

BISMARCK STATE COLLEGE
LEARNING OUTCOMES ASSESSMENT

SUMMARY REPORT FOR 2003-2004

ACADEMIC ASSESSMENT COMMITTEE
JANE SCHULZ, COORDINATOR

April 2004

Assessment activities continued into and throughout the 2003-2004 academic year. Assessment efforts focused on the established processes for occupational program assessment and with the continuation and refinement of general education assessment.

The development of the Four-Year Plan for general education assessment was an important result of the previous year's committee activity. 2003-2004 is the second year of the assessment plan cycle and focused on twelve assessable outcomes. Critical thinking was also assessed through the administration of the CAAP Critical Thinking standardized measure from ACT.

As a result of changes in the college's administrative structure, Dr. Jane Schulz became the new assessment coordinator and assumed her duties in March 2004. Dr. Janelle Masters is recognized for her service to the assessment committee and for her dedication for improving assessment processes on campus.

Critical Thinking Test

The CAAP Critical Thinking test was administered in six classes in the spring of 2004. Fifty-seven students (sophomore level) completed the test. The results of the test show that BSC students achieved a mean score of 62.4 while the national mean was 62.1.

Sophomore students in two-year public colleges across the country achieved a mean score of 60.5, somewhat lower than BSC students. Generally, our students fared slightly better than scored nationwide indicating that in the area of critical thinking BSC students achieved about the same, or slightly higher, scores.

Sophomore Survey

General education faculty groups had sophomore students complete the Sophomore Survey as has been done in the past. The survey is designed to secure indirect evidence of the effectiveness of general education courses. Slightly more than 100 students completed the survey. The Faculty Group Leaders summarized the findings in their respective reports. In general, students indicated satisfaction with the general education courses and felt that their experience in those courses resulted in learning and deeper appreciation of the subject matter.

Progress Report

A progress report required by the Higher Learning Commission regarding assessment activities on campus was prepared during the year, with each assessment committee member submitting information for the various sections of the report. Dr. Masters completed the final document with the significant assistance of Lynette Borjeson-Painter. The report was submitted to the Higher Learning Commission in March 2004. The report was reviewed by Commission reviewers and accepted. The following statement from the HLC Staff Analysis of the BSC Institutional Report reflects their satisfaction with the progress being made by the assessment committee and assessment activities/processes on campus:

The BSC report demonstrates that the College is cognizant of what it needs to do to improve student learning, and is committed to achieving this goal. The College's progress report describes an assessment program that is linking quality teaching and effective learning throughout the curriculum. With the leadership of the Assessment Committee, who have articulated the goal to make assessment not only systematic, but also systemic and cross-disciplinary, an assessment culture is emerging at the College. The BSC assessment process has faculty buy-in, is linked to teaching and learning, and is used to improve student learning. The College believes that it has become more learner-centered, and is focusing on what and how students learn, as the teacher engages and facilitates their learning. Although there remain areas for continued assessment understanding and growth and for including all program areas under the assessment umbrella, staff commends the BSC Assessment Committee on their achievements thus far, on their commitment to the work of assessment and to the ongoing growth of the institutions assessment processes.

Assessment Web Site

A committee consisting of Lynette Borjeson-Painter, Mike Kubisiak, Jane Schulz, and Dan Wahlman began preliminary work on analyzing and updating the assessment web site. Committee members suggested changes. The assessment web site committee will continue its work through next year with the hope of unveiling the new web site in May 2005.

Developmental Education

Developmental Reading and Writing Placement:

Bismarck State College has seen an increasing number of students whose success in beginning composition courses is compromised because they lack basic reading and writing skills. In response to this concern, a developmental program addressing writing and reading skills were established within the English Discipline in Fall 1997. The English Discipline has been involved in determining appropriate assessment processes and placement of students. When students enter Bismarck State College, ACT and COMPASS English scores are used to determine placement in classes within the English Discipline.

Reading (082) – Overview

The following ACT/COMPASS reading scores are used to place entering freshmen in reading classes. At this time, the reading course is not required but is strongly recommended for students whose placement scores indicate they would benefit from this class.

ACT Reading Score	Placement Domain	COMPASS Score
0-14	ASC 082—Effective Reading	0-67
15-20	Independent work in the Sykes Student Success Center	68-84
21-36	Successfully completed test. Any college level course may be taken	85-100

Students are evaluated at the end of the semester using the COMPASS reading test.

Effective Reading (082) – Results

Our goal with Effective Reading (082) is to improve students' reading skills to the point where they can successfully complete college level work. Because we lack the personnel to offer enough classes to cover need, 082 is not a required course, even for those demonstrating grave need, but it is recommended.

082	Fall 03	Spring 04
3 rd Week Enrollment	43	10
End Enrollment	40	8
Post-Test completers	36	6
Scored 68+ on post-test	22	5
Scored lower on post-test	14	2
Average change	4.00	11.50
Average change (excluding reversals)	11.18	14.75

Of those who took the post-test, the majority raised their scores to or beyond 68, indicating a minimal readiness for college level work.

082	Fall 03	Spring 04
% of post-test completers who reached 68+	61%	83%
% of post-test completers who scored lower	38%	33%

Since 082 is not required and since we have no classes with 082 as a pre-requisite, it is hard to judge its effectiveness except through pre- and post-test performance and commonsense.

College Writing Prep (087) – Overview

The following ACT/COMPASS English scores are used to place entering freshmen in composition classes.

ACT English Score	Placement Domain	COMPASS Score
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0-14	ASC 087—College Writing Prep	0-42
15-18	English 110/105 + 088—Composition Lab (Classroom)	43-74
19-21	English 110/105 + 088—Composition Lab (Web based)	75-85
22-36	English 110/105	86-100

Students whose ACT/COMPASS English scores require ASC 087—College Writing Prep are evaluated at the end of each semester using a post-course COMPASS test in writing.

