UNIVERSITY OF NEBRASKA
UNK
KEARNEY

Program Assurance of Quality
Assessment of Student Learning & Program Effectiveness

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Assessment of Student Learning

Introduction

It is important for academic and student support programs to ensure they are meeting the objectives for which they were created. Faculty should be interested in the effectiveness of their program outcomes and the ability to which the students enrolled in the program are learning. Valid assessment assists programs in providing quality assurance that students are meeting established benchmarks and are receiving the best possible education suited for entering the workforce. This is especially so in a competitive career and job placement environment. The University of Nebraska Kearney is committed to demonstrating quality across academic programs as well as student services. The ultimate goal of assessment is to provide outcomes data that supports student success through all of the services provided across campus. Further, data assists in demonstrating that students are graduating with both the requisite knowledge in their chosen fields of study as well as the writing, speaking, and critical thinking skills necessary to be successful contributors to the companies and agencies that employ them. Universities that effectively prove their worth in producing well-prepared graduates have a better chance of convincing taxpayers, legislators that Higher Education is a worthwhile investment. Universities that consistently receive high ratings in educational quality by all measures are more likely to attract higher achieving students. It is in this environment of increased demand for accountability, difficult budget decisions, and the desire to continuously improve the quality of education, we strive to engage in robust assessment of student learning & program effectiveness.

Evolution of the Assessment Process

The process of assessment at UNK has undergone significant evolution. Prior to the 2004 accreditation site visit by the North Central Association of the Higher Learning Commission, assessment of student learning was a rare occurrence. From 2004-2007, the university implemented requirements for assessment in all academic departments, and the end product was an annual report to be filed in the Office of Assessment. In 2008, the university implemented use of Weave software for documentation and organization of assessment materials and annual reports.

Weave remains in use at the current time. A new version of the software was implemented in 2019. The purpose of using Weave is to provide, within each program's files, a history of its assessment activities, a storehouse for supporting documents, plans for improvement based on assessment results, and analysis of data and activities in the form of structured annual reports. This format provides the framework to allow each program to conduct a well-organized program of assessment that builds each year on the activities of the past.

Assessment Personnel

Office of Assessment

The Office of Assessment maintains a permanent staff of one – the Assistant to the Senior Vice Chancellor of Academic Affairs - Director of Assessment & Accreditation. The Director directly to the Senior Vice Chancellor for Academic and Student Affairs. The duties of the Director include the following:

- Provide assistance to academic and student affairs programs in formulating and improving assessment plans.
- Guide programs toward best practices in assessment activities.
- Review and give constructive feedback to departments on their assessment activities.
- Review and give constructive feedback to programs on their annual assessment reports.
- Actively participate in Student Affairs Assessment Team meetings.
- Administer Weave software.
- Administer the National Survey of Student Engagement (NSSE) every three years.
- Assist the General Studies Council in the all quality assurance development and implementation.
- Chair the university Assessment Committee.
- Serve as ex-officio member of General Studies Council.

Assessment Committee

The university-level Assessment Committee consists of representatives from each academic college, the university library, and Student Affairs. Historically, the committee has met once each month during the regular academic year, and has had an advisory relationship with the Director of Assessment. Each member of the committee has some assessment experience, and should be able to provide constructive feedback about a program's assessment activities, articulate the importance of robust assessment, and explain best practices in assessment. Monthly meetings throughout the academic year provide opportunities for additional training or discussion of specific concerns.

The Assessment Plan

Introduction

Assessment is a process that takes place in both formal and informal ways every day. While in the classroom, faculty informally gauge whether students understand material by observing body language, paying close attention to student questions, and asking students to answer questions that indicate whether they have a fundamental grasp of the material in question. Formal assessment of student learning requires proof, in the form of documentation with thoughtful analysis, that students are indeed learning what faculty and staff believe they should be learning through their coursework and other experiences on campus. This is the fundamental principle of assessment in higher education.

Formal assessment requires a structured plan, ideally developed by all members of the faculty in the program. The current term "quality assurance", represents the overall effort in providing data and artifacts that demonstrate student learning and program effectiveness. The quality assurance plan should arise from two primary points of reference: first, discussions about what faculty feel is important for their students to learn at the program level & second, professional standards associated with the content area of the academic program. Once program outcomes have been defined, faculty should determine which sources of data already exist, or may be developed, to determine whether students are in fact gaining the core knowledge and skills that are critically important. Once collected, data must be analyzed and plans for improvement established and implemented where needed. Design of a quality assuranc plan is similar in many ways to designing a research project. Beliefs are defined, questions are developed, hypotheses are formed and tested, results are collected, and the investigators provide a thoughtful analysis of results, indicating future directions based on success or failure in critical assignments or exams. The process is repeated, implementing changes informed by analysis. The overarching goal of assessment is to improve the quality of the academic program and give students access to the best possible education we can provide. Components of the plan are discussed below.

