that identify both the benefits and the limitations of data will help to establish assessment processes that are both effective and efficient.

In considering both the limitations of assessment data and additional variables that may influence that data, faculty should work closely with college research staff. Researchers can provide guidance and expertise regarding the construction of valid assessment instruments and can help to identify additional factors that may influence the results. Research staff may even provide information or identify means to acquire information regarding factors external to the assessment process. They may also assist in identifying the most useful approach for addressing the specific questions that faculty wish to see answered and in ensuring that assessment data are able to address the questions being posed. Faculty should always retain the primary responsibility for assessment development and analysis, but they should also work cooperatively with and appreciate the expertise of researchers who may be able to enhance the effectiveness of the assessment processes that faculty create.

Principle Eight: SLO Assessment processes and grading are different but mutually compatible activities and should complement rather than conflict with each other.

In some cases, faculty members and others have conflated grading with outcomes assessment. While these two processes both involve evaluation of student progress or achievement, they employ different approaches to achieve different purposes and therefore should not be confused with each other.

Grading implies a process of assigning a numeric score or letter grade to student work. Whether this evaluation involves a single assignment or occurs at the end of a course, the grade itself generally offers no explanation or analysis, and thus grades may not necessarily help the students become aware of what they need to do in order to improve their work. In contrast, formative SLO assessment involves evaluating student performance with the aim of providing feedback that will enhance student learning through improved instruction. Formative assessment helps the student and the instructor to ascertain what has been learned and what still needs to be learned and thereby can improve both teaching and learning.

However, while grading and outcomes assessment are separate and different processes, they do not conflict with each other and both are necessary. Grades serve various functions in identifying educational progress: they give each student a concise, overall indication of his or her performance on an assignment or in a class, they preserve records of student achievement in an accessible manner that demands little interpretation or context, and they communicate the students' level of achievement when the students apply for transfer, employment, or other opportunities. However, as Arthur Chickering and Zelda Gamson's (1987) "Seven Principles For Good Practice In Undergraduate Education" states, "Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence." (Appendix C, para. 15) Outcomes assessment can help students understand how to improve their performance both within a given class and in future experiences by offering specific feedback that explains both the students' successes and areas for development. Assessment data can also

benefit faculty by identifying areas in which their instructional practices could be refined or improved to address immediate student needs or in future courses. Both levels of evaluation are therefore important, and neither in any way should invalidate or contradict the other.

Faculty who employ only grades or only outcomes assessment may be depriving their students of important feedback. For example, a composition instructor who reads a student essay and simply assigns a letter grade or score, or even one who offers brief, general written comments to the student, has done little to improve the student's writing. Depending on the level of the grade, the student may or may not be satisfied with such an evaluation, but the instructor has missed an opportunity to help the student identify areas for future improvement. More productive comments would target specific expectations or outcomes for the paper and explain to the student where and how those expectations have or have not been satisfied. Through such feedback students can advance their skills and enhance their understanding of the course material. However, most students will not be satisfied with only a detailed collection of instructive feedback in the absence of a grade; because they know that the course grade, not a point-by-point evaluation of an essay, is the final achievement indicator that will appear in their records, many students will require a grade to establish their overall level of performance before they can process more substantive input. Thus, grading and outcomes assessment both serve important though separate roles and, rather than conflicting, should work in concert to provide the different levels of input necessary for complete and effective student evaluation.

Principle Nine: Effective outcomes assessment requires a college commitment of sufficient staff and resources.

Although faculty hold primary responsibility for the development and assessment of student learning outcomes, faculty cannot meet this responsibility without adequate support. In order to promote the design and implementation of appropriate SLO assessment processes, colleges must be willing to provide resources in a number of areas. Effective outcomes assessment requires technical resources such as software programs, human resources such as support staff, training and professional development opportunities for the faculty who develop and assess the outcomes, budgetary support to enable all of the various aspects of the process and to allow participation by adjunct faculty, and sufficient time for analysis of results and dialogue among faculty to decide how to respond to the results.