Based on their writing skills in the class and the exit exam, students progress to Composition 110. The exit COMPASS score indicates whether students will be required to take a supportive grammar lab and through which medium the lab will be received (classroom or web-based) or if their exit score falls between 86-100, supportive grammar instruction is no longer required.

College Writing Prep (087) – Results

Our goal for 087 is that completing 087 will raise students' skills to the level where they are prepared to succeed in English 110.

087	Fall 03	Spring 04	Summer 04
3 rd Week Enrollment	149	42	8
End Enrollment	129	33	5
Post-Test completers	111	22	5
Scored 43+ on post-test	90	18	4
Scored lower on post-test	6	2	0
Average change	35.47	28.95	32.25
Average change (excluding reversals)	36.65	31.30	32.25

Of those who took the post-test, the majority, with remarkable consistency among semesters, raised their scores to or beyond 43, which is the minimum score we have set to qualify for English 110.

087	Fall 03	Spring 04	Summer 04
% of post-test completers who reached 43+	81%	82%	80%
% of post-test completers who scored lower	5%	9%	0%

As a snapshot of the effectiveness of College Writing Prep, we can compare the English 110 success rate (C or above) in Spring 2004 of the students who were required to take 087 with the 110 success rate in Spring 2004 of the students who were not required to take 087.

110 Success	Spring 04
087 students	80.00%
Non-087 students	78.97%

College Writing Prep 087 students overall had slightly better success in English 110 than their classmates who were placed directly into English 110, indicating that College Writing Prep effectively prepares students for success in English 110. College Writing Prep provides a positive initial experience in a writing course for students who enter BSC without the skills necessary to successfully complete English 110. More than that, post-test results (COMPASS) combined with English 110 success rates suggest College Writing Prep effectively elevates the writing skills of initially under-prepared students.

Composition Lab (088) – Overview

As indicated in the table above, students may also be placed directly into English 110 but be required to take an accompanying grammar and usage lab either in a classroom or through a web-based program, depending on their scores (see the table above). Students must pass an end-of-course diagnostic test in order to pass the course. Students who are required to take the lab must successfully complete the lab in order to pass English 110.

Because the Composition Lab is a companion to Composition 110, the English Discipline has not systematically tracked student performance in the Composition Lab with pre-and post-testing, but this is part of the plan for future lab assessment.

Professional Development Activities

Dr. Wayne Boekes attended sessions on assessment at the Annual Convention of the NCA Higher Learning Commission in Chicago and at the American Association of Community Colleges meeting in Minneapolis.

In February 2004, five mathematics instructors (Art Rude, Mike Kern, Linda Tonolli, Jeff Skibicki, Don Bigwood) attended “Using Assessment to Improve Your Curriculum” sponsored by the North Dakota Mathematical Association of Two Year Colleges.

Assessment Achievements

- Nearly all faculty are involved in assessment activities.
- A mix of direct and indirect measures are used.
- Program assessment is well-established and effective.
- The development of the Four Year Plan for general education assessment has provided a systematic cycle of assessment activities.
- Many rubrics have been developed that can be used in a variety of disciplines.

- Changes were identified from assessment activities that improved disciplines and programs.

Goals for 2004-2005

- Continue the development of rubrics.
- Look for ways to ensure that we are “closing the loop.”
- Complete a mid-point evaluation of the Four-Year Plan for general education.
- Streamline some processes to make assessment manageable and useful.
- Continue to update the assessment website.

Faculty Group Reports

The Faculty Group Reports included in the following pages are summary reports only and do not include information from appendices, assessment forms, or explanatory graphs or charts. The full and complete Faculty Group Reports are on file in the office of the Assessment Coordinator.

Broad-Based Assessment of Arts & Humanities at Bismarck State College

Introduction

The Arts & Humanities Assessment Group first began discussion of Broad-Based Assessment during the Spring Semester of 2003. Faculty discussed the type of question needed to accommodate such a broad group and the problems our group would face. Communications within the group continued via e-mail. Various questions were proposed and the group was asked to make a decision on a question during Faculty In-Service Day (Fall 2003). More concerns arose at that meeting and a subcommittee was formed to move the process forward. The subcommittee included Ryan Pitcher and Tom Porter to assist the group leader. Meetings were held over the Fall semester. The subcommittee met and developed “the question,” the cover sheet, the PTA, and the *How to Write an Essay* page. (A special thanks to AnnMarie Kajencki for her English expertise.) Faculty were advised as to the final plan and implementation took place in the Spring 2004 semester.

The Process

The Arts & Humanities Group was asked to assess five objectives within the General Education Objectives according to the Four-Year Plan for Broad-Based Assessment. All General Education classes within the Arts & Humanities Group were assessed. Faculty included the essay as part of their graded curriculum. Students were given a cover/information sheet, scoring rubrics, and supplementary writing information.

The question developed by the subcommittee is as follows: *Demonstrate or identify a concept/topic from this course that has changed your knowledge and appreciation of human cultural tradition.* The committee felt it was flexible enough for each discipline. Faculty were encouraged to replace the phrase human cultural tradition with something pertinent to their discipline. The Rubric page and the How to Write Essay pages were made available to the faculty for pick up at the office of Marge Windhorst. The cover sheet was e-mailed to all faculty for any editing they required.

Selection of Students

All students within the General Education classes in the Arts & Humanities Group were given the assessment essay assignment. The sophomore students were selected for the official assessment. There was an issue of duplication as well, because some students were in more than one A & H class. As group leader I separated those duplications. The total number of students assessed was 371.

