PROGRESS REPORT: ASSESSMENT OF STUDENT LEARNING

Submitted by:
North Central Missouri College
Student Learning Assessment Committee
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Submitted to:
The Higher Learning Commission
A Commission of the North Central Association
of Colleges and Schools

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SECTION I: INTRODUCTION

In October of 2001 a Higher Learning Commission team completed a comprehensive evaluation visit at North Central Missouri College (NCMC) and recommended the college for ten year accreditation. The team also asked that the college prepare a report on its implementation of the Student Learning Assessment Plan that was part of its self-study and submit the report by August 2004. The team’s statement was “the existing assessment plan appears to meet all requirements of a valid assessment program; however, the plan has yet to be fully implemented.”

NCMC has fully implemented its Student Learning Assessment Plan in the years since the comprehensive evaluation visit. The Dean of Instruction appoints members to a standing Student Learning Assessment Committee on a three-year rotation. The institution’s commitment to assessment is further demonstrated by the fact that committee members are compensated for participation. Members of the committee for the 2003-04 academic year were as follows:

- Beth Crawford, Chair
  Level I Nursing Instructor
  Allied Health Division Representative
- Janet Vanderpool
  Associate Dean of Allied Health Sciences
  Standing Member
- Missie Cotton
  Office Systems Technology Instructor
  Vocational & Technical Education Division
  Representative
- Julie Hefley
  Associate Dean of Vocational & Technical Education
  Standing Member
- James Treu
  History Instructor
  Arts & Sciences Division Representative
- Vicki Wheeler
  Associate Dean of Arts & Sciences
  Ex-Officio Member
- Linda Brown
  Registrar
  Standing Member
- Marie Moulin
  Testing Coordinator
  Standing Member
- Steve Holt
  Adjunct Economics Instructor
  Adjunct/Professional Representative
- Melody Shipley
  Academic Resource Center Director
  Ex-Officio Member
Assessment has become institutionalized at NC MC. Job descriptions for all new faculty members state that assessment of student learning is a duty and responsibility of the position. Further, when the college’s strategic plan was updated in fall of 2003, the following was listed as a goal: To ensure the assessment of student learning is a focus of the entire college. Over the past two years, several workshops have been devoted to assessment. For example, in the spring of 2004 Rosa Kavanaugh from Ozarks Technical Community College in Springfield, MO, came to campus for a one-day assessment workshop with faculty. Specific efforts have been made in 2003-04 to help adjunct faculty learn about and participate fully in student learning assessment. The Assessment Committee prepared and distributed a tri-fold brochure defining assessment terminology and an overview of the campus student learning assessment plan. An adjunct faculty member continues to provide input to the Assessment Committee.

The campus is enthusiastic about assessment because we know it has made a difference in our students’ performance. Analysis of assessment data has helped faculty focus on the areas where students are and are not learning. This information allows for thoughtful and purposeful modification of instructional methods, classroom activities, test items, assignments, etc. Subsequent assessment then provides concrete data to direct future modifications as needed. Assessment for improvement of student learning has become an integral part of the campus culture. NCMC will continue to shape the assessment plan to meet the needs of our students as we work toward the college goal of optimizing learning.

The committee has met regularly (8 times a semester) and has completed the following:

1 Annually evaluated the Student Learning Assessment Plan and modified it as needed.

2 Overseen the implementation of the plan including reading reports on the various sections of the plan, asking for and receiving revisions of reports, suggesting improvement to specific assessment objectives and practices, and disseminating an Annual Report to the college as a whole as well as the Dean of Instruction, President, and Board.

3 Promoted the importance of and increased the knowledge of assessment among students, faculty (full-time and adjunct), staff, administration and Board.

4 Worked with other committees on campus including the President’s Cabinet, Curriculum Committee, and Faculty Senate to embed assessment of student learning throughout the institution. Consequently, the results of the assessment of student learning are used in strategic planning and budgeting.

DEVELOPMENT OF STUDENT LEARNING ASSESSMENT COMMITTEE

NCMC is committed to its mission to optimize learning. It created the Student Learning Assessment Committee on January 25, 2000 and began pursuing continuous improvement through student learning assessment. The committee exists as a regular Dean of Instruction standing committee. The committee plans and oversees student learning assessment activities. The committee is composed of eight (8) members. The three Associate Deans and the Registrar hold standing membership. One faculty member from each division and an adjunct faculty/professional staff member serve three-year
rotating terms. The Dean of Instruction makes committee appointments annually. The committee has met twice a month since its inception in order to carry out its charge.

The committee actively:

1. Engages in an ongoing dialogue with the college community about the assessment of student academic achievement.
2. Created and implemented the Student Learning Assessment Model with college-wide input, and annually reviews and revises the model when necessary.
3. Works to enhance the knowledge of the faculty, staff, and students of the College about the theory and practice of the assessment of student learning.
4. Facilitated and implemented the development of feedback loops and information dissemination about the ongoing process of assessment at the college through various media including an annual report.
5. Works with other committees on campus, particularly the President’s Cabinet, Curriculum Committee, and Faculty Senate to ensure that the assessment of student academic achievement is embedded throughout the institution.

RESULTS SUMMARY

NCMC has experienced several accomplishments as follows:

2000-2001 Results

- Established the Assessment Committee
- Created Student Learning Assessment Plan Timeline
- Created Student Learning Assessment Model
- Conducted Faculty In-service
- Created the Assessment Plan
- Examined Faculty Assessment Plans

2001-2002 Results

- Prepared and edited the Student Learning Assessment Plan for the comprehensive evaluation visit
- Conducted Faculty In-Service (Fall & Spring)
- Faculty In-Service (Fall & Spring)
- Created and implemented the AA Transfer Survey
- Created and piloted a Course Assessment Form
- Examined Faculty Assessment Plans

2002-2003 Results

- Created an Executive Summary
- Examined Faculty Assessment Plans
- Oriented new committee members
2003-2004 Results

- Completed the Student Learning Assessment Progress Report
- Created a Student Learning Vocabulary brochure
- Conducted a Faculty In-service (Spring)
- Added Student Learning Assessment information to the NCMC website
- Examined Faculty Assessment Plans
- Oriented new committee members

STAGES OF DEVELOPMENT

Stage 1-Research, Dissemination, and Discussion: The first stage involved the self-education of the Student Learning Assessment Committee about differing philosophies and methodologies of assessment and initial steps to share this information with the College community:

1. Reviewed theoretical literature on assessment.
2. Examined numerous assessment plans from other institutions.
3. Purchased and subscribed to sources of assessment materials.
4. Attended conferences and workshops that addressed assessment including the Assessment Institute.
5. Searched the Internet for articles pertaining to assessment of student learning.