A. Mission Statement

Each program should begin their assessment activities with a discussion among all faculty &/or staff about what they see as their core values and/or overarching goals. These should form the core of the mission statement for the program. The program's mission statement should conform to the mission statements of the entities above the program in the organizational chart of the university. One way (though not the only way) to achieve this is to mirror language used in mission statements from higher level offices. Mission statements should provide a structure for the program's discussions about a quality assurance plan.

Consider: Does the program address the mission statement taught in courses across the program? Is the department measuring how well students are performing in these areas?

Examples

University level mission

The university's mission statement states:

> *The University of Nebraska at Kearney is a public, residential university committed to be one of the nation's premier undergraduate institutions with excellent graduate education, scholarship, and public service.*

College level mission

An example of the mission statement of the College of Business and Technology states:

> *The College of Business and Technology provides "transformational career-focused programs dedicated to extraordinary student experiences and regional economic development in Nebraska."*

Program level mission

An example of the mission statement of the Master in Athletic Training (MAT)

"*The mission of the University of Nebraska at Kearney Master of Athletic Training Program (UNK-MAT) is to provide students with a comprehensive educational experience and strong clinical foundation for a career in the allied health care profession of athletic training. Students will acquire knowledge and skills necessary for completing tasks within the professional setting. Students will be able to demonstrate an understanding and ability to implement proper prevention, management, and rehabilitation of injuries and illnesses of the physically active individual in a variety of settings.*

B. Student Learning Outcomes

In each program, faculty should agree on a set of measurable student learning outcomes – a set of knowledge, skills, and professional behaviors that are essential for students to acquire before they graduate from that program. Program faculty may also pull from a set of national standards to assist in establishing Student Learning Outcomes. Many externally accredited programs direct programs to specific outcomes that are to be achieved and measured.

Student Learning Outcomes (SLOs) should reflect best practices within the field of study, as well as basic skills that any college-educated person should possess. Measurability of these SLOs is a critical requirement for unbiased assessment of student learning. SLOs should be stated in such a way that they may be clearly recognized as measurable. Words that indicate "measurability" are typically action words, such as demonstrate, illustrate, compare, contrast, explain, define, and create. (For example, "Students will compare the American system of government with those of other world powers.") Words such as understand, know, or appreciate should be avoided because these are not measurable. (Such as: "Students will understand how the American system of government compares to with those of other world

powers.") The difference in wording is subtle, but the first example explicitly states how students will demonstrate their knowledge of similarities and differences between American government and other countries' governments. The second simply states that students will understand it, but gives no specific indication of how students' understanding will be measured.

Each program should define a set important outcomes it deems critical for its students. In general, between three and eight outcomes should be sufficient for each program. Examples follow:

- Students will demonstrate their ability to communicate effectively in the appropriate written form as professionals in the field.
- Students will analyze, compare, and contrast works of art.
- Students will synthesize accurate historical information into research papers.
- Students will be able to analyze an ethical dilemma utilizing UNK's Student Code of Conduct and/or Universal Ethical Principles and determine a recommendation for a business case.
- Students should be able to evaluate an individual's health and fitness, and prescribe an appropriate physical activity intervention to maintain or improve health.
- Students will be able to analyze financial reports to determine branch profitability and make corrective actions to improve profitability.
- Candidates who complete the program facilitate the development, articulation, implementation, and stewardship of a vision of learning in a collaborative manner with the school community.
- Students will apply their knowledge and skills by successfully completing an internship with an approved local, state, or federal criminal justice agency.
- Students will apply evidence-based practices to plan, implement, and modify treatment for clients with various communication and swallowing disorders.

C. Curriculum Map

An often overlooked, yet critical part of the assessment plan in academic departments is the cooperative development of a curriculum map. A curriculum map for each academic program should be developed cooperatively with input from all faculty within that program once a set of Student Learning Outcomes is established. The purpose of a curriculum map is to assure that all of the SLOs are being addressed somewhere in the required coursework for that program. It is surprisingly easy to completely miss addressing one or more vital SLOs without proper communication and planning. For example, assume that one identified SLO in a program is that

students will be able to communicate effectively within the discipline in oral presentations. Construction of a curriculum map ensures that instructors of specific courses know they are responsible for giving students instruction on what makes a good oral presentation within the field, including appropriate visual aids, tone, level of formality, appropriate audience level, etc. Without the curriculum map, or proper attention to it, faculty members may assume that students already have this information. As a result, students perform poorly.