Results

Five objectives were assessed. The first objective was a combination of 3 and 4: *Know, understand, and appreciate the human cultural tradition.* 89.7% of the students assessed scored 3 or above on the 4 point primary traits analysis (PTA) scale. The second objective was *Express ideas effectively through writing.* 85.9 % of the students assessed scored 3 or above on the PTA scale. The third objective was *Use computer technology to access, retrieve, process, and communicate information.* 92.7% of the students assessed scored 3 or above on the PTA scale. The fourth objective assessed was *Think independently in creative tasks.* 82.5% of the students assessed for writing scored 3 or above on the PTA scale.

Responses of Faculty to Our Broad-based Assessment

The response from the faculty was generally positive. Each faculty gave the assignment a 5-10% grade value and administered it toward the end of their spring semester. The question was adapted by each faculty to fit their discipline. One faculty responded: “we should clarify the question and give it just a bit more structure” but felt that it worked well this first time. This will give us a place to start for the next cycle of broad based assessment in 2005-2006. The faculty response to the results was mixed. Although the results look good on paper, the faculty felt there was room for improvement. The overall consensus was to improve on critical thinking as well as continued use of writing assignments within each course.

Assessment of the Business, Math, Science and Technology Component of General Education: A Summary Report

This report is prepared biannually based on Bismarck State College's four-year assessment plan. The introductory material remains the same from year to year and is provided to familiarize a first time reader with the assessment process at BSC. In an effort to accommodate those readers that are already familiar with this report, I have included material from previous reports in italics and material new to this year's report in standard type face.

This year the general education courses taught in the business disciplines are included in this faculty group's assessment report. The group title has been changed throughout the report to reflect this change.

Introduction

The Business, Math, Science and Technology (BMS&T) faculty group for assessment includes all full-time faculty members teaching courses that qualify as general education courses. There are several adjunct faculty members in BMS&T that teach general education courses as well. The adjunct faculty members are being introduced to assessment and will be participating in the process. The full-time and adjunct faculty members currently participating in assessment are listed in Appendix 1.

The courses in BMS&T general education are quite varied and numerous (Appendix 2). Despite their differences, students must gain knowledge of and practice using analytical thought processes to succeed in these courses. Once the essential competencies were identified, the process of choosing accurate measures of those competencies and the process of data collection was initiated. This is a work in progress. There will not come a time when no improvement is desired, where every student is successful, or where every principle of our coursework is fully understood by our students. Long before assessment of student learning was practiced, the faculty members in the BMS&T were student oriented and learning focused. Assessment of student learning is a tool to help faculty members in their commitment to their students by refining their strengths and by identifying areas for improvement.

This report describes the competencies identified as essential to student learning by BMS&T faculty, the assessment measures currently being used by BMS&T faculty and the matrices we use to document assessment in BMS&T. The findings of the assessment of students during the school year will be specifically identified and general observations discussed.

Selected information from earlier summary reports, compiled from the years since the assessment of student learning formally began at BSC are included in Appendix 8, Historic Information, so a record of improvements and observations are available for faculty who are new to the BMS&T faculty group. Appendix 10 is designed as a "how to write a summary" guideline for incoming faculty group leaders in BMS&T.

This document will be submitted to the Dean of Faculty, Jane Schulz, for inclusion in the annual report. It will be available for any interested individual upon request. Copies are held in the offices of the faculty group leaders for BMS&T.

Competencies in Business, Math, Science and Technology

Early in the assessment process at Bismarck State College, many faculty members from BMS&T identified core competencies shared by disciplines that fall under the heading of Business, Math, Science and Technology general education. The competencies for BMS&T come from the students' need to have theoretical and practical knowledge of analytical processes.

These core competencies for the business areas were not available though critical thinking was identified by this faculty group as a core competency for all disciplines.

Student competency in critical thinking/ problem solving was considered essential to all courses in BMS&T. Technologies used in the courses are varied, yet all faculty members were able to identify a specific technology competency as essential to the courses they taught. Competency in math and/or science was central to all BMS&T courses. Specific aspects of these competencies were identified as subcompetencies and are listed in the Competencies/Objectives column on the Business, Business, Math, Science and Technology Assessment Plan Matrix (Appendix 3) and Faculty Group Assessment Report Matrix (Appendix 4) for BMS&T.

Assessment Measures

Each professor has his or her own style and forte. These differences are respected and evident in their choice of assessment measures. Creativity and innovation are encouraged. Faculty members use the measures they feel give the best information about the level of learning achieved by their students.

Where several faculty members teach different sections of one course that incorporates a common syllabus, has common course content and where specific areas of focus are identified, locally developed tests are used as the assessment measure to reflect learning across the field of students enrolled in the course.

The variety of measures used by BMS&T faculty members is listed on the Multiple Measures Matrix discussed in the next section. Specific measures are listed on the Faculty Group Assessment Report Matrix (Appendix 4)

Matrices used in BMS&T

Several matrices were developed to arrange information into a common format that would clearly identify competencies, measures, the results of the semester's assessment effort and planned changes to improve learning. Information from these matrices is compiled for the summary reports and the annual assessment report. It is realistic to expect some refinement of these matrices to fit our needs as we develop and improve our assessment process.

The Business, Math, Science and Technology Assessment Plan Matrix (Appendix 3) for general education provides a format to attach general education objectives to the competencies identified by the BMS&T faculty group. Assessment methods are discussed in general terms and a schedule of implementation is included.

The Faculty Group Assessment Report Matrix (Appendix 4) includes results gathered by all BMS&T faculty from their assessment measures. The results are identified by course and changes planned to improve learning are listed.

The Multiple Measures Matrix identifies the types of measures used by each faculty member for each course they teach. The Multiple Measures Matrices for all BMS&T faculty members are on file in the BMS&T faculty group leaders' offices. Faculty members keep a copy of their own matrix.

