
A Plan and Handbook for the
Assessment of Student
Academic Achievement and
Institutional Effectiveness



Mesabi Range Community &
Technical College

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Mesabi Range Community & Technical College

An Assessment Handbook for the Assessment of Student

Academic Achievement

<p style="text-align: center;">Assessing Student Learning and Institutional Effectiveness</p>
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Introduction

This document addresses learning more than it addresses teaching. As some paradigms shift from teaching to learning, the assessment movement has been an instrumental way of taking the pulse of student learning and outcomes. It is hoped that this document will serve as a handbook and stepping stone to increase dialogue within the college community about teaching and learning. This handbook will also serve as a working document upon which the college will build its assessment activities. As the reader explores the many assessment techniques in this handbook, it is hoped that ideas will be generated and increased dialogue will result between all faculty members, full-time and part-time, about the learning process and how to make it better.

Background

In October 1999, Mesabi Range Community & Technical College (MRCTC) underwent its periodic comprehensive accreditation visit by the North Central Association. Although the college was granted continued accreditation through 2009, a Focus Visit was scheduled for 2003 on the implementation of an assessment plan pursuant to commission requirements. The October 1999 NCA visit stressed the need for the institution to increase its efforts to meet the commission's assessment initiative. Within the next three years, MRCTC must make significant

progress in integrating its assessment plan into the institutional processes. The integration must range from the college-wide level, through departments and programs, down to practical applications in the individual classroom.

Although assessment of student learning has been part of what MRCTC faculty do every day in their classrooms and part of many of the college's technical programs, the formal institutionalization of assessment as a *college-wide* program must begin in the 2000-2001 academic year. The College must be committed to take the necessary steps to embrace assessment and embed the rationale for NCA's Criterion Three, "The institution is accomplishing its educational and other purposes," and Criterion Four, "The institution can continue to accomplish its purposes and strengthen its educational effectiveness into its processes."

Assessment's Impact

Assessment begins with the College's mission and goals; however, a successful assessment plan must provide linkages and feedback in the following areas:

<p>Classroom Assessment</p> <p>Discipline/Program Assessment</p> <p>General Education</p> <p>Program Review</p> <p>Institutional Assessment</p>
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Classroom assessment relates directly to institutional assessment and effectiveness. Assessment says that learning can be measured and monitored, and that feedback should increase instructional effectiveness and ultimately improve the learning process. The assessment process is an assessment-for-improvement design. This says that the results of the assessment go directly

to those who can use the data to make improvements in the learning process, namely the faculty of the college. The faculty are directly involved in instruction and can through their own pro- actions increase the quality of teaching and learning in the classrooms. This leads to faculty satisfaction in helping students learn, encouragement of intellectual dialogue about the learning process, and increased professional knowledge. This is how institutions of higher education grow, develop, and flourish.

Definition of Assessment

The North Central Association uses the phrase “assess student learning” to mean the *systematic collection, examination, and interpretation of qualitative and quantitative data about student learning and the use of that information both to document and to improve student learning.*

The elements of this description provide the key points for which NCA evaluators look when visiting a member institution. They believe a program to assess student learning should:

- be structured, systematic, and ongoing, not episodic;
- be related to other institutional strategies and long-range plans and to planning and budgeting processes;
- emerge from and be sustained by a faculty and administrative commitment to excellent teaching and effective learning;
- provide explicit and public statements, regarding the faculty’s expectations for student learning;
- collect, examine, and interpret the results of assessment to determine the degree to which the fit between faculty expectations for student learning are met by the competencies, knowledge, skills, and values students can be demonstrated to have acquired and the level of learning achieved;

- use the information obtained from assessment to document present learning and suggest areas where instruction is resulting in optimal learning and where improvement is needed;
- provide encouragement and the means to test changes that could improve learning where they are indicated.

Assessment: A Working Definition

Assessment refers to two different activities:

1. Gathering of information (measurement)
2. Utilization of that information for institutional and individual improvement

The result of these activities will document that Mesabi Range College takes educational values seriously, that we put student learning first, and that we are proactive in helping to create a community of life-long learners.

Benefits of Outcomes Assessment

Some valid and important reasons for assessment are listed below:

- I. Outcomes assessment helps students learn more by
 - A. improving the curriculum.
 - B. directing attention to learning.
 - C. improving the learning and teaching process.
 - D. modeling a scholarly approach to decision-making.
- II. Outcomes assessment gives the institution a competitive edge in
 - A. fund raising.
 - B. student recruitment and retention.
 - C. responding to requests for accountability.

- III. Outcomes assessment strengthens the institution by
 - A. defining and measuring academic mission and goals.
 - B. justifying funding.
 - C. increasing cost effectiveness.
 - D. meeting accreditation requirements.
 - E. establishing baseline data.
 - F. securing grants.

- IV. Outcomes assessment increases the ability to serve our student population by
 - A. documenting student progress and development.
 - B. measuring program effectiveness.
 - C. identifying special needs.
 - D. improving public relations.
 - E. increasing student success.

Questions and Answers

Since assessment is the result of a change in the conventional wisdom about the educational process and involves new approaches to traditional activities, numerous questions are raised as it is implemented.

Q. Isn't the bottom line that assessment results could be used against me, the classroom teacher?

A. The emphasis on student learning means that assessment is concerned about the *content* of a course or program not the delivery method. Faculty members in an academic department or program, interpreting the results of an assessment measure, might collectively decide to give more attention to a certain skill, competency, or knowledge area,

and might even recommend changes in pedagogy, but they cannot compel the behavior of a given instructor.

Q. Why isn't the grade I give a student sufficient assessment?

A. Outcomes assessment expands the scope of inquiry from the individual student (who will continue to be individually assessed in courses) to the classroom, course, or program which serves many students. Therefore, it is the aggregate performance of students as a group (even if in a sample) which provides information on whether the program is achieving its advertised ends.

Q. Why doesn't the assessment coordinator and assessment committee just do this and produce a report?

A. First of all, that would be too much like grading. . .and the goal of assessment is to produce results that will enable professional instructors to improve student learning, not a report on past performance. *Only the faculty who guide the learning process* can identify the intended outcomes of that process, what it is they expect to happen to/for the student. And while the assessment coordinator and committee will give helpful advice in constructing and administering the means of assessment, it is *only the faculty* who teach in the discipline or program who can decide what the results mean and suggest improvement.

Q. Do all programs or departments have to use standardized tests?

A. Of course not. Tests from outside organizations have the edge in objectivity but they are only one of many means of assessment. More importantly, they may not be valid in the judgment of the faculty who are identifying outcomes and means. . .and it is their judgment that counts. It may well be that an exam created by the department would be a better tool.

Q. What is the connection among the various levels of assessment?

A. Let's remember that the focus of assessment is student learning. The most significant

educational interaction happens between students and instructors in the classroom. The individual class section is part of a course, and courses are parts of departments and programs. These levels reflect different, yet interrelated, facets of the student's education.

Q. Are adjunct faculty involved?

A. You bet! All faculty—full and part-time—are involved in student learning. Adjunct and full-time faculty participate in classroom, departmental, and general education assessment.

Student Outcomes Assessment Principles

- 1. The assessment of student outcomes begins with a commitment to our Mission and Goals' Statements and works through the General Education "Goals" established for students. Assessment of student outcomes reflects an understanding of student learning as a complex, integrated, and ongoing process.** Learning includes both the acquisition of knowledge and the ability to apply knowledge in the light of attitudes and values. As learning affects success inside and outside the classroom, assessment uses a variety of quantitative and qualitative methods over time. Assessment tracks improvement to produce further modifications in teaching and learning, including its own process.
- 2. Assessment of student outcomes is distinct from regular program review.**
The explanation and evaluation of all aspects of a program are not equivalent to the assessment of student learning.
- 3. Effective assessment of student outcomes documents outcomes in order to reconsider the entire learning process.** Assessment that focuses only on outcomes is incomplete because it does not construct a feedback loop. Complete assessment gives the faculty information necessary to improve teaching and learning.
- 4. Effective assessment of student outcomes requires active participation across**

the entire educational community. Students, faculty, staff, administrators, alumni, and outside employers are involved in overall assessment efforts. However, disciplines and programs and the assessment committee consisting of faculty manage the faculty assessment efforts.

5. **Assessment of student outcomes leads to improvement in student learning when it affects the decisions of the entire educational community.** Quantitative and qualitative outcomes improve teaching and learning when they affect planning and budgeting decisions.

Five Evaluative Standards for Assessment Plans

The NCA Commission has framed five evaluations and requires that written assessment plans explicitly address each of them.

1. The Plan is Linked to the Institution's Mission and Goals

A comprehensive and systematic approach to assessing student learning will determine the extent to which we are achieving our mission. Only when we have methods of assessment that tell us where we are succeeding, and where we are not, can we act effectively to maintain success and remedy failure.

The assessment plan, at every level—from the general education curriculum, to the career program, to the individual course—must be focused on helping the institution to fulfill its promise to the community it serves. To thrive within the global culture and economy, our students must possess the knowledge, skills, and attitudes that MRCTC seeks to nurture. As assessment moves toward full implementation within the college, we will always focus on how our mission fits within this framework.