The committee made extensive efforts to incorporate the College Community in the decision-making process and to disseminate its knowledge about assessment. Some of these measures taken include:

1. Engaged in discussions about assessment among the College Community.
2. Conducted regular updates at Division Meetings and Faculty Senate Meetings.
3. Extended open invitations campus-wide to attend the assessment committee meetings.
4. Completed and shared the results of the Self-Analysis Levels Survey.
5. Hosted multiple In-Service sessions focusing on Student Learning Assessment.
6. Held a joint meeting of the Student Learning Assessment Committee and the Faculty to discuss assessment and present a draft of the Student Learning Assessment Model.

Stage 2- Synthesis: From August 2000 to November 2000, the Student Learning Assessment Committee developed a comprehensive Student Learning Assessment Model. Committee members, faculty, and the Dean of Instruction reviewed and refined the Student Learning Assessment Plan based upon this model. After the committee shared the Student Learning Assessment Model with the Board of Trustees, everyone at NCMC received an e-copy of the Student Learning Assessment Model and Student Learning Assessment Plan. Hard copies are on file in the Dean of Instruction’s Office and the Library; while electronic copies are available on the NCMC intranet.
Stage 3- Education and Buy-In: The third stage involved a more active dialogue between the Student Learning Assessment Committee and entire college community:

1. Conducted updates and requested input at Division and Faculty Senate meetings.
2. Engaged in updating the committee’s progress at the College Council meetings and other departments within the college.
3. Conducted an Assessment In-Service.

Continuous self-education of the Student Learning Assessment Committee includes sharing articles, reading, discussing, and attending conferences.

Stage 4- Implementation: The fourth stage involved the implementation of the Student Learning Assessment Model with full utilization in the fall semester of 2001. Implementation included:

1. Wrote program goals, competencies/objectives, assessment tools, and a plan to implement the assessment tools.
2. Gathered pilot data during the spring semester of 2001 and compiled the first Annual Report describing the results and action to be taken.
3. Implemented the Student Learning Assessment Plan in the fall of 2001 and a Course Assessment Pilot in the fall of 2002.

Stage 5- Data Collection and Analysis: Following the implementation of the Student Learning Assessment Model and Student Learning Assessment Plans, the Student Learning Assessment Committee routinely analyzes data provided annually by the divisions as specified by their plan. The data is processed and the Annual Report is compiled annually. The Student Learning Assessment Model is annually reviewed, and when needed, the Student Learning Assessment Committee recommends revisions to the Model.

Stage 6- Feedback, Review, and Revision: The assessment of Student Learning is an ongoing and evolutionary process. Committee members participate in the feedback loop, and engage in annual reviews of the Student Learning Assessment Plan and Model. They revise methodologies and procedures as a result of this process. The Student Learning Assessment Committee is committed to this exchange of information and viewpoints through a number of avenues:

1. Conducting at least one joint meeting of the Student Learning Assessment Committee and the Faculty each semester.
2. Distributing an annual Executive Summary.
3. Compiling and distributing Annual Reports to all faculty members, Dean’s Team, President’s Cabinet, and Board members.
SECTION II: STUDENT LEARNING ASSESSMENT MODEL

The Student Learning Assessment Model depicts the Student Learning Assessment process. The results of the assessment process will provide information, which can be used to determine whether or not intended outcomes are being achieved and how student learning can be improved. In addition, the assessment process is designed to inform decision-makers about relevant issues, which affect student learning. Some parts of the assessment process will be “formative” and some “summative.” To the faculty, it is formative, meaning it is the collection of data and feedback of the results on an ongoing basis. This formative design of the assessment model is intended to provide information for the purpose of improving student learning. To other entities, it is summative, meaning it is designed to produce information that can be used to make determinations about the overall success of student learning.

Throughout the planning process, the committee has endeavored to overcome the problems most frequently described as preventing or slowing an institution’s progress toward reaching full implementation of an assessment plan:

1. Involved faculty and students
2. Developed goals and objectives
3. Collected and interpreted data
4. Completed the feedback loops
5. Obtained or reallocated funding for assessment activities
6. Linked Student Learning Assessment with Strategic Planning and budgeting

For this reason, those directly responsible for Student Learning and Student Learning Assessment designed this model. When implementing the Student Learning Assessment Model, the college community should have at least one of three purposes in mind: to confirm, to improve, and/or to inform. Plans based upon this model are either used to confirm that student learning took place or imply improvement is needed. The assessment model is designed to inform decision-makers about issues that affect student learning.

RESPONSIBILITY

All individuals at North Central Missouri College are responsible for and involved in the student learning assessment process. The Student Learning Assessment Committee, under the leadership of the Dean of Instruction, accepts accountability for the on-going implementation of the Student Learning Assessment Plan. The Student Learning Assessment Committee actively:

1. Sees that each submitted plan incorporates the Student Learning Assessment Model
2. Oversees the implementation
3. Receives results and recommendations related to financial, physical and/or human resources that affect student learning
4. Analyzes and synthesizes results and recommendations
5. Compiles a report to be shared and used in decision making
6. Engages in follow-up noting how recommended changes affected the student-learning environment
Diagram 1 depicts NCMCs Student Learning Assessment Model. The components include the Systematic Collection of Data, Analysis, Planning, Implementation, and Evaluation/Synthesis. The Systematic Collection of Data involves collecting data from a number of sources, such as past class records, ACT, ASSET, National League of Nursing (NLN) scores, exit test scores, and other secondary data. Analysis involves organizing data to identify patterns, strengths, and concerns. The planning stage can include establishing or revising measurable goals and competencies, developing or selecting assessment tools, and determining performance standards. During Implementation, the plan is carried out, which may result in new data. Finally, the Evaluation/Synthesis results should be reported and used for at least one of three purposes in mind:

- **Confirm:**
  If the goal has been attained, this indicates that the intended learning has taken place. Where the goals or competencies are met or surpassed, it can be rightly be concluded and reported that no action is required.

- **Improve:**
  In the case where the results indicate that the goals or competencies were not achieved:
  - The results may suggest a concern in a specific area, where a definite change may correct the situation. The change and rationale will be reported to the Student Learning Assessment Committee.
  - The results may suggest concern, but it may not be obvious what change is needed. In this case, the results might warrant establishment of a “review process” to more thoroughly examine the matter. An Improvement Plan for implementation will then be reported to the Student Learning Assessment Committee. Following implementation of the Improvement Plan, a follow-up report might be forthcoming.

- **Inform:**
  The results should provide information, which can be used to determine how student learning can be optimized. College personnel may use these results when making decisions that directly effect student learning.