The Composite Multiple Measures Matrix (Appendix 5) identifies the variety of measures used across all BMS&T faculty members. A copy of this matrix is also held in the BMS&T faculty group leaders' offices.

The General Education Curriculum Matrix is specific to each instructor. The matrix describes the major focuses of the course, secondary concepts for the course and skills practiced by the students for success in the course. A copy of each instructor's matrix is held in the BMS&T faculty group leaders' offices. Each instructor retains a copy of his or her own matrix.

The Composite General Education Curriculum Matrix (Appendix 6) is a tool that indicates major, secondary and practiced areas of study across the entire curriculum. Copies are held in the BMS&T faculty group leaders' offices and by the Assessment Coordinator.

The Assessment Process in BMS&T

Direct Measures

Assessment is new for some faculty in BMS&T. We are still developing a process and experimenting with various measures and matrices. It is a learning experience for all of us. Presently, faculty members are using embedded assessment measures to evaluate student learning. These measures are scored using traditional grading and PTA scales. All faculty

members submit the scores on their PTA scales to the faculty group leaders. This data for each course is stored in the faculty group leaders' offices. The faculty group assessment report is generated from these data.

In April 2004, BSC had a sample (n=57) of sophomore students take the CAAP, College Assessment of Academic Proficiency, exam for Critical Thinking. The results were not reported by general education group and are addressed in the institutional report.

The observations noted by the faculty group leaders during the writing of the summary report are mailed to the faculty over the summer so appropriate changes to coursework and syllabi can be made prior to the next school year.

The faculty group meets to discuss the results and changes planned to improve learning identified in the report on the first in-service day of the next school year. Accuracy and participation is highly valued in the BMS&T group. Any additional insights and comments resulting from the discussion are included as an amendment to the final draft of the faculty group report and submitted to the Assessment Coordinator.

In 2003-04 the report was completed later in the year and the results were not mailed out to faculty. The results were discussed with the faculty group in early October prior to the completion of the report and the comments from that discussion are included under the heading, What We Learned from Assessment in 2003-04, to follow.

Indirect Measures

The results of the Spring 2004 Sophomore Survey were very favorable for the Math, Science and Technology courses that fall under this general education faculty group. The survey asks students if their confidence, ability to use and understanding of these areas have improved, stayed the same or declined at BSC. In all areas Math, Science and Technology courses have contributed positively to student learning. There were no areas where a deficiency was reported. No results are available for the business disciplines in this survey.

Copies of the most recent Sophomore Survey are on file in the faculty group leaders' offices.

Analysis of the Assessment Results (Math, Computer Science, and Accounting)

The results of the course-imbedded assessments in the mathematics courses yielded no major surprises. As we discovered in last year's broad-based assessment, analyzing graphical information is a weakness of many students, but most are comfortable and quite proficient in the use of technology (graphics calculator).

Improvements were found in the skills of limit evaluation, differentiation, and integration in the calculus classes. However, in the applied calculus classes, some students were deficient in understanding the concept of natural logarithms and exponents and more work needs to be done in the area of integration.

It appears that the mechanical manipulations of equations and data are not as much of a problem as the interpretation and analysis of the information. In statistics, for example, if the student could identify the proper parameter, the calculations were not as much of a difficulty as interpreting the results. Some instructors found success in the use of group work and assigned projects.

In the computer science courses, the main problem students have is actually taking the time to practice and apply the applications or construct the code for a computer program. Students in the introduction to computers courses also need to spend more time actually studying the basic computer concepts.

To continue to improve instruction, we are increasing the emphasis on areas where students tend to be the weakest, and we continue to use the methods that have worked well in the past in addition to trying out new ones. The key is to get the students to learn by doing, whether it be solving an application, creating a spreadsheet, or developing a software solution (writing a program). Instructors have been using many different teaching techniques in order to address the variety of learning styles found in each classroom. The assessment tools used have varied as well.

What We Have Learned From 2003-2004 Assessment of Learning

This year's results are enlightening, discouraging and at the same time positive. We have discovered a flaw in our process that has been reported to the Dean of Faculty and the BSC Assessment Committee. It will be the topic of much discussion in the year to come and this discussion will pave the road to a better, simpler and more valuable assessment process.

The quality of the assessment process in the BMS&T general education area plummeted this year. This was terribly discouraging. Many errors, procedural and technical, were evident in the PTA's turned in by faculty. There was a noticeable increase in faculty not assessing their courses at all or only assessing one competency instead of the required two. Attitude and enthusiasm for assessment as a valuable tool is at an all time low. This group has historically been compliant and interested, as best they can be in their busy schedules, in producing quality assessment measures and accurate results. The 2003-04 assessment did not reflect this former willingness and attention to detail. I do not think this is the result of 'the blush coming off the rose'. It is not due to faculty fatigue or complacency. I believe, as does the group, that the problem lies in the alternation of course-embedded and broad-based assessment and the loss of continuity in the process. Neither course embedded nor broad-based assessment will bare the valuable fruit they are intended to produce when a full year passes between the time the lessons learned and when they can be applied.

The faculty were just beginning to find a rhythm and familiarity with the course-embedded process but assessment had not yet become a part of the fabric of their thought process surrounding the planning of new and ongoing activities in their courses. The effort put forth in the 2002-03 broad-based assessment helped them to refine their thinking about assessment and generated good discussion about assessment but the drawback was it took the focus off course embedded assessment resulting in low quality, last minute measures and equally low quality reporting of results in the 2003-04 cycle. It appears the process was an afterthought.