2. Faculty Must Participate in the Development of the Assessment Program Which is Institution-Wide in Scope

The assessment program will be carried out primarily by faculty, who will design and implement assessment procedures that serve their own educational goals for their students, and who then will use the knowledge they have gained to improve student learning.

Individual department and disciplines and program plans are essentially the responsibility of the relevant faculty in those areas; however, the college-wide nature of assessment requires faculty to consider the larger educational mission of the institution as a whole.

3. Assessment Will Lead to Institutional Improvement

Every assessment project will include a clear concept of how the results that are gathered can and will be applied to maintaining or increasing student learning, and every assessment project will culminate in proposals for specific action. A systematic, on-going process of realistic and manageable assessment leading to continuous, incremental change will—over time—make a significant difference in increasing student success. The assessment plan will be the built-in mechanism for institutionalizing the task of improvement.

The Assessment Committee will provide oversight and direction to assessment activities to ensure that they occur on a timely basis, are reported, and that information is distributed to faculty for curriculum and instructional review. The committee will review annually the assessment criteria, data collection methods, and measurement techniques of projects related to their committees. Where results are satisfactory, proposals will explain how this success can be maintained. Where results are unsatisfactory, proposals will explain what changes are needed in teaching, curriculum, college policy, or assessment methods themselves.

Recommendations will be made on a regular basis to the Provosts for changes in procedures, budget, etc., necessary for institutional improvement.

Because faculty is involved in the design of activities, as well as with their actual implementation, they have a stake in extracting educational value from assessment results

for their students. It will be the responsibility of the Assessment Committee, and the academic administration, to monitor, coordinate, and provide resources for such implementation.

A model for functional planning, budgeting and resource allocation is outlined in the Appendix and will serve as the basis for integrating assessment activities with the college's annual budgeting cycle.

4. The Timeline is Realistic and Appropriate

The timeline must recognize that effective assessment programs must develop in a deliberate and thoughtful way, allowing time for faculty to come to appreciate the importance of assessment and the variety of its methodology. The timeline calls for initiation of departmental assessment activities implemented on a reasonable scale for the first academic year, with fuller implementation to follow in subsequent years. The departments and programs will select projects that will help them evaluate how well they are helping students meet core competencies. For example, the Math department could plan departmental exams for pilot testing in the spring; the English department could plan a pre and post-test writing exam.

The timeline must provide faculty and students with viable feedback, remain sustainable (and of course revisable) over time, and be designed with the population that MRCTC serves.

5. The Assessment Program is Appropriately Administered

Appropriate human, financial, and fiscal resources will be made available for the implementation and continuation of the assessment process. The program provides for four levels of administration:

Assessment Program Levels of Administration
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Teacher in Classroom

Program/Discipline

Assessment Committee

Academic Administration

- At the first level is the teacher in the classroom, designing and implementing course-level assessments that improve learning among his/her students.
- Second, is the level of the department or program, where the faculty will further the larger goals of a coherent curriculum with well-defined outcomes, collectively. Each department or program will develop a specific budget line item dedicated to assessment activities and improvement of learning. There will be a faculty coordinator or contact person for assessment purposes with the responsibility for executing assessment activities and monitoring and reporting progress.
- Third is the level of the college-wide Assessment Committee, which will ensure that objectives are met; timelines are followed; data are collected, analyzed, and reported to the appropriate internal and external audiences; and confidentiality and privacy are maintained.
- Fourth is the level of the academic administration, whose responsibility is to see that the mission and goals of the institution are being promoted throughout the program/discipline in a consistent and comprehensive manner. Annual reports of student outcomes assessment results will be submitted to the president and academic community, and to the community at large.

Assessment Process

The assessment plan employs the Five-Column Model designed by Dr. Jim Nichols, Director of University Planning and Institutional Research at the University of Mississippi. This model essentially identifies five steps to outcomes assessment.

Mission & Goals	Outcomes	Means of Assessment	Results of Assessment	Use of Results
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Column I – Mission And Goals

The broad Mission Statement of the institution is expanded into individual, specific goal statements. In the fall 2000, the College community completed the task of writing their Mission and identifying the goals through the strategic planning process.

At the beginning of the assessment process, each assessment unit will need to identify the portion or portions of the Mission Statement/Goals which the unit intends to be fulfilling. There is a clearly identified space for this on the reporting form.

Column II – Outcomes

The assessment unit identifies intended outcomes for the program, course, service, etc. This is one of the most important steps in the process. The outcomes statements are descriptions of what the faculty members intend for students to know, think, or be able to do, as well as the attitudes, values, and skills to be acquired when they have completed the program or course. For the individual classroom, the outcomes are the knowledge units, skills, attitudes, etc., which the instructor intends to be learned in that day's class meeting. For a college service, the outcomes are more likely to state the results of a process, rather than student achievements.

Each specific result should be the subject of a separate outcomes statement. Two outcomes connected with a conjunction do not simplify the task, as it is most likely that they cannot be evaluated with the same assessment means. . .and will remain two outcomes, not one.

The list of outcomes for a program may be long as the faculty members identify all the topics of knowledge they expect students to acquire, all the skills that must be gained to use that knowledge, and the changes in attitude that accompany participation in the program. By contrast, there may be only one intended outcome for an individual class meeting; *whatever the number of intended outcomes, only two or three will be assessed for a program or course in a given year—but the list should be preserved to provide additional outcomes to be assessed in the future.*

The following are guidelines to obtaining useful outcomes statements:

- There should be only one result in each statement (use no conjunctions).
- The outcome should be consistent with the Mission Statement.
- It should identify a key or core learning competency, not details.
- The outcome should be reasonable given the ability of the students.
- It should be clear—so we can know when it's accomplished.

Column III – Means of Assessment

For each outcome identified, the assessment unit must decide upon means of assessment. A means of assessment is the mechanism by which student achievement of the outcome is ascertained.

It is important that there be more than one assessment means for each outcome. For example, a standardized test (if available for that department or program) and a survey of student attitudes which asked if students 'felt well-prepared' might both assess a 'knowledge-of-the-field' outcome. The second means of assessment verifies the outcome.

Assessment in Technical Programs

The technical programs by the nature of their design, have developed assessment methods to evaluate program goals, objectives, and outcomes. The program faculty must continue to meet at regular intervals and include as part of its agenda a discussion of the assessment process within their individual programs, both for the technical and general education aspects of the courses taught. These discussions will lead to reviewing class syllabi, with the intent to specify assessment methods used in courses and to identify specific measures of competencies needed by students to achieve program goals and objectives.

The evaluation of program assessment within the program will produce increased documentation of assessment methods in the various programs. This will allow for more in-depth review of overall program assessments. The continuous processing of feedback will lead to improved assessment techniques. This will in turn lead to improved program outcomes.

In creating and describing the means of assessment, it is crucial that specific standards or criteria be identified up front. . .or the results will tell the department or program faculty nothing. For example, it is quite acceptable for an outcomes statement to say, “Graduates of XXXX program will be successfully employed in the field,” but the means of assessment MUST specify what will identify success:

- 80% of the graduates of the XXXX program will report employment in the field on the survey distributed one year after graduation.
- The average score of the graduates of XXXX program on the licensure exam will be _____%.
- 70% of the student samples will rate a 3 or higher on the Primary Trait Analysis exit Essay exam.

- 80% of employers surveyed will respond that they would be pleased to employ future graduates of XXXX program.

The required level of success is the judgment of the faculty members who identify the outcome and means of assessment. However, performance levels should reflect what OUR students can do.

PROGRAM AND COURSE ASSESSMENT MEANS

Following is a list of commonly used means of assessment for programs and courses. The list is not exhaustive; departments are urged to create means of assessment which are NOT on the list whenever the new creation is better suited to measuring the outcome they have identified.

Qualitative Means. These assessment tools try to grasp the whole of a student's achievement with information which usually cannot be quantified and/or counted. Key to using these means is a clear statement in advance of the ingredients and criteria for judgment. For program assessment, a summary of the aggregate of these measures would be needed: For example, 70% of the student portfolios would receive a score of 3 or higher score on the Primary Trait Analysis.

- **Portfolio** – Each student would create a portfolio with the same ingredients and, for the program assessment, the same elements in each would be reviewed.
- **Public Performance** – In art or music each student might have a culminating product or performance and, with some creative thought, students might be evaluated in other fields by different forms of performance, e.g., participation in volunteer or human service work, clinicals, etc.
- **Juried Competition** – Here there would need to be outsiders, e.g., a panel of colleagues from another institution or employers.
- **Oral Examination** – Again, outside experts would be needed for the judging.

- **Interviews** – These can be especially useful for college services, where student perception of advice/help received can demonstrate performance.

Quantitative Means. These tools have the advantage of producing numerical data which can be easily aggregated to indicate program performance.

