The Handbook is designed to assist instructional, administrative and support offices and departments with developing and implementing institutional effectiveness processes that improve student learning, support services, institutional activities, policies and procedures. As a basic reference for faculty and staff members, it provides information about the development of useful and meaningful mission statements, goals, objectives, and outcome statements, and the selection of appropriate assessment methods in order to obtain and use the results of evaluation. The Handbook has benefited tremendously from the work of colleagues at many other institutions, and their assistance is gratefully acknowledged. Comments and suggestions for improvements are welcome and should be sent to Denise Watts in the Office of Institutional Research, Planning and Effectiveness at watts_de@utpb.edu.
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INTRODUCTION

At the most basic level, planning is the process of thinking about and deciding how to
approach the future. Assessment is the process of understanding the level of performance
attained in relation to a previously set goal or objective. When formalized, institutional
effectiveness involves identifying the future’s most significant forces and finding ways to
mitigate the damage or enhance the impact while simultaneously attaining the unit’s goals in
the anticipated world defined by the planning horizon. Uncertainty and risk always exist, and
longer planning horizons involve greater elements of both. When the margins for error are
slim, the need to plan is greatest. When times are tough, the need to be constantly gathering
evidence about how well the plan is working and where the next problematic force or event is
likely to arise is most intense. Even with its formidable downsides, thinking about ways to
shape the future is worth the time and effort involved. In anticipating the future, we also
anticipate a way forward and the contingencies involved in taking the path.

Unfortunately, the world is not static and planning is never perfect so an important attribute of
most planning systems is that they are flexible. Plans need to be revisited often and revised
frequently, but always with the goals in sight and always in cooperation with those who are
expected to help put the plans into motion. No group on campus lacks goals although they
may differ from person to person especially when they remain unarticulated. Not to plan
makes the department a victim; not to revisit the plan often makes it a fool. With these ideas
in mind, planning at all levels of the University makes sense. At UTPB, planning and
assessment take place throughout the organization, and it is hoped that this Handbook can
help in the effort to do it well.

As a regional accrediting group SACSCOC is charged by the member colleges and
universities to help improve institutions of higher education. SACSCOC has also been
concerned about helping member schools to articulate their goals, devise plans, and develop
information useful to the pursuit of those goals. Since 1984 when the College Delegate
Assembly first voted to replace the Standards of the College Delegate Assembly with the
Criteria for Accreditation, institutional effectiveness has been a centerpiece of the
accreditation process. In 2001 when the College Delegate Assembly approved the Principles
of Accreditation, institutional effectiveness remained an important element of gaining and
retaining accreditation. All institutions were expected to be in complete compliance with the
institutional effectiveness standards by 1991. With the Principles, SACSCOC has moved
institutional effectiveness from the focus of accreditation to a major compliance element.

Institutional effectiveness is a phrase devised by SACSCOC to encompass both planning and
assessment. Core Requirement 2.5 of The Principles of Accreditation: Foundations for
Quality Enhancement is focused on institutional effectiveness. Since it is a core requirement,
it is one of the “. . . basic, broad-based, foundational requirements that an institution must
meet to be accredited with the Commission on Colleges.” (Southern Association of Colleges
and Schools Commission on Colleges 2012: 17). According to Core Requirement 2.5, “The
institute engages in ongoing, integrated, and institution-wide research-based planning and
evaluation processes that (1) incorporate a systematic review of mission, goals, and
outcomes; (2) result in continuing improvement in institutional quality and (3) demonstrate the
institution is effectively accomplishing its mission.” (Southern Association of Colleges and
Principles of Accreditation: Foundations for Quality Enhancement, the institutional
effectiveness process in an institution must be a “systematic, explicit, and documented
process of measuring institutional performance against mission in all aspects of an
institution;” the process is “continuous, cyclical . . . participative, strategic, flexible, relevant
and responsive;” and it includes “all programs, services, and constituencies; is strongly linked
to the decision-making process at all levels, and provides a sound basis for budget decisions,
resource allocations and plans for institutional improvement. (Southern Association of
Colleges and Schools Commission on Colleges, 2012:16).”
Institutional effectiveness at the University of Texas of the Permian Basin includes three major elements: 1) the institutional planning process which includes the University Strategic Plan, and the University budget process; 2) program review and disciplinary accreditation; and 3) the departmental/office institutional effectiveness process that supports both planning and student learning, administrative, and support service outcomes assessment. These process elements provide the major impetus for systematic and continuous improvement at the institution.

CHARACTERISTICS OF INSTITUTIONAL EFFECTIVENESS

Effective planning and assessment are characterized by a number of design and process elements. The institutional effectiveness process is

**Mission-centered:** The institutional effectiveness system is designed to demonstrate that every institutional component including divisions, colleges, departments and offices is helping to realize the mission of the University while successfully accomplishing its own mission.

**Improvement-oriented:** In addition to being centered on mission, planning and assessment must be clearly focused on continuous improvement in each unit and throughout the University. It should be clear that outcomes are evaluated and the results used to improve the level of student learning and the effectiveness and efficiency of offices and programs.

**Participative:** Planning and assessment are shared responsibilities that extend to faculty and staff involved in the programs and activities to be evaluated. Planning and assessment work best when participation is broadly-based.

**On-going:** Planning and evaluation are not one-time events. Institutional effectiveness is regularly scheduled, regularly reviewed, and regularly documented.
**Systematic:** Planning and assessment are designed to evaluate and improve all elements of the University through routine goal setting and evaluation of the extent to which both planning and assessment goals are achieved. Student learning goals for every degree program are set to ensure that each academic program attains the high goals set for it by program faculty members. While every element of mission and all program goals do not need to be evaluated every year, all should be evaluated on a regular schedule.

**Integrated:** The various planning and assessment processes are interconnected with budget, with one another, and with institutional decision-making to provide the most productive system possible. Planning and assessment processes are also integrated with external processes and reporting systems that affect the University. Such areas of interconnection exist with The University of Texas System, the Texas Higher Education Coordinating Board (THECB), other state agencies, the Southern Association of Colleges and Schools Commission on Colleges, and federal agencies.

**PLANNING**

Planning has an extended history at UTPB. The first long range plan was developed in 1982. In 1991 House Bill 2009 which required every state agency and higher educational institution to develop an agency plan every other year was passed by the 72nd Legislature. The first agency plan was submitted in 1993. Since that time a number of formal planning efforts have been undertaken by the University.

The current planning process at UTPB is shown in the diagram on the next page. As a component of the University of Texas System and a public university, UTPB is responsive to the goals of the state of Texas, The University of Texas System and The Higher Education Coordinating Board (THECB). In addition, the University monitors and plans for internal needs and national and regional issues and trends.

**STRATEGIC PLANNING**

Strategic planning addresses the long-term (10 year) planning horizon for the institution. The planning process is initiated by the Budget and Planning Committee which is chaired by the Provost and Vice President. The Committee is composed of all vice presidents, a dean, a department chair, faculty members, the Chair of the Staff Council, the Faculty Senate Chair and the Chair of the Student Senate. The Committee uses information from a number of other planning activities including the goals of The University of Texas System, THECB strategic plan, UTPB planning needs, and the issues of the nation and the region in its deliberations. The draft strategic plan is developed by the Committee, and released for review to the University community through the Administrative Council and the University homepage. Comments are incorporated as needed into the final version. Once approved, the Plan is submitted to The University of Texas System for review. The institutional planning process is shown on the next page.

A number of other issue-oriented plans are also part of the planning activities at UTPB. These plans are more restricted in scope than the Strategic Plan since they cover a single or a cohesive set of concerns. The issue-oriented plans are developed in response to perceived needs and the requirements of a variety of state agencies and UT System initiatives. These plans include the Facilities Master Plan, the Distance Education Plan, the Information Resources Plan, the HUB plan, Recruitment and Retention Plan, and the Enrollment Management Plan.
The Institutional Effectiveness System at UTPB

Other State Agencies

Coordinating Board

UT System

UTPBB

Divisions

Coordinating Board

Closing the Gaps - THECB Plan

Goals

UT System

Regional Needs

UTPBB Strategic Plan

Capital Improvement Plan

Issue Oriented Plans

Campus Facilities Master Plan

Recruitment/Retention Plan

Distance Education Plan

Enrollment Management Plan

Information Resource Plan

HUB Plan

Non-instructional Institutional Effectiveness Plans

Academic, Administrative and Support Service Office Compacts

Program Reviews/Accreditation

Academic Affairs Institutional Effectiveness Plans
UNIVERSITY BUDGET PROCESS

University budget process is conducted in the spring term. Cost center heads review and verify the salary roster and make requests for new staff lines, additional M&O, travel, equipment and other needs. The requests must be prioritized and include justifications that support university strategic directions and institutional planning priorities that have been identified in UTPB’s current Strategic Plan. Information from the vice presidents indicates any planning conditions that must be taken into account for the upcoming year.

The members of the Budget and Planning Committee use the information gained from the budget submissions in the updates of the Strategic Plan and in review of budget priorities. The vice presidents and President use the budget submissions in budgeting and planning both at the institutional and divisional levels.

PROGRAM REVIEW AND DISCIPLINARY ACCREDITATION

Each academic degree program is reviewed by external reviewers as part of the program review process which is a part of the institutional effectiveness process of the University. Programs accredited by a disciplinary accrediting association are regularly evaluated by external reviewers and are therefore not required to participate in the institutional program review process unless they are graduate programs required to participate as part of the THECB graduate program review process.

Over a seven-year period, all unaccredited programs are scheduled for review. Degree programs designated for review conduct and write a self-study using guidelines identified in the Academic Affairs Program Review Procedure statement. Reviewers are recommended by the disciplines under review and approved by the college dean and the Provost and Vice President. All reviewers for all programs within a college are usually brought in and conduct the reviews simultaneously. An external review team usually makes both general remarks that transcend the disciplines being reviewed and remarks uniquely addressed to the particular degree program for which each reviewer is responsible. The external reviewers prepare a written report to which the degree programs reply in writing. Recommendations accepted from the program reviews are expected to become a part of the planning and evaluation at the departmental and discipline level and are reflected in disciplinary and departmental planning. Graduate program reviews are submitted to the THECB as required by the agency.

INSTITUTIONAL EFFECTIVENESS PROCESS

Academic Planning and Assessment
The Assessment Review Committee is responsible for oversight of all campus assessment activities. The Budget and Planning Committee is responsible for review of the University mission, the University vision statement, and institutional strategic planning. The Committee is also part of the linkage between planning and budget. As is true at all levels of the institution, planning is bound to evaluation and both are bound to improvement in all aspects of a department, discipline and/or College’s programs, activities, and services. When academic goals focus on the achievement of student learning outcomes, evaluation is called assessment. Assessment of student learning goals in academic areas is so important that it is covered extensively in another section and therefore will not be discussed here. Other goals known as program goals might cover, but are not limited to, student advising, student or faculty recruitment, retention, degree completion rates, curricular review, research or scholarly productivity, grant activity, faculty or student service activities or student satisfaction and are covered in the planning for the department.

Planning and assessment are directly related to a department’s and discipline’s mission statement. A good mission statement is
Assessment of support and administrative office outcomes will be covered in the results obtained are on the planning results and use activities associated with achieving the outcome and the use that the office will make of the results obtained are on the planning results and use a form (Form 7) shown in Appendix B. Assessment of support and administrative office outcomes will be covered in the Assessment section.

**Steps in the Planning Process**

- **Focused**: The unit's purpose within the University is the nucleus of the statement.
- **Brief**: It usually contains no more than 100 words in 3 or 4 succinct sentences.
- **Clear**: It is coherent, free of jargon, and communicates plainly.
- **Positive**: The statement projects a positive image without being self-aggrandizing.
- **Values Driven**: It delineates the principles shared and practiced by members of the unit.
- **Adaptable**: The mission statement changes as the unit's purpose changes.

Beginning with the mission, faculty and staff define a series of goals. Since several departments contain more than one discipline and/or degree program, it is important to note that goals include those for the entire department and major goals for disciplines and/or degree programs. Academic planning defines short-term academic goals called planning outcomes that are documented at the level of the department. Planning outcomes encompass the upcoming year and are identified on Form 1 of the institutional effectiveness documentation (See Appendix B).