**FEEDBACK LOOP IN THE ASSESSMENT OF PROGRAMS**

The Feedback Loop in Diagram 2 depicts the interchange of information and collaboration among individuals or groups throughout the student learning assessment process. The diagram indicates that the systematic collection of data requires collaboration among and between the faculty and others shown on the Diagram. Information resulting from Student Learning Assessment leads to changes in the curriculum regarding courses, programs, departments, and in the Strategic Plan when used by the President, Deans, Associate Deans, and faculty who make decisions that affect student learning. Such individuals must consider student learning assessment results when engaged in activities such as policy development and implementation, strategic planning and budgeting. In a cyclical manner, the feedback loop leads to recommended changes that have a positive impact on student learning.
Student Learning Assessment Model

The Assessment Process is NCMC’s Strategy for continued success: Systematic collection, examination, and interpretation of qualitative and quantitative data about student learning and the use of that information to confirm, improve and inform.

Step 1
Systematic Collection of Data
What qualitative and/or quantitative data is currently available?

Step 2
Analysis
• What strengths can be identified?
• What are the concerns?

Step 3
Planning
• What are the goals?
• What needs to be done to achieve the goals?
• What are the performance standards?

Step 4
Implement
Carry out plan and gather new data.

Step 5
Evaluate/Synthesize
• Was the goal achieved?
• Are revisions necessary?

College vision: Optimize learning

Diagram 1
Feedback Loop in the Assessment of Programs

Faculty → Systematic Collection of Data on Student Learning → President, Deans, Associate Deans

IR Coordinator → Assessment Committee

Testing Coordinator → Provide Implement Assessment Plan

Faculty in Academic Divisions

Key:

- People

Changes in Curriculum
- Courses
- Programs
- Departments
- Strategic Plan

Student Learning

Assessed by

Improve

Provide

Discussed with

Recommend
SECTION III: ASSESSMENT WITHIN THE PROGRAM

The College structure divides into three academic or instructional divisions: Arts and Sciences, Vocational and Technical Education, and Allied Health Sciences. Each division wrote and annually modifies a Student Learning Assessment Plan. These instructional divisions followed the same Student Learning Assessment Model, yet differed by the nature of their programs. At the Program Level the Student Learning Assessment Committee:

1. Sees that each division has a Student Learning Assessment Plan submitted and compiled for each program.
2. Receives from each division written results of program assessments each year and recommendations based on the program assessments. (This report may include recommendations related to financial, physical, and/or human resources.)
3. Evaluates the results, plans and documents the committee’s evaluation.
4. Returns evaluations to each Associate Dean to be shared with program personnel.
5. Compiles and distributes a Final Report to faculty, President’s Cabinet, and Board members to be used for financial, physical, and human resource decision making.
6. Monitors and documents findings of any recommendations.

It is not the Student Learning Assessment Committee’s function to outline goals, competencies, or assessment tools; nor is it the responsibility of the committee to determine how the results are to be utilized. Responsibility for student learning lies with the entire College Community. The committee’s responsibility is to see that the Assessment Plan is realized.

ARTS AND SCIENCES DIVISION ASSESSMENT OF GENERAL EDUCATION

NCMC Assessment CD: Annual Reports\GenEd Assessment\

The Arts and Sciences Division completed the following stages in order to develop a Student Learning Assessment Plan that optimizes student learning:

Analysis

On June 7, 2000, the Coordinating Board for Higher Education (CBHE) adopted its revised general education policy, Credit Transfer: Guidelines for Student Transfer and Articulation Among Missouri Colleges and Universities.

Planning, Implementation, and Evaluation

Student Learning General Education Assessment Task Force Groups were assigned 1 of the 8 goals, whereby they were asked to develop or revise an implementation plan that identifies:

1. Competencies- (Specific Statements identifying performance required to meet the goal.) The competencies developed for NCMC were confirmable through
evidence. Some performance is not directly measurable, so indicators of performance were sought. When standards were not available, it the groups identified criteria against which results were measured. Since many cognitive and affective performances do not have easily apparent evidence (e.g., “valuing”), indicators were used to provide evidence of whether or not the desired performance exists.

2. **External Assessment Tools**- (external processes used to collect evidence of outcomes.) These methods were developed to be consistent with criteria. The Student Learning Assessment Committee made a decision concerning how many of the competencies/objectives must be met to say that the goal was achieved. An implementation plan was established including when and who will be responsible for assigning and collecting or proctoring the assessment tool. In addition, the plan addressed who is responsible for scoring and how the performance is is recorded.

North Central Missouri College’s General Education Rationale:

General education is the curricular foundation for the Associate in Arts degree students at North Central Missouri College. It encourages students to acquire and use the intellectual tools, knowledge, and creative capabilities necessary to study the world as it is, as it has been understood, and as it might be imagined. It also furnishes them with skills that enable them to deepen that understanding and to communicate it to others. Through general education, North Central Missouri College equips students for success in their specialized areas of study and for fulfilled lives as educated persons, as active citizens, and as effective contributors to their own prosperity and to the general welfare.

As knowledge of the world is structured, so must general education be constructed to introduce students to the traditional disciplines of the arts and sciences. As that knowledge is ever changing, so must general education alert students to connections between the traditional disciplines and to the potential for interaction among all branches of knowing, ordering, and imagining the real world. As the real world is diverse, so must general education inform students that the world is understood in different ways and provide them with the means to come to terms, intelligently and humanely, with the diversity. As the diversities of knowing and understanding must be made open and accessible, so students must acquire appropriate investigative, interpretative, and communicative competencies.

Goals and Competencies for General Education in Missouri Higher Education:

1. **Skill- Communicating:** To develop students’ effective use of the English language and quantitative and other symbolic systems essential to their success in school and in the world. Students should be able to read and listen critically and to write and speak with thoughtfulness, clarity, coherence, and persuasiveness. The student will be able to:
   1. Create analytically sound and sufficiently detailed extended messages.
   2. Demonstrate effective interaction and emphasizing delivery skills.
3. Make formal written presentations employing correct diction, syntax, usage, grammar, mechanics, and appropriate quantitative and symbolic representations.

4. Focus on a purpose (e.g. explaining, problem solving, argument) and vary approaches to writing and speaking based on that purpose.

5. Respond to the needs of different venues and audiences and choose words for appropriateness and effect.

Results: NCMC scores in 2002 and 2003 on the communication section of the CAAP (a national, norm-referenced test) show that students met the NCMC goal of scoring no less than 1.5 below the national mean. In 2002 the scores were 0.5 below the national mean and in 2003 the scores were at the national mean of 62.5. On the essay portion of the CAAP, a special writing section that NCMC requires of all AA students, students scored at the national mean of 3.1 in 2003 and 0.3 above the national mean of 3.0 in 2003.

In the spring of 2003, the full- and part-time English faculty developed a scoring guide related to the state competencies and used it with English I portfolios created by on-campus, out-reach, and dual credit students. The data were tabulated and assessed by full-time faculty in the area. Results on these portfolios suggested that students in the classes assessed had attained the communications competencies. The group recommended that more portfolios be read during the next assessment period. These results were reported to the Associate Dean of Arts and Sciences, forwarded to the Assessment Committee, and filed with the Dean of Instruction to become a part of the Annual Student Learning Assessment Report.

Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Eighty-four percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their ability to communicate orally. Eighty-five percent said that their NCMC experience had helped them improve their ability to communicate in written form. This competency will be regularly assessed in accordance with the schedule.

2. Skill- Higher-Order Thinking: To develop students’ ability to distinguish among opinions, facts, and inferences; to identify underlying or implicit assumptions; to make informed judgments; and to solve problems by applying evaluative standards. The student will be able to:

   1. Divide, compare, and classify information, including distinguishing among facts, opinions, and inferences.

   2. Combine information, identify and create patterns (including identify underlying assumptions), and make informed judgments.

   3. Solve problems using a process which includes at least the following: understanding the problem, devising a plan, carrying out a plan, and evaluating the plan and its results according to a set of standards.
Results: CAAP scores in 2003 suggest that NCMC students are attaining this state goal. In 2002, students scored 58.0, which was 3.0 points below the national mean of 61.0. In 2003, NCMC students attained an average score of 60.7, the same as the national mean. These results of the CAAP were reported to the Associate Dean of Arts and Sciences, forwarded to the Assessment Committee, and filed with the Dean of Instruction to become a part of the Annual Student Learning Assessment Report.

Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Seventy-five percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their ability to think critically and to make good decisions. This competency will be regularly assessed in accordance with the schedule.

3. Skill: Managing Information: To develop students’ abilities to locate, organize, store, retrieve, evaluate, synthesize, and annotate information from print, electronic, and other sources in preparation for solving problems and making informed decisions. The student will be able to:
   1. Locate files and folders from local and network drives in software applications.
   2. Organize files and folders by expanding, collapsing, deleting, copying, and renaming in software applications.
   3. Store and retrieve files to local and network drives in software applications.
   4. Evaluate and assess the effectiveness of the printed product.
   5. Synthesize by combining the information and drawing conclusions in the finished product.
   6. Annotate and interpret information.

Results: Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Eighty-one percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their ability to manage information in written or electronic format. This competency will be regularly assessed in accordance with the schedule.

4. Skill- Valuing: To develop students’ abilities to understand the moral and ethical values of a diverse society and to understand that many courses of action are guided by value judgments about the way things ought to be. Students should be able to make informed decisions through identifying personal values and the values of others and through understanding how such values develop. They should be able to analyze the ethical implications of choices made on the basis of these values. The student will be able to:
   1. Explain the values exemplified in a complex situation (These could be values of the individual in the situation or the values of the creator of the text).
   2. Consider complex situations from one's own perspective and from the perspective of at least two others.
   3. Given a text showing a culture in action, identify the values of the culture and/or the individuals in the culture and compare them to your own.
4. Given a limited number of ethical stances, explain the ethical implications of choices made by individuals in a complex situation.

Results: Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Sixty-six percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their ability to clarify the values and goals of their lives. This competency will be regularly assessed in accordance with the schedule.

5. Knowledge- Social and Behavioral Sciences: To develop students’ understanding of themselves and the world around them through study of content and the processes used by historians and social systems. Students must understand the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others. (Students must fulfill the state statute requirements for the United States and Missouri constitutions.) The student will be able to:
   1. Explain social institutions, structures, and processes across a range of historical periods and cultures.
   2. Develop and communicate hypothetical explanations for individual human behavior within the large-scale historical and social context.
   3. Draw on history and the social sciences to evaluate contemporary problems.
   4. Describe and analytically compare social, cultural, and historical settings and processes other than one’s own.
   5. Articulate the interconnectedness of people and places around the globe.
   6. Describe and explain the constitutions of the United States and the state of Missouri.

Results: The NCMC Social and Behavioral Sciences faculty used the competencies listed by the state. The CAAP does not report results in this knowledge area. Faculty developed and administered a locally designed assessment tool in Fall 2002. The data were tabulated and assessed by full-time faculty in the area. Results showed that NCMC students did not attain the competencies. Those administering the test felt that the questions did not properly assess the student’s knowledge and that there were respondent motivation problems. These results of the initial assessment were reported to the Associate Dean of Arts and Sciences, forwarded to the Assessment Committee, and filed with the Dean of Instruction to become a part of the Annual Student Learning Assessment Report. The faculty in the Social and Behavioral Sciences worked with Assessment Committee members to modify the assessment instrument and to enhance student motivation.

Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Seventy-five percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their knowledge, understanding, and tolerance of people and ideas. Seventy-nine percent said that their NCMC experience improved their appreciative knowledge of history and behavioral science (psychology/sociology).
6. Knowledge - Humanities and Fine Arts: To develop students’ understanding of the ways in which humans have addressed their condition through imaginative work in the humanities and fine arts; to deepen their understanding of how that imaginative process is informed and limited by social, cultural, linguistic, and historical circumstances; and to appreciate the world of the creative imagination as a form of knowledge. The student will be able to:

1. Recognize the scope and variety of works in the humanities and fine arts (e.g., fine and performing arts, literature, and speculative thought).
2. Recognize that artists affect and are affected by social, cultural, political, scientific and technological developments.
3. Interpret the meanings, messages, or moods in a work of art.

At NCMC in the spring of 2001, a team of faculty customized the state competencies to the following:

1. Describe the scope and variety of works in the humanities and fine arts (e.g., fine and performing arts, literature, and speculative thought).
2. Recognize that artists are affected by social, political, and scientific and technological developments.
3. Describe and support the meanings, messages, or moods in a work of art.

Results: In the fall of 2001, NCMC faculty in art, theatre, and literature each created an assessment tool aligned with the competencies to use with their fall classes in these areas. The data were tabulated and assessed by full-time faculty in the area. Results of the assessments showed that the competencies were attained. These results were reported to the Associate Dean of Arts and Sciences, forwarded to the Assessment Committee, and filed with the Dean of Instruction to become a part of the Annual Student Learning Assessment Report.

Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Sixty-nine percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their appreciative knowledge in the humanities and fine arts areas. This competency will be regularly assessed in accordance with the schedule.

7. Knowledge – Mathematics: To develop students’ understanding of fundamental mathematical concepts and their applications. Students should develop a level of quantitative literacy that would enable them to make decisions and solve problems and which could serve as a basis for continued learning. (The mathematics requirement for general education should have the same prerequisite(s) and level of rigor as college algebra.) The student will be able to:

1. Demonstrate with accuracy fundamental math skills including but not limited to topics such as solving equations, substitution into complex formulas, and basic graphing.
2. Recognize and use connections between mathematics and other disciplines.
3. Read, interpret, analyze and synthesize quantitative data (e.g. graphs, tables, statistics, and survey data) and make reasoned estimates and conclusions.