The curriculum map is usually constructed as a grid. Along one axis is a listing of the program's Student Learning Outcomes. Along the other axis is a list of the required courses in that program (typically just those taught within the department, but this is not a hard and fast rule). Each SLO should have courses in which the skill/outcome is addressed at the introductory (knowledge), intermediate (analysis), and mastery (synthesis) levels. A letter (K, A, or S) should be placed in the grid to indicate where in the curriculum each of these things happens. It is quite acceptable to have more than one level taught in the same course.

Once constructed, please store a copy of the Curriculum Map in the *Documents* section of Weave (under Assessment).

A simple, hypothetical example is given below.

Required Courses	**Understanding of Core Knowledge**	**Ability to Find and Use Relevant Data**	**Ability to Read and Analyze Literature in the Discipline**	**Writing in the discipline**
XXXX 270GS	K			
YYYY 270GS	K	K	K	
XXXX 300	A			K
XXXX 320	A	A	A /S	K/A
XXXX 321	S			A
XXXX 485		S	S	S

K = Knowledge (level 1) A = Analysis (level 2) S = Synthesis (level 3)

D. Measures, targets, and findings

Once Student Learning Outcomes have been established, and all instructors know which SLOs they are responsible for addressing (and at what level), attention turns to teaching and evaluation of student work. SLOs are important goals for students to achieve. We know whether they are achieving those goals through the establishment of measures. Measures are specific assignments, standardized exams, activities, or other evaluations used to determine whether students are performing at an acceptable level. Measures should be reasonable yet

rigorous, and should relate directly to the identified Student Learning Outcomes for the program. Each *measure* should have an equally rigorous yet reasonable *target* that establishes an acceptable level of proficiency. Results are referred to as *findings.*

One example of a measure, target, and finding from Biology:

Measure: All biology students complete either a lab/field-based research project or a library-based project. One product of this is an oral presentation summarizing their project, results, and potential implications. The oral presentation is attended by students and faculty at a departmental research symposium at the end of each semester.

Target: 70% of students will score at milestone level 3 [of 5] on AAC&U VALUE rubric "Oral Communication" [Note: AAC&U VALUE rubric "Oral Communication" stored in document repository of Weave for easy reference.]

Findings/Results (2010-2011): Target met. 75% (12/16) students scored 3/5 in all categories of evaluation.

When evaluating written work, performance-based experiences, artistic work, or oral presentations, it is advisable to establish *rubrics* for the purpose of objectively evaluating student work. A rubric is a table that contains a listing of elements the instructor will be using to evaluate the work (content knowledge, professional tone, appropriate use of tables/illustrations, grammar, etc.), as well as a scale (usually from 1 to 4 or 1 to 5) that guides the instructor during evaluation of the work. Inside each cell of the table should be a description of performance at each level. Students may benefit immensely from receiving a copy of the rubric that will be used to evaluate their work when that work is assigned. This lets them know in no uncertain terms what is expected of them, and how their work will be scored.

An example from Business Education of a rubric for scoring written work is included on the following page.