Planning outcomes are aligned with the goals of the University Strategic Plan and the College. Each department is different and will have some planning outcomes that address their unique circumstances as well. For instance, some applied programs have industry regulatory issues that must be addressed either in the curriculum or in other ways; disciplines that are moving toward accreditation may have outcomes that focus on compliance with accreditation mandates; departments and disciplines in rapidly changing fields might have equipment and/or curricular outcomes that focus on maintaining currency in the discipline and so on. The extent to which a unit is achieving its goals is critical information for continued improvement. The planning documentation includes progress measures and how the results of evaluating progress have led to additional change or changes in strategies or tactics (Appendix B).

**Support and Administrative Office Planning**

Offices that do not deliver direct instruction are also expected to plan and document their planning. As is true with academic units, support and administrative offices plan for improvements in such areas as services, programs, personnel, policies, procedures, resource acquisition, activities, events, and documentation. Planning goals are developed with an understanding of the environment within which the office operates. Broad-based participation by the members of an office who will be affected by the plan is also an important attribute for planning success. The broader the participation in setting the goals; the more likely members of the office will actively attempt to achieve them.

Planning must be congruent with the goals of University Strategic Plan and the division and must address the unique elements of the office. For example, financial aid offices must address a challenging regulatory environment and need to address the continuing education needs of staff. Computing services units face rapidly changing hardware and software demands, staff training needs, changing educational technology, a rapidly shifting security environment, and considerable regulation. The capacity of many offices to maintain acceptable programs and services is dependent on their ability to stay ahead of the next big change in their environment.

Planning outcomes are short-term and usually restricted to the next year to two years. In most cases a planning outcome contains the objective and at what level the office hopes to accomplish the objective. Planning outcomes, progress measures, and methods for measuring progress are documented on the office planning form (Form 5 is included in Appendix B). The results of activities associated with achieving the outcome and the use that the office will make of the results obtained are on the planning results and use a form (Form 7) shown in Appendix B. Assessment of support and administrative office outcomes will be covered in the Assessment section.
**Step 1: Mission or Purpose.** There are usually several reasons for the existence of a department or office. Once those reasons are enumerated, the unit develops a brief statement of purpose or mission. This statement should reflect a purpose to which the members of the department/office are committed because it will become the foundation for all institutional effectiveness activities. While a mission statement may capture the purposes of a unit perfectly at one particular time, no unit is immune to change. Significant changes in purpose should be captured in the mission statement which means that mission statements need to be reviewed periodically to keep them current and accurate. The need to review why a unit exists is especially important in a University undergoing rapid change. A serious reconsideration of the purpose of a department or office should be undertaken any time the unit adds or loses responsibilities and at least once every five years.

**Step 2: Understand the Environment.** All departments and offices exist in a rich environment of goals, issues, needs, regulations, expectations and requirements. These forces exist both inside and outside the University. Once the important elements of the environment are identified it is clearer what needs to be done to move forward. Since no one can predict the future with unerring accuracy, having an understanding of the likelihood of a future event and the type of response required is critical. Important, high priority events must be addressed. Other events may have a low probability of occurrence, but they must be addressed if there would be serious consequences if they were to occur. For instance, the possibility that the University might suffer a shooting incident like the one that occurred at Virginia Polytechnic and State University is not high; however, should such an incident occur, the Police Department, Physical Plant, Student Services, Academic Affairs, Public Relations, and the President’s Office will be expected to act rapidly and decisively. Rapid decisive action is less likely in the absence of adequate planning.

**Step 3: Develop Goals.** Offices and departments use a variety of different sources to assist them in developing goals. The University goals articulated in the Strategic Plan, the goals of The UT System and THCB, college goals, program review recommendations, accrediting standards, disciplinary trends, state and federal regulations, and departmental issues among other elements form the basis for departmental goal formation. As much as possible, plans should be synchronized with the goals of the University and should cover the major internal and external challenges. Everyone expected to help achieve the goals should be involved in development of the plan. Involvement fosters understanding and buy-in; both of which contribute to goal attainment. The goals are broken into a series of shorter term objectives that are enumerated on the appropriate forms each year.

The forms that document the plans and assessments that will occur each year are submitted once a year in May. However, plans are always subject to change as the environment changes. When planned activities and assessments change, the department, office, or degree program amends its forms and submits them through its administrative channels to the Office of Institutional Research, Planning, and Effectiveness.

**Step 4: Implement the Plan.** Departments must put their plans into action to realize the benefits. Working on implementation of objectives should be continual over the year rather than a hurried attempt to complete the objectives because the results are overdue or due in the near future. A simple, but highly effective technique for supporting a set of objectives is to assign responsibility for implementation and establish a timeline. The timeline provides obvious opportunities for checkpoints on what has and has not been completed and a basis on which to encourage action. Unassigned responsibilities are not likely to be performed unless the department chair or the director initiates implementation activities.

**Step 5: Build on Success.** Once a plan has been put into motion, it is important to check its progress regularly. With a planned activity, unless it is very simple and straightforward, there are milestones along the way to accomplishing the goal or objective. Taking time to consider progress at those milestones allows mid-course corrections that reinforce the likelihood of success. Attaining an objective is a moment to celebrate, but also a moment to consider what
comes next. Documenting the results of planning takes place on either form 3 for administrative areas, form 4 for degree and certificate programs, or form 7 for administrative or support offices (Appendix B). Results of planning need to be displayed in column three of the forms. It should be clear how the planning results have led to actions shown in column four of the forms.

**ASSESSMENT**

Assessment has been widely discussed in higher education since the 1980s. Interest in finding ways to improve learning in colleges and universities was the subject of numerous reports and commissions in the 1980s and 1990s. What began as a call within the academy for greater concern about student learning, has become a call for greater accountability by all educational institutions. Interest in assessment now extends from the federal government through governors and state officials and into coordinating boards and boards of trustees and regents. Both disciplinary and regional accreditation groups now require student learning to be measured and action taken to improve it. The belief that public colleges and universities should be more transparent and accountable to parents, state officials and taxpayers is not confined to any political party, and it is unlikely to diminish in the near future.

Despite changes in rhetoric, assessment should be of continuing interest among faculty members in colleges and universities. It is the learning of our students that is the focus of so much attention. The degrees those students obtain have the names of our universities printed on them. Assessment should be our concern just as teaching and learning is our concern.

There are many definitions of assessment in the literature; however for the purposes of the Handbook we will use the following definition from Upcraft and Schuh (1996:18):

**Assessment is any effort to gather, analyze, and interpret evidence which describes academic, institutional, divisional, or agency effectiveness.**

Assessment takes place throughout the University in both instructional and non-instructional areas. While the subjects of assessment differ depending on whether the department offers formal instruction, all of assessment is focused on improvement. As Schuh and Upcraft (2001:4) note:

> Effectiveness includes not only assessment of student learning outcomes, but assessing other important outcomes such as cost effectiveness, client satisfaction, meeting clientele needs, complying with professional standards, and comparisons with other institutions. Assessment . . . is not restricted to students, but may include other constituents within the institution, such as the faculty, administration, and governing boards, and outside the institution, such as graduates, legislators, funding sources, and accreditation agencies."

**COMMON MISCONCEPTIONS ASSOCIATED WITH ASSESSMENT**

1. **Faculty members already evaluate students through the grades they issue in their classes. Program assessment is redundant.**

Faculty members do evaluate students routinely and assign grades to reflect individual levels of accomplishment on tasks, tests, and courses. However grades reflect a variety of types of learning, activities, bonus credits, and expectations that vary from instructor to instructor. Assessment requires a program’s faculty to make a joint decision about what specific learning should be evaluated and what knowledge, skills, and attitudes are indicative of the major learning goals set for the program. Programmatic assessment, unlike grades, is designed to evaluate the level of accomplishment of a program not an individual student.
Programmatic evaluations examine the aggregate level of accomplishment of a program's students as a way to establish whether or not the program is performing at a high level.

2. Staff members already know about the processes and procedures, bottlenecks and issues that they have with their users. Assessment does not tell us anything new.

Staff members do know a lot about the issues and problems that exist in their offices, but are often too close to the problems, too invested in the processes and procedures, or just too busy to develop solutions to the problems that they know exist. Assessment forces staff members to step back, examine issues and problems from a new perspective, and rethink the activities of the office. No office is so perfect that examination of issues and problems will not allow staff members to make improvements in how the office functions.

3. Assessment violates academic freedom.

When appropriately conducted neither faculty knowledge nor judgments in teaching or research are violated. While the joint faculty deliberations that produce program goals do produce parameters within which instruction takes place, it has always been true that the faculty as a group is responsible for a program's curriculum. No faculty member is free to teach anything they wish in a course. The discipline defines what is appropriate in terms of knowledge, skills and attitudes, while course descriptions and programmatic needs define what is taught in any particular course.

No one has ever had the right to teach a course just as she pleases; we always are bound by the rules of responsible interaction with students, by departmental agreement about what a course will cover, and the requirement that we assign each student a grade that is public to limited audiences. We hand out a syllabus or put it on the web. We establish goals for the course and share them with colleagues and students. We share problems in student learning and plans for a course whenever we submit a course to the curriculum committee for approval, ask for new resources, come up for tenure, or engage in a departmental discussion about improving our teaching. Assessment asks for an extension of this collegial work (Walvoord, B.E. 2004: 8).

In a degree program, the disciplinary faculty define the goals of the program, interpret the meaning of assessment results, determine the degree to which students have acquired appropriate learning, and decide what will improve student attainment.

4. Assessment should only be used to demonstrate a program's or office's successes.

Assessment in instructional areas is based on the improvement of student learning and program success. In non-instructional offices or departments, it is based on improvement in the efficiency or quality of services. If the program or office has no room for improvement then assessment is of no use. It follows then that the areas in which assessment should be concentrated are those in which the greatest improvements can be made. The reality is that every program and every office can get better, and assessment can provide information to inform decisions about improvement.

5. Assessment is just another form of faculty and staff evaluation.

The University has processes for evaluating faculty and staff. There is no interest on any administrative level at UTPB in evaluating individual faculty or staff members through the assessment system. Assessments are created by the faculty and staff, conducted by the faculty and staff, analyzed by the faculty and staff, and any changes are initiated by the faculty and the staff. The types of changes that are appropriate in instructional areas include but are not limited to adding or changing student assignments, adding or dropping
prerequisites, adding courses, changing course descriptions, restructuring degrees and so on. In non-instructional areas appropriate changes are related to finding new efficiencies, changing policies or procedures, and improving communication with users. Changes are not related to personnel; they are related to improving academic programs and university services.

6. **Assessment is only useful for getting through the SACSCOC reaffirmation process.**

   The gist of this misconception is that assessment is a waste of valuable faculty and staff time, but we have to do it so we will put in as little time and effort as possible. It is true that the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) requires that assessment be conducted and used and has required it since the 1980s. If, however, SACSCOC requirements are the only reason to conduct assessments then faculty and staff time is indeed being wasted, but SACSCOC is not the guilty party. Assessment is like most things, the value of the return is dependent on the time, effort and thought expended. Faculty members who view assessment as a form of research into the effects of their program are often rewarded with information that can make a real difference in the extent to which student’s achieve. Staff members who are willing to examine the services that they provide in-depth are often surprised by the difference that changes can make. Faculty members, especially those who just want to get through the chore, can probably predict how valuable the effort will be—they have experience with the same attitudes and outcomes in their classes.

**PHILOSOPHICAL GUIDELINES**

1. Assessment matters because the faculty and staff at UTPB believe that student learning matters. Assessment will therefore be created, conducted, analyzed, and used by the faculty and staff for improvement.

2. The assessment process will respect academic freedom and honor faculty responsibility for general education and program curricula.

3. The assessment process will respect the expertise of the staff and honor their commitment to conduct their responsibilities appropriately and professionally.

4. Assessment includes the routine, systematic collection of reliable and valid information about student achievement of program goals and the operation of non-instructional services. Its purpose is to assist faculty in increasing student learning and staff in improving university functioning at all levels.