Results: At NCMC in the spring of 2001, the Mathematics faculty developed a plan to assess attainment of the mathematics competencies. One portion of this was the CAAP—a national, norm-referenced test. In the spring of 2002, Mathematics was 0.1 below the national average (this “standard deviation” was, however within the acceptable range established by NCMC). The Mathematics Department conducted training in the summer of 2003 to help adjunct and full-time faculty consider strategies for future assessments and teaching.

In the spring of 2002, NCMC’s locally-developed assessment tool was administered to both on-campus and outreach classes. The data were tabulated and assessed by full-time faculty in the area. Results on this instrument showed that NCMC students were attaining the state competencies. These results were reported to the Associate Dean of Arts and Sciences, forwarded to the Assessment Committee, and filed with the Dean of Instruction to become a part of the Annual Student Learning Assessment Report.

Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal, although improvement is obviously desired. Fifty percent of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their mathematical knowledge. Forty-one percent were neutral on this question. This competency will be regularly assessed in accordance with the schedule, spring 2005.

8. Knowledge-Life and Physical Sciences: To develop students’ understanding of the principles and laboratory procedures of life and physical sciences and to cultivate their abilities to apply the empirical methods of scientific inquiry. Students should understand how scientific discovery changes theoretical views of the world, informs our imaginations, and shapes human history. Students should also understand that science is shaped by historical and social contexts. To develop the student’s ability to:

1. Utilize the scientific method by developing and testing a hypothesis, and drawing defensible conclusions from data.
2. Demonstrate basic laboratory skills in one of the physical and one of the life sciences.
3. Describe the basic principles of one of the physical and one of the life sciences.
4. Explain the social and historical impact of human choices on living and non-living systems.

Results: At NCMC this General Education goal was assessed in the spring of 2003, with the Life Science portion of the report filed with the Assessment Committee in August of 2003. A national, norm referenced test—the CAAP—was used to assess the competencies within this goal. Results: In 2003, on the CAAP, NCMC students scored 0.6 points above the national average of 59.0 on the Science Reasoning portion of the test. This score was within the range of no more than 1.5 lower than the national average set by the NCMC Student Learning Assessment Committee.
In addition, two locally-prepared assessments were used to assess three competences in the Life Science areas. (The retirement of a full-time instructor delayed the preparation of the locally-prepared assessments until the fall of 2003.) The data were tabulated and assessed by full-time faculty in the area. Results: Results showed that NCMC students reached the performance levels set by the NCMC Student Learning Assessment Committee on both a Lab Competencies Checklist and on a Locally Designed test of the competencies. These results of were reported to the Associate Dean of Arts and Sciences, forwarded to the Student Learning Assessment Committee, and filed with the Dean of Instruction to become a part of the Annual Student Learning Assessment Report.

Results on an indirect measure of student learning—a survey of Associate of Arts graduates in 2002—also supported the conclusion that students are attaining this goal. Sixty-six percent (66%) of graduates responding to the survey agreed or strongly agreed that their experience at NCMC improved their scientific knowledge. This competency will be regularly assessed in accordance with the schedule.

Analysis

All eight General Education Goals have been assessed over a 2-year period in the following manner:

- Spring 2002: Social and Behavioral Sciences/Mathematics
- Fall 2002: Communications/Humanities & Fine Arts
- Spring 2003: Higher Order Thinking/Biological & Physical Sciences
- Fall 2003: Managing Information/Valuing
General Education Assessment Loop

Goal
Matrixes completed by the faculty teaching the courses (both primary and associate) wherein students learn the competencies and, therefore, achieve the GenEd goal. Course embedded assessment is also documented.

Courses Identified and Classified
Primary Courses-Faculty instructing these courses will serve as the GenEd task Force for the semester.

Associate courses/experiences-faculty reinforce student learning of the selected goal.

Analysis
GenEd task force analyzes the strengths and concerns previously identified.

Plan/Implement
The assessment tool is revised if needed. Established assessment plan put into action. Data gathered, tabulated, and reported.

Evaluation/Synthesis
After sharing its interpretation of the data, the GenEd Assessment Team facilitates a dialogue with faculty teaching the courses servicing the goal. It is also determined if the goal has been met or if improvement is needed. If improvement is needed, an improvement plan will be forthcoming, detailing recommended action to be taken.

General Education Report
The GenEd Assessment Team summarizes the process, conclusions, and recommendations on a Report Form, delivers it to the Assoc. Dean, who forwards it to the Student Learning Assessment Committee. The Student Learning Assessment Committee discusses the results. Action to be taken may include other faculty senate standing committees. Reports are filed with the Dean of Instruction and become a part of the Annual Student Learning Assessment Report.

Other institutional data, including Norm reference test results.
VOCATIONAL AND TECHNICAL EDUCATION ASSESSMENT
NCMC Assessment CD: Annual Reports\VTE Assessment

The Vocational and Technical Education completed the following stages in order to develop a Student Learning Assessment Plan that optimizes student learning:

Analysis

The first step for the division was to analyze whether state and federal performance standards alone can support the college’s vision. NCMC submits an annual report to the Missouri Department of Elementary & Secondary Education (DESE) – Division of Vocational Education that outlines the collective performance of all approved programs. Meeting these standards is important to those programs that are DESE approved because performance is tied to Perkins III state funding. This funding may be used for vocationally certified teachers’ salaries, and equipment purchases for vocational programs.

The Division analyzed existing external assessment tools to determine their role in the Student Learning Assessment Plan. The division reviewed the number of competencies/objectives that must be met to say that the goal was achieved.

Planning

The division developed an Assessment Plan that optimizes learning. This stage involved three steps:

1. Identify goals- A statement describing the broad outcomes desired. Goals should be far-reaching and describe the best situation. The goal is to meet the standards established by business, industry, and other community constituencies as well as the goals established by NCMC and its individual programs. It was also a reflection of the performance levels outlined by the U.S. Department of Education and the Missouri Department of Elementary & Secondary Education – Division of Vocational Education.