- **Standardized Tests** – These have the advantage of instant credibility but are not available for all programs and disciplines and, more importantly, may not suit (in the judgment of the program/discipline faculty) what is done in our program or field. They also are expensive.
- **Locally-developed Tests** – These allow a department to tailor the test to the actual content of a program or course and let the faculty later pinpoint just what students aren't achieving, but they take faculty time and may lack credibility. However, they can be useful in conjunction with other means of assessment.
- **Licensure Exams** – The technical programs' competency needs are often dictated by the industries, companies, program services, and governmental licensing agencies they serve. Nursing board, Automotive Service Excellence exam scores, and similar exams are excellent measures of a program's effectiveness.
- **Surveys** – Sent to former students, these can provide measures of employment, indicators of student satisfaction with training received, self-evaluation of competency, etc. Sent to employers, they can produce evaluations of student skills, attitudes, and knowledge and of employer willingness to hire our students in the future.
- **Tracking Data from Transfer Institutions** – Transfer acceptance and performance after transfer are key measures of our transfer students: the numbers of MRCTC students at state and private institutions, numbers of degrees received, and GPAs at the end of the first year.

- **Observational** – This means of assessment involves a particular kind of knowledge-based performance, where the assessment is a matter of observing (or counting) how many students successfully performed some product of learning (assuming it is required of all students in that program or course). Examples would include the following: creating an executable computer program, designing a box label, repairing a mechanical defect, completing an accounting project, etc.

Column IV - Results

This is the step of administering the several means of assessment specified above and collecting the results.

In the case of surveys, there will be considerable time spent creating and mailing/administering the survey instrument; results may be slow in coming in and only a small number will respond at all. In the case of tests, getting students to take them will require some creative use of incentives IF the test is not part of a key course, a capstone course or required in order to get the diploma/certificate/degree.

Once gathered, the results will be reported along with the means of assessment. The statements can be brief: “70% responded they would hire future graduates”; “75% of the essays were rated 3 or higher on PTA; “The average score was at the 45th percentile.” Because the criterion was stated in the **Means of Assessment**, the results need only state the results in the terms specified.

Column V – Use of Results

In this step of the assessment process, the department/program members decide what the results tell them about student learning. If the criterion was clear, each result should indicate that the learning the department/program intended to take place either *is or is not* being achieved.

Where the criterion is met or surpassed, the department or program may rightly conclude that no change is needed and report “no action required.” If, when the same outcome is assessed the next year, the results are repeated and the faculty can insure that improvement has occurred, the department should consider assessing a different outcome in the next cycle.

In the case where the results indicate that the criterion level was not achieved, the department or program needs to evaluate the results further.

- The results may, in the judgment of the department faculty, suggest a weakness in the program or course in a very specific area, where Change X will correct the situation. Assuming that they implement Change X, the department would then report “Change X undertaken.” The department would then want to use the same means to assess the same outcome next year to discover whether the change improved student achievement.
- The results may, in the judgment of the department faculty, suggest a weakness in the program, but it may not be obvious what change is needed. In this case, the department’s use of the results might be to establish a task force of faculty members to examine the matter and report at a later date. The department would then report “task force appointed” or “curriculum review undertaken” as the use of the results. At a later date, following the review, a more extensive “Use of Results” statement might be forthcoming.

It is not possible for the Assessment Committee to tell the program/department what to report in this *Use of Results* column (represented by Form D). Only the unit can determine what needs to be done. The Assessment Committee is to see that, whatever the use of the results indicated by the faculty, it gets done and recorded, as this is the fruit of assessment and the part of the record that will be of greatest interest to outside observers.

The *Use of Results* is the part of the assessment process that most concerns faculty members as it carries the implied threat of “telling a faculty member how to teach.” Therefore, it should be emphasized that only the department/program can decide how to use the results and that the results are typically about program content, not individual teaching techniques. The more typical possibility is a department/program agreement to add a unit to a course or more time to an existing unit, and all who teach that course would be expected to follow that recommendation.

Faculty Responsibility and Participation

Having provided background on the why and how of the assessment of student academic achievement, this section will answer the question, “What is the faculty supposed to do?”

INDIVIDUAL FACULTY MEMBERS

CLASSROOM ASSESSMENT TECHNIQUES (CATs). Classroom assessment is an assessment activity performed by each classroom instructor—adjunct as well as full-time—at least one class period each semester and reported on the *Classroom Assessment Record*. The assessment activity is the choice of the instructor, selected to assess the particular outcome identified by the instructor for that day’s class, and the results shared with students while they are enrolled in that section. It is not a means of student evaluation of instruction. The information derived from classroom assessment can only be used by the instructor to improve learning as she or he sees fit. The assessment record provides documentation that assessment was completed. When completed, the instructor submits the *Classroom Assessment Record* to the Assessment Coordinator.

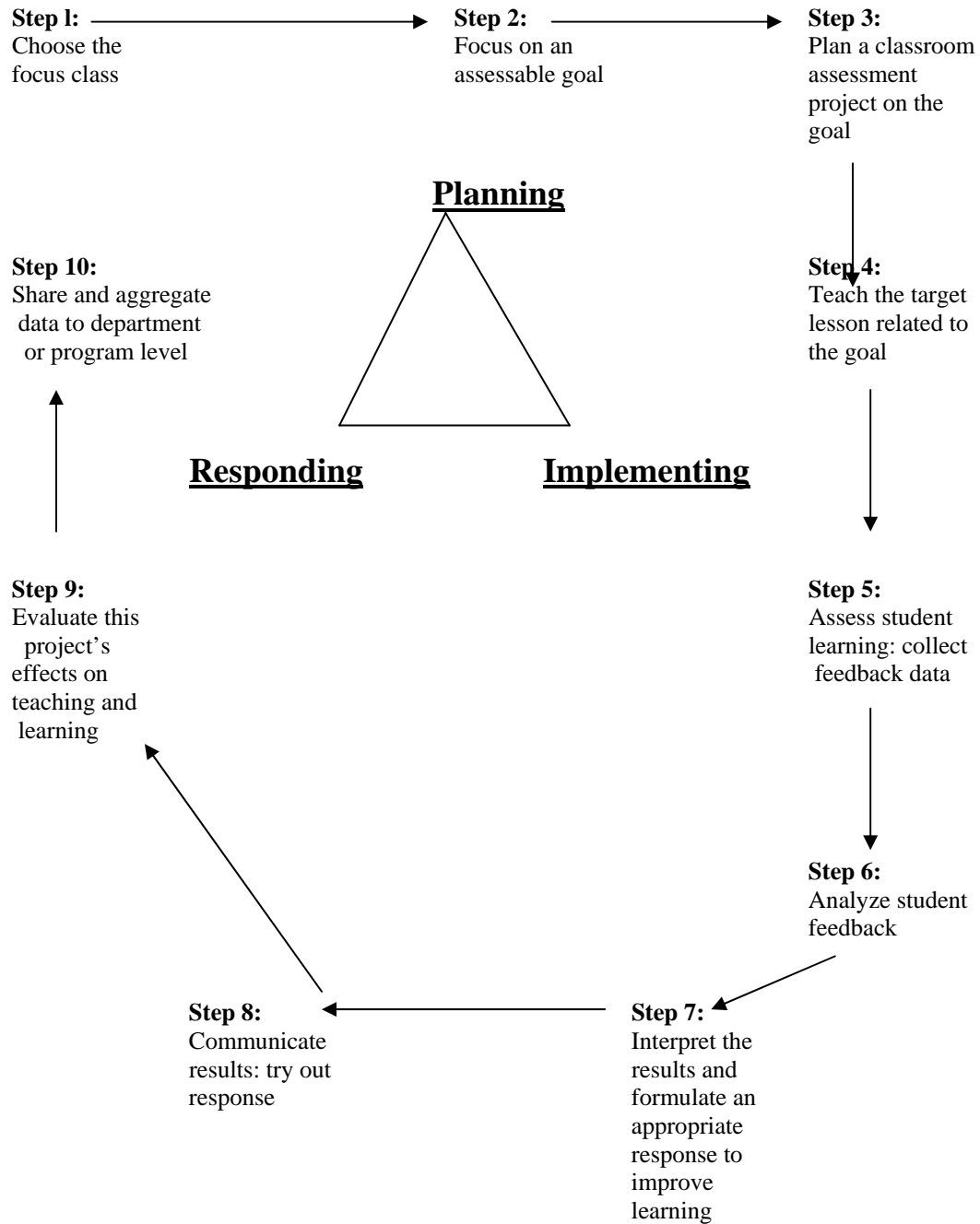
There are many reference books on CATs which the instructor may wish to consult for examples. The most popular CATs are taken from the Tom Angelo and Patricia Cross book: *Classroom Assessment Techniques: A Handbook for College Teachers* (San Francisco: Jossey-

Bass Publishers, 1993). A copy of this book is on reserve at the campus library. The following is a partial and very selective list of some of the most popular classroom assessment techniques, very briefly summarized.

- **Minute Paper** – Allowing three minutes at the end of a class period, the instructor asks students to write briefly the answers to two questions: 1). *What was the most important thing you learned during this class?* 2). *What important question remains unanswered?* This CAT is especially useful for identifying successes and weaknesses with content.
- **Categorizing Grid** – Students are given a grid with two or more categories and a list of terms each of which is to be matched to the right category. This CAT shows the instructor how students are doing with analysis, especially sorting of concepts, procedures, etc.
- **Applications Cards** – After a classroom activity on a theory or principle, the instructor hands index cards to students and asks them to write one real-world application for the concept.