If assessment processes are data-driven, then the data produced must be recorded and stored in a manner that is both organized and easily accessible. The most common instruments for recording assessment information are the various software packages available for this purpose such as TracDat or eLumen. These software programs or other tools, including those developed locally by and for an individual college, can facilitate the easy retrieval and analysis of data that have been compiled and thus are useful and important tools for facilitating assessment processes that enhance institutional and instructional effectiveness.

However, because each college develops its own assessment process according to its local needs and culture, all available software programs will not serve all institutions equally. Various commercial programs work

differently and offer a range of both positive features and potential problems. The article "The New Guys in Assessment Town"(Hutchings, 2009), published in the May-June 2009 issue of *Change: The Magazine of Higher Learning*, highlights several of the differences among the many available programs. With such a variety of options available, each college must be certain that the specific software package it chooses or designs is appropriate for the assessment processes developed by the faculty; the software should not dictate how the assessment will be done. For this reason, faculty should develop assessment processes prior to choosing software rather than falling into the common trap of purchasing a system for data recording and storage and then attempting to adapt that system to local needs. Software should remain a tool appropriate to the process that faculty deem most effective for the local situation, not an instrument that shapes a process to which faculty must then adapt.

In addition, while software is an important tool in SLO assessment, it cannot replace the vital role of direct faculty involvement. Computer programs can record data and can aid greatly in organizing that data for analysis; they cannot themselves conduct the analysis of the data, make responsible decisions based on that analysis, or implement changes stemming from those decisions. Both college administrations and faculty must understand not only the potential benefits of appropriate software programs but also the limitations of such technology. Software is a tool to facilitate the work of faculty on SLO assessment, but it cannot perform that work on its own.

While software instruments are important for storing and organizing data, they cannot serve any useful purpose until information has been entered into them. All data produced through assessment processes must be transferred into the recording system at some point. Although faculty have the primary responsibility for developing and assessing SLOs, that responsibility should not necessarily include all clerical functions of inputting the data to the system. The college must provide staff sufficient for entering, cataloging, and extracting data and presenting that data in a manner that supports analysis at levels higher than most individual faculty members would be able to achieve without such a system in place. Likewise, all computer systems, software and hardware alike, require proper maintenance and monitoring to function properly. Colleges must ensure appropriate technical support for the software system. These staffing requirements, both in terms of clerical functions and maintenance, are essential to the smooth and effective functioning of the software packages that enable and facilitate SLO assessment.

Sound assessment processes also require other resources related to personnel. Training activities are necessary for effective assessment, as faculty and staff must receive proper guidance regarding such aspects of the assessment process as identifying SLOs, determining appropriate and valid methods of data collection, implementing the data collection, guidelines for analyzing data, and developing plans for improvement based on assessment results, as well as the use of the software system. A thoughtfully and thoroughly developed professional development program will help faculty understand more fully their SLO assessment process and the tools through which the process is realized and will allow them to participate in that process more efficiently and effectively. Colleges must therefore provide sufficient funding and other resources necessary to support professional development activities and training related to SLO assessment.

All of these resource allocations, whether in terms of software packages, personnel for support, or training activities, involve a cost for the college. However, these expenses are necessary to effective development, implementation, and ongoing practice of sound assessment processes. The cost of committing the appropriate and necessary resources for SLO assessment will yield rewards in terms of increased student success at the classroom level, increased completion of certificates and degrees, preparation of students for transfer, and improved allocation of resources to services that lead to the most dramatic improvement in student learning. Without such a resource commitment from the college, no process developed even by the most dedicated faculty can operate effectively.

Principle Ten: SLO assessment of student learning outcomes is a process that is separate from faculty evaluation.

ACCJC Standard III.A.1.c has inspired a great deal of controversy and contention. The standard reads, "Faculty and others directly responsible for student progress toward achieving stated student learning outcomes have, as a component of their evaluation, effectiveness in producing those learning outcomes." Some accreditation visiting teams and even some college administrations have interpreted this statement to mean that SLO assessment data should be included in the performance evaluations of individual faculty members.