2. Identify the competencies or objectives- Specific statements identifying performance required to meet the goal. The division’s student learning assessment plan encompasses the U.S. Department of Education’s performance standards by categorizing them as Direct Student Learning Assessment Sub Indicators, Indirect Student Learning Assessment Sub Indicators, and Institutional Effectiveness, as shown in Table 1:
Table 1: Sub Indicators

<table>
<thead>
<tr>
<th>Sub Indicator</th>
<th>Performance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Student Learning Assessment:</strong></td>
<td></td>
</tr>
<tr>
<td>Academic Attainment</td>
<td>73.17%</td>
</tr>
<tr>
<td>Skill Attainment</td>
<td>94.02%</td>
</tr>
<tr>
<td><strong>Indirect Student Learning Assessment:</strong></td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td>88.09%</td>
</tr>
<tr>
<td>Placement</td>
<td>85.99%</td>
</tr>
<tr>
<td><strong>Institutional Effectiveness:</strong></td>
<td></td>
</tr>
<tr>
<td>Nontraditional Participation</td>
<td>31.09%</td>
</tr>
<tr>
<td>Nontraditional Completion</td>
<td>15.70%</td>
</tr>
</tbody>
</table>

Direct Student Learning Assessment Sub Indicators:
- Academic Attainment: The percentage of students scoring at or above the 55th percentile on a nationally-normed exit test must be 73.17%. Each department within the division selected a nationally-normed assessment instrument that most closely matches the department’s competencies. These instruments are used to pre-test and post-test in conducting student learning assessment.
- Skill Attainment: The percentage of concentrators mastering 80% of the Essential Skills must be 94.02%. Essential Skills are the competencies outlined by each respective department within the division.

Indirect Student Learning Assessment Sub Indicators:
- Completion: The percentage of concentrators graduating annually must be 88.09%.
- Placement and retention: The percentage of graduates employed, continuing post-secondary education or serving in the military must be 85.99%.

Institutional Effectiveness Sub Indicators:
- Nontraditional Participation: The percentage of underrepresented students participating in nontraditional programs must be 31.09%.
- Nontraditional Completion: The percentage of underrepresented students completing nontraditional programs must be 15.70%.

In addition to the aforementioned U.S. Department of Education’s performance standards, the division uses an Employer Follow-Up Survey to collect employer opinions regarding our students’ education, preparation, skills, and characteristics rating.

3. Specify Assessment Tools- External processes used to collect evidence of outcomes. The division utilizes valid and reliable assessment tools that measure the degree to which the goal is being met. Table 2 outlines the types of external assessment tools and delegation of responsibility:
Table 2: Assessment Tools

<table>
<thead>
<tr>
<th>External Assessment Tool</th>
<th>Who</th>
<th>When</th>
<th>Recorded</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Levels of Performance</td>
<td>Department Chair, Placement Coordinator, Counselor, &amp; Assoc Dean</td>
<td>November</td>
<td>Dean of Instruction’s Office</td>
</tr>
<tr>
<td>Internship</td>
<td>Employer</td>
<td>Upon completion</td>
<td>Dean of Instruction’s Office</td>
</tr>
<tr>
<td>Advisory Committees</td>
<td>Department Chair</td>
<td>3 times/year</td>
<td>Dean of Instruction’s Office</td>
</tr>
<tr>
<td>Nationally-normed Testing</td>
<td>Counselor</td>
<td>Upon entry &amp; graduation</td>
<td>Dean of Instruction’s Office</td>
</tr>
</tbody>
</table>

Implementation

The Division implemented the Assessment Plan in an effort to optimize learning. This stage involved implementing classroom practices and extra-curricular practices designed to achieve the competencies and the execution of the assessment tool.

Evaluation

After all the data is gathered, the Division moved into the Evaluation Stage. Members of the Division regularly meet to interpret the data and to evaluate whether or not the competencies or objectives are achieved. During the evaluation stage of the Student Learning Assessment Model, the Division determines how they will report and utilize the results.

Analysis

In a cyclical manner, Division members conduct analysis to determine strengths or concerns and whether or not the process is supporting the College’s vision. The outcome from this stage is a plan for improvement for those elements within the educator’s control.

Results

The Student Learning Assessment Report is a compilation of reports submitted by vocational and technical education faculty. Reports consist of a comparison of collected data against a standard, an interpretation of each comparison, and a determination that the goals and objectives were achieved or that improvement is required. If improvement is required, then a plan of action is outlined. The process is repeated annually in a cyclical manner to determine whether the goals were achieved or if the plan of action was
The following narrative highlights data from Table 3: Student Learning Assessment Results:

1. Academic Attainment: The first program objective, Academic Attainment, requires that at least 73.17% of the total number of students must score at or above the fifty-fifth (55th) percentile on a state approved nationally normed academic assessment instrument. The data indicates that the percentage of students meeting or exceeding the standard has increased from 50% in 2000 to 95.60% in 2003. When the standard was not met in 2001, the Plan of Action was to change the state approved assessment instrument from CAAP to ACT’s WorkKeys, as WorkKeys appears to more closely match the program competencies. The net effect has been significant improvement.

2. Essential Skills: The second program objective, Essential Skills, is that at least 94.02% of the students master 80% of the Essential Skills or competencies outlined for the program. The data indicates that the percentage of students meeting or exceeding the standard has increased from 93.16% in 2000 to 96.48% in 2003. Because the performance consistently meets or exceeds the standard, the annual Plan of Action is to maintain the performance level.

3. Completion: The third program objective, Completion, is that at least 88.09% of the concentrators are graduating annually from a certificate or degree program. The data indicates that the percentage of students meeting or exceeding the standard has increased from 49.73% in 1999 to 90.85% in 2003. Because the performance consistently meets or exceeds the standard, the annual Plan of Action is to maintain the performance level.

4. Placement & Retention: The fourth program objective, Placement and Retention, is that the percentage of graduates employed, continuing post-secondary education, or serving in the military must be 85.99%. The data indicates that the percentage of students has exceeded the standard; therefore, no Plan of Action would be necessary. However, because of the persistent decline in the annual rate, the administration accepted the Plan of Action to increase the Placement Director’s position from a half-time to a full-time position. The position had been full-time before state budget cuts in 2001. The change is in next year’s budget.

5 – 6. NonTraditional Student Participation & NonTraditional Student Completion: The fifth program objective, NonTraditional Student Participation, seeks to establish the percentage of females in male-dominant programs and males in female-dominant programs at a minimum of 33.09%. The sixth program objective, NonTraditional Student Completion, is that the percentage of females graduating from male-dominant programs and the number of males graduating from female-dominant programs be 17.70%. The data indicates a failure to meet either of these standards. The Plan of Action includes activities to attract and retain NonTraditional students.

7. Education, Preparation, Skills, & Characteristics: The seventh program objective, Education, Preparation, Skills, and Characteristics is that 80% of the employers rate our graduate’s training as “Very Good” or “Good”. The data indicates that the percentage of
students meeting or exceeding the standard has increased from 71.33% in 1998 to 84.20% in 2003. Because the performance consistently meets or exceeds the standard, the Plan of Action submitted annually has been to maintain the successful employer evaluation.

The Student Learning Assessment Plan is instrumental in helping faculty gather important data about student learning, compare the findings with specific competencies or academic goals, and make adjustments that serve to optimize student learning. The process facilitates student centered budgeting, decision-making, and progress.