5. While assessment results are used to improve student learning in programs and operational effectiveness in offices, results alone do not dictate how improvement should take place. The faculty and staff, exercising their professional judgment and values, are responsible for deciding on appropriate changes to improve student achievement and University operations.

6. Assessment will not be used for the purpose of evaluating faculty or staff members.

7. Assessment is an on-going process that will be a part of the institutional culture and regular faculty and staff work at UTPB.
GOOD PRACTICE FOR ASSESSING STUDENT LEARNING

The American Association for Higher Education published the following nine principles for assessment of student learning in 1992 (Astin et al., 1992). While these good practice characteristics were formulated for academic instructional assessment, they are valuable for all members of the University community who are involved in the assessment process. They are as valid today as they were when they were first published.

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.

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.

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 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.

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 the 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.

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 over time is best fostered when assessment entails a linked series 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.

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 members 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/ae, 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.

**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.

**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.

**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.

**ASSESSING STUDENT LEARNING**

As is true with the definition of assessment, there are many different definitions of academic assessment in the literature. One of the better definitions emphasizes the four major attributes of student learning assessment: 1) it involves faculty articulating their values and expectations; 2) setting high standards for learning; 3) investigating the extent to which the learning goals are attained and 4) using the information to further improve student learning.

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve performance (Tom Angelo as quoted in unpaginated University of Texas System web page, Student Learning Assessment, Frequently Asked Questions).

When applied to degree programs, assessment of student learning involves the faculty in a degree/certificate program deciding on the program’s major goals, setting learning expectations...
for those goals; deciding how the goals will be evaluated, and using the results of the evaluation to improve the program’s ability to provide a high quality learning experience for students.

PREPARING THE INSTITUTIONAL EFFECTIVENESS FORMS

Institutional effectiveness in instructional areas has two components: departmental planning and degree/certificate program assessment. The forms for those activities are shown in Appendix B. On all forms, the information about a particular outcome must be lined up horizontally across the page (objective, outcome, methodology or progress measure, results, use) to facilitate reading and understanding the material.

Planning
Planning is used in two contexts in this discussion. The more global usage indicates that departments and offices must make explicit what they will be doing in both new initiatives and assessments to be conducted. The second more limited use of planning restricts it to the items listed on form 1 for the upcoming year. In this usage an academic department or college uses form 1 to describe the major initiatives to be undertaken during the upcoming year. The plans may be initiated in any area of the department’s or college’s work and may be based on any legitimate source of information including professional judgment, direction of the discipline, recognized needs, recommendations from program review committees or accreditation site visits, etc. In deciding what changes to activities, services, policies, procedures, equipment, staffing, etc. will be of high priority in the coming year, the department/office must take into consideration the elements of the University’s current Strategic Plan. The Strategic Plan is available on the University’s Web site at http://www.utpb.edu/docs/default-source/utpb-docs/academicaffairs/strategicplan.pdf. Each dean’s office and academic department must submit a planning form to their next higher level supervisor on the schedule issued by the Office of Institutional Research, Planning, and Effectiveness each year. The results of planned change are reported on form 3 and how the current state of progress will be used to inform continuing change or institutionalization of the change initiative are reported in form 3.

Assessment
In instructional areas, assessment of student learning is a primary focus. As Banta et al. (1996:11) write, “Effective assessment programs reflect the imaginative, creative, and energizing aspects of learning, not only so as to more accurately measure the breadth and depth of the learning experience but also to contribute to the ongoing spirit of inquiry, reflection, and growth that characterize the university as an institution.” Assessment focuses on three elements of learning: core content or knowledge, skills that allow knowledge and facts to be applied, and dispositions that represent the beliefs that students should attain as educated citizens and members of their discipline.

Student Learning Goals, Objectives and Outcome Statements

Student Learning Goals and Objectives. Program assessment is focused on five major questions:

- What do we, as a faculty, expect a student to know, be able to do, or believe as a result of going through the program?
- How well are students achieving those results?
- How do we know?
- How do we use the information to improve student learning?
- Do the improvements to the program make a difference?

Assessment is directly related to a degree/certificate program’s major student learning goals. These goals are the beginning point for assessment. Goals are broad statements of what students who complete the program will know, be able to do or will believe. Learning goals are
not usually directly testable. For instance, the goal that “students will be able to write an acceptable research report” would be difficult to test without specific information about what constitutes “acceptable” in the discipline; what the correct format for a research report was in the discipline; and what constitutes appropriate content for a research report in the discipline.

Examples of goals might be:

“Students will have the scientific tools to expand knowledge in the discipline”
“Students will understand the major theoretical frameworks in the field”
“Undergraduate majors will have a broad understanding of the major concepts and vocabulary of the discipline.”

Statements which begin with “The department will provide . . .” or “The program will strive to . . .” may be goals, but they are not student learning goals. The focus of a student learning goal is on what students learn not what faculty members teach or what the program seeks to accomplish.

The goals are translated into more testable statements called objectives. These objectives make clear the meaning of the goal within the framework of the discipline and the specific degree/certificate program. For instance, an acceptable research report in psychology might entail the objective that “students will write a research report using APA format that contains a clear description of the research question, an appropriate review of the literature, acceptable hypotheses for the original research that the student has undertaken, appropriate tests of the hypotheses using data gathered and analyzed by the student and the drawing of appropriate conclusions from the literature and the analysis.” The same type of operationalization of the goals could be done for each of the goals noted above.

Writing Student Learning Outcomes. The next element in a degree/certificate program assessment is the statement of the student learning outcomes.

Learning Outcomes are statements of what students will know, be able to do, or value as the result of an academic program or learning activity.

An outcome is stated in such a way that it is clear what target a group of students must attain on a specific measurement tool in order to be considered to have successfully attained the student learning goals and objectives.

Student Learning Outcomes are specific, observable, and measurable. There are a number of interesting systems for writing outcome statements. The University of Central Florida in their Academic Program Assessment Handbook (2005: 30-31) describe the SMART system.

Specific
- Define specific learning outcomes. Clearly define the expected abilities, knowledge, values, and attitudes a student who graduates from your program is expected to have attained.
- Focus on critical outcomes. When data are available, there should an opportunity to make improvements in the program.

Measurable
- It should be feasible to collect accurate and reliable information on the student learning outcome.
- Consider your available resources in determining the method for data collection.

Aggressive but Attainable
- When defining the learning outcomes and setting targets, use targets that will move you in the direction of your vision, but don’t try to be perfect all at once.
- Some questions that might be helpful are
  - How have the student’s experiences in the program contributed to their abilities, knowledge, values and/or attitudes?
What do students know?
What can students do?
What do students care about?

- What knowledge, abilities, values, and attitudes are expected of graduates of the program?
- What would the outcomes in a perfect program look like?
- What would the outcomes in a good program look like?

Results Oriented and Timely
- Define where the program would like to be with a specified time-limit (i.e. an increase of 10% in test scores over the next year, 90% attainment this year, 15% improvement in the rubric scores on communication within a year).
- Also determine what standards are expected from students in your program. For some outcomes, you may want 100% attainment, while for others a lower target is reasonable.

In order to write a student learning outcome, both the student learning objective and the method of assessment must be known. An outcome statement defines explicitly what constitutes successful attainment of a particular objective and therefore successful attainment of the goal to which the objective is related. Thus for instance, a student outcome might be “Overall, students in PSYC 4350 will have an average of 5 on the research report rubric.” If use of a microscope were defined as one of the “scientific tools” that students had to master in order to “expand knowledge in the discipline,” the objective might be phrased as “All students will be able to set up a microscope and successfully view a prepared slide.” A student outcome from this objective might be, “By their sophomore year 100 percent of biology majors will pass the microscope test with an 80 or above.” A list of correct and incorrect student learning outcomes are shown in Appendix D.

Identifying Skills and Knowledge for Student Learning Outcomes. The use of a taxonomy of learning domains may be helpful in writing learning outcomes. The best known of these frameworks is Bloom’s Taxonomy of Educational Objectives (1956). Bloom’s taxonomy recognizes three domains of educational objectives: cognitive, skills, and affective.

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Mastery of subject material; includes observation and recall of information; knowledge of dates, events, places; knowledge of major ideas.</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Ability to predict consequences and future trends; includes understanding information; grasp of meaning; translating knowledge into new contexts; interpreting, comparing and contrasting material; ordering, grouping and inferring causes</td>
</tr>
<tr>
<td>Application</td>
<td>Ability to solve problems using required knowledge/skills; includes using information, material, methods, concepts, theories, etc. in new situations</td>
</tr>
<tr>
<td>Analysis</td>
<td>Ability to break down material and recognize structure of organization; includes seeing patterns; organization of parts, recognition of hidden meanings, identification of components</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Ability to use old ideas to create new ones; includes generalizing from given facts, relating knowledge from several areas, predicting and drawing conclusions</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Ability to judge and assess value of material; includes comparing and discriminating between ideas; assessing value of theories, presentations, etc., making choices based on reasoned argument, verifying the value of evidence, recognizing subjectivity</td>
</tr>
<tr>
<td>Affective</td>
<td>Description</td>
</tr>
<tr>
<td>Receiving</td>
<td>Awareness; willingness to participate</td>
</tr>
<tr>
<td>Responding</td>
<td>Actual participation in learning activity; demonstrates interest</td>
</tr>
<tr>
<td>Valuing</td>
<td>Attaching value or worth to object, person, activity, phenomenon</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Organization</td>
<td>Prioritizing values; comparing and contrasting values to build a new value system</td>
</tr>
<tr>
<td>Characterization by value</td>
<td>Modifies behavior based on new value system</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skill</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>Use of sensory organs to guide actions</td>
</tr>
<tr>
<td>Set</td>
<td>Readiness to act</td>
</tr>
<tr>
<td>Guided Response</td>
<td>Imitation; knowledge of steps required to complete task</td>
</tr>
<tr>
<td>Mechanism</td>
<td>Ability to repeat complex motor skill</td>
</tr>
<tr>
<td>Complex Overt Response</td>
<td>Display complex movement with skilled performance</td>
</tr>
<tr>
<td>Adaptation</td>
<td>Modifies motor skill to address changed situation</td>
</tr>
<tr>
<td>Origination</td>
<td>Creates new movement pattern in changed situations</td>
</tr>
</tbody>
</table>

**Action Verbs Associated with Different Learning Domains.** Action verbs associated with various learning domains may be helpful in constructing learning outcomes. Use of the verbs below helps to clearly define what students are expected to demonstrate in terms of the assessments.

<table>
<thead>
<tr>
<th>Learning</th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Articulate, describe, define, name, indicate, order, recognize, know, repeat, memorize, label, tabulate, quote</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Discuss, explain, interpret, distinguish, suggest, summarize, understand, translate, classify, contrast</td>
</tr>
<tr>
<td>Application</td>
<td>Apply, investigate, experiment, solve, practice, predict, utilize, develop, illustrate</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyze, categorize, correlate, inform, infer, prioritize, criticize, differentiate, examine, interpret</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Arrange, collect, compose, assemble, compile, create, design, formulate, organize, manage, propose, validate</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Rate, conclude, appraise, evaluate, judge, defend, grade, assess</td>
</tr>
<tr>
<td>Receiving</td>
<td>Identify, select, choose, describe</td>
</tr>
<tr>
<td>Responding</td>
<td>Recite, discuss, present, answer</td>
</tr>
<tr>
<td>Valuing</td>
<td>Describe, explain, differentiate, join, share</td>
</tr>
<tr>
<td>Organization</td>
<td>Order, arrange, combine, integrate, synthesize, generalize</td>
</tr>
<tr>
<td>Characterization by Value</td>
<td>Qualify, practice, listen, influence, share, propose</td>
</tr>
<tr>
<td>Perception</td>
<td>Identify, detect, describe, isolate</td>
</tr>
<tr>
<td>Set</td>
<td>Respond, show, react, display</td>
</tr>
<tr>
<td>Guided Response</td>
<td>Construct, manipulate, assemble</td>
</tr>
<tr>
<td>Mechanism</td>
<td>Build, fix, organize, work, calibrate</td>
</tr>
<tr>
<td>Complex Overt Response</td>
<td>Manipulate, measure, mix, dismantle</td>
</tr>
<tr>
<td>Adaptation</td>
<td>Alter, revise, change, vary</td>
</tr>
<tr>
<td>Origination</td>
<td>Compose, construct, design</td>
</tr>
</tbody>
</table>

(Adapted from Western Carolina University’s Handbook for Program Assessment, pages 27-28)

Additional action verbs useful for writing outcomes are shown in Appendix E.
ASSESSING GENERAL EDUCATION OUTCOMES

The general education curriculum must also be assessed. It is different from evaluation in other programs as the result of having the most basic goals of the curriculum defined by the Texas Higher Education Coordinating Board (THECB). In 2009, the Undergraduate Education Advisory Committee (UEAC) submitted its report on “Revising the State Core Curriculum: A focus on 21st century competencies” to the THECB. As a result, the THECB instituted a new set of core curriculum objectives which were integrated into a redesigned core curriculum implemented in Fall 2014:

- **Critical Thinking Skills** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- **Communication Skills** to include effective written, oral, and visual communication.
- **Empirical and Quantitative Skills** to include applications of scientific and mathematical concepts.
- **Teamwork** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- **Social Responsibility** to include intercultural competency, civic knowledge, and the ability to engage effectively in regional, national, and global communities.
- **Personal Responsibility** to include the ability to connect choices, actions and consequences to ethical decision-making.