Written Communication: Course #, Course Title

	Unacceptable (0.0)	(1.0)	(2.0)	Exemplary (3.0)	Score	NA
Content	Elements missing. Major factual errors. Misinterpretation of assignment. Undeveloped ideas.	Supporting information and ideas are adequate but not fully developed.	Supporting information is fairly well developed and logical.	Topic is clearly identified. Subject is adequately detailed. Information is accurate. Ideas are thoroughly developed. Work is concise.		
Organization	Lacks audience awareness. Information is irrelevant. Transition between ideas is mostly non-existent.	Ideas are developed but sometimes interferes with purpose. Points lack complete supporting data. Transition between ideas is weak.	Work is coherent. Ideas are adequately developed. Points have supporting data. Transition between ideas is clear.	Work is coherent. Ideas are well-developed. Points are justified by supporting data. Transition between ideas is effective.		
Analysis	No purpose stated. Supporting evidence is insufficient and/or irrelevant. Conclusions and/or recommendations are not appropriate.	Purpose is stated. Supporting evidence is present, but not fully developed. Analysis is present but not fully developed.	Purpose is stated, but content sometimes interferes with purpose. Supporting evidence is sufficient and accurate. Analysis is logical, consistent, and adequate.	Purpose is clearly stated. Assumptions are identified. Evidence is sufficient, necessary, and accurate. Analysis is logical, internally consistent, and fully developed. Evaluation of information leads to appropriate conclusions &/or recommendations		
Writing Conventions	Repeated errors, misspellings, inappropriate formatting and poor word choices. Message hard to comprehend.	Reads well enough for reader to grasp meaning, but has significant number of errors. Formatting inadequate.	Minor errors are present, but do not interfere with reader comprehension.	Grammar, punctuation, and mechanics are correct. Word choice is appropriate. Sources are properly cited Writing is fluid. Sentence structure is adequate. Writer uses appropriate format for headings. Writer uses appropriate formatting for tables, graphs, and figures. formatting for tables, graphs, and figures.		
Disciplinary Characteristics	Word choice is inappropriate. Details related to the discipline are missing or poorly composed. Writer does not demonstrate knowledge of the discipline.	Word choice for the discipline is fair. Vocabulary is limited. Demonstrates limited knowledge of the field.	Word choice is adequate to the discipline. Vocabulary shows understanding. Demonstrates adequate knowledge of the field. Little if any slang. Audience focused.	Word choice is appropriate to the discipline. Vocabulary shows understanding. Writer is thinking like a business person. Writer demonstrates knowledge of field.		
Appearance of document	Formatting is unacceptable and interferes with readability. Sloppy. Does not follow directions. Unprofessional in appearance.	Overall appearance is acceptable and readable with minor errors.	Follows directions. Presentation is professional and appropriate to the discipline. Formatting is easy to follow.	Overall appearance is professional and appropriate for discipline. Writer demonstrates professional formatting skills.		
Documentation	No documentation present.	Incomplete documentation. Some information missing.	All appropriate information is documented. Reference page and citations present, but does not follow recommended style.	All appropriate information is documented and includes a reference page and in-text citations/footnotes. Highest professional standards used for documentation		
Integration	Does not integrate any outside information from other disciplines	Integrates one or two other disciplines.	Integrates most other disciplines fairly well.	Integrates information from other business disciplines: accounting, finance, human resources, management, operations, marketing, and information systems		
Critical Thinking	Presents opinion as facts without supporting evidence. Does not show any type of reasoning. Information is ambiguous. Conclusions are not logical.	Work does not distinguish fact and fiction. Reasoning is not logical or fully developed. Conclusions are logical, but not complete.	Identifies assumptions and distinguishes between fact & opinion. Reasoning is logical but not fully developed. Conclusions are logical, valid, and sound.	Work involves the following perspectives: Identifies & challenges assumptions, distinguishes between facts & opinions, uses factual/statistical information, uses reflective skepticism, recognizes fallacious arguments, uses inductive and/or deductive reasoning, provides analogies, avoids ambiguities. Conclusions are logical, valid, and sound.		

Ideally, each instructor within the program should use the same rubric for a specific type of work (such as an oral presentation), but this may be impractical given the level of expectation at the sophomore versus the senior level. In any case, a rubric should be developed and used consistently to evaluate student work.

Measures may be direct or indirect. **Direct measures** are based on actual products that students create, or evaluations of their performance. Examples include scores on standardized or locally produced exams, projects, papers, presentations, musical or theatrical performances, or portfolios, as well as evaluations of internship, clinical experience, research projects, theses, or student teaching experiences by supervisors. **Indirect measures** are those not based on products students create. They include surveys, questionnaires, interviews, focus groups, scholarships or other awards or honors, and employment placement.

Best practices require that each SLO be evaluated by three measures, a practice called ***triangulation***. This should involve at least one, but preferably two, direct measures. Programs may use a combination of direct and indirect measures to provide a complete picture of student performance.

Note: It is extremely helpful to store a copy of each rubric, survey, questionnaire, etc. in the *Project Attachments* section of Weave.

E. Taking action and "closing the loop"

It is entirely likely that during the course of gathering data, problems in some area of student learning will be identified. Faculty may discover that students are not grasping a critical area of knowledge, not mastering a specific skill in the laboratory, or having trouble identifying appropriate sources when writing a research paper. Or the assessment process may reveal that national certification exams require students to master information in an area in which no faculty expertise currently exists at the university. In any case where problem areas are identified, departments need to make plans to take action to address these concerns, and document the changes made (or needed, if budget or faculty lines are not immediately available). These should be documented as *Action Plans* in Weave, and linked to the related measures.

This improvement, whatever form it takes, is the real reason we need to critically and constructively assess our programs. It is not because we have a state mandate, or a requirement from an accrediting body, though these are certainly true as well. But by asking

relevant questions about how our students are performing, determining how we can gather data to answer those questions, and paying close attention to the answers we receive, assessment can be a powerful tool to affect necessary changes for the good of the program and its students. Programs can make informed, data-driven decisions about steps they can take that have the best chance of affecting a positive difference in the student experience while making maximum use of time and resources.