Table 3: Student Learning Assessment Results

<table>
<thead>
<tr>
<th>Sub Indicator</th>
<th>Year</th>
<th>NCMC</th>
<th>Standard</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Academic Attainment</td>
<td>2000</td>
<td>50.00%</td>
<td>47.00%</td>
<td>3.00%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>64.29%</td>
<td>71.17%</td>
<td>-6.88%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>81.52%</td>
<td>72.17%</td>
<td>9.35%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>95.60%</td>
<td>73.17%</td>
<td>22.43%</td>
</tr>
<tr>
<td>2 Essential Skills</td>
<td>2000</td>
<td>93.16%</td>
<td>87.00%</td>
<td>6.16%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>97.79%</td>
<td>94.02%</td>
<td>3.77%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>95.31%</td>
<td>94.02%</td>
<td>1.29%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>96.48%</td>
<td>94.02%</td>
<td>2.46%</td>
</tr>
<tr>
<td>3 Completion</td>
<td>1999</td>
<td>49.73%</td>
<td>78.00%</td>
<td>-28.27%</td>
</tr>
<tr>
<td></td>
<td>2000</td>
<td>87.18%</td>
<td>78.00%</td>
<td>9.18%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>90.78%</td>
<td>87.09%</td>
<td>3.69%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>90.78%</td>
<td>87.59%</td>
<td>3.19%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>90.85%</td>
<td>88.09%</td>
<td>2.76%</td>
</tr>
<tr>
<td>4 Placement and Retention</td>
<td>1998</td>
<td>96.27%</td>
<td>85.49%</td>
<td>10.78%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>96.06%</td>
<td>85.49%</td>
<td>10.57%</td>
</tr>
<tr>
<td></td>
<td>2000</td>
<td>95.87%</td>
<td>85.49%</td>
<td>10.38%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>92.37%</td>
<td>87.00%</td>
<td>5.37%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>94.89%</td>
<td>85.49%</td>
<td>9.40%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>87.79%</td>
<td>85.99%</td>
<td>1.80%</td>
</tr>
<tr>
<td>5 NonTraditional Participation</td>
<td>2000</td>
<td>12.05%</td>
<td>31.09%</td>
<td>-19.04%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>12.45%</td>
<td>31.09%</td>
<td>-18.64%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>18.00%</td>
<td>32.09%</td>
<td>-14.09%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>17.37%</td>
<td>33.09%</td>
<td>-15.72%</td>
</tr>
<tr>
<td>6 NonTraditional Completion</td>
<td>2000</td>
<td>8.04%</td>
<td>15.70%</td>
<td>-7.66%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>12.40%</td>
<td>15.70%</td>
<td>-3.30%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>14.06%</td>
<td>16.70%</td>
<td>-2.64%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>11.11%</td>
<td>17.70%</td>
<td>-6.59%</td>
</tr>
<tr>
<td>7 Education, Preparation, Skills, &amp; Characteristics</td>
<td>1998</td>
<td>71.33%</td>
<td>80.00%</td>
<td>-8.67%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>92.67%</td>
<td>80.00%</td>
<td>12.67%</td>
</tr>
<tr>
<td></td>
<td>2000</td>
<td>82.00%</td>
<td>80.00%</td>
<td>2.00%</td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td>83.33%</td>
<td>80.00%</td>
<td>3.33%</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>96.67%</td>
<td>80.00%</td>
<td>16.67%</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>84.20%</td>
<td>80.00%</td>
<td>4.20%</td>
</tr>
</tbody>
</table>
North Central Missouri College
Student Learning Assessment Progress Report

Diagram 4

VTE Assessment Model

Evaluation/Synthesis
Report to Document:
• Confirm
• Improve: Develop

Analysis
Strengths
Weaknesses
Opportunities
Threats

Planning
Establish:
• Program Goals
• Course Competencies
• Assessment Tools
• Plans for Improvement

Implementation

Collected Data
Reported to Program Instructors on the Program Student Learning Assessment Report

Academic Attainment Data Collection: Nationally Normed Testing:
• Proctored by Counselor or Program Faculty
• Scored & Tabulated by External Source

Completion Data Collection: Data collected from Student Data Base by Computer Support Services or Program Faculty

Placement Data Collection: Data collected by Placement Coordinator

Employer Follow-Up Survey: Data collected by Placement Coordinator

Other: Data collected by Program Instructors

Skill Attainment Data Collection:
• Program Competencies established by Program Faculty
• Assessment Tool implemented by Program Faculty to gather data

Collected Data compared to Performance Standards by Program Instructors

Reported to Program Instructors on the Program Student Learning Assessment Report

Collected Data compared to Performance Standards by Program Instructors
ALLIED HEALTH SCIENCES DIVISION ASSESSMENT

The Allied Health Sciences Division completed the following stages in order to revise and update a Student Learning Assessment Plan that optimizes learning.

Analysis

The Allied Health Sciences Division members view the assessment process as not only essential, but as a continuous process. Adoption of the college-wide assessment plan provided the opportunity and impetus to strengthen the division’s pre-existing comprehensive systematic program evaluation; a major component of which has always been assessment of student learning and subsequently, student success. For the sake of the formal plan, the Allied Health Sciences Division members began the process with the analysis phase. The Division performs analysis of data to identify both concerns and strengths, and patterns or trends for successful achievement of the goals/objectives; therefore, both formative and summative assessment/evaluation techniques were utilized as data gathering methodologies.

Planning

To begin the planning phase, the Division members re-evaluated pre-existing goal(s). Once program goals were finalized, evaluation of objectives by which to achieve the overall goal(s) was reaffirmed. During the planning phase, division members remained cognizant of the fact that the plan must be designed in a way to meet assessment requirements of, not only the Vocational and Technical Education Plan, but of all regulating and accrediting entities, as well as any other assessment needs.

Although the Allied Health Sciences Division goals include those of the Vocational Division, the broad overall goal for the Allied Health Sciences Division is to prepare graduates to utilize a combination of scientific problem solving principles. These principles include critical thinking, interpersonal skills, and an interdisciplinary approach guided by established standards of care and codes of ethics- all in the provision of safe, effective health care to a geographically diverse, multicultural community.