The faculty group met infrequently during the 2003-04 year as it was a 'course-embedded' year and there was less to discuss as a group. The faculty were not reminded until late the semester to collect assessment data and prepare their PTA reports. The relaxed frequency of assessment reminders contributed to the overall low quality of the assessment process.

A potential solution to this problem would be to have faculty present the competencies they intend to assess and the measure and rubric they have developed to use for each class at a faculty group meeting in the first or second month of the semester. The work would be done early and the faculty could get valuable feed back from others. New faculty could gain a greater understanding of the process through the examples of more seasoned instructors.

This solution would require a change to the Assessment Plan, Appendix 3.

The students performed well on the assessment tasks assigned in most cases. The results are reported in Appendix 4.

Faculty Group Report

2003-2004

The Communications Faculty Group

Introduction

In 2003-2004, the Communications Faculty Group at Bismarck State College completed its assigned assessments are part of year two of the Four-Year Plan for Broad-Based Assessment of General Education. We were assigned to assess seven of the 24 assessable outcomes of our General Education Objectives. These assessable outcomes were as follows:

- 12 – Understand and use the writing process.
- 14 – Understand and use a process in developing a speech.
- 18 – Develop and follow a research strategy.
- 19 – Apply the information found through research.
- 20 – Use computer technology to access, retrieve, process, and communicate information.
- 21 – Think critically.
- 24 – Think independently in interpretive tasks.

In addition, we wanted to see what we would learn from a pre- and post-course assessment activity in English 110, examining improvement in students' writing by the end of the course.

The English faculty worked to develop rubrics for several of the assessable outcomes, including the seven we were to assess. The Speech faculty worked to develop rubrics for the two outcomes dealing with speaking and the two outcomes dealing with listening. Our hope is that these can be used by other disciplines in assessment activities. If nothing else, these common rubrics will offer a starting point for whatever more specific rubrics need to be developed.

The Assessment Process

The Communications Group was responsible for assessing seven intended outcomes during Spring 2004, according to the 4-Year Plan. English 120 and 125 sections did similar research/presentation projects (approximately 300 students). Our efforts were concentrated in English 120 and 125 because these are often the last writing course that our students take; however, most students do not take these courses in their last semester at BSC. Speech courses were not assessed, but the Speech faculty worked to develop rubrics that could be used in the future to assess speech and listening objectives in courses across campus.

In addition to the assessment activities in 120 and 125, our English 110 classes had each student write in-class essays at the beginning and end of the semester to assess students' progress in writing. The topic for the pre-course essay was "What do you hope to learn in English 110." It was to be a well-formed essay, but could be of any type, including a personal narrative. The topic for the post-course essay was similar: "What did you learn this

semester in English 110.” The essays were assessed by each instructor, based on a common 4-point PTA scale (rubric). Seven instructors participated, assessing 126 students in nine sections.

English 120 (College Composition II) is based on writing about literature. It uses literature (and film) and its analysis as the focus for teaching skills in writing, argument and support, analysis, observation, critical thinking, interpretive thinking, and research. English 125 (Introduction to Professional Writing) is an alternative to English 120, and it is based on writing for the workplace. The educational objectives of the course focus on writing, reading, researching, and working with other people. For each of these course objectives, the emphasis is always on how the skills apply to a professional setting. Most of our assignments are typical of a business and technical writing course: summaries, resumes, business letters, memos, emails, short reports, instructions, etc. We emphasize the need to analyze the audience and purpose of any writing task before developing a strategy. The course still seeks to teach skills in writing, argument and support, analysis, observation, critical thinking, interpretive thinking, and research.

A caution needs to be noted here: many of our students take these classes in their second semester, so this is not intended to be the definitive measurement of the abilities of our exiting students. But if we were to limit our investigation to only those students in their last semester of study, it might skew the results, since it is often the more reluctant writing students who are taking these classes in their last semesters.

With appropriate variations for the course or the instructor, the projects were designed for students not only to learn and practice the seven intended outcomes, but also to demonstrate their mastery of those outcomes in a way that can be assessed validly.

Also there is some obvious overlap in the skills being assessed. For example, in order to use and assimilate research source material, students need to use critical thinking and interpretive thinking skills. Choosing sources involves evaluation, while using sources gracefully is closely connected to writing skills.

Assessment rubrics are used for each of the seven outcomes. The faculty worked together to develop workable rubrics, but an element of this project was that students analyze the demands of the assignment and develop rubrics for various parts of it.

The flow of the assignment goes like this:

- Groups of students chose (or were assigned) a topic to research.
- Each student began research with help from the instructor, librarians, etc. Students were required to use some computer technology to research (maybe at least one web site, at least one article from licensed resources).
- The groups regularly discussed their progress. Members of each group helped plan the best ways to research, analyze, and present the information.
- At appropriate points along the way, students analyzed the demands of the assignment and developed evaluation rubrics for various parts of it.
- Each student kept a log of their progress in research and planning for the presentation and paper. Early in the process they developed a working research plan and submitted that, complete with dates that various tasks need to be accomplished.
- Groups gave their presentations to the class.

- Each student turned in a paper (using research for support), with prewriting, outline, and rough drafts required during the process.

Required elements include a research plan, an annotated bibliography, student-devised rubrics, the log of planning and research, the oral presentation, and the paper (complete with outline and rough draft due and reviewed along the way). Elements were assessed based on common rubrics, or appropriate modifications thereof.