The Academic Senate has long been very clear in its position on this issue: SLO assessment data is not designed for and should not be used in the evaluation of individual faculty members. The Senate's 2004 paper The 2002 Accreditation Standards: Implementation explains the justification for this position:

[U]sing SLOs as a basis for faculty evaluations (III.A.1.c) demonstrates an egregious disregard for local bargaining authority and interjects a threatening tone into what the ACCJC claims is a collegial peer process. Moreover, III.A.1.c is particularly coercive to non-tenured and adjunct faculty; and is viewed by the Senate as nothing less than an attack on our profession. (p. 12)

Furthermore, in December 2007 a Senate Rostrum article titled "Accreditation and Faculty Evaluations?" provided additional reasoning for the Senate's stance: "Placing student learning outcomes data within a faculty member's evaluation would create a downward pressure on the rigor of the outcomes and a strong motivation to create assessments that validate or justify the content, pedagogy, and assignments" (Alancraig & Fulks, p. 2). If assessment results are used to evaluate and validate individual faculty performance, assessment instruments may be developed to justify existing practices rather than to engage in authentic analysis of student learning and avenues for instructional innovation and improvement. As a result, the assessment process itself would be compromised. Thus, for reasons involving both professional integrity and academic quality, the Senate has opposed and continues to oppose the inclusion of SLO data in individual faculty evaluations.

When confronted with recommendations from accreditation visiting teams that contradict this position, however, colleges and faculty have sometimes been faced with a dilemma: How can the college adhere to the Senate's position while still responding successfully to the requirements set out in the accreditation

standards? Various solutions to this problem have proven acceptable. The Rostrum article "Accreditation and Faculty Evaluations?" notes,

> Many colleges have chosen to include faculty reflection on assessment data as a narrative in the goals and accomplishments section of the evaluation. This narrative could include a discussion of what faculty found out through their assessments and how they intend to change their teaching strategies, content or assignments. The narrative should also include how the assessments validated their teaching strategies and content. This short summary would naturally be linked to the future goals and accomplishments self-reported by the faculty member. (Alancraig & Fulks, 2007, p. 3)

This approach to the evaluation process would allow faculty to consider information obtained through SLO assessment processes for growth and improvement without compromising the confidentiality of the information and without the threat that the faculty member's performance would be judged based on the interpretation of such data by others.

Alternatively, some colleges have determined that ACCJC Standard III.A.1.c. requires only that the faculty member's evaluation demonstrate that he or she has participated in SLO development and assessment processes, not that data regarding the faculty's own students should be included in the evaluation. In this case, a college that wants faculty to embrace assessment responsibilities should be very clear, especially in contract language, that the evaluation involves the faculty member's participation in assessment activities, not the results of assessment data used to judge some faculty as less fit.

Either of these alternatives, or other possibilities, may prove acceptable to ACCJC, local academic senates, and the faculty unions that must negotiate evaluation processes. Whatever approach each college may take to faculty evaluation, the process should not involve the inclusion of SLO assessment data upon which the faculty member will be judged by others. To evaluate faculty members—or administrators or staff members—on the basis of a single assessment snapshot would in fact be counter-productive to the spirit of the standards in promoting long-term improvement. The point of SLO assessment is to seek improvement over time, not to enforce ad hoc judgment divorced from a larger context.

Principle Eleven: Faculty should engage in SLO development and assessment not because it is a requirement for accreditation but rather because it is good professional practice that can benefit programs and students.

The chief professional responsibility of faculty is to provide students with the most complete and effective educational experience possible. This responsibility involves not only the planning and delivery of each instructor's own classes, but also participation in curriculum development at the course, program, and college level. Decisions regarding curriculum development should be based on collegial and authentic analysis of data, evidence regarding the current practices and content of the curriculum, and faculty professional expertise, and for this reason SLO assessment can provide informative and beneficial input for making curricular evaluation and discussion at all levels more valuable and purposeful.