Classroom Assessment provides a focus on particular aspects of teaching and learning that is not only valuable within the context of institutional processes, but also intends to effect the learning of students immediately in the classroom. If student success can be enhanced step-by-step throughout the learning process, then the larger course and program-level outcomes will also be enhanced.

Map of a Classroom Assessment Project Cycle



--Adapted from Cross and Angelo, "Map of a Classroom Assessment Project Cycle," in *Classroom Assessment Techniques: A Handbook for College Teachers*, p. 35.

Academic Departments/Disciplines/Programs

Course Assessment. Beginning with the fall semester 2000, each department and program assessed at least two courses that year with the long-range goal of assessing all courses in the department/program over time. It is expected that each department/program will first assess its course with the highest enrollment. In instances where more than half of the department's enrollment is in that one course, the unit is urged to assess that course every two or three years. .not waiting until all other courses have been assessed to re-assess the core course. As mentioned earlier, there are a variety of ways of assessing whether the course produces the results intended. And while a standardized test or a departmental final can assess the effect of the whole course, departments may be interested in assessing one important outcome in the Course Outline. In preparation for assessing a course, the faculty of the program or department may want to revise the Course Outline for that course to better specify the intended outcomes.

Each department or program submits its assessment materials to the Assessment Coordinator who will then submit the materials to the Assessment Committee. The plan for assessment (*Form B*) is submitted early in the semester and the results (*Form C*) when they are available. . probably around the end of the semester. Form D (*Use of Results*) is completed only after the department/program faculty has met to decide what improvements are suggested by their analysis of the results. . and this might be several weeks into the new semester.

The English, Reading, and Math developmental programs and career programs are expected to complete program assessment annually, largely as explained in the Assessment Process section. In the fall semester each academic year, the program will submit a Plan for Assessment (Form B) identifying at least one outcome to be assessed and the means of assessment. In the spring semester, the results of that assessment will be recorded on Form C to which will be added the results of additional assessment, as follows:

- for career programs, the results of two surveys conducted by the College each year which examine ‘employment of graduates 180 days after graduation’ and ‘employer satisfaction with graduates’;
- for developmental programs, faculty will record the success rate of students progressing through the discipline’s course sequence.

After the results have been reviewed by the program/discipline faculty, *Form D (Use of Results)* will be submitted to the Assessment Coordinator for review by the Assessment Committee.

**FLOW CHART FOR ASSESSMENT
-- The Feedback Loop --**

1.

Identify Outcomes
Instructor: Identify goal for the class session
Program/Department: Select two outcomes for assessment from Course Outline; record on *Form B*.

2.

State Means of Assessment
Instructor: Pick CAT
Department/Program: Record on *Form B*.

3.

Obtain Results
Instructor: Do CAT
Program/Department: Administer assessment; collect data; record on *Form C*.

4.

Use Results
Instructor: Analyze & act;
Department: Meet, make changes, record on *Form D*.

Instructor: Classroom assessment to be done each **semester**
Department/Program: Course assessment to be done **annually**
Technical / Developmental Program: Surveys and Program Assessment to be done **annually**
Refer to Timetable

TIMETABLE FOR ASSESSMENT

Annual (commencing 00-01)

<u>3rd Fri. Sept.</u>	-- Assessment Contact Sheet (Form A) DUE
	Disciplines, programs, college services submit form to Assessment Coordinator
<u>2nd Fri. Oct.</u>	-- Plan for Assessment (Form B) DUE
	Departments/disciplines, programs, college services submit form to Assessment Coordinator
	-- First Semester: Classroom Assessment Record DUE Individual Faculty Assessment Record submitted to Assessment Coordinator
<u>1st Mon. March</u>	-- Assessment Results (Form C) DUE
	Programs, departments/disciplines, college services submit form to Assessment Coordinator
	-- Second Semester: Classroom Assessment Record DUE
	(Individual Faculty Assessment Record) submitted to Assessment Coordinator)
<u>3rd Fri. April</u>	-- Use of Results (Form D) DUE
	Technical program survey results & developmental programs, disciplines, programs, college services submit reports to Assessment Coordinator
<u>Aug. 15</u>	-- Submission of Annual Assessment Report by Assessment Coordinator

THE FORMS

The Assessment Committee, persons selected by their department or program, and the Assessment Coordinator will supervise and help programs or disciplines report their assessment activities using four forms. In the narrowest sense, completion of these forms is all that has to be done for assessment—but to complete them, it is necessary to comprehend the rationale and process of assessment and to undertake specific activities.

CLASSROOM ASSESSMENT RECORD

To be submitted by individual faculty members each semester.

FORM A: ASSESSMENT CONTACT SHEET

This form will be required of all program coordinators and disciplines and will only need revision when personnel change. This form simply identifies the programs & units and who will be supervising assessment in them.

FORM B: PLAN FOR ASSESSMENT

Each year, the assessment discipline or program will use this form to record the intended outcomes to be assessed that year, their relationship to the College Mission Statement and selected goal, and the means of assessment to be employed.

FORM C: ASSESSMENT RESULTS

When data are available, i.e., when the assessment has been done, either by the department, program, or college services or the Office of Institutional Research, the actual results will be recorded on this form and made part of the record of the department or program and the Coordinator of Assessment.

FORM D: USE OF ASSESSMENT

The assessment record will only be complete when, after consideration of the results, the department or program describes the use of the results (the feedback loop) which would include changes and improvements or that no change was needed.

DISCIPLINES AND PROGRAMS

THE FOLLOWING FORMS ARE TO BE USED ANNUALLY BY DISCIPLINES/DEPARTMENTS, TECHNICAL PROGRAMS AND DEVELOPMENTAL ED PROGRAMS FOR COURSE AND PROGRAM ASSESSMENT.

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

Form A: Assessment Contact Sheet

(Technical Program)

List all the instructors in the program.

Program Coordinator*

*Note: the program coordinator is considered to be the contact person for assessment purposes.

List all degrees and/or diplomas or certificates included in this assessment as they are listed in the College Catalog.
Include the type of degree or certificate (AA, AAS, etc.)

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

FORM A: ASSESSMENT CONTACT SHEET

(Developmental Ed Program)

Department or Program Coordinator*

*Note: The program coordinator is considered to be the contact person for assessment purposes.

List all the instructors in the developmental ed assessment program.

ASSESSMENT YEAR_____

DATE SUBMITTED_____

Form A: Assessment Contact Sheet

(Discipline or Department)

List all disciplines/departments and instructors (full and part-time).

Assessment contact person*:

Note: the assessment person is considered to be the contact person for assessment purposes.

COURSE ASSESSMENT

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____
(Assessment person)

Phone _____

Form B: Plan for Assessment

[Discipline/Technical Program/Developmental Program]

EXPANDED STATEMENT OF INSTITUTIONAL PURPOSE

Mission:

Goal (s):

INTENDED COURSE OUTCOMES

Outcome #1:

1a: **Means** of Assessment and **criterion** for success:

1b: **Means** of Assessment and **criterion** for success:

Outcome #2:

SUBMITTED BY _____

Form C: Assessment Results

[Technical Program/Discipline/]

# of Means of Assessment On Form B	Criterion of Success (from Form B)	ACTUAL RESULTS
1a		
1b		
2a		
2b		

Include copies of the actual data collected.

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

Form D: Use of Assessment

[Discipline/Technical Program/Developmental Program]

Summarize the assessment results and data:

Analysis Phase: Indicate areas where improvement is needed as revealed by these results: a description of the findings of the assessment project and an analysis and interpretation of those findings.

Action Phase: Describe the use of these results to improve the student learning. From the analysis of the findings, do you plan any strategies for improvement to the course objectives, methodologies, curriculum, or structure? If yes, please describe. If no, or if this step is still in progress, please indicate.

Suggestions for next year's assessment plan:

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

Form C: Assessment Survey Results

[Technical Program]

Means of Assessment # on Form B	Criterion of Success (from Form B)	ACTUAL RESULTS
1a		
1b		
2a		
2b		

Include copies of the actual data collected, if possible.

ANNUAL REQUIRED OUTCOMES

Outcome	Criterion of Success	Actual Results
Employer Satisfaction		
Employment 180 days after graduation		

ASSESSMENT YEAR _____

DATE SUBMITTED _____

Form C: Assessment Results

[Developmental Program]

Means of Assessment # on Form B	Criterion of Success (from Form B)	ACTUAL RESULTS
1a		
1b		
2a		
2b		

Include copies of the actual data collected, if possible.

**Annual Required Outcome:
Student Success in Next Sequence Course**

Transition	Criterion of Success	ACTUAL RESULTS
Course _____ To Course _____		
Course _____ To Course _____		
Transition	Criterion of Success	ACTUAL RESULTS
Course _____ To Course _____		
Course _____ To Course _____		
Course _____ To Course _____		
Course _____ To Course _____		

Course _____ To _____		
Course _____ To _____		

General Education Assessment

MRCTC General Education Mission Statement

Mesabi Range Community & Technical College provides an appropriate general education component in all degree, diploma and certificate programs as an essential intellectual and practical foundation to students' life-long learning.