Implementation

Once the overall plan was redesigned, implementation, through application, began. To a large degree, this phase is committed to the data gathered from the classroom and clinical practices, both of which are designed specifically to achieve the program goals, objectives, and competencies. Goal achievement is measured by utilizing various and numerous assessment tools. Types of assessment tools used to measure student learning- and ultimately student success - are, but are not limited to:

- Advisory Committee
- Assignments
- Classroom Assessment Techniques (CATs)
- Clinical Experience Evaluations
- Lecture
- Licensing Exam Pass Rates
- Patient Care Reports/Care Plans
- Presentations
Once the data was gathered from the implementation phase, the outcome/responses were then compared to the established goals and objectives for determination of student learning success. During the Evaluation Phase, conclusions were drawn. Results were then utilized to guide program changes, all of which were designed to foster student learning and increase the potential for student success. Although results were not limited to the following, the results listed below were utilized to drive change:

- Attrition problems
- Substandard student reading and math skills from the outset
- Motivational issues that impact student success
- Grading inconsistencies and inflation issues
- Testing at lower cognitive levels
- Low NCLEX pass rates, in some but not all cases
- Classroom teaching methodologies
- Curriculum structure

Analysis

Once the Evaluation Phase was concluded the process transitioned again into the Analysis Phase. Because of this evolution, some of the changes that have occurred as a direct result of implementation of the Assessment Plan are:

- Entrance requirements
- Preadmission testing
- Preadmission student preparation
- Curriculum changes
- Testing
- Instructional methodologies
- Assignments
- Software additions

The Allied Health Sciences Division members continue to support the fact that no part of the process is mutually exclusive. All are very closely intertwined and are performed continuously, and at times, simultaneously.
SECTION IV: ASSESSMENT AT THE COURSE LEVEL  
NMC CD: Annual Reports\Course Assessments

After training, NCMC instructors have learned that “course assessment” is more than simply assigning grades. They have come to realize that course assessment is the mechanism for providing instructors with data for guiding and motivating students to be actively involved in their own learning and for improving teaching methods. Results from assessment tools provide important feedback to both instructor and student:

- Course level assessment gives the instructor essential information about what students are learning and about the degree to which learning is taking place.
- Course level assessment gives feedback to students, helping them determine to what extent course content has been mastered throughout the course, as well as at the end of the course.

NMC faculty members engage in professional development emphasizing assessment to maximize the results of course assessment. The faculty has been trained to use an evaluation system that includes Classroom Assessment Techniques, Rubrics, and Primary Trait Analysis. The three primary components of any course are the curriculum, the instructional methods used to deliver the curriculum, and the assessment techniques with which performance is evaluated. These three components are linked by the competencies set for the course. Setting competencies is foremost in course development. Once competencies are stated, curriculum, instruction, and assessment linked to them.

As part of a pilot program six North Central Missouri College courses have been assessed in the past three years. The Course Assessment Report form (which is attached) was used successfully with BA 221 Business Law and BT 130 Business Communication in the career area; MT 122 College Algebra and MT 150 Calculus in the Arts and Sciences; and NR 108 Foundations of Nursing I and NR 109 Foundations of Nursing II in the Allied Health Field. The results of these pilots were shared informally with the Student Learning Assessment Committee.

Following is a summary of the data collected in the six pilot course assessments according to the guidelines above:

1. Determined course objectives/competencies. For all six of the six pilot courses’ objectives/competencies were stated.
2. Chose appropriate classroom assessment techniques to provide feedback from students on their learning. Faculty used an average of 8.6 different assessment techniques in the six courses.
3. Examined tests used in the course and their relationship to the objectives/competencies. In an examination of the pilots, it was determined that the Course Assessment Form did not clearly ask for a correlation between the tests and the initial objectives. Therefore, this change was made in the form in the spring of 2004.
4. Examined student success on examinations and attainment of objectives/competencies. All six pilots provided data in on student learning of the
objectives/competencies. All six confirmed that course objectives/competencies were met.

5. Examined enrollment and retention data. All six pilots provided data on student enrollment and retention.

6. Considered instructional methods. An average of eleven (low 7; high 18) different instructional techniques were used in the six courses.

Diagram 5

A Generalized Model for Course Assessment and Development

![Diagram](image)

C=course competencies

Course Assessment was used to provide feedback for both students and instructors in the six courses where it was formally piloted. For the instructor, assessment helped answer the following questions:

- To what extent were students achieving the stated course competencies? Did minimum standards need realigning?
- Was course sequencing effective in promoting student learning?
- Were the prerequisites and entry levels set at an appropriate level?
- Could topics be introduced in a more effective way to enable student learning?
- What parts of this course did students find most valuable?
- How could this course be changed for next time?
- What grades did the students receive?

For students, course-level assessment provided answers to a different set of questions:

- Did the student know what is most important?
- Did the student know when they are mastering the course content?
- How could the student improve study techniques for this course?
- Did the student know what grade is being earned?
These questions and others were designed to inform and improve the quality of student learning in the course.

The following process was created to assist North Central Missouri College faculty in the course assessment process. It contains a mix of direct and indirect measures as defined on the course assessment reporting form (attached).

When more faculty are involved in course-level assessment the following process will be used, adjunct, dual credit and full time faculty will:

1. Gather and analyze data throughout the semester.
2. Fill out the course assessment report.
3. Turn in forms to the department chair, who informally summarizes results.
4. Respond to the summary at a meeting where results are shared (ex. Fall in-service) by making the appropriate curricular, instructional, and/or assessment changes. The curriculum committee, a faculty standing committee, will be involved in this process according to preset standards.
SECTION V: SUMMARY

NCMC has fully implemented its Student Learning Assessment Plan and has institutionalized student learning assessment. The standing Student Learning Assessment Committee directs the campus-wide, on-going implementation of the plan. Since its implementation, the college is focused on confirming or improving student learning. It closes the essential student learning assessment loop through consideration of the results when developing and implementing policy, strategic planning, and budgeting. The net result is that the success rate of 2002 full-time degree seeking students at NCMC was the highest percentage of all two-year public institutions in Missouri. NCMC will continue to shape its assessment plan as part of an ongoing and evolutionary process.

Each instructional division initially wrote and annually revises the Student Learning Assessment Plan. The Arts and Sciences Division incorporated into its plan the assessment of the Coordinating Board for Higher Education (CBHE) General Education Goals. The Vocational and Technical Education Division and the Allied Health Sciences Division incorporated into their plans the assessment of the Department of Elementary and Secondary Education – Division of Vocational Education Sub Indicators. Since implementation, the results confirm student learning in some areas, and need for improvement in others. In all cases, a Plan of Action was developed and implemented with varied success.

North Central Missouri College also engages in Course Assessment. After training, NCMC instructors have learned that course assessment is the mechanism for providing instructors with data for guiding and motivating students to be actively involved in their own learning and for improving teaching methods. Both formative and summative evaluations provide feedback to instructors and students for improving the quality of student learning in the course.

NCMC has fully implemented its Student Learning Assessment Plan, has institutionalized student learning assessment, and will continue to shape its assessment plan as part of an ongoing and evolutionary process that optimizes learning.
<table>
<thead>
<tr>
<th>NCMC ASSESSMENT CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOLDER: Annual Ancillary Reports</td>
</tr>
<tr>
<td>FOLDER: AA Graduate Follow-Up</td>
</tr>
<tr>
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Assessment Vocabulary

SLAM and SLAP