The UEAC also developed a purpose statement for the core curriculum: Through the Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning. ([Undergraduate Education Advisory Committee (2009) Revising the State Core Curriculum: A focus on 21st century competencies, p. 2](#))

With the core curriculum objectives in mind, the disciplines and departments have identified the courses and the assessable assignments within each of the courses to evaluate the extent to which students have attained the competencies assigned to each of the foundational component areas of the curriculum. The foundational component areas are Communication, Mathematics, Life and Physical Sciences, Language, Philosophy, & Culture, Creative Arts, American History, Government/Political Science, Social and Behavioral Sciences, and the Component Area Option. In addition to the change in the student competencies associated with the curriculum, the size of the curriculum was reduced to no more than 42 semester credit hours. The Office of Institutional Research, Planning and Effectiveness is responsible for working with the General Education Oversight Committee in supporting the assessment process for the core curriculum, submitting the courses, course changes, and deletions to the THECB each year, and completing appropriate reports.

ADMINISTRATIVE AND SUPPORT OUTCOMES

Administrative and support offices and departments provide critical services to the University and to students even though they do not provide direct instruction in classes. They include, but are not limited to offices like Financial Aid, Student Activities, Human Resources, Physical Plant, the Success Center, and the Dunagan Library.

Like instructional departments, administrative and support offices must develop plans and conduct assessments in order to provide information for improvement in their programs, policies, procedures, publications, services, activities, and events. Institutional effectiveness forms and instructions are located in Appendix B. Forms 5 and 6 (planning forms) can be amended by sending the revised forms through the office’s administrative line to the Office of Institutional Research, Planning, and Effectiveness. In all cases, the information about a particular outcome
must be lined up horizontally on each form (outcome, methodology, results, and use) to facilitate reading and understanding the material.

PREPARING THE INSTITUTIONAL EFFECTIVENESS FORMS

Planning
Administrative and support office planning should be aligned with the University Strategic Plan, the goals of the division and any externally imposed goals that result from regulatory bodies, government agencies or program audits. Every office is a part of the whole and needs to work diligently to help the University achieve its highest priority goals. Every office is also unique and needs to ameliorate its weaknesses and promote its strengths and opportunities for success.

Planning is related to the department or office mission which should fall within the mission of the University. Missions are brief, clear statements about the essential reasons for a department’s or office’s existence. Goals for the department or office are written, coordinated with progress measures, and used to increase the effectiveness or efficiency of the office.

Assessment Outcomes Statements
Assessment among administrative and support departments and offices is different from instructional units although many of the same techniques can be used.

Department/office outcomes are intended, observable, measurable results of processes, programs, services, policies, activities, or events. It is not useful to evaluate all possible outcomes for an office.

As a rule, outcomes that are most closely related to the mission need to be evaluated most frequently. Other areas that may be the foci of assessment include processes perceived as problematic, or procedures or activities that have been changed recently. Support units that have direct contact with students may also have student outcomes. Student outcomes should be developed as in academic instructional areas. Please refer pages 13-16 for more information on student learning outcomes.

A good paradigm for construction of administrative or support outcomes is the ABCD Model

- Audience (specify the group that is affected by the process, policy, activity, etc.)
- Behavior (measurable, observable variable that is being assessed)
- Condition or Circumstance (the situation within which the expected behavior must occur)
- Degree (minimum acceptable performance target)

(Adapted from Ohia, University of Virginia Assessment Workshop, Assessment Plan Development-Instructional Programs Open Forum Presentation)

Another model for developing administrative or support unit outcomes gives a pattern for developing outcome statements:
In student services areas including academic advising, residence life, learning assistance, student conduct programs, financial aid programs and 17 other areas the Council for the Advancement of Standards in Higher Education (CAS) (Dean, 2006) has developed a series of national standards to facilitate the improvement of support services. These standards provide an excellent starting place for offices looking for significant planning and outcome areas.

A list of verbs that can help you in devising outcomes is contained in Appendix E and some examples of correct and incorrect outcomes by common university offices are shown in Appendix F.

**Assessment Methodologies**

Methods for conducting outcome assessment are often the same as those used for instructional areas especially in terms of assessing student learning outcomes. Student learning should be assessed using direct methods for knowledge and skills outcomes. Attitudinal outcomes such as satisfaction are evaluated using indirect methods such as surveys and focus groups. Non-instructional areas are most likely to use indirect means of assessment and may also use other forms of assessment including, but not limited to techniques such as participant counts, time to completion, ratios, utilization measures, error rates, demographic information, activity logs, audit findings etc.

**Results and Use of Results**

As with student learning outcomes, all administrative and support offices are required to report the specific results of their assessments and discuss the use made of the results to improve their services, policies, programs, and procedures. Results need to be reported in such a way that it is possible to understand whether or not the target defined in the outcome statement has been achieved. If the outcome target was achieved, no further action on that particular outcome is necessary unless the target is to be increased. However, as is often the case, the target may have been achieved, but in the course of conducting the assessment other information about the outcome may have been obtained that allows for improvements to be made. In those cases, the results column on the form should show not only whether or not the target was achieved, but also the information that led to the particular improvements to be implemented. If the target was not reached, the department or office needs to implement an action plan designed to improve achievement of the goal.
Documentation
Documenting the planning and assessment outcomes, the progress measures, methodologies of assessment, results, and use is extremely important. A schedule that lists due dates for plans and results is published and distributed by e-mail each year. It is extremely important that deadlines be respected and materials sent forward on time. Missed deadlines increase everyone’s workload. Problems and questions can be referred to the Office of Institutional Research, Planning, and Effectiveness. The Office is always interested in helping offices to develop, conduct, and use the results of planning and assessment.

CHOOSING AN ASSESSMENT METHOD

There are several important choices to be made as you consider assessment methods. First, how appropriate is the measure for the objective to be measured. **Applicability** refers to the degree to which a measure can actually serve to return the information necessary to understand whether or not an objective has been achieved. A second consideration is the degree to which the method returns **diagnostic** information that will allow intervention in the program in ways that improve the extent to which a particular objective is attained. A third consideration is the extent to which the measure will return **consistent information** about the objective under consideration. A final consideration is whether or not the measure is **unbiased**. Does it offer reasonable and useful information across a broad spectrum of groups? Finally, is the data obtained from the chosen method **understandable**? The difference between data and information is the difference between having results and being able to use them.

COMMON ASSESSMENT METHODS

**Categories of Assessment Methodologies**
Methods fall into two categories: direct or indirect. **Direct methods** return evidence of attainment through a demonstration of accomplishment. These performance-based methods include such things as examinations, projects, portfolios, inbox exercises, juries, or audio or videotape evaluations. Objectives and outcome statements related to knowledge and skills should be evaluated using at least one direct method of assessment. **Indirect methods** include assessments based on perception. These methods include, but are not limited to surveys, both questionnaires and interviews, job placement rates, focus groups, benchmarking and graduate or professional school acceptance rates. These methods are good secondary measures for knowledge and skills, but do not return actual evidence acceptable for student learning outcome statements. Indirect methods may be the best evidence for other types of outcome statements like student perceptions of the advising system or satisfaction with services.

**Course embedded assessments** like all other programmatic assessments need to be selected, evaluated and approved by a designated faculty group or by the faculty as a whole in the disciplinary area in which the assessment will be conducted. The assessments take place within courses and students understand the assessment as a regular course assignment or a regular examination. The examination or assignment may be graded by the faculty member and be a part of a student’s grade. However, when used for assessment, the test or assignment is graded according to criteria that are specific to a student learning outcome statement(s) for the purposes of evaluating and improving student learning. Unless the embedded assessment is very straightforward, it is desirable that more than one faculty member perform the evaluation. If a sampling methodology is employed, not all student assignments will be selected for evaluation. Disadvantages to embedded assessments are that faculty members may be asked to include assessment instruments in their courses that their colleagues agree upon, but they may not find desirable.

For all assessment methods, the faculty as a whole or a designated faculty group must decide how, when, and under what conditions the assessment will take place, and how the results of the
evaluation be considered by the disciplinary faculty as a whole. It will also be necessary to
decide which students or student groups need to participate and whether or not all students in the
group or a sample of the students will be evaluated. If a sample is used it is important that a
representative group of students be included in the evaluation.

The writer of this manual is indebted to the Skidmore College Assessment Handbook (Rodrigues,
unknown) for the format and some of the information in the following discussion.

Direct Assessment Methods

**Examinations**
Examinations may be either standardized or locally developed and are used in a variety ways in
assessment.

**Standardized examinations** may be either norm-referenced or criterion-referenced. Norm-
referenced tests compare a student score against the scores of a group that have been selected
as representative of the larger group of which the student is a part. The representative group is
known as the norm group. The Major Field Tests in selected disciplines sold by the Educational
Testing Services is an example of standardized norm-referenced examinations. Criterion-
referenced tests demonstrate to what extent a particular body of knowledge has been learned.
There is no comparison group.

**Advantages**
1. The tests are already developed and field tested reducing faculty time and effort.
2. Reliability, validity and bias have already been evaluated and high quality information is
   available to facilitate evaluation of the tests.
3. In most cases, the testing company will score the examination and return a series of
   standard reports.
4. It is possible to compare one’s students to students nationally.

**Disadvantages**
1. The test may not directly reflect the program of study for a particular program.
2. It may be difficult or impossible to disaggregate results in such a way that program
   components can be evaluated.
3. Students may not be highly motivated to do well if the assessment is not a part of their
   grade.
4. Standardized tests are expensive.
5. The purpose for which the examination was constructed must be carefully considered.
   Examinations such as the GRE, MCAT, GMAT, and LSAT were constructed in order to
   predict probable success in graduate and professional school, and their value for even
   that purpose tends to be limited to predicting success only in the first semester. The
   instruments were not constructed to measure knowledge or ability at the conclusion of an
   academic program. Scores may be returned for the entire examination or at most only a
   few subscores may be available which seriously limits their diagnostic potential for a
   degree program.

**Implementing a Standardized Examination**
1. Decide on the student learning objectives the test will evaluate.
2. Decide on the level at which the learning objectives will be evaluated (i.e., recall,
   comprehension, analysis, application, etc.).
3. Make the specific knowledge, skills, or affective components that are to be evaluated
   explicit. It is important that faculty members have a clear conception of exactly what they
   expect the results of the examination to tell them about their students’ knowledge and
   abilities.
4. Obtain examination copies of the standardized examinations that appear to be most
   appropriate.
5. Decide on whether or not the scores and subscores will return enough information for the examination to be useful in program evaluation.

6. Decide whether students should get individual score reports.

7. Decide how to pay for the examinations.

8. Decide who will be responsible for ordering the tests and how the testing company will get the raw data (online or on paper).

9. Decide how, when and by whom the examinations will be conducted.

10. Decide who will be responsible for conducting the analysis of the score reports and reporting to the faculty as a whole.

Locally developed examinations are composed by departmental faculty members. Questions should be field tested to make sure that they return valid and reliable information about the student learning outcomes for which they will be used.