Faculty should also engage in assessment activities geared toward curricular improvement in order to ensure that the control of the curriculum remains in faculty hands. Each discipline or department, whether in areas of student services or instruction, has expertise that only faculty can provide regarding the effective and appropriate delivery of the specific subject matter. Outcomes and their assessments therefore must remain under the purview of those responsible for teaching the courses and those who are most qualified to make decisions regarding curricular practices. Faculty should have control of assessment processes and take the lead in analysis and use of the data. Collection of data should be led by the faculty members in the courses they teach. In all aspects of SLO development and assessment, faculty should assume primary responsibility.

Unfortunately, many faculty have come to see assessment as an exercise to be completed in such a way that it will satisfy the requirements of the ACCJC. The ACCJC has announced that it "will expect institutions to be at the Proficiency level in the identification, assessment and use for improvements of student learning outcomes by Fall 2012" (Beno 2009; See Appendix A, p. 2). This 2012 deadline, along with the ACCJC's placing of sanctions on a significant number of California community colleges, has in numerous cases had a negative impact on the ways SLOs and SLO assessment are perceived and addressed. While reaffirming accreditation is clearly an important goal for all colleges, accreditation pressure should not be the principal motivation for faculty to engage in assessment activities. When designed and implemented appropriately, SLO assessment can provide significant benefits as a tool for evaluating and revising curriculum and for improving student learning, and these benefits should be the primary reason for faculty to participate in assessment work.

If faculty do not accept these responsibilities and fail to see SLO assessment as a beneficial professional practice, both faculty and students may suffer. If assessment becomes a task done only to satisfy the ACCJC, faculty will be less likely to engage in authentic discussions of valid data, and indeed the data collected itself may well be less informative. Curricular development and decision making will be less effective, thereby depriving students of the maximum educational experience. In addition, faculty who do not engage in assessment activities may find that decisions regarding curriculum are made for them, either by smaller groups of individuals who have chosen to become involved or, worse yet, by non-faculty who have taken on the responsibilities rightly due to the instructional experts.

If, on the other hand, faculty do participate actively in assessment activities, both faculty and students will benefit. Faculty discussions of curricular issues will be more informed by concrete evidence and may therefore lead to a more collegial and innovative sharing of ideas and decision making. Active engagement in such discussions will ensure that faculty retain control of the curriculum and autonomy over their classrooms. If instructional practices are reviewed and revised by faculty experts and faculty are then given the freedom to implement improvements as they see fit, students will receive a more effective learning experience. The college, the faculty, and most of all the students will experience more positive results if SLO assessment is approached not as a requirement but as a good professional practice with advantages for all involved.

CONCLUSION

Student learning outcomes assessment should be a collaborative process in which all members of the college community play their appropriate roles. Effective assessment requires a commitment from the college in terms of resource allocation and administrative and staff support in terms of coordination, data entry, and other areas. Researchers are also essential to assessment processes, as they can provide expertise in developing appropriate research tools and assist with data collection and extraction in order to help guide and inform assessment processes and analysis. SLOs and SLO assessment should connect to the overall culture of the college through processes such as planning, budgeting, and program review.

While participation of the entire college is necessary, faculty have the primary responsibility for academic SLO assessment and should engage that responsibility positively and collegially. SLOs should be clearly mapped and aligned from the course level upward through the program and institutional level. Appropriate assessment methods should be developed for each curricular situation, allowing for the variety of assessment strategies that may work best in different disciplines or with different teaching styles. Without faculty expertise and leadership, these processes cannot be developed to their maximum efficiency, and colleges, faculty, and students may suffer negative consequences. However, when assessment processes are developed through collaborative faculty discussions and the results are used appropriately for collegial curricular review and improvement, the entire college community will reap the benefits and students will receive the most productive and complete learning experience possible.

RECOMMENDATIONS

The Academic Senate recommends that local colleges and senates should work toward establishing the following conditions on their campuses:

- connect SLO processes to the overall culture of the college through the college vision or values statement and through college processes involving program review, planning, and budgeting.
- ensure that appropriate research support for SLO assessment is available and develop means by which faculty can engage assistance from researchers.
- include adjunct faculty in SLO processes and activities whenever possible.
- include college staff and administration in SLO processes through appropriate roles that do not undermine faculty primacy in SLO development and assessment.
- offer training on such topics as assessment options, types of data produced by different assessment methods, and effective data analysis.
- offer training on how to use data and assessment results to make improvements in curriculum and programs.
- garner sufficient administrative support for SLO development in terms of personnel, resources, and time.
- avoid any incorporation of SLO assessment results in the evaluation process for individual faculty members.