The outcomes assessed by Communications during Spring 2004 are as follows:

Understand and use the writing process (12)

- Use the stages of the writing process (inventing, planning, drafting, revising, editing, and proofreading) to develop, organize, and present ideas in writing
- Participate effectively in peer editing of written work, responding productively and respectfully and being open to the ideas and suggested revisions of others

Understand and use a process in developing a speech (14)

- Develop, organize, and present ideas in a formal or informal speaking situation
- Participate effectively in peer editing of oral presentations, responding productively and respectfully and being open to the ideas and suggested revisions of others
- Analyze the demands and possible strategies of a speaking situation based on the topic, purpose, audience, and occasion

Develop and follow a research strategy (18)

- Find and consult a variety of research sources
- Formulate and refine a researchable question
- Evaluate the relevance and reliability of sources

Apply the information found through research (19)

- Draw conclusions based on information and ideas found through research
- Use sources ethically and honestly, preserving the meaning of the source, avoiding plagiarism, and documenting the use of the source in the style appropriate for the student's discipline or field
- Integrate source material smoothly and clearly into the student's own communications

Use computer technology to access, retrieve, process, and communicate information (20)

- Interpret data collected or generated by technology and equipment
- Use appropriate technology to communicate information effectively
- Recognize the responsible and ethical use of technology

Think critically (21)

- Analyze and interpret results or outcomes of investigation and draw reasonable conclusions from the analysis
- Provide reasoned support for beliefs or ideas
- Recognize and analyze arguments that support theories and perspectives other than their own
- Follow and give directions, whether written or oral
- Analyze content, discover meaning or significance, draw conclusions, and make an assessment

- Compare and evaluate opposing arguments or ideas
- Distinguish between fact and opinion

Think independently in interpretive tasks (24)

- Develop an independent interpretation of information, ideas, concepts, actions, trends, and/or works, based on evidence and appropriate methodology
- Draw conclusions based on the interpretation

The 2003-2004 Assessment Experience – Results

Direct Measures (Broad-Based Assessment in English 120 and English 125) – More uniformity in results of the broad-based assessment might have been expected, since common rubrics were used for the assessments in English 120 and 125. Still our students are doing well in these seven outcomes, with 100% of students performing at 2 or above in some sections of courses. Overall, when results from each instructor are combined and totaled for each outcome, our results are as follows:

Combined Results – Broad-Based Assessment for English 120 and 125		
	% at 2+	% at 3+
12 – Use writing process	95.1	70.8
14 – Use process to develop a speech	96.4	74.2
18 – Develop & use research strategy	93.5	69.6
19 – Apply research	95.1	70.7
20 – Use computer technology to access,...communicate information	96.1	79.4
21 – Think critically	93.5	78.5
24 – Think independently in interpretive tasks	94.2	72.4

Scores of 2 or above would be considered passing. Scores of 3 or above would be considered good or very good mastery of the learning outcome.

See p. 11 for details from each instructor's efforts and p. 39 for graphs of the results.

Direct Measures (Pre- and Post-Course Essay Assessment in English 110) – Seven instructors participated in the pre- and post- course essay assessment in English 110. This represented nine sections, with 126 students completing both the pre- and post-course essays. Three other sections collect pre-course essays, but didn't follow up with the post-course essay.

Of the 126 students complete both essays, only three went down in score. Fifty-one students show no improvement in score, but 13 of those were at 4 to start and 24 were at 3 to start. Of the nine students scoring 1 on the pre-course essay, all nine improved by the end of the course, with three students improving to scores of 3.

When students' scores and improvements are totaled and divided by the number of students, there was positive gain for the students of each instructor.

See p. 42 for the full results from the English 110 pre- and post-course assessments.

Indirect Measures (Student-Generated Rubrics) – Several 120 and 125 instructors included a learning activity of having students generate an assessment rubric for one of the learning outcomes. This activity was used in different ways for each instructor.

For example, based on experiences from previous semesters, one instructor had groups of students develop rubrics for what had been the weakest aspect of the oral presentations. The hope was that having students articulate four levels of performance would help to highlight the distinction among strong, good, fair, and weak performance. Students were then able to compare their rubrics to the rubric that would be used in grading and assessment of their performance. As a result, in the instructor’s judgment, performance on this aspect of the oral presentations was improved over the previous semester (although no data was collected in the previous semester).

Another instructor used the rubric activity to get broader student awareness and buy-in to the evaluation and assessment process. Groups of students were asked to generate a rubric for overall assessment of an analysis paper, and that rubric, with two additional from the instructor, was used to evaluate the students’ papers.

Other instructors used the activity with less noticeable results, but the activity is certainly useful as an exercise in critical thinking skills like analysis, evaluation, comparison/contrast, and categorization, as well as working with others when used as a group assignment.

Indirect Measures (Sophomore Self-Assessment of Learning Survey) – Toward the end of the semester, the Student Self-Assessment of Learning Survey (see p. 44 for a copy of the survey) was administered to second semester sophomores in classes from all over campus at 11:00 MWF. The survey asks students about their experience and levels of learning in the general education areas of communications, arts and humanities, social science, and math, science, and technology. Additionally the survey asks about the opportunities they had to study and reflect on various aspects of values while at BSC and the classes that they took at BSC that explored some aspect of diversity. The sample size was the lowest it has been in the four years that the survey has been used (108 in 2004, 186 in 2003, 277 in 2002, and 115 in 2001).

The results of the part of the survey asking specifically about a student’s learning experience in the Communications courses at BSC are summarized in the table on the next page, along with the results from the previous three years.

Self Assessment of Learning – Communications Courses				
	2004	2003	2002	2001
Percent Claiming Higher or Much Higher than before BSC				
Ability to express myself in writing or speaking	63	67	60	75
Ability to understand something I read or hear	59	62	58	65
Ability to analyze and evaluate information and draw conclusions	68	74	64	75
Ability to think creatively and independently in interpreting information	65	73	64	75
Percent Claiming High or Very High				
Enjoyment of subject in high school	29	35	32	36

Percent Claiming Greater or Much Greater				
Enjoyment of subject at BSC	47	47	43	50

These results for Communications classes are closest to 2002, when we had the largest sample (see p. 50 for the Summary of Results for Communications). These results can't be explained.