**Advantages**

1. Locally developed examinations are inexpensive to develop.
2. They are inexpensive to administer.
3. They reflect actual rather than generic program objectives.
4. Faculty members are more likely to trust and use the results since they have participated in their construction.

**Disadvantages**

1. Locally developed examinations usually have not been examined for reliability, validity, or bias.
2. Student results can only be compared to prior student groups taking the test and to standards set by the faculty in the department rather than to a national sample or norm group.
3. Faculty time is necessary in order to score the examination and document the results.

Developing Local Examinations

1. Decide on the student learning objectives to be evaluated.
2. Decide on where in the curriculum the examination will be given.
3. Decide on the level at which the objectives will be evaluated (i.e. recall, comprehension, analysis, application, etc.).
4. Develop and field test the questions to make sure that they are comprehensible and appropriately discriminate student ability or knowledge.
5. Decide on how and when the scoring and analysis will be conducted.
6. Decide on how the results and the analysis will be considered by the faculty.

Portfolios

Portfolios are a compilation of student work which may include works over some time period and/or works in which students may be asked to reflect on their learning in terms of specific learning objectives and discuss how the elements of the portfolio support their conclusions. There are several different types of portfolios in use across the country including electronic or e-portfolios, showcase portfolios, and developmental portfolios. The various types of portfolios are not necessarily mutually exclusive.

Electronic portfolios may use either specialized software available from several vendors including LiveText (http://college.livetext.com/college/index.html), MyeFolio (http://www.myefolio.com/), Concord (http://www.concord-usa.com), iWebfolio (http://www.nuventive.com/products/iwebfolio), Open Source Portfolio Initiative (http://www.osportfolio.org/) and many others or other non-specialized software (http://www.kzoo.edu/pfolio/). Portfolios contain electronic artifacts (text, images, audio clips, video clips, blogs, etc.) assembled by a student and managed by the student usually on-line. The electronic portfolios are usually submitted on websites or on compact discs. They solve the
storage problems encountered when students must submit their work in paper folders or binders and allow a much greater variety of products to be included.

**Showcase portfolios** ask students to submit their finest work or the work of which they are proudest in order to demonstrate their learning. Typically, the student introduces the portfolio and each piece of work and then discusses why they chose the particular piece of work and how the student believes that it demonstrates their learning on the student learning objectives. Showcase portfolios have been common in the arts for some time although the rest of the academy is learning to understand their value. Showcase portfolios may be either paper or electronic although electronic portfolios are more versatile.

**Developmental portfolios** demonstrate the acquisition of one or more student learning objectives by including both early work and later work. The inclusion of work over time allows the student to demonstrate how and in what ways his/her understanding and skill levels have changed over time to give a value-added component to the portfolio. It also forces a student to reflect on the learning experience in order to demonstrate its progression.

**Advantages**

1. Portfolios can be a rich source of information about what students learn.
2. They can be used to evaluate complex learning including applications and integration of learning in the discipline and even in interdisciplinary products.
3. It can be used to provide evidence of both the finished products and earlier drafts of products or projects.
4. It allows students to think about what they have learned and how to demonstrate it effectively.
5. It can be used to demonstrate to potential employers, graduate student selection committees and others the quality and potential that the student brings to their tasks.

**Disadvantages**

1. They are time consuming for students to construct and for faculty to encourage and evaluate.
2. They require considerable consideration and management for implementation to be successful.
3. They require storage capacity combined with careful consideration of student privacy and confidentiality.

**Development of a Portfolio Assessment.** Although portfolios are a rich and varied source of information about student learning, they require considerable thought and deliberation in their implementation. Use the steps below to initiate a system:

1. Spend time looking at resources on portfolios and at information on how portfolios have been implemented in other colleges and universities.
2. Decide on the student learning objectives that the portfolio will be designed to demonstrate.
3. Decide on the type of portfolio that will best demonstrate the objectives you have selected and over what period of time. Portfolios can span a student career or major or may be confined to a particular course or cluster of courses.
4. Obtain agreement among faculty members about what particular pieces must be included in the portfolio given the objectives that it is designed to reveal. Portfolios might contain examinations, essays, projects, case studies, recordings of recitals, pictures of juried pieces, research papers and many other items. Also consider whether or not students will be allowed to substitute pieces if, through no fault of their own, they are unable to include a required piece of work.
5. Decide whether or not students will be allowed to include other information.
6. Decide whether there will be a minimum length or a maximum length.
7. Decide how the portfolio will be handled. Will it receive a grade? If yes, consider whether or not the pieces in the portfolio are previously graded. If the portfolio pieces have already been graded, then will the portfolio itself be graded? How? How will the pieces be verified as the authentic product that was originally graded? Will submission and/or creation of the portfolio be a course requirement and if so, in what course(s)? If the portfolio is a course requirement what kinds of accommodations might be necessary for students with disabilities?

8. Decide how the portfolios will be evaluated to provide the necessary information on the student learning objectives.

9. Develop the rubric that will be used to evaluate the portfolio.

10. Consider when and what students will be told about the portfolio. Write instructions indicating how to create the portfolio, what is included, what an exemplary portfolio looks like, what other resources might be available to improve the portfolio and be sure to include the portfolio rubric so that students understand what will be evaluated.

11. Make it clear that the student is responsible for the creation and maintenance of the portfolio.

12. Determine and explain how the student should partition the portfolio for different learning objectives.

13. Decide whether the portfolio belongs to the student or to the program.

14. Determine who will have access and under what circumstances to the portfolios. You must determine in advance how student privacy and confidentiality will be maintained.

15. Decide when and who will score the portfolios on the rubric for evaluation of the student learning objectives and whether or not all portfolios will be evaluated or a sample will be used. If more than one evaluator will be used, decide on the measures to promote inter-rater agreement, and what will be done when there is score disagreement among raters.

16. Whether or not portfolios that are truly distinguished will be acknowledged in some way.

Rubrics for Scoring Portfolios

1. List each of the learning objectives that the portfolio is designed to demonstrate.

2. Identify the elements of the learning objectives that collectively demonstrate the objective’s attainment.

3. Develop a scale for scoring the rubric. You can use a numeric scale or a series of descriptors (i.e., unacceptable, acceptable, exemplary; pass, fail; poor, below average, average, above average, commendable) and you can use any number of scale categories.

4. Decide what each scale category looks like for each element of the rubric. You must identify each category of quality of work to a degree that different raters will be able to use the rubric in ways that result in similar evaluations.

5. Calibrate the use of the rubric by having raters evaluate actual portfolios prior to beginning the actual evaluation. Discuss the ratings obtained for each element in the rubric. Use the discussion to improve the rubric over time.

6. Give raters space on the rubric form to make notes on what they see in particular portfolios in order to improve the rubric form and to provide additional information about the strengths and weaknesses of the students to enrich the discussion of the extent to which student learning objectives have been attained and in what way they can be improved.

Demonstration (Performance)

Demonstration encompasses a wide range of different types of student work that can be evaluated. The evaluation of student performances has a long and distinguished history in higher education. It can encompass a wide variety of activities including juried art exhibits, musical recitals and juried recitals, experiments, oral examinations, a painting, speeches and physical
performances (American Sign Language, swimming, marathons, gymnastics, CPR, etc.). Demonstrations used to assess student learning outcomes are usually scored by using rubrics or scoring guides.

Advantages
1. Students usually perform demonstrations as a regular part of their student work.
2. Faculty usually grade demonstrations as a regular part of the course grade and the performances can be used as embedded assessments.
3. The performance often offers a rich, diagnostic experience that can be useful for students and very useful for programmatic assessment.

Disadvantages
1. Faculty members may resent using the performances as embedded assessments as intrusions into their courses.
2. Scoring guides and rubrics require faculty members to agree on the elements of the performance to be evaluated and the weight to be given to each element.

Development of a Demonstration Assessment
1. Faculty members must identify the student learning objectives to be evaluated.
2. It must be decided what individual or group will conduct the assessment. It is always more appropriate to have more than one evaluator.
3. A rubric or scoring guide needs to be constructed that indicates the elements of the student learning objective to be evaluated in order to decide whether or not the objective has been attained, the categories of attainment, and the description of each category of attainment on each element of the rubric.
4. Decide when and where the assessment will take place.
5. Decide how the assessment will be used to improve programs.

Paper and Project Assessments

Research papers, essays, computer programs, projects and other written and oral activities can also be used to evaluate student attainment of learning objectives. As embedded assessments, paper and project assessments offer the opportunity to evaluate reasonably complex learning outcomes and, depending on the instructions, some beliefs and attitudes. The assignments that prompt the paper or project activities need to evoke products that demonstrate the student learning outcomes of interest.

Advantages
1. The students perform such activities as a regular part of their course work.
2. Faculty members are experienced at evoking learning on particular desired learning outcomes through the use of such activities with students.
3. The learning outcomes examined may be relatively simple or quite complex.
4. Such activities may encompass several different kinds of skills and knowledge. For example, students might be asked to develop a research paper that shows their ability to chose an appropriate topic, do a literature review, conduct a piece of research using appropriate methods for the discipline, write it in a way that is both grammatically correct and competently written, and present it orally in their native or a target language using appropriate technology.
5. By sharing the rubric or scoring guide with students, they may have a clearer idea of what is expected of them in the paper or project.

Disadvantages
1. Faculty members may find it difficult to select a particular project or paper that is a culminating expression of one or several student learning objectives especially in disciplines that are more horizontally organized.
2. Depending on the number of parts of the paper or project to be evaluated, faculty members may need to construct a number of parts or several scoring guides or rubrics to conduct the assessment.
3. The weights given to different elements of the scoring guides or rubrics may be a matter of contention among faculty members.

Development of a Paper or Project Assessment
1. Decide on the student learning objectives to be evaluated.
2. Decide in which course or courses the evaluation assignments will be conducted and when the assignments will be conducted both in the curriculum and in the student career.
3. Decide on the instructions for the assignment such that the degree of attainment of the student learning objectives among students can be identified.
4. Decide on the scoring guides or rubrics to be used for each of the student learning objectives to be evaluated.
5. Decide on who and when the rubrics or scoring guides will be used. As with all assessments using rubrics or scoring guides, it is strongly encouraged that more than one individual should score the paper or project.
6. Decide whether all or a sample of the papers or projects will be evaluated.
7. Decide how the information will be used to improve the academic program.

Field Experiences and Internships
A wide variety of disciplines in higher education offer some form of field experience, practicum or internship experience. The experiences provide an important opportunity to gain information on student learning as students apply the knowledge, skills and attitudes gained in a program in a more “real world” environment. There is usually an evaluation form that the internship supervisor and the faculty supervisor complete, and often there is a self-evaluation form that the student completes. If the feedback forms are to be used for program assessment, it is necessary that the student learning outcomes of interest be included on the feedback forms.

Advantages
1. Student motivation to do well is high.
2. Students must apply knowledge and skills thus demonstrating higher levels of learning.
3. Attitudes and beliefs can be observed at the level of action.
4. There are often two observers (supervisor and faculty supervisor).
5. Evaluation instruments can be targeted to student learning outcomes.
6. Faculty and student time is conserved.
7. The cost is relatively low in both time and money.

Disadvantages
1. Supervisors who are not members of the faculty may not have a clear idea of the student learning outcomes and may not give as useful feedback as hoped.
2. Different types of field experiences and internships within the same program may not yield comparable information depending on what students actually do.

Development of a Field Experience or Internship Evaluation
1. Decide on the student learning objectives to be evaluated.
2. Decide on or revise the evaluation instrument to be used for the field experience or internship experience in order to have particular student learning objectives evaluated.
3. Decide who will gather and analyze the data.
4. Decide how and when the analysis will be considered by the faculty as a whole.
5. Decide how the information will be used to improve the academic program.
Indirect Assessment Methods

Surveys

Surveys include both questionnaires and interviews. They gather opinions, beliefs, attitudes and perceptions. The instruments themselves and methods of administration vary widely. Common surveys on college and university campuses include those on advising, administrative and support services, student characteristics, student expectations, and perceptions of the academic program. Surveys are used with a wide variety of groups including alumni, employers, and students at various times in their matriculation. It is common for campuses to have departments that conduct exit interviews and phone interviews on specific topics. Surveys may be constructed locally or commercially available. Commercial surveys on a variety of topics that are appropriate for use with a variety of respondents are widely available. Surveys may be conducted in-person, in groups, or online, and they may be narrowly or broadly focused.