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APPENDICES

APPENDIX A: ACCJC LETTER AND RUBRIC

ACCREDITING COMMISSION for COMMUNITY and JUNIOR COLLEGES

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June 25, 2009

Memo to: **Chancellors, College Presidents, Chief Instructional Officers, Accreditation Liaison Officers**

From: **Barbara Beno, President**

Subject: **Updated Timelines for Rubric for Evaluating Institutional Effectiveness**

In September 2007 I sent you a "Rubric for Evaluating Institutional Effectiveness" that was developed by the Commission for use by colleges as they do self-assessment, by teams as they examine college adherence to the Standards of Accreditation, and by the Commission as it evaluates institutions. This letter reviews the purpose of the rubric and updates the timeline for institutional achievement on the student learning outcomes portion of the rubric-Part III.

The purpose of the rubric is to provide some common language that can be used to describe a college's status *vis-à-vis* full adherence to the standards, as well as to provide a developmental framework for understanding each institution's actions toward achieving full compliance with standards. The Commission hopes the rubric will be a useful tool for colleges and evaluators.

For more than a decade, the Commission's Standards of Accreditation have required institutions to engage in systematic and regular program review as well as short and long-term planning and resource allocation processes that support the improvement of institutional and educational effectiveness. The 2002 Standards of Accreditation have added student learning outcomes assessment and improvement as important components to the required institutional processes of evaluation, planning and improvement.

As teams and the Commission evaluate institutional and educational effectiveness, these three areas – program review, the use of data and analyses to inform institutional planning and improvement, and the assessment of student learning – consistently emerge as areas in which institutions' seem to need additional guidance. The Commission, colleges, and teams have all indicated they need a device other than pure narrative for understanding and describing how well colleges have done in reaching full compliance with the standards. In the past, self study reports and team reports have reflected the authors' unique efforts to find appropriate summative descriptive terms to best communicate each institution's status. This rubric provides for greater consistency in those descriptive narratives.

It is important to note the sample behaviors described in each text box of the rubric are *not* new criteria or standards by which an institution will be evaluated, but are rather examples of behavior that, if characteristic of an institution, would indicate its stage of implementation of the standards. College leaders may find

the rubric helpful in assessing what additional efforts institutions should undertake to achieve full compliance with the Standards of Accreditation.

Finally, the Commission has announced the expectations with regard to performance discussed in the rubric.

- Institutions and teams should be aware that the Commission expects that institutions be at the Sustainable Continuous Quality Improvement level in Program Review of instructional and non-instructional programs and services.

- The Commission also expects that institutions be at the Sustainable Continuous Quality Improvement level in Planning.

- The Commission further expects that institutions now be at the Development level or above in Student Learning Outcomes, since these are the *newest requirements* included in the Standards of Accreditation. When it adopted the 2002 Standards, the Commission stated it anticipated institutions would need eight to ten years to come into full compliance with the new standards on student learning outcomes assessment and improvement.

- The Commission recently announced it will expect institutions to be at the Proficiency level in the identification, assessment and use for improvements of student learning outcomes by Fall 2012.

Of course, the ultimate goal is for institutions to achieve the Sustainable Continuous Quality Improvement level in all three areas.

I hope that this rubric is helpful to you in your leadership work at your campus. The Commission welcomes any ideas for improving this rubric or its use to enhance institutional effectiveness.

BAB
Attachment: Rubric

Accrediting Commission for Community and Junior Colleges
Western Association of Schools and Colleges

Rubric for Evaluating Institutional Effectiveness – Part I: Program Review

(See cover letter for how to use this rubric.)