MESABI RANGE COLLEGE GOALS FOR STUDENT SUCCESS

Communicate Effectively

Students of Mesabi Range Community & Technical College will use oral and written language appropriately and effectively in the various contexts of personal and professional life.

Students will be able to

- write a clear, well-organized document appropriate to audience and purpose.
- present a well-organized speech appropriate to audience and occasion.
- choose, use and assess appropriate verbal and nonverbal behavior in job and personal situations.
- apply appropriate listening skills in various situations.
- participate effectively in groups in order to achieve a common goal.
- read a document and demonstrate an understanding of its contents.
- research and use information appropriate to the task.

Think Critically

Students of Mesabi Range Community & Technical College will apply effective critical/creative thinking and reasoning skills to personal and professional decision-making, problem-solving, and evaluative reasoning.

Students will be able to

- apply knowledge and skills to new problems and situations.
- make informed decisions.
- recognize and apply an appropriate model of problem solving
- acknowledge and incorporate a value framework in various personal and professional situations.

Demonstrate Mathematical Skills

Students of Mesabi Range Community & Technical College will demonstrate the ability to solve quantitative problems and draw conclusions within various contexts.

Students will be able to

- perform basic math calculations and applications.
- read a mathematical problem and extract relevant facts.
- interpret data and draw logical conclusions.
- perform math functions necessary in coursework and career fields.
- perform math functions necessary in daily living.

Use Information Technology

Students of Mesabi Range Community & Technical College will demonstrate the ability to employ information technology in various disciplines/programs and professional life.

Students will be able to

- demonstrate skill in basic computer technology and applied computer skills.
- perform word processing/keyboarding skills.
- apply current technology to learning and occupational situations.
- demonstrate the ability to access information electronically.

The assessment of student learning in general education remains the most challenging area in the assessment plan. The primary challenge is an assessment instrument(s) that measures to what extent students are achieving the general education competencies.

The General Education curriculum comprises that core of knowledge, methods of inquiry, ideas and skills that educated people need regardless of what career or vocation they enter. General education provides knowledge and understanding of the world which will serve as the foundation for continued learning. This educational experience will encourage the student to develop the ability to analyze, think critically, formulate reasoned conclusions, and represent views and ideas clearly and cogently. Thus, general education is intended to assist students in the acquisition of skills, knowledge, attitudes, and competencies needed to live productively, grow significantly and serve meaningfully in a modern, multicultural society.

The assessment of general education at MRCTC begins with a commitment to our General Education Mission Statement and works through the goals and competencies of the general education curriculum. The College must continue to develop efficient ways of assessing these goals and competencies.

During the school years of 1998-99 and 1999-00, the standardized CAAP test was administered to a group of graduating students with 45+ credits to measure their achievement of Communication and Critical Thinking goals. CAAP testing allowed us to compare our exiting graduates to similar students at other community colleges and four-year campuses. More importantly, it allowed us to infer the progress that our students made in general education skill development over the course of time they were with us. The College must determine if it wants to continue with the CAAP general education assessment tool or develop another.

MINNESOTA TRANSFER CURRICULUM

The Minnesota Transfer Curriculum is a collaborative effort among all two and four-year public colleges and universities to help students transfer their work in general education. Completion of a defined transfer curriculum at one institution enables a student to receive credit for all lower-division general education upon admission to any other institution. Students who complete a curriculum are certified in the ten areas of competency by faculty at the sending institution. The goals and student competencies in the ten areas are as follows:

1. COMMUNICATION

Goal: To develop writers and speakers who use the English language effectively and who read, write, speak, and listen critically.

Student competencies:

Students will be able to

- a. understand/demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing and presentation.
- b. participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
- c. locate, evaluate, and synthesize in a responsible manner material from diverse sources and points of view.
- d. select appropriate communication choices for specific audiences.
- e. construct logical and coherent arguments.

- f. use authority, point-of-view, and individual voice and style in their writing and speaking.
- g. employ syntax and usage appropriate to academic disciplines and the professional world

2. CRITICAL THINKING

Goal: To develop thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought.

Student competencies:

Students will be able to

- a. gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
- b. imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.
- c. analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
- d. recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

3. NATURAL SCIENCES

Goal: To improve students' understanding of natural science principles and of the methods of scientific inquiry, i.e. the ways in which scientists investigate natural science phenomena.

Student competencies:

Students will be able to

- a. demonstrate understanding of scientific theories.
- b. formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
- c. communicate their experimental findings, analyses, and interpretations both orally and in writing.
- d. evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

**4. MATHEMATICAL/
LOGICAL REASONING**

Goal: To increase students' knowledge about mathematical and logical modes of thinking.

Student competencies:

Students will be able to

- a. illustrate historical and contemporary applications of mathematical/logical systems.
- b. clearly express mathematical/logical ideas in writing.
- c. explain what constitutes a valid mathematical/logical argument (proof).
- d. apply higher-order problem-solving and/or modeling strategies.

**5. HISTORY AND THE
SOCIAL AND
BEHAVIORAL
SCIENCES**

Goal: To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas.

Student competencies:

Students will be able to:

- a. employ the methods and data that historians and social and behavioral scientists use to investigate the human condition.
- b. examine social institutions and processes across range of historical periods and cultures.
- c. use and critique alternative explanatory systems or theories.
- d. develop and communicate alternative explanations or solutions for contemporary social issues.

**6. THE HUMANITIES
AND THE FINE ARTS**

Goal: To increase students' knowledge of the human condition and human culture, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought.

Student competencies:

Students will be able to

- a. demonstrate awareness of the scope and variety of works in arts and humanities.
- b. understand those works as expressions of individual and human values within an historical and social context.
- c. respond critically to works in the arts and humanities.

- d. engage in the creative process or interpretive performance.
- e. articulate an informed personal reaction to works in the arts and humanities.

7. HUMAN DIVERSITY

Goal: To increase students' understanding of individual and group differences (e.g., race, gender, class) and their knowledge of the traditions and values of various groups in the United States.

Student competencies:

Students will be able to

- a. understand the development of and the changing
- b. meanings of group identities in the United States' history and culture.
- c. analyze their own attitudes, behaviors, concepts, and beliefs regarding diversity, racism, and bigotry.
- d. describe and discuss the experience and contributions (political, social, economic, etc.) of the many groups that shape American society and culture, in particular those groups that have suffered discrimination and exclusion.
- e. demonstrate communication skills necessary for living and working effectively in a society with great population diversity.

8. GLOBAL PERSPECTIVE

Goal: To increase students' understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic, and political experiences.

Student competencies:

Students will be able to

- a. describe and analyze political, economic, and cultural elements which influence relations of states and societies in their historical and contemporary dimensions.
- b. demonstrate knowledge of cultural, social, religious and linguistic differences.
- c. analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.
- d. understand the role of a world citizen and the responsibility world citizens share for their common global future.

9. ETHICAL AND CIVIC RESPONSIBILITY

Goal: To develop students' capacity to identify, discuss and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship.

Student competencies:

Students will be able to

- a. examine, articulate, and apply their own ethical views.
- b. understand and apply core concepts (e.g., politics, rights and obligations, justice, liberty) to specific issues.
- c. analyze and reflect on the ethical dimensions of legal, social, and scientific issues.
- d. identify ways to exercise the rights and responsibilities of citizenship.

10. PEOPLE AND THE ENVIRONMENT

Goal: To improve students' understanding of today's complex environmental challenges.

Student competencies:

Students will be able to

- a. explain the basic structure and function of various natural ecosystems and of the human adaptive strategies within those systems.
- b. discern patterns and interrelationships of bio-physical and socio-cultural systems.
- c. describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
- d. evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
- e. propose and assess alternative solutions to environmental problems.
- f. articulate and defend the actions they would take on various environmental issues.

Departmental/Discipline General Education Assessment

1. With respect to the transfer curriculum and general education assessment, the discipline/department will identify on the Course Outline of its general education courses:
 - (a) the learning outcomes of general education that its courses help students to achieve, and

- (b) the means of assessing student achievement of that outcome.
- 2. In order to create an ongoing conversation about assessment, the discipline creates ways for its faculty to share with each other the results of their efforts in assessment of general education, especially the ways faculty use the information gained from assessment to enhance student learning.
- 3. The department includes in its program review
 - (a) a report of the ways it has used the information gained from assessment to improve student academic achievement in general education, and
 - (b) a statement of what the discipline/department might do to improve its assessment plan.

ASSESSMENT PROCESS FOR COLLEGE SERVICES

Because of college services' emphasis on "service" orientation, Continuous Quality Improvement (CQI) will provide the most appropriate way of approaching assessment. Continuous quality derives from an imperative that seeks to constantly challenge current ways of doing things by assessing whether outcomes are appropriate and whether methods in use are achieving those ends. This assessment is continuously seeking improvement in the *process*. The intent of assessment, in addition to the collection of data for process mapping, is to initiate on-going discussions and move toward designing of services to better accommodate students needs.