Advantages
1. They are relatively easy to administer and may be administered to large numbers of subjects.
2. They can be designed to allow statistical analyses to be conducted.
3. Faculty members in several different departments in most universities have experience with the design and conduct of surveys.
4. They can cover a broad range of information in a relatively short period of time.
5. The results are relatively easy to understand.
6. They may offer an access to individuals who might be difficult to include in other forms of assessments (i.e., alumni, employers, parents, etc.)

Disadvantages
1. They provide perceptions only. Thus they are not usually appropriate as a primary measure for knowledge and skills.
2. Designing valid and reliable surveys is not necessarily easy. Survey results may be influenced by the instructions, word and/or question order, vocabulary, survey organization, different methods of administration and the personality of those who conduct the survey. Interviewers may require training to return reliable results.
3. Designing good surveys and interviews takes a considerable amount of time and effort.
4. Interviews can be very challenging to conduct and analyze, especially if a large number of interviews will be conducted.
5. Unless there is a captive subject pool available, return rates for mail and online surveys may be low and there are real difficulties in obtaining an unbiased sample. For mail or online surveys it is not unusual to make several attempts to stimulate response.
6. Certain types of surveys may be expensive to administer in terms of time and money.
7. Commercial surveys usually are written to be appropriate for a broad range of institutions and thus, will not reflect any particular college or university.
8. Research has demonstrated that beliefs and attitudes are usually not good guides to the actions of respondents.
9. Surveys that rely on the memories of respondents to answer particular questions must be very carefully worded since memory has not proven to be highly reliable among survey respondents.
10. Unless the surveys are conducted online or can be scanned into a computer file, there may be a considerable cost incurred in time and money for data entry and validation.
11. Surveys must be designed to facilitate the statistical analysis to be performed; thus data analysis needs to be a component of survey design.

Developing a Survey
1. Decide clearly what objectives are to be evaluated.
2. If possible, seek assistance from an individual with experience in designing and administering surveys of the type proposed.
3. Design questions carefully and in field testing, use several versions of the same question to test which one returns the best information.

4. Keep the survey as concise as possible to encourage higher response rates and maintain the goodwill of participants.

5. In both questionnaires and interviews, be sensitive to the effect that particular interviewers and survey administrators may have on the results. Faculty members who may be a continuing influence on a student’s career may not be appropriate as an interviewer or survey administrator for some surveys just as a student’s advisor may not be the best person to administer an advising survey.

6. If you are considering a commercial product, obtain review copies and evaluate it carefully to decide if it will successfully return the type of information required.

7. For commercial products, evaluate carefully whether or not you can successfully perform the tasks that will be required of you and that the information the product will return justifies the cost.

8. Make provisions to maintain respondent confidentiality and anonymity if anonymity has been promised.

9. If responses are to be disaggregated by particular student characteristics, be sure to include information that will allow that disaggregation to occur, and if you desire to compare groups within the response set be sure that enough respondents will be included in each group to make comparisons meaningful.

10. Do not abuse the patience of respondents by surveying the same group of respondents over and over.

11. Consider carefully how, when, and by whom the responses will be analyzed and if a particular statistical package is to be used, be sure that the package is available for use on campus and that the data analyst is skilled at using it.

12. Decide when and by whom the results will be brought to the faculty for discussion and how decisions about use of the information will be made.

**Focus Groups**

Focus groups are structured, face-to-face, group interviews. Much of the success of a focus group depends on the skill of the facilitator who must maintain the group’s concentration on the particular topics to be covered, elicit comments from all members of the group and ask probing questions without losing the confidence and trust of group members. Leaders in focus groups must be viewed by participants as credible, competent and trustworthy and they must be highly skilled in group dynamics and handling conflict. The 5 to 7 participants in focus groups must be carefully chosen to represent the group whose opinions are being sought. In many cases a series of focus groups may be the most appropriate technique for obtaining the quality of information sought.

In planning for a focus group, it is necessary to identify the set of topics to be considered and the depth in which each will be covered. The leader uses a series of scripted questions and prompts to elicit the desired information. There is some leeway in most focus group scripts for the leader to probe interesting or unanticipated information, but for the most part the leader will stick to the script provided. The focus group is usually documented with an audio recording although it is not uncommon for video taping to also be used. Participants need to be aware of and give consent for audio and/or video taping. Usually transcripts of the proceedings are also prepared to facilitate analysis. In order to get the highest quality responses, participants must be assured that no information they divulge will be used in ways that would be detrimental to them, and if confidentiality at some level or anonymity is promised that promise must be kept.

It is usually preferable to have a neutral leader for a focus group. If the focus group is being held to evaluate a particular program or service, faculty and staff members associated with the program or service may not be able to maintain an appropriate distance from the content of the questions or responses. In addition, participants who are likely to find themselves in continuing contact with a faculty or staff member in the conduct of their student careers may be prone to
withhold or be less than candid because of their fear of reprisal or fear of the loss of a faculty or staff member’s esteem or friendship.

Advantages

1. There is usually a pool of individuals on college and university campuses trained to conduct focus groups.
2. The format is flexible and can include a wide variety of questions.
3. There is the opportunity to probe topics in greater depth than in some other formats.
4. It may be possible to elicit the reasons for a participant or participants’ beliefs, attitudes or actions.
5. Because the format is with a group, it may be possible to uncover the degree of consensus among the participants on topics and to probe the depth with which particular positions are held.


Disadvantages

1. Since focus groups are an indirect measure, it is not possible to ascertain actual levels of student learning.
2. A skilled facilitator is a necessary component of the process.
3. The quality of the questions is extremely important in the process for eliciting useful feedback from participants.
4. Recruiting appropriate participants and scheduling focus groups can be extremely challenging.
5. Focus groups can be quite expensive if a facilitator must be hired, participants paid monetary inducements, and the transcript must be prepared by a professional.
6. A single group may not return either the quality or the range of opinions, perceptions or attitudes that exist within the population as a whole.
7. Analysis of focus group data can be very challenging.


Using a Focus Group

1. Decide on the outcomes to be assessed.
2. Decide on the number of groups to be conducted.
3. Decide whether appropriate facilitators are available to conduct the group(s).
4. Decide whether or not appropriate participants are available and whether inducements to participate are likely to be necessary.
5. Decide on the topics to be covered, the questions and prompts, and the degree to which the facilitator may probe participant responses.
6. Establish the script and decide whether the group will be audio and/or videotaped.
7. Find an appropriate place to conduct the group.
8. Schedule the group or groups to facilitate participation.
9. Decide how, when and by whom the analysis will be conducted.
10. Decide how the analysis will be used by the faculty.

External Review

A wide variety of external review options exist for a program. Entire programs, samples of student work, and/or particular programs or services may be reviewed by one or more external reviewers. External reviewers may be representatives of disciplinary groups, members of a discipline, or in some cases practitioners in the discipline may be used. The basis of the evaluation is usually standards in the discipline or the area of practice.
Advantages
1. External reviewers offer an unbiased, third-party evaluation of the program, service, or student products.
2. Reviewers use standards common in the discipline.
3. The review is normally structured by the program or service provider to focus on particular issues.
4. The self-study that is often a part of external program reviews can be very useful in providing programs an opportunity to evaluate themselves.
5. Since the external reviewers are not involved in the program or service on the campus, the recommendations or conclusions offered may have greater credibility at program level at higher levels within the university.
6. External reviews are typically structured in such a way that replies to the recommendations and conclusions of the outside reviewers are normal and expected, and discussions about appropriate changes to the program or department take place at a number of levels within the university.
7. An external review report may provide support for needed changes that will require resources.

Disadvantages
1. An external reviewer(s) must be chosen carefully to provide an unbiased and useful evaluation of the program, service or student products.
2. Conducting an external review takes a great deal of time and effort on the part of a program or service provider especially when self-studies must be conducted.
3. External reviewers may be costly since a program must pay for transportation, lodging, and usually a stipend for the reviewer(s), and for the costs of the external review report's development and reproduction.
4. If colleges and universities expect programs and services to prepare and conduct external reviews, then the institution incurs the responsibility for supporting needed changes with appropriate resources.

Conducting External Reviews
External program review processes are usually structured by institutions.
1. External reviews of student products need to be structured so that student learning outcomes are an explicit part of the review.
2. Students need to give consent to have their work evaluated.
3. Appropriate safeguards for the transportation of the work and the confidentiality of students submitting work need to be established.
4. If the reviewers come to the campus to review the student work, then appropriate arrangements for transportation and lodging for reviewers needs to be considered.
5. Expectations for when review reports are expected and the format and elements of the review need to be clear.
6. Reviewers need to be respected members of the discipline or practitioners in order for faculty to have confidence in their assessments.
7. Program faculty need to decide who will choose the reviewers, who will make the arrangements, how expectations are developed and approved and who will be responsible for follow-up.
8. Program faculty need to decide how the information obtained from reviewers will be used to improve the program.

Documenting and Using Results
The institutional effectiveness system is used to document results and the use of results of planning and assessment. Academic degree programs submit goals and objectives, conduct assessments, and document and use results for improvement. Within the first 4 years of a degree program’s existence, the program is not required to make changes unless the faculty members feel that the changes would improve the program. It is important that new programs have an opportunity to see the curriculum through at least once before programmatic changes are
required. At the end of the four year period, programs are expected to document and use results on a regular basis to improve the attainment of outcomes by students.

Documenting data and conducting an analysis of the data is required on at least an annual basis. Results are the information gathered or progress made on planned outcomes and assessment activities. For instance, a department has planned to increase student enrollment in a particular degree program by having faculty members give lectures in high school classrooms at the request of the high school teachers. Two faculty members give 3 lectures a piece in local high school classrooms. The results are that student enrollment does not increase. The use of the results are that the department will attempt to increase student enrollment by asking the faculty member and a major in the program who graduated from the same high school to team teach the lecture in the local high school classroom. Sixty percent of students attained an outcome, but the knowledge or skill evaluated is important to a graduate educated in the field so the 85 percent target was not met. Use might include restructuring the program, teaching the knowledge or skill multiple times or improving prerequisites for a course. Staff evaluators may find that a particular event is not particularly helpful to their users and decide to redesign the presentation and so on. Whatever the evaluation, it is very important to record the results and any activities designed to enhance attainment.

SOME FINAL THOUGHTS

Planning and assessment if done deliberately and diligently can make a tremendous difference in the quality of UTPB’s graduates and in the services that the institution provides. The University believes in the ability of the faculty and staff to develop high quality, challenging goals; design appropriate methods to do the research necessary to establish an in-depth understanding of whether the goals are being achieved; and the power of thought necessary to devise strategies for improvement. The Office of Institutional Research, Planning and Assessment can provide a sounding board for ideas, suggest methodologies, improve documentation and find other forms of assistance. The staff would be delighted to provide any assistance required; please use them as a resource.
**BIBLIOGRAPHY**


Astin, A., et al. (1992). *Nine Principles of Good Practice for Assessing Student Learning.* Developed under the auspices of the AAHE Assessment Forum with support from the Fund for the Improvement of Post-Secondary Education with additional support for publication and dissemination from the Exxon Education Foundation.


Appendix A
Further Reading


Appendix B
Instructions and Forms for Institutional Effectiveness Reporting

Each office, department, degree program and certificate program submits institutional effectiveness forms annually on the dates shown on the Institutional Effectiveness Schedule. All forms are submitted through regular reporting channels. The Institutional Effectiveness program tracks improvement in programs and services over time. The forms are as follows:

Planning for VP’s Offices, Dean’s Offices, and Instructional Departments (Form 1)

University Mission
The university mission is consistent from year to year; updated only when the UT System Board of Regents approves a new mission statement.

Division Mission
Each of the major divisions (Academic Affairs, Student Services, and Business Affairs) has a mission statement. It is consistent from year to year, updated only when the division adopts a new statement.