On the portion of the survey dealing with the study of values, the results for Communications are comparable to previous years. The results for Communications are included in the table below.

Values Experience in Communications Courses (percent claiming such experience in Communications Courses)				
	2004	2003	2002	2001
Came to an appreciation of the subject	24	25	27	30
Came to a sense of the intellectual and cultural context in which people form their values	25	24	28	24
Had the opportunity to deal with my own values and the values of others	34	33	37	39
Had the opportunity to express my values within the community of the classroom and experience others expressing theirs	50	47	47	52

In the list of classes at BSC that provided opportunities to explore various aspects of diversity, Communications courses appeared with regularity, even English 125, which didn't make the list in some years (see page 53 for the results for Communications and for Values and Diversity).

Changes Planned to Improve the Assessment Process

One thing that we had intended to do this year was to investigate whether or not we need to achieve great uniformity in our application of assessment rubrics. Last year's results from using the same rubric to assess writing on similar assignments delivered widely varying results. Again this year, using common rubrics on similar assignments, we came up with varied results for our students. Perhaps our students' performances are this varied, but we should rule out any inconsistency or irregularity in the application of rubrics.

As a campus, we need to address the learning objectives dealing with values and diversity. The Communications faculty needs to participate in this process, including the development of workable rubrics for these objectives.

Finally in 2004-2005, we are suppose to shift back to course assessment, according to the schedule of the 4-Year Plan. We considerable turnover in English and new adjuncts in both English and Speech, we need to learn and relearn the course assessment process.

Changes Planned to Improve Learning – in the Courses

We should expand our use of student-generated rubrics as a way of helping students understand the demands of an assignment. Not only does it expand students' awareness of

what is expected of them, but it also gives students practice in critical thinking. English has used this activity now in a variety of ways with good learning results, and the use of student-generated rubrics should be expanded across campus, particularly when faculty groups are charged with assessing a learning outcome that is considered cross-disciplinary.

We continue to be puzzled by what we consider to be a poor showing on the Sophomore Self-Assessment of Learning Survey in the section of values and diversity. Communications classes should shine in these areas, but we don't. We need to redouble our efforts to highlight the aspects of our course that deal with values and diversity. Also the Campus Read program, and the broad participation of the English courses, should help to raise awareness of both of these important learning objectives for our students.

As in past years, our biggest challenge as a Communications faculty is to help students understand that the communication skills and habits they have learned in our classes need to be applied to all aspects of their lives – academically, professionally, and personally. And our efforts need to be supported across campus by courses in other disciplines making use of assignments that make use of the speaking, writing, reading, listening, and research.

Communications Assessment

Full-Time Faculty – 2003-2004

Stefka Atanasova – Writing
Barb Cichy – Speech
Carol Cashman – Speech
Julie Eikamp – Writing
Julie Gard – Writing
AnnMarie Kajencki – Writing
Kitty Netzer
Jaclyn Raw – Writing
Dan Rogers – Speech
Jane Schreck – Writing
Lynn Severson – Writing

Adjunct Faculty – 2003-2004

Cindy Anderson – Writing
Jenny Buell – Speech
Lori Ell – Writing
Dennis Haney – Speech & writing
Amy Juhala – Writing
Traci Juhala – Writing
Ardyce Ketterling – Writing
Suzy Kramer-Brenna – Writing
Sherry Omlid – Speech
June Prom – Writing
Jeanne Prom – Writing
Russ Riehl – Speech
Jack Ryan – Writing
Jan Schultz – Writing
Carolyn Twingley – Writing
Chara Wangen – Speech
Nicole Welder – Writing

Communications Courses – 2003-2004

Speech 110 – Fundamentals of Public Speaking
English 110 – College Composition I
English 120 – College Composition II
English 125 – Introduction to Professional Writing

SOCIAL SCIENCE ASSESSMENT GROUP

The following report summarizes the results of both the direct measure of course-embedded assessment and the indirect measure of the Sophomore survey in the Social Science group .
COURSE-EMBEDDED ASSESSMENT

Faculty in the Social Science area assessed several different traits in a variety of manners. For instance, an instructor in the psychology department used a novel to determine the student's levels of knowledge, critical thinking and independent thinking. The students were assigned the novel as a reading project and then asked to complete an activity that was assessed. The results showed the students doing very well in all areas, with the instructor specifically wanting to improve on the student's ability to critically think about the gained knowledge and have the ability to apply it as well.

Two faculty members, one on-line and one on-campus completed the same assessment activity in social problems. The students were asked to read an article in the book entitled, "An Interview with a Former Racist Skinhead," they were then asked to use their sociological imagination and compose an essay that applied the three basic sociological theories to the information in the article. Both instructors were pleased with the results, but the on-campus and on-line students scored lower than desired in critical thinking and independent thinking. These results revealed that both of the lacking areas need to be addressed in a more thorough manner. Suggestions were made to increase the number of similar activities to raise the level of critical and independent thinking. Plans for the next semester were made to reflect this.

In the political science arena the students were asked to pen an essay to determine their knowledge of how to be a good citizen (interpretation). The majority of students, 94% attained a score of a two or more on a four point rubric, however, the instructor would like to raise that percentage and will be emphasizing this material more in the future.

In criminal justice a pre and post test was utilized with revealing results. The pre-test showed 48.6% scoring a two or more; the post-test showed 100% scoring a two or more. The results show a marked improvement in the ability of the students to interpret the U.S. criminal justice system.

From the above scenario's we see there are a variety of assessment methods being utilized in the Social Sciences with all of them contributing to changes that will be made in instruction in the future, or reinforcing methods already incorporated into the course.