Fundamental assessment questions within student services are the following:

- *What do we want our student-customers to achieve?*
- *Are they getting it?*
- *Exactly how are they getting it?*
- *What do we need to change?*

Of course, customers of student services include not only students, but the community broadly—employers, faculty and staff, other institutions, internal programs, and external bodies (e.g. government). It is imperative that the needs of these various customers be articulated and that measures be put in place to determine gaps and to identify solutions or innovative processes to achieve core values and missions. The departments will begin to develop a mission statement that would be compatible with the college's Mission Statement and that would define their service and then delineate core goals for that college service.

The assessment plan employs the Five-Column Model for College Services. This model essentially identifies five steps to assessment.

COLUMN I – MISSION AND GOALS The rather broad Mission Statement of the institution is expanded into individual, specific goal statements. The assessment process identifies the statement and utilizes the goals identified through the strategic planning process. College

Services should identify phrases from the Mission Statement and Goals that affect most college services. At the beginning of the assessment process, each college service will need to identify the portion or portions of the Mission Statement/Goals that the unit intends to be fulfilling.

There is a clearly identified space for this on the reporting form.

COLUMN II – OUTCOMES The college service identifies intended outcomes for the service. This is one of the most important steps in the process. For a service, the outcomes are more likely to state the results of a process, rather than student achievements.

Each specific result should be the subject of a separate outcomes statement. Two outcomes connected with a conjunction do not simplify the task, as it is most likely that they cannot be evaluated with the same assessment means and are two outcomes.

It is not intended that there be an outcome for each person or task. Rather, the staff in the service department should work together to establish fundamental outcomes for the entire service.

The list of outcomes for a service may be long, as the staff members identify all the results, even changes in attitude, that accompany the operation of that office or service. However many intended outcomes there may be, only two or three will be assessed in one year—but the list should be preserved to provide additional outcomes to be assessed in the future.

The following are guidelines to obtaining useful outcomes statements:

- There should be only one result in each statement (use no conjunctions).
- The outcome should be consistent with the Mission Statement.
- It should identify key functions, not details.
- It should be clear—so we can know when it's accomplished.
- The outcome need NOT be quantifiable, merely verifiable.

The following are examples suggesting how outcomes should be written if useful assessment is going to happen.

- Students seeking the services of the XXXX office will receive relevant information during their first visit to the office.
- The XXXX office will produce required reports in a timely fashion.
- Students requesting OOO from this office will receive the information with a minimum of errors.
- The OOO of the College will be maintained at a level at or above national standards.
- Persons using the services of the XXXX office will be pleased with the service.

COLUMN III – MEANS OF ASSESSMENT For each outcome identified, the service or office must decide upon means of assessment. A means of assessment is the mechanism by which achievement of the outcome is ascertained.

It is important that there be more than one assessment means for each outcome. For example, a national standards statement and a survey of students that asked if students were “satisfied with the help received” might both assess a service outcome.

In creating and describing the means of assessment, it is crucial that specific standards or criteria be identified up front, or the results will tell the office nothing. For example, it is quite acceptable for an outcomes statement to say, “Persons using the services of the XXXX office will be pleased with the service,” but the means of assessment **MUST** specify what will identify success:

- “80% of the persons using the services of the XXXX office will respond ‘satisfied’ or ‘very satisfied’ in a survey form completed at the time of service.
- “90% of the staff will respond ‘good’ or ‘excellent’ to a survey question asking them to rate the quality of work produced by the XXXX office.”
- The average time for providing OOO will be +2% of the national standard for this service as reported in the _____ journal.”

There is no required level of success—that is up to the service or office to decide. However, performance levels should reflect what a typical service like ours can do.

The following are examples of means of assessment. The list is not exhaustive and services are urged to create means of assessment NOT on the list whenever the new creation is better suited to measuring the outcome they have identified. It is important to be clear about whom is to conduct the assessment. A survey will likely need the time and effort of employees of that service to create and administer it if it involves information not already being collected by the College.

Qualitative Means. These assessment tools try to grasp the clients' responses to or appreciation of the service, which is basic to providing a service.

- **Interviews** - These can be especially useful for college services, where student/customer perception of advice/help received can demonstrate performance.
- **Surveys** – Present and past students, members of the public, and the faculty who use the service can be surveyed to ask satisfaction or comparison with another college offering the same service.
- **Peer Review** – In some circumstances, it may be very informative to use persons providing the same service at another college as evaluators. The service staff would identify outcomes, then invite a peer from the other college to visit for a day or two and prepare an evaluation of the service. In most cases, the service would have to cover the expenses and a possible consultant's fee to the visiting expert.

Quantitative Means. These tools have the advantage of producing numerical data that can be easily aggregated to indicate service performance.

- **National Standards** – If available for comparison, these have the advantage of instant credibility but are not available for all services.
- **Locally-developed Criteria** – These allow a service to tailor the measurement to the actual service as it is performed here, however, developing these standards takes a lot of staff time and may lack credibility. However, they can be useful in conjunction with other means of assessment.
- **Budget Analysis** – Per capita expenditures, audit reports, and many other measures may, if properly used, assess how a service is being delivered.

COLUMN IV – RESULTS This is the step of administering the several means of assessment specified above and collecting the results.

In the case of surveys, there will be considerable time spent creating and mailing/administering the survey instrument; results may be slow in coming in, and only a small number will respond at all. In the case of interviews, getting students or staff to take the time to participate will require some creative use of incentives.

Once gathered, the results will be reported along with the means of assessment. The statements can be brief: “70% responded they were satisfied”; “55% of the reports were produced on time.” Because the criterion was stated in the means of assessment, the results need only state the results in the terms specified.

COLUMN V – USE OF RESULTS This step is the bottom line. Here the staff members decide what the results tell them about their office. If the criterion was clear, each result should indicate that the level of service intended to take place either is or is not being achieved.

Where the criterion is met or surpassed, the unit may rightly conclude that no change is needed and report "no action required." If, when the same outcome is assessed the next year, the results are repeated and the staff can insure that improvement has occurred, the service should consider assessing a different outcome in the next cycle.

In the case where the results indicate that the criterion level was not achieved, the staff needs to evaluate the results further.

- The results may, in their judgment, suggest a weakness in the service in a very specific area where Change X will correct the situation. Assuming that they implement Change X, the service would then report “Change X undertaken.” The service would then want to use the same means to assess the same outcome next year to discover whether the change improved the service.

- The results may, in the judgment of the staff, suggest a weakness in the program, but it may not be obvious what change is needed. In this case, the *Use of Results* might be to establish a task force of staff members to examine the matter and report at a later date. The office would then report “task force appointed” as the use of the results. At a later date, following the review, a more extensive “Use of Results” statement might be forthcoming.

It is not possible for the Assessment Committee or Assessment Coordinator to tell a service what to report in this *Use of Results* column. Only the service can determine what needs to be done. The Assessment Committee is to see that, whatever the use of the results indicated by the staff, it gets done and recorded, as this is the fruit of assessment and the part of the record that will be of greatest interest to outside observers.

The Use of the Results is the part of the assessment process that most concerns staff members as it carries the implied threat of “telling an employee how to do his/her job.” Therefore, it should be emphasized that only the staff members in that service can decide how to use the results and that the results are typically about service provision, not individual job performance.

THE FORMS

The Assessment Committee and Assessment Coordinator will supervise and help the college service departments report their assessment activities using four forms. In the narrowest sense, completion of these forms is all that has to be done for assessment, but to complete them, it is necessary to comprehend the rationale and process of assessment and to undertake specific activities.

FORM A: Assessment Contact Sheet

This form will be required of each service as a way of supervising communication between the service and the Assessment Committee or Assessment Coordinator to whom they report. This form simply identifies the services and who will be supervising assessment in them.

FORM B: Plan for Assessment

Each year, the college service or office will use this form to record the intended outcomes to be assessed that year, their relationship to the Mission Statement, and the means of assessment to be employed. In all likelihood, these will be only one or two selected from a much larger list of outcomes, another portion of which may be selected for assessment the following year.

FORM C: Assessment Results

When data is available, i.e., when the assessment has been completed either by the service or the Office of Institutional Research, the actual results will be recorded on this form and made part of the records of the College Service and the Assessment Coordinator.

FORM D: Use of Assessment

The assessment record will only be complete when, after consideration of the results, the assessment unit describes the use of the results that could include changes and improvements or that no change was needed.

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

FORM A: Assessment Contact Sheet

[COLLEGE SERVICE]

List the personnel in this department.

Service Director or Supervisor*: _____

Phone # _____

Note: the service director or supervisor is considered to be the contact person for assessment purposes. Please indicate if someone else has been so designated.

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

Form B: Plan for Assessment

[COLLEGE SERVICE]

STATEMENT OF INSTITUTIONAL PURPOSE

Mission:

Goal(s):

INTENDED OUTCOME OR OBJECTIVE

Outcome: _____

1a: Means of Assessment and criterion for success:

1b: Means of Assessment and criterion for success:

Outcome:

2a: Means of Assessment and criterion for success:

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

Form C: Assessment Results

[College Service]

'Means of Assessment' # on Form B	Criterion of Success (from Form B)	ACTUAL RESULTS
1a		
1b		
2a		
2b		

Include copies of the actual data collected, if possible.