Mission of the College
Each college has a mission statement. It is consistent from year to year, updated only when the college adopts a new statement.

Mission of the Department
This statement identifies the purposes of the office or department and defines its role in the University. The mission is different for every unit, but is consistent from year to year, unless the unit adopts a revised mission statement.

Planning Outcomes
Each department/office identifies planning outcomes for the next 1 to 3 years based on the strategic plan and mission of the university, the mission and goals of their vice president and dean (as applicable), and the unit itself. Planning outcomes state what the department/office intends to accomplish in university strategic plan, academic quality, educational support quality, operational efficiency and effectiveness, and service or program delivery. The areas of the strategic plan are growth, quality, graduation rate improvement, research, partnerships, and public trust and accountability. Departmental planning outcomes should produce a clear focus on what needs to be accomplished given the conditions that must be addressed. Program review and accreditation recommendations should be included in academic department planning documents.

Planning has no magic formulas. Outcomes, in and of themselves, do not produce resources, nor are there simple formulas for identifying and implementing important and/or hard to accomplish objectives. Plans do not “work” – people do. The magic in planning is the quality of thought, ingenuity, and ability of those who do the planning and implement the activities.

Progress Measures
Progress measures identify the methods for evaluating progress associated with each planning outcome.
PLANNING FOR VICE PRESIDENTS, DEANS, AND INSTRUCTIONAL DEPARTMENTS (Form 1)

Strategic Plan elements are xxxxxxxx.

University Mission Statement:

Division Mission Statement:

College Mission Statement (if applicable):
Office Mission Statement:

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Assessment Planning for Degree / Certificate Programs (Form 2)

A Degree / Certificate Program Assessment Plan Form needs to be submitted for each degree program and certificate program.

Program Learning Goals
Learning goals are broadly focused on knowledge, skills, and attitudes that students are expected to attain as a result of completing the program. Goals are the foundation for all that follows in assessment. They are the basis on which assessment is constructed. For each academic degree program and certificate program at the undergraduate and graduate level, the faculty need to identify 3 to 4 major goals focused on what students know, can do, and believe as a result of completing the degree program.

Program Learning Objectives
For each degree program and certificate at the undergraduate and graduate level, objectives are developed. Objectives identify specific, observable behaviors and actions related to a particular program goal that faculty use to describe, monitor, and assess student achievement. Objectives are indicators for goals. In any single year, no more than 3 to 5 objectives should be identified for evaluation.

Student Learning Outcomes
Student learning outcomes are identified for each program objective. These outcomes identify the precise behaviors and actions of students that will be evaluated and the desired levels at which those behaviors and actions must be demonstrated by students in order for the objective to be considered satisfactorily accomplished. Expected outcomes contain a reference to time or other constraints (if any), a description of the knowledge, skill or attitude desired, and a level of attainment. The level of attainment does not need to be a number or a percentage, but it should be specific enough that it can serve as a triggering mechanism to signal when a change to the program or service should be put into motion. Learning outcomes are dynamic. They should be revised over time to maintain their relevance.

Assessment Methodology
The assessment methodology specifies the means of measurement. The assessment methodology section of the assessment plan needs to include a description of the methodology that contains enough detail that a third party reader can readily understand what is being planned.

The assessment methodology should be the best possible evaluation of the outcome balanced against the cost of conducting the measurement. Measurements may be direct or indirect with the proviso that if the outcome being measured is a knowledge or skill outcome then at least one direct measure is required. Direct measures require that students demonstrate the knowledge or skill through a performance of that knowledge or skill. Direct measures include for example, a content examination, a case study analysis, a computer program, an oral proficiency evaluation, etc. Indirect measures examine students’ or others’ perceptions of learning or other attributes and include such measures as surveys, interviews, focus groups, etc. Indirect measures are acceptable and for some outcomes, they represent an excellent evaluative tool. Methodologies for evaluating outcomes may include both quantitative and qualitative methods and may be expressed in either numerical data or narrative description.
ASSESSMENT PLANNING FOR DEGREE / CERTIFICATE PROGRAMS (Form 2)

Strategic Plan elements are xxxxxx.

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RESULTS AND USE FORM FOR VICE PRESIDENTS, DEANS, AND INSTRUCTIONAL DEPARTMENTS (Form 3)

The results form documents the planning and evaluation conducted during the academic year. The items in the form include:

**Planning Outcomes**
These are the same planning outcomes planned for the year unless an amendment to the plan has been filed.

**Progress Measures**
The progress measures for each planning outcome should be the same as those in the planning forms submitted for the year unless an amendment to the plan has been filed.

**Results**
The section briefly describes the actual results from each progress measure. Attach any appendices necessary to describe the results in greater detail. It should be possible for a third party reader to understand the results and to make a judgment about how the results obtained led to the way the results were used to improve the programs or services of the department.

**Use of Results**
Describe any actions taken to improve the department or programs within the department as a consequence of the results obtained for each planning outcome. It should be clear to a third party reader how the use of results is related to the results of the progress measures.
Outcomes must correspond to those planned for academic year 20xx-20xx.

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ASSESSMENT RESULTS AND USE FOR DEGREE / CERTIFICATE PROGRAMS (FORM 4)

A Results and Use form needs to be submitted for each degree and certificate program.

Student Learning Outcomes
The student learning outcomes are the same student learning outcomes planned for the year unless an amendment to the plan has been filed through the administrative chain to Institutional Research, Planning and Effectiveness.

Assessment Methodology
The assessment measures for each student outcome should be the same as those in the planning forms submitted for the year unless an amendment to the plan has been properly filed.

Results
The section should briefly describe the results of the planned assessments for each student learning outcome. Please feel free to attach any appendices that you feel are necessary to describe the results in greater detail. It should be possible for a third party reader to understand the results and to make a judgment about how the results led to the use of results to improve the degree program.

Use of Results
Describe actions taken to improve the program as a consequence of the results obtained for each student learning outcome. It should be clear to a third party reader how the use of results is related to the actual results of the student learning outcome.
Student learning outcomes must correspond to those planned for academic year 20xx-20xx.

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Methodology</th>
<th>Results</th>
<th>Use of Results</th>
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ADMINISTRATIVE AND SUPPORT DEPARTMENTS/OFFICES

Institutional effectiveness plans for support offices and departments differ from those required of degree programs in several important ways. Since there are no degree programs in support offices, the outcomes are selected for the services, policies, procedures and other activities of the office. In addition, in many support offices, student learning may not be the primary focus for direct accomplishment of their mission. As a consequence, outcome statements in support offices tend to focus on the basic services and consumers of services provided by the office. In those cases in which offices interact with students in a co-curricular learning environment, it is expected that student learning outcomes will be set.

Administrative and Support Department Planning (Form 5)

University Mission
This will be the same for every office. It is consistent from year to year; updated only when the University adopts a new, authorized mission statement.

Mission of the Division
Each of the major divisions of the University (i.e., Academic Affairs, Student Services, and Business Affairs) has a mission statement. It is consistent from year to year, updated only when the division adopts a new statement.

Mission of the College (if applicable)
This segment of the form is only applicable to staff offices that reside within a college in Academic Affairs. Each college has a mission statement. It is consistent from year to year, updated only when the college adopts a new statement.

Mission of the Department
This statement identifies the purposes of the office or department and defines its role in the University. The mission will be different for every department/office, but will be consistent from year to year, unless a revised mission statement is adopted.

Planning Outcomes
Each department/office identifies planning outcomes for the next 1 to 3 years based on the strategic plan of the university, the missions of the university, the division, the college (as appropriate), and the office itself. Planning outcome statements focus on what the office intends to accomplish in the areas of service quality, operational efficiency and effectiveness, user satisfaction, service delivery, and the strategic plan. Planning outcomes should focus on what needs to be accomplished given the conditions that must be addressed.

Planning has no magic formulas. Planning outcomes, in and of themselves, do not produce resources nor are there simple formulas for implementing important and/or hard to accomplish tasks. Plans do not “work” – people do. The magic in planning is the quality of thought, ingenuity and ability of those who do the planning.

Progress Measures
Progress measures identify the methods for evaluating progress associated with each planning outcome.
ADMINISTRATIVE AND SUPPORT DEPARTMENT PLANNING (Form 5)

Strategic Plan elements are xxxxxxxx.

University Mission Statement:

Division Mission Statement:

College Mission Statement (if applicable):
Department Mission Statement:

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Administrative and Support Department Assessment Plan (Form 6)

Department Outcomes
Departmental outcomes are identified for each significant element in the mission statement. Assessment outcomes are primarily focused on whether or not existing services are efficient, effective, and satisfactorily delivered. The department must demonstrate that its mission is being accomplished. Support offices especially in some academic areas and in some student affairs areas may be and probably should be focused on the students who are their primary target group. Those offices would also write one or more outcome statements focused on what students know, can do or believe as a result of participation in the programs and services provided by the office.

Expected outcomes contain a reference to time or other constraints (if any), a description of the student or service outcome, and a level of attainment. The level of attainment does not need to be a number or a percentage, but it should be specific enough that it can serve as a triggering mechanism to signal when a change to the program or service should be put into motion. Outcomes are dynamic. They should be revised over time to maintain their relevance.

Assessment Methodology
The assessment methodology specifies the means of measurement. The assessment methodology section of the assessment plan needs to include a description of the methodology that contains enough detail that a third party reader can readily understand how the methodology will be conducted to obtain results relevant to the outcome statement.

The assessment methodology should be the best possible evaluation of the outcome balanced against the cost of conducting the measurement. Measurements may be direct or indirect with the proviso that if the outcome being measured is a student learning outcome focused on a knowledge or skill then at least one direct measure is required. Direct measures require that students demonstrate the knowledge or skill through a performance of that knowledge or skill. Direct measures include for example, a content examination, an actual performance of a skill, a case study analysis or other directly observable demonstration. Indirect measures examine student or others’ perceptions of learning, satisfaction, understanding, or other attributes and include such measures as surveys, interviews, focus groups, etc. Indirect measures are acceptable and for some outcomes, they represent an excellent evaluative tool. Methodologies for evaluating outcomes may include both quantitative and qualitative methods and may be expressed in either numerical data or narrative description.
ASSESSMENT PLANNING FORM FOR NON-INSTRUCTIONAL DEPARTMENTS (Form 6)

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<thead>
<tr>
<th>Department Outcomes</th>
<th>Assessment Methodology</th>
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Department: 
Date Submitted: 

Academic Year 20xx-20xx
Administrative and Support Department Results and Use (Form 7)

The form reports the results of the evaluation of the planning and assessment conducted during the academic year. The items in the form include:

**Planning Outcomes**
These are the same planning outcomes planned for the year unless an amendment to the plan has been filed through the offices administrative line to the Office of Institutional Research, Planning and Effectiveness.

**Progress Measures**
The progress measures for each planning outcome should be the same as those in the planning forms submitted for the year unless an amendment to the plan has been appropriately filed.

**Results**
Results should briefly describe what the results were from each progress measure. Please feel free to attach any appendices that are necessary to describe the results in greater detail. It should be possible for a third party reader to understand the results and to make a judgment about how the results led to the improvements in programs or services of the department.

**Use of Results**
Describe the actions taken to improve the department’s functioning as a consequence of the results obtained for each planning outcome. It should be clear to a third party reader how the use of results is related to the actual results of the progress measure.
Strategic Plan elements are xxxxxx.

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<th>Planning Outcomes</th>
<th>Progress Measures</th>
<th>Results</th>
<th>Use of Results</th>
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Administrative and Support Department Assessment Results and Use (Form 8)

Department Assessment Outcomes
These are the same assessment outcomes planned for the year unless an amendment to the plan has been appropriately filed.

Assessment Methodology
The assessment measures for each outcome should be the same as those in the assessment planning forms submitted for the year unless an amendment to the plan has been appropriately filed.

Results
The results from the implementation of each outcome’s assessment methodology are briefly described. Attach any appendices necessary to describe the results in greater detail. It should be possible for a third party reader to make a judgment about how the results obtained led to the way the results were used to improve the programs or services offered by the office.