Levels of Implementation	Characteristics of Institutional Effectiveness in Program Review *(Sample institutional behaviors)*
Awareness	• There is preliminary investigative dialogue at the institution or within some departments about what data or process should be used for program review. • There is recognition of existing practices and models in program review that make use of institutional research. • There is exploration of program review models by various departments or individuals. • The college is implementing pilot program review models in a few programs/operational units.
Development	• Program review is embedded in practice across the institution using qualitative and quantitative data to improve program effectiveness. • Dialogue about the results of program review is evident within the program as part of discussion of program effectiveness. • Leadership groups throughout the institution accept responsibility for program review framework development (Senate, Admin. Etc.) • Appropriate resources are allocated to conducting program review of meaningful quality. • Development of a framework for linking results of program review to planning for improvement. • Development of a framework to align results of program review to resource allocation.
Proficiency	• Program review processes are in place and implemented regularly. • Results of all program reviews are integrated into institution-wide planning for improvement and informed decision-making. • The program review framework is established and implemented. • Dialogue about the results of all program reviews is evident throughout the institution as part of discussion of institutional effectiveness. • Results of program review are clearly and consistently linked to institutional planning processes and resource allocation processes; college can demonstrate or provide specific examples. • The institution evaluates the effectiveness of its program review processes in supporting and improving student achievement and student learning outcomes.
Sustainable Continuous Quality Improvement	• Program review processes are ongoing, systematic and used to assess and improve student learning and achievement. • The institution reviews and refines its program review processes to improve institutional effectiveness. • The results of program review are used to continually refine and improve program practices resulting in appropriate improvements in student achievement and learning.

Accrediting Commission for Community and Junior Colleges
Western Association of Schools and Colleges

Rubric for Evaluating Institutional Effectiveness – Part II: Planning

(See cover letter for how to use this rubric.)

Levels of Implementation	Characteristics of Institutional Effectiveness in Planning *(Sample institutional behaviors)*
Awareness	• The college has preliminary investigative dialogue about planning processes. • There is recognition of case need for quantitative and qualitative data and analysis in planning. • The college has initiated pilot projects and efforts in developing systematic cycle of evaluation, integrated planning and implementation (e.g. in human or physical resources). • Planning found in only some areas of college operations. • There is exploration of models and definitions and issues related to planning. • There is minimal linkage between plans and a resource allocation process, perhaps planning for use of "new money" • The college may have a consultant-supported plan for facilities, or a strategic plan.
Development	• The Institution has defined a planning process and assigned responsibility for implementing it. • The Institution has identified quantitative and qualitative data and is using it. • Planning efforts are specifically linked to institutional mission and goals. • The Institution uses applicable quantitative data to improve institutional effectiveness in some areas of operation. • Governance and decision-making processes incorporate review of institutional effectiveness in mission and plans for improvement. • Planning processes reflect the participation of a broad constituent base.
Proficiency	• The college has a well documented, ongoing process for evaluating itself in all areas of operation, analyzing and publishing the results and planning and implementing improvements. • The institution's component plans are integrated into a comprehensive plan to achieve broad educational purposes and improve institutional effectiveness. • The institution effectively uses its human, physical, technology, and financial resources to achieve its broad educational purposes, including stated student learning outcomes. • The college has documented assessment results and communicated matters of quality assurance to appropriate constituencies (documents data and analysis of achievement of its educational mission). • The institution assesses progress toward achieving its education goals over time (uses longitudinal data and analyses). • The institution plans and effectively incorporates results of program review in all areas of educational services: instruction, support services, library and learning resources.
Sustainable Continuous Quality Improvement	• The institution uses ongoing and systematic evaluation and planning to refine its key processes and improve student learning. • There is dialogue about institutional effectiveness that is ongoing, robust and pervasive; data and analyses are widely distributed and used throughout the institution. • There is ongoing review and adaptation of evaluation and planning processes. • There is consistent and continuous commitment to improving student learning; and educational effectiveness is a demonstrable priority in all planning structures and processes.

Accrediting Commission for Community and Junior Colleges
Western Association of Schools and Colleges

Rubric for Evaluating Institutional Effectiveness – Part III: Student Learning Outcomes

(See cover letter for how to use this rubric.)