"*Closing the loop*" is a phrase that is perhaps over-used and under-explained. It simply means taking action to correct problems discovered through the assessment process. For example, if you discover that students are not mastering a key area of knowledge within their chosen field of study, the natural question to ask is, "What do we do about it?" The plan to address the problem that develops is the action plan that will allow your program to close the loop.

In some cases, closing the loop is quick and easy. In a survey of freshman students and their parents conducted after the Fall 2011 move-in experience, Student Affairs staff members discovered that parents were generally happy with how the day progressed, but one area that received consistently low marks was that amount of signage on campus. During the next move-in day in Fall 2012, signage was increased and a new survey found that parents no longer felt it was a problem.

In other cases, closing the loop can be messy, and/or require months or years of planning and lobbying for resources. For an example of this, consider a *hypothetical scenario* in which a program finds that student performance on the departmental lab final in organic chemistry is decreasing at an alarming rate. The chemistry program has experienced growth, as have the pre-professional programs that require organic chemistry. As a result, lectures are expanded to well over 100 students each, and several additional lab sections must be opened. Graduate students are hired as lab instructors to meet demand for new sections of lab. Detailed analysis of assessment results indicates that students performed significantly better in lab sections taught by professors with expertise in organic chemistry than in those taught by graduate students. The department's action plan is to put forward a request for an additional faculty line in organic chemistry. The request must go through the academic chain of command, and money must be found for this new faculty line if they find it is justified. But since the department could prove that they had enough students to fill a new lecture section and multiple lab sections of organic chemistry, and that student performance was suffering as a result of this stop-gap measure of hiring graduate students to teach labs, the department was able to get approval for the new faculty line.

F. The Annual Report

An annual assessment report is required of all programs. The purpose of the report is to synthesize program data, provide a summary of assessment activities, and provide a standardized location for thoughtful analysis of both the assessment process and lessons learned from the previous year's data. In Weave, the annual report is found by logging in and accessing the program you are assigned to working with. Data results are to be put in by established outcomes already entered in your Weave program report. Please provide a description of the data in the Description tab within each Outcome. Also, please make sure that the Target for student performance is entered and accurate for that reporting year. Provide the data results within the Results section as well as an Analysis of the findings within the Analysis section. Finally, pleas check the Status of the Outcomes finding as Met, Partially Met or Not Met before going on to entering data and findings for the next Outcome.

Additionally, there will be a standard set of summary questions that the program faculty are asked to respond to and submit as a word file at the bottom of the report page. The Annual Report Summary Questions are:

1. Did your assessment plan allow you to assess department/program learning outcomes?
2. Is your data and assessment process providing you with usable & meaningful information? If not, what changes to program assessments need to be made?
3. Provide a description of when/how assessment results have been/will be shared with the department/program faculty. (e.g. were the assessment results discussed at a faculty meeting or retreat?). Is the entire department/program involved in decision making related to actions to be taken based on assessment data? (If the answer is not "yes", please explain)
4. Based on your assessment results, Identify any changes your department/program has made over the last 2 years to improve student learning and/or program effectiveness.
5. What resources did, or do you need to make changes? This may include funds, equipment, personnel, facilities, or any other resource you feel you need to move forward.
6. Is there any other information about your department/program you would like to share that is not covered in your assessment report that may speak to academic quality? This may include faculty and student accomplishments, grant funding secured, awards, new hires that filled a gap in your faculty expertise, results of program accreditation visits, etc.

These questions are prompts to encourage you to think critically about your program as well as to examine your assessment data in detail.

Please note that assessment is not the job of one person in the department. It is a collaborative effort between all faculty within a program, and data should be discussed as part of ongoing efforts to improve the program for the students.

Timeline for Assessment

What should you be doing and when…

Early summer/fall semester

- data gathering and analysis
- meet with faculty to discuss results
- formulate action plans for problem areas
- determine who is responsible for implementing each action plan, and how each will be implemented
- discuss assessment plan to be sure it still fits the needs of the program
- discuss any changes that should be made to the assessment plan
- report on and update status of action plans implemented in previous academic year
- write annual report

October 31 or before

- finish entering findings/results and analysis for the previous academic year in Weave
- complete final version of annual report in Weave
- have concrete plans in place (or in process) for implementing new action plans
- finalize or update status of action plans for previous year

Spring semester

- continued data gathering and analysis
- continued work on action plans

Late spring/early summer

- make a plan for faculty to review data in preparation for writing report in late summer and early fall