Use of Results
Describe any actions designed and implemented to improve the programs or services of the office as a consequence of the results obtained for each outcome. It should be clear to a third party reader how the use of results is related to the actual results of the outcome methodology.
### ADMINISTRATIVE AND SUPPORT DEPARTMENT ASSESSMENT RESULTS AND USE (Form 8)

Strategic Plan elements are growth.

<table>
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<tr>
<th>Department/Office Outcomes</th>
<th>Assessment Methodology</th>
<th>Results</th>
<th>Use of Results</th>
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Department:
Submitted by:
Date Submitted:
## Appendix C
Generic Institutional Effectiveness Schedule

### Institutional Effectiveness Schedule 20xx-20xx

| Academic Offices/Degree Programs/Faculty | Responsible                                | Date                        | Submit to                                                      |
|----------------------------------------|--------------------------------------------|-----------------------------|                                                               |
| **GENERAL EDUCATION**                  |                                            |                             |                                                               |
| Fall 20xx General Education Assignments as directed by IRPE | Faculty teaching general education courses | December x-December xx, 20xx | Director, Institutional Research, Planning and Effectiveness |
| **INSTITUTIONAL EFFECTIVENESS**        |                                            |                             |                                                               |
| **Institutional Effectiveness Forms Due** | Deans, Dept Heads, Area Coordinators and Staff Directors | April xx, 20xx-May xx, 20xx | Deans Institutional Research, Planning, and Effectiveness |
| **Institutional Effectiveness Forms Submitted** | Deans | May xx, 20xx | Provost and VPs |
| **Institutional Effectiveness Forms to IRPE** | Vice Presidents | June xx, 20xx | Institutional Research, Planning, and Effectiveness |

**Note:** (VPs, Deans, and academic depts. submit forms 1 and 3; degree programs submit forms 2 and 4; and non-instructional units submit forms 5-6 and 7-8. Forms at [http://www.utpb.edu/services/academic-affairs/institutional-research-planning-effectiveness/institutional-effectiveness](http://www.utpb.edu/services/academic-affairs/institutional-research-planning-effectiveness/institutional-effectiveness) )
Appendix D
Correct and Incorrect Academic Student Learning Outcomes Examples

Biology
Correct: 85% of senior Biology majors will demonstrate their ability to engage in scientific inquiry by attaining 50 or more points on the research paper rubric.
Incorrect: Senior Biology majors will engage in scientific inquiry by demonstrating competency in analytical, information and communication skills.

History
Correct: 85% of history seniors will be able to develop and conduct an analytically sound study within a historiographical context.
Incorrect: Students will be able to conduct historical research.

Kinesiology
Correct: Using case studies appropriate for their concentration, 90% of seniors will be able to apply kinesiological principles, integrate and apply multiples effectively, and communicate a plan to enhance the quality of life and encourage healthy lifestyles within the target group.
Incorrect: Seniors will understand the relationship between movement and quality of life.

English
Correct: All seniors will be able to analyze a text using at least two different approaches from literacy, rhetorical and/or linguistic theories.
Incorrect: Students will be able to evaluate sources relevant to the English language.

Spanish
Correct: 95% of seniors will score at the “acceptable” level or above on the evaluation of the analysis literacy texts in research paper in Span 4391.
Incorrect: Students will demonstrate familiarity with major literacy trends in Spain and Latin America.

Mathematics
Correct: 95% of graduating seniors will be able to model and analyze a real world problem in Math 4362 by reformulating the problem in a mathematical context.
Incorrect: Graduating seniors will have both breath and depth of knowledge in mathematics.

Computer Science
Correct: 90% of students will be able to analyze a problem and identify and define a set of appropriate computing requirements for its solution.
Incorrect: Graduates will be able to formulate, analyze, and implement appropriate solutions to computing problems.

Chemistry
Correct: 90% of seniors will demonstrate the ability to clearly communicate the results of scientific investigation in writing by obtaining at least an “adequate” on the research paper rubric.
Incorrect: 85% of students will be able to identify and solve chemical problems.

Environmental Science
Correct: 85% of seniors will be able to analyze scientific information and develop an appropriate management strategy to manage a particular environmental or resource issue.
Incorrect: Students will have the ability to apply scientific principles and technology to resource and environmental problems.
Geology
Correct: 95% of graduating seniors will demonstrate the ability to write technical reports that receive at least an "acceptable" in the areas of research, organization, illustration, and writing skills.
Incorrect: Graduating seniors will understand basic concepts in geological knowledge.

Psychology
Correct: 90% of seniors will apply basic research methods including research design, data analysis and interpretation to a research question in PSYC 4392 and receive at least an "acceptable" on all 3 areas on the rubric.
Incorrect: Graduates will be able to weigh evidence, act ethically and reflect other values in psychology.

Criminology
Correct: 90% of senior students will demonstrate the ability to read and understand selections from the literature by constructing an acceptable annotated bibliography on an appropriate topic in the discipline.
Incorrect: Students will have intellectual skills adequate to function in the field.

Leadership
Correct: 95% of students will attain an "adequate" or better on an in-box exercise concerned with ethical issues related to a leadership dilemma in LEAD 4325.
Incorrect: Students will develop critical thinking skills.

Political Science
Correct: 90% of seniors will receive at least 50 points on the research paper rubric in the area of 1) Ability to conceptualize a research question. 2) Formulation of a testable research hypothesis. 3) Application of statistical techniques and drawing appropriate conclusions from the analysis.
Incorrect: Students will be able to critically examine major governmental institutions.

Sociology
Correct: 95% of seniors will demonstrate the ability to understand and apply the fundamental principles of research design and elementary data analysis by receiving no less than an acceptable on those areas of the research paper rubric.
Incorrect: Students will apply a sociological perspective to social problems.

Social Work
Correct: 100% of social work seniors will demonstrate the knowledge and skills necessary to successfully engage in the entry level practice in social work by earning a satisfactory or better on the field practicum evaluation completed by the field supervisor.
Incorrect: Students will understand human behavior.
## Appendix E
### Action Verbs for Writing Outcome Statements

#### Knowledge Acquisition and Application

| Add | Apply | Arrange | Calculate | Categorize |
| Change | Chart | Choose | Classify | Complete |
| Compute | Construct | Count | Define | Demonstrate |
| Describe | Discover | Discuss | Distinguish | Divide |
| Dramatize | Draw | Duplicate | Employ | Examine |
| Explain | Express | Graph | Identify | Illustrate |
| Indicate | Inform | Interpolate | Interpret | Label |
| List | Locate | Manipulate | Match | Memorize |
| Modify | Name | Operate | Order | Outline |
| Point | Predict | Prepare | Produce | Quote |
| Rank | Read | Recall | Recite | Recognize |
| Record | Relate | Repeat | Report | Reproduce |
| Restate | Review | Select | Show | Solve |
| Specify | State | Stimulate | Subtract | Summarize |
| Translate | Use |

#### Higher Order Thinking Skills

| Adapt | Analyze | Assess | Calculate | Categorize |
| Classify | Combine | Compare | Compile | Compose |
| Contrast | Create | Criticize | Defend | Design |
| Devise | Diagram | Differentiate | Dissect | Estimate |
| Evaluate | Explain | Formulate | Generate | Group |
| Infer | Integrate | Invent | Investigate | Judge |
| Justify | Modify | Order | Organize | Plan |
| Prescribe | Produce | Propose | Rate | Rearrange |
| Reconstruct | Reflect | Related | Reorganize | Research |
| Review | Revise | Rewrite | Select | Separate |
| Specify | Summarize | Survey | Synthesize | Test |
| Transform |

#### Psychomotor Skills

| Activate | Adapt | Adjust | Align | Alter |
| Apply | Arrage | Assemble | Calibrate | Change |
| Check | Choose | Clean | Combine | Compose |
| Conduct | Connect | Construct | Correct | Create |
| Demonstrate | Describe | Design | Detect | Differentiate |
| Dismantle | Display | Dissect | Distinguish | Employ |
| Follow | Identify | Install | Isolate | Locate |
| Make | Manipulate | Measure | Operate | Originate |
| Perform | Prepare | Produce | React | Rearrange |
| Relate | Remove | Reorganize | Repair | Replace |
| Respond | Revise | Select | Separate | Set |
| Show | Sketch | Sort | Test | Transfer |
| Troubleshoot | Tune | Use | Vary |

#### Attitudes, Values, and Dispositions

<p>| Accept | Acclaim | Accommodate | Act | Adhere |
| Adopt | Advocate | Alter | Answer | Applaud |
| Approve | Arrange | Ask | Assist | Associate |
| Assume | Attend | Balance | Believe | Challenge |</p>
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<td>Verify</td>
<td>Volunteer</td>
<td>Weigh</td>
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Appendix F
Correct and Incorrect Administrative/Support Office Outcome Statement Examples

University Police Department
Correct: Eighty-five percent of the students will indicate that they are “satisfied” or “very satisfied” with the campus escort service on the Graduating Senior Survey.
Incorrect: Students will approve of the campus escort service.

Purchasing
Correct: The numbers of errors in purchase orders submitted to Purchasing will decrease by 10% within one month after the Purchasing Workshop.
Incorrect: The accuracy of information on Purchase Orders will improve.

Physical Plant
Correct: The number of gallons of water used per square foot of landscaping will decrease by 5% once the new pump controller is installed.
Incorrect: The new pump controller will decrease water usage.

Human Resources
Correct: The number of data input errors will decrease by at least 5% per month in the first two months of the fall semester with the use of a web-based system for data entry.
Incorrect: Data errors will diminish when the Office begins using the new web-based system for data entry.

Student Housing
Correct: Overall satisfaction with life in student housing will not fall below 3.5% on the annual housing survey.
Incorrect: Students will be satisfied with student housing.

Compliance
Correct: At least ninety-five percent of graduating seniors answering the Graduation Survey will be “satisfied” or “very satisfied” with the services of the Cashiers Office.
Incorrect: Students will approve of the Cashiers Office.

Accounting
Correct: At least seventy-five percent of faculty responding to the Services Survey will be “satisfied” or “very satisfied” with the travel reimbursement services of the Accounting Office.
Incorrect: Faculty will approve of the Accounting Office.

Admissions
Correct: Ninety percent of inquiries will receive a reply within 24 hours of the receipt of the inquiry in Admissions.
Incorrect: The Office will reply to inquiries quickly.

Career Center
Correct: All the final resumes completed by students in the Sell Yourself Workshop will show at least 3 points of improvement from the initial resume constructed by the students in the Workshop.
Incorrect: 90% of students will be better resume writers after the Sell yourself Workshop.

Financial Aid
Correct: For eighty-five percent of students, the difference between their log in time and the time that a counselor logs them in to their office will be less than 30 minutes.
Incorrect: Students will not experience long wait times in the office.
Success Center
Correct: Students who attend 3 or more tutoring sessions will on average have higher grades by 0.05 or more in the tutored subject than a comparison group who did not attend tutoring.
Incorrect: Students who attend tutoring will do better academically than those who do not.

Student Activities
Correct: At least fifty percent of students will vote in the Student Senate Election.
Incorrect: More students will vote in the Student Senate Election.

Student Recreation
Correct: User complaints about the cleanliness of the weight room will fall by at least 20%.
Incorrect: Complaints about the facilities will decrease.

Counseling Center
Correct: From May 1 to August 31, the number of repeat drug and alcohol offenders who were referred to the Counseling Center on their first offense will fall 5%.
Incorrect: Repeat drug and alcohol offenders will decrease this year.

Dean of Students
Correct: The number of students referred to student discipline will fall by at least 25 this academic year when compared to the previous academic year.
Incorrect: The number of drug and alcohol cases will fall this academic year.

Athletics
Correct: The 4-year graduation rate for student athletes will exceed the 4-year graduation rate for the student population as a whole.
Incorrect: Graduation rates for athletes will be higher than the general student population.

Registrar
Correct: Transcript requests will be completed within 24 hours of receipt.
Incorrect: Transcripts will go out in a timely fashion.

Library
Correct: There will be an increase of 20 percent in the number of students trained to use the Library in this academic year over the number of students trained in the previous academic year.
Incorrect: Students will be trained in information literacy.

Institutional Research
Correct: 95% of external reports and surveys will be completed and certified (as required) by the agency established deadline.
Incorrect: External reports will be submitted promptly.