Levels of Implementation	Characteristics of Institutional Effectiveness in Student Learning Outcomes *(Sample institutional behaviors)*
Awareness	• There is preliminary, investigative dialogue about student learning outcomes. • There is recognition of existing practices such as course objectives and how they relate to student learning outcomes. • There is exploration of models, definitions, and issues taking place by a few people. • Pilot projects and efforts may be in progress. • The college has discussed whether to define student learning outcomes at the level of some courses or programs or degrees; where to begin.
Development	• College has established an institutional framework for definition of student learning outcomes (where to start), how to extend, and timeline. • College has established authentic assessment strategies for assessing student learning outcomes as appropriate to intended course, program, and degree learning outcomes. • Existing organizational structures (e.g. Senate, Curriculum Committee) are supporting strategies for student learning outcomes definition and assessment. • Leadership groups (e.g. Academic Senate and administration), have accepted responsibility for student learning outcomes implementation. • Appropriate resources are being allocated to support student learning outcomes and assessment. • Faculty and staff are fully engaged in student learning outcomes development.
Proficiency	• Student learning outcomes and authentic assessment are in place for courses, programs and degrees. • Results of assessment are being used for improvement and further alignment of institution-wide practices. • There is widespread institutional dialogue about the results. • Decision-making includes dialogue on the results of assessment and is purposefully directed toward improving student learning. • Appropriate resources continue to be allocated and fine-tuned. • Comprehensive assessment reports exist and are completed on a regular basis. • Course student learning outcomes are aligned with degree student learning outcomes. • Students demonstrate awareness of goals and purposes of courses and programs in which they are enrolled.
Sustainable Continuous Quality Improvement	• Student learning outcomes and assessment are ongoing, systematic and used for continuous quality improvement. • Dialogue about student learning is ongoing, pervasive and robust. • Evaluation and fine-tuning of organizational structures to support student learning is ongoing. • Student learning improvement is a visible priority in all practices and structures across the college. • Learning outcomes are specifically linked to program reviews.

tl: 6/25/2009

APPENDIX B: AAHE 9 PRINCIPLES OF GOOD PRACTICE FOR ASSESSING STUDENT LEARNING

1. The assessment of student learning begins with educational values. Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only what we choose to assess but also how we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.

2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time. Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.

3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes. Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations—those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.

4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes. Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way—about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

5. Assessment works best when it is ongoing not episodic. Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is

to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

6. Assessment fosters wider improvement when representatives from across the educational community are involved. Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/age, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups 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.

7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about. Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change. Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.

9. Through assessment, educators meet responsibilities to students and to the public. There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation—to ourselves, our students, and society—is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

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APPENDIX C: SEVEN PRINCIPLES FOR GOOD PRACTICE IN UNDERGRADUATE EDUCATION

By Arthur W. Checkering and Zelda F. Gamson
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Apathetic students, illiterate graduates, incompetent teaching, impersonal campuses—so rolls the drumfire of criticism of higher education. More than two years of reports have spelled out the problems. States have been quick to respond by holding out carrots and beating with sticks.

There are neither enough carrots nor enough sticks to improve undergraduate education without the commitment and action of students and faculty members. They are the precious resources on whom the improvement of undergraduate education depends.

But how can students and faculty members improve undergraduate education? Many campuses around the country are asking this question. To provide a focus for their work, we offer seven principles based on research on good teaching and learning in colleges and universities.

Good practice in undergraduate education:

1. encourages contact between students and faculty,
2. develops reciprocity and cooperation among students,
3. encourages active learning,
4. gives prompt feedback,
5. emphasizes time on task,
6. communicates high expectations, and
7. respects diverse talents and ways of learning.

We can do it ourselves—with a little bit of help...

These seven principles are not ten commandments shrunk to a 20th century attention span. They are intended as guidelines for faculty members, students, and administrators—with support from state agencies and trustees—to improve teaching and learning. These principles seem like good common sense, and they are—because many teachers and students have experienced them and because research supports them. They rest on 50 years of research on the way teachers teach and students learn, how students work and play with one another, and how students and faculty talk to each other.