ASSESSMENT YEAR _____

DATE SUBMITTED _____

SUBMITTED BY _____

Form D: Use of Assessment

[College Service]

Summarize the assessment results:

Indicate areas where improvement is needed as revealed by these results:

Describe the use of these results to improve the service:

Suggestions for next year's assessment plan:

**ASSESSMENT TIMETABLE
FOR
COLLEGE SERVICES**

DATE	
Month of September	Departments Meet to Discuss Assessment Plan
November 23	<i>Forms A & B due from all college services/directors</i>
April 2	<i>Form C due from all services and departments</i>
May 6	<i>Form D due from all college services and departments</i>

RESOURCES

The following institutions provided assessment plans that served as models for the writing of this handbook.

Butler County Community College. El Dorado, Kansas.

College of DuPage. Glen Ellyn, Illinois.

Minnesota State University. Mankato, Minnesota.

Mesa Technical College. Mesa, Arizona.

Oakton Community College. Des Plaines, Illinois.

St. Louis Community College. St. Louis, Missouri.

Mr. Richard Baker, Assessment Coordinator, granted us permission to use the forms found within this plan. We are grateful for his assistance with this project.

Wayne County Community College. Detroit, Michigan.

APPENDIX

GLOSSARY OF TERMS*

Ability: The capacity to perform at a certain level in a given context. Competence is an ability and its presence must be inferred (judged) from a knowledge of both the performance and the context. (See *performance, competent, judgment.*)

Accreditation: In higher education, the collegial process based on self- and peer assessment for public accountability and improvement of academic quality. Has these characteristics:

- involves judgments of quality and effectiveness of an institution/program against a set of expectations (standards, criteria)
- is a form of non-governmental self-regulation
- is grounded in the institution's/program's mission, history and sense of purpose
- acknowledges and respects the autonomy and diversity of institutions/programs
- provides assurance to the public that accredited institutions/programs meet or exceed established public expectations (standards) of quality
- is the responsibility of an external body.
- faculty involvement is essential and expected.
- is conducted on a cyclical basis, usually 5-10 years. Shorter cycles are used when serious problems are noted.
- recently has emphasized student learning and development as a central criterion of effectiveness and quality.

Accreditation standards: General categories of requirements, such as program effectiveness, appropriate faculty, curriculum, etc. (See also *accreditation, behavioral objectives, competencies, foundation knowledge and skills.*)

Assessment: “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. When it is embedded effectively within larger institutional systems, assessment can help us focus our collective attention, examine our assumptions, and create a shared academic culture dedicated to assuring and improving the quality of higher education.: (Thomas A. Angelo, “Reassessing (and Defining) Assessment,” in *AAHE Bulletin*, November 1995, Volume 48, Number 3, p.7.)

Associate's degree: An award that normally requires at least two but less than four years of full-time equivalent college work.

Authentic evaluation; authentic assessment: Evaluation systems based on observing students' performance and the results of their performance in contexts that resemble those the student will be expected to encounter following graduation. Appropriate for assessing competence. (See *competency-based evaluation, tests, simulations, ratings, exemplary products, tests, cases, portfolio evaluation.*)

* This glossary has been adapted from *Learning through Assessment: A Resource Guide for Higher Education*, (AAHE Assessment Forum, 1997), and from various other sources.

Becoming qualified: Level of performance indicating that the student is progressing satisfactorily in the current educational experience. No deviation from the planned experience is indicated.

Behavioral objectives: Specific statements of expected student behavior as a result of short-term educational experiences. A course typically has many behavioral objectives, most of which are cognitive in nature, although these might alternatively be in the psychomotor domain. By contrast, competencies normally cross disciplines and always combine skill, understanding and supporting values.

Certificate: A formal award certifying completion of a post-secondary education program that normally requires at least one year but less than two years of full-time equivalent college work. Certificates of less than one academic year should clearly be distinguished from those that are at least one but less than two academic years.

Classroom assessment techniques (CATs): Any of a range of techniques, first identified by Cross and Angelo, to observe student learning in process to obtain feedback on what, how much, and how well students are learning. Characteristics of CATs include that they are *learner-centered, teacher-directed, mutually beneficial to teachers and students, formative in nature, context-specific, on-going, and rooted in good teaching practice.*

Competencies: Statements describing the abilities needed to begin the independent exercise of certain activities. Competencies combine skills, understanding, and professional values and are performed independently in realistic settings.

Competency-based education: Use of evaluation techniques and decisions that match the stages along the competency continuum. Novices are assessed with tests, beginners with simulations, and competent students with authentic evaluation. Management of students is guided by assessing the correct educational qualification path for each student to decide for which experiences they are qualified.

Competency continuum: Novice—Expert continuum stages of competency. Stages through which learners pass over a period of time during which they become qualified. Stages are qualitatively distinct, not simply the accumulation of more knowledge or speed, and represent capacity to function effectively in more complex environments.

Novice → Beginner → Competent → Proficient → Expert

Competent: Third stage of the competency continuum, characterized by appropriate speed and freedom from errors; reflects judgment, understanding and independence to begin unsupervised practice. Responsibility for assuring quality and for continued professional growth have been transferred to the student. Typically occurs just before graduation and should be a requirement for graduation. (See also *competency continuum*).

Continuous Quality Improvement (CQI): A philosophy that intends systemic and systematic improvement in the quality of an institution's processes and outcomes. CQI stresses a culture of assessment-based evidence for decision-making. Associated with the Cycle:

Step 1 – *Plan* – The initial step is the enumeration of a plan for accomplishing some goal. It details the component involved, their interaction, and their intended result. In business this might be a sales or marketing plan. In higher education it might be a retention plan or a security plan. It is an area that needs improvement.

Step 2 – *Do* – This step refers to the execution or implementation stage of the cycle. It involves translating the plan into action.

Step 3 – *Check* – This is the step where data are gathered. Data are used to compare the “do” against the “plan.”

Step 4 – *Act* – The final step in the cycle is to begin to formally identify those things that were successful and to make changes to the “plan” in those areas where expectations were not met. This is an iterative cycle that represents a process-oriented way of thinking.

The *PDCA* cycle can be conceptualized as a planning cycle which includes implementation.

Core Abilities: Statements meant to reflect the first level of General Education competencies expected of MRCTC students.

Course Outlines: Suggestions from disciplines about desired course topical coverage.

Evaluation: Determination of the adequacy with which a goal, typically educational, has been achieved. It is conducted on the basis of judgment of the degree to which goals and their objectives are met.

Expert (Mastery): Fifth and highest level on the competency continuum, characterized by internalization of professional standards and habitual or automated responses. Achieved in most cases after many years of practice. (See also *competency continuum*.)

Fairness: All students should be assessed in the same manner, with the same criteria.

Formative assessment: Yields timely information during instruction that can enhance learning and direct teaching. Should be learner-focused, teacher-directed, non-threatening, content-specific, and based on course competencies or goals. Examples include the minute papers, one-sentence summary, self-check, class discussions.

Goals: Statements of inputs, processes, and outcomes. Broad goals have more specific objectives which are associated with them and by which they are assessed. Assessable goals are those that are characterized by specificity of language and clarity of operational definition. In planning, what you intend to do to attain your vision of future success. Goals provide a road map to the future and are best described as successful end-results or outcomes. Should have measurable components (objectives) that are both quantitative and qualitative in nature.

Grades: Summative judgments of competency, however, grades, as isolated artifacts, are not acceptable indicators of student learning.

Indicators:

- consist of statistically valid information related to significant aspects of the system and can be a single-valued statistic or a composite index;

- provide a benchmarks for measuring progress or regression over time, or differences across institutions at one point in time, such that substantive inferences can be drawn from presentation of data;
- are meant to be representative of policy issues or aspects that might be altered by policy decisions;
- can be easily understood by a broad array of citizens;
- are relatively reliable data and not subject to significant modifications as the result of response errors or changes in personnel generating them, nor subject to manipulation through means independent of the data sources themselves.

Intended educational outcome: What faculty intend a student to be able to think, know, or do upon completion of a given course or program of study (J.O. Nichols).

Institutional effectiveness: A comparison of results achieved to goals intended. It is descriptive at the aggregate program/department/institution level of results achieved.

Judgment: Evaluation by the opinion of those who meet certain qualifications and who are expected to combine their knowledge of the field being evaluated; awareness of the circumstances of the evaluated event, and familiarity with norms for such performance.

Mission: A statement of purpose indicating

- why you are here.
- what you are here to do (or not to do).
- what drives you.
- to what you aspire.
- how you measure effectiveness (high-level indicators).

Not becoming qualified: Level of performance indicating that the student will not become qualified unless the planned educational experience is modified. Such modification normally includes educational diagnosis and remedial intervention.

Novice: First stage on the competency continuum, characterized by rote learning, rule-driven performance, accumulation of isolated tasks and facts, heavy dependence on teachers, hesitant performance.

Objectives: Statements of aims or desired ends the achievement of which can be assessed to demonstrate progress; to be useful, these statements must be measurable.

Outcomes assessment: A profile of measures of the effectiveness of programs in meeting their goals as reflected in tangible results such as student test scores (on licensing exams). Graduating competent students is normally one outcome measure for programs. To avoid confusion in terminology, students are evaluated for competency, and programs/disciplines are assessed for outcomes.