For a full break-down of all completed assessments please refer to the charts.

SOPHOMORE SURVEY

Results of the Sophomore survey showed average results in regards to the student's self-assessment in regards to the social sciences. In the assessment of values and diversity the following results were reported for each question/statement:

- “an appreciation of the subject they were studying”, 46.7% felt they had gained an appreciation
- “came to a sense of the intellectual and cultural context in which people form their values” was 54.8%, the highest of any academic area,
- To the statement “had the opportunity to deal with my own values and the values of others”, 52.4% agreed, again, the highest of any academic area,
- “had the opportunity to express my values within the community of the classroom experience”, 40% agreed

An analysis of these results shows that we scored around 50% in most areas, this seems low, and the results will be shared with the Social Science faculty and appropriate measures will be taken to attempt an increase in the appropriate areas.

Results of the Social Science segment of the Arts, Humanities, and Social Science Sophomore Survey are as follows:

- “my level of knowledge about the subject matter covered in the Social Science courses I took”, results showed 20% saying it was “much higher than when they entered BSC”, 53.3% saying it was “higher”, and 26.7% “about the same”.
- “my understanding of the different perspectives and methodology used in the Social Science subjects I studied at BSC”, results showed 21.9% reporting “much greater than it was when I entered BSC”, 51.4% saying “greater”, and 26.7% “about the same”.
- “my ability to think through and draw conclusions about the value and significance of the various social/cultural phenomena covered in the Social Science courses I took at BSC”, results showed 21.9% saying “much greater”, 52.4% “greater”, and 25.7% saying “about the same”.
- “my level of enjoyment of the subject matter covered in the Social Science courses I took at BSC” results showed 21% saying “much greater”, 39% “greater”, 35.2% “about the same”, and 4.8% “less than it was when I entered BSC”.

Analysis of this survey shows average results.

The Social Science group will focus on broad-based assessment in the 2004-2005 school year. During that time we will also update our Composite Matrix and other documentation needed to keep our group up-to-date on assessment.

Program Assessment

Prepared by: Daniel Wahlman

The program assessment here at Bismarck State College is an ongoing process involving students, instructors and members from industry. All vocational programs utilize an advisory committee made up of industry leaders from the surrounding community. These individuals take on the responsibility of developing curriculum and directional focus of the programs offered at Bismarck State College. Along with their focus and guidance, program assessment is also used to identify areas of concern and accomplishments of student learning.

This report is a compilation of post assessment reports prepared and kept on file by the individual faculty, and the lead program leaders.

I would also like to make a note that beginning in the academic year 2004-2005, it was recommended and approved to reorganize the structural support of program assessment here at Bismarck State College. We will now begin organizing programs according to the CIP numbers, with a lead advisor in each group. This should eliminate some of the confusion created by multiple people getting finished reports.

Program assessment summaries

Farm Management Education

Approximately one third of the surveys sent out to students were returned. This is an improvement over the past years. The surveys indicate that overall satisfaction on the part of the vast majority of all students

enrolled in the Farm Management Education program at Bismarck State College, is increasing. 98% of the responses indicated average, above average or excellent quality of education in the areas included in the survey. 1% indicated they would like more help in tax management and developing a marketing plan. This is a great improvement over last year where over 7% had indicated the same request. Only 1% of the responses indicated N/A or that the area of education in question was not covered.

These areas will be emphasized more in instructional visits as much as possible.

Individual averages associated with our survey were: 46% of the responses indicated superior, 35% above average, 17% average and 1% below average. 1% indicated that it was not applicable to their current areas of specialty.

Air Conditioning, Heating and Refrigeration Program

Program assessment was conducted using a new telephone survey of completing students. Of the 22 students that completed 2003-2004, 16 students have entered into the industry field, 4 have returned to further education, and 2 have not entered into the industry.

Of the students asked about their level of satisfaction with the BSC program, students indicated a majority of satisfaction with the BSC program. 90% of students felt the educational program was above average in adequately preparing them for the field, while 8% felt that there were changes that needed to be made. Some of the changes that were suggested

were to increase the amount of time spent on wiring diagrams, and troubleshooting. Another suggestion was to make more coursework available for upgrade training and seminars.

100% of the students surveyed indicated that the job shadow was one of the most beneficial aspects of the program and recommended that it continue to be a part of the program. 75% indicated that Sheet metal is an integral part of the program and they felt they were prepared to enter the field. It was offered by several of the students that BSC should institute introduction of welding and brazing back into the program.

In response to student surveys, we are planning on increasing the amount of time spent on wiring diagrams, and are looking into additional cost and time constraints involved in welding and brazing. It is possible that we may be able to reintroduce these into the spring or summer semester.

The curriculum for both HVAC and Sheet metal is reviewed and updated every three years by the National Center for Construction, Education and research.

The program is also changing its name from Air Conditioning, Heating and Refrigeration Program to *Heating, Ventilation and Air Conditioning Program* as this title more closely matches changes being made in the industry. This has been approved and will happen at the beginning of the 2005 – 2006 academic year.

Automotive Collision Technologies

Automotive Collision technologies program again had some similarities in their assessment results. The number of returned surveys by students again indicates that a new approach may be necessary. Employer surveys also indicate that more emphasis on the areas of structural damage, mechanical and electrical components would be beneficial. A direct measure was used with the class, with 100% of students scoring above 75% on all competencies. All graduating students have met and/or exceeded the standards set by NATEF.

A new graduate survey and a new employer survey are in the process of being rewritten in hopes of getting better results on employability skills.

Automotive Technology Assessment

The automotive technology program has several goals to accomplish in 2004-2005 school year because of the assessment of the 2003-2004 school year.

Student follow-up