While each practice can stand alone on its own, when all are present their effects multiply. Together they employ six powerful forces in education:

- activity,
- expectations,
- cooperation,
- interaction,
- diversity, and
- responsibility.

Good practices hold as much meaning for professional programs as for the liberal arts. They work for many different kinds of students—white, black, Hispanic, Asian, rich, poor, older, younger, male, female, well-prepared, underprepared.

But the ways different institutions implement good practice depend very much on their students and their circumstances. In what follows, we describe several different approaches to good practice that have been used in different kinds of settings in the last few years. In addition, the powerful implications of these principles for the way states fund and govern higher education and for the way institutions are run are discussed briefly at the end.

As faculty members, academic administrators, and student personnel staff, we have spent most of our working lives trying to understand our students, our colleagues, our institutions and ourselves. We have conducted research on higher education with dedicated colleagues in a wide range of schools in this country. With the implications of this research for practice, we hope to help us all do better.

We address the teacher's how, not the subject matter what, of good practice in undergraduate education. We recognize that content and pedagogy interact in complex ways. We are also aware that there is much healthy ferment within and among the disciplines. What is taught, after all, is at least as important as how it is taught. In contrast to the long history of research in teaching and learning, there is little research on the college curriculum. We cannot, therefore, make responsible recommendations about the content of good undergraduate education. That work is yet to be done. This much we can say: An undergraduate education should prepare students to understand and deal intelligently with modern life. What better place to start but in the classroom and on our campuses? What better time than now?

SEVEN PRINCIPLES OF GOOD PRACTICE

1. Encourages Contact Between Students and Faculty

Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing

a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

2. Develops Reciprocity and Cooperation Among Students

Learning is enhanced when it is more like a team effort that a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding.

3. Encourages Active Learning

Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives. They must make what they learn part of themselves.

4. Gives Prompt Feedback

Knowing what you know and don't know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

5. Emphasizes Time on Task

Time plus energy equals learning. There is no substitute for time on task. Learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis of high performance for all.

6. Communicates High Expectations

Expect more and you will get more. High expectations are important for everyone—for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated. Expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations for themselves and make extra efforts.

7. Respects Diverse Talents and Ways of Learning

There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learn in new ways that do not come so easily.

Teachers and students hold the main responsibility for improving undergraduate education. But they need a lot of help. College and university leaders, state and federal officials, and accrediting associations have the power to shape an environment that is favorable to good practice in higher education.

What qualities must this environment have?

- A strong sense of shared purposes.
- Concrete support from administrators and faculty leaders for those purposes.
- Adequate funding appropriate for the purposes.
- Policies and procedures consistent with the purposes.
- Continuing examination of how well the purposes are being achieved.

There is good evidence that such an environment can be created. When this happens, faculty members and administrators think of themselves as educators. Adequate resources are put into creating opportunities for faculty members, administrators, and students to celebrate and reflect on their shared purposes. Faculty members receive support and release time for appropriate professional development activities. Criteria for hiring and promoting faculty members, administrators, and staff support the institution's purposes. Advising is considered important. Departments, programs, and classes are small enough to allow faculty members and students to have a sense of community, to experience the value of their contributions, and to confront the consequences of their failures.

States, the federal government and accrediting associations affect the kind of environment that can develop on campuses in a variety of ways. The most important is through the allocation of financial support. States also influence good practice by encouraging sound planning, setting priorities, mandating standards, and reviewing and approving programs. Regional and professional accrediting associations require self-study and peer review in making judgments about programs and institutions.

These sources of support and influence can encourage environments for good practice in undergraduate education by:

- setting policies that are consistent with good practice in undergraduate education,
- holding high expectations for institutional performance,
- keeping bureaucratic regulations to a minimum that is compatible with public accountability,
- allocating adequate funds for new undergraduate programs and the professional development of faculty members, administrators, and staff,
- encouraging employment of under-represented groups among administrators, faculty members, and student services professionals, and
- providing the support for programs, facilities, and financial aid necessary for good practice in undergraduate education.