Performance indicators: Qualitative or quantitative measures that allow comparison of an institution's position in key strategic areas, generally measured to peers, to past performance, or

against establish goals. Performance indicators reflect general classes or categories of measurement (quality, fiscal health, user satisfaction).

Performance measures: Measures that communicate specific performance information (percentages, ratios, trends) relative to a performance indicator. Expressible as numbers, and are specific, quantifiable statements of actions that have occurred. Generally normalized to permit comparison to other organizations/units.

Portfolio assessment: A class of authentic evaluation in which students are responsible to assemble and present evidence of their competence or qualification by comparison with faculty-defined standards, types of appropriate evidence, qualified evaluators, and logistic standards. May also be used in a system in which faculty are responsible to assemble evidence (artifacts) that illustrates that students are meeting predefined educational objectives/outcomes.

Primary Trait Analysis (PTA): A method of explicitly stating the criteria for evaluation of a performance; is assignment-specific; for each performance, the assessor builds a unique set of criteria. According to Barbara Walvoord, designer of PTA, it identifies the factors (traits) that will count and then builds a scoring rubric (scale) for rating the student's performance within each trait. PTA was developed for the National Assessment of Educational Progress to permit and improve inter-rater reliability.

Proficient: Fourth stage of competency continuum, characterized by marginally higher levels of performance and significantly greater ability to manage a more complex range of problems.

Program: A combination of courses and related activities organized for the attainment of broad educational objectives as described by the institution and which lead to a Certificate, Diploma, or Associate's degree.

Qualified: Level of ability needed for a student to move to the next level of experience in the curriculum. Qualification is based on readiness for the next experience.

Ratings: Judgments that synthesize multiple impressions (some may be observed, some recalled) filtered through the rater's knowledge of the task being rated. (See *Primary Trait Analysis*.)

Reliability: Assessment is consistent in different situations and contexts and when judged by different individuals. Produces consistent and repeatable results.

Standardized tests: Tests that are scored and reported against general norms, allowing comparisons of individual students (or programs) who took the same test. It is critical that faculty be engaged to identify and describe the logical relationships among the specific curriculum's goals for developing students' fundamental foundational skills and knowledge and the specific contents of the standardized test to be used.

Statistic: A measure in its rawest, least processed form.

Strategic planning: Planning at the institutional or unit level that focuses on an organization's adaptation to its external environment and the future; typically long-term, often in three-to five-year periods. Grounded in a *vision* of the organization in the future, and flowing from the

institutional mission, strategic planning attempts to position the organization favorably in regard to its customers and its resources.

Strategies: How goals will be achieved; the general activities, tasks, processes undertaken in order to attain an organization's vision and goals. Best described as action verbs such as "develop," "create," "implement."

Tests: Evaluation systems based on observation of performance or products of performance under standardized circumstances. Valid only when the environment is controlled as for novices, and valid only when directly associated with intended performance.

Validity: Assessment that measures performance against the intended outcomes. Capacity of an assessment method to assess or measure what it claims to assess or measure.

Values: An organization's guiding principles and beliefs, its shared cultural norms and fundamental ways of operating.

Vision: A picture of future success; a description of the outcomes/results of the successful fulfillment of an organization's (or unit's) aspirations in unique and specific terms. Describes what you want to become in the future when personal (organizational) values are realized as daily events.

A vision

- provides focus at both the strategic and operational levels.
- gives specific, reasonable, and supportive guidance to members of the unit/department/institution about what is expected and why.
- guides decision-making and helps to avoid or to resolve conflict.
- creates a meaningful contrast between the world as it is and the world as we would like it to be.
- inspires and motivates constructive behavior among both management and staff.

MODEL FOR FUNCTIONAL PLANNING, BUDGETING AND RESOURCE ALLOCATION IN THE PROGRAM REVIEW PROCESS*

Within a system in which decisions are driven by information and are tied to assessment and other data indicators, every three years programs/disciplines should be asked to do the following:

1. ***Define program/discipline goals*** – Program/discipline goals are statements of the program’s educational purpose clearly related to each of the following:
 - The college’s and the division’s (of which it is a part) mission and goals;
 - The needs of primary consumers/customers of the program’s products (in practice these are other programs, other colleges, employers, etc.);
 - The needs and interests of its current and prospective students.
2. ***Translate these goals into program objectives*** – Program *objectives* are statements of the benefits of successful program completion, described in terms of student learning (i.e., changes in knowledge and skills) and development (changes in attitudes and behaviors) as related back to the institutional mission, as appropriate. Each program must also define its *core objectives* – those learning and development outcomes expected of all successful students.
3. ***Relate these program objectives to explicit program strategies*** – Program *strategies* are explanations of how program requirements lead to the attainment of program objectives. They describe which components of the program’s curriculum serve each core objective for student learning and development. This description will include an explanation of

* Adapted from Winthrop University’s “Resource Allocation Model,” Reid Johnson and Betsy Brown, as presented at the Tenth Annual AAHE Conference on Assessment and Quality, 11 June 1995.

supplies, equipment and other appropriate resources necessary to achieve the program's goals and strategies.

4. ***Evaluate the quality of its program*** – Program evaluation/review must assess how well the program's strategies achieve its objectives. To be effective, a program's evaluation of quality/effectiveness should include the following:
 - ***Definition of the areas of student performance that are being evaluated.*** Programs must identify which objectives for student learning and development (that is, the knowledge, skills, attitudes, and behaviors, as appropriate) are being assessed to determine program quality. Core student objectives must be included.
 - ***Identification of multiple assessment methods.*** Programs must identify the methods to be used to measure student progress toward core program objectives. Because no one measure can be appropriate, the combination of methods chosen must include measures that have strong internal validity (that is, they accurately diagnose student strengths and weaknesses) and external validity (that is, they derive from regional or national standards). These methods must be feasible (effective in cost, time, and faculty and student effort) to implement on an on-going basis.
5. ***Design and implement an assessment plan*** – Programs must detail the measures that will be used with which students on what schedule to implement a comprehensive program evaluation.
6. ***Analyze and interpret results*** – Programs must, first, determine the usefulness and appropriateness of the assessment methods used (whether these are valid measures of student progress directly reflecting program strategies) and, second, determine what these results reveal about the program's strengths and weaknesses and how these should be addressed.

The principle goal of the program review process is that it be used primarily for program improvement. A secondary goal is to establish accountability reporting that is accomplished internally but can be used for external reporting of program effectiveness. It requires that

1. the institution define its education (instruction/service goals) mission;
2. functional units (programs, disciplines) *define mission and goals* as they relate to service to institutional general education requirements and/or other programs.

The functional units are the basic unit for determination of effectiveness and are the blocks upon which planning and evaluation are carried out.

Thus, program assessment results are used directly to drive program improvement.

Assessment activities become the basis for continuous quality improvement and are used to identify effective program strategies and components. The process provides a basis for decision-making and assists programs in deciding how to maintain and improve quality.

In this model, there is an explicit linkage between

- What are we doing (mission)?
- How well are we doing it (assessment)?
- What actions are needed (planning)?
- What resources are needed (budgeting and resource allocation)?

Budget requests are prioritized and resources are allocated based on the following:

- Program's demonstration of the *centrality* of its role in achieving department/program mission and goals
- Program's demonstration of clear linkage of requested funds to maintaining/improving program quality
- Quality/diligence of its efforts to evaluate effectiveness

- Demand for grads/completers (external/internal)
- Applicant needs/interests (demand for program internally and externally)
- Evidence of quality improvement (from assessment, including above)
- Evidence of quality (from assessment, including above)
- Efficiency (productivity x costs)

Departments/programs and provosts aggregate and review these program reviews, and they add institutional-level needs and their rationale, recommending resource allocations, finally allocating assigned resources. Thus resources fund strategic changes (or decisions not to pursue certain initiatives), thereby starting the next cycle of program implementation, assessment of effectiveness, and continual planning.

TELL US WHAT YOU THINK!

Please use this form to share your comments on the assessment plan and handbook and your suggestions for improvement. The plan will continue to be refined in response to lessons we learn as we implement assessment of student learning and institutional effectiveness.

The Assessment Committee would like to document the involvement of faculty at this level of the assessment initiative. Therefore, you are asked to return this sheet even if you have no specific comments to make at this time. Your comments will not be identified by name, unless you so indicate, and this form will serve as a record of this document distribution.

The Assessment Committee is especially interested in your comment on the following issues:

- (1) How can the college enhance the continued participation of faculty in assessment activities?
- (2) How might the college enhance the quality, utility, and clarity of the information to be collected?
- (3) How can the college minimize the burden of information collection and sharing?

Comments:

Name	<input type="checkbox"/> Full-time <input type="checkbox"/> Part-time
Campus	Date

Please return to
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You can also e-mail your comments to
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This handbook has been developed by Carol Helland, Assessment Coordinator, to assist the faculty and staff as they undertake assessment to improve student learning and institutional effectiveness.

Undoubtedly, some questions remain unanswered by this handbook. When questions arise, faculty and staff are urged to direct their questions to the Coordinator at 749-7710 or 744-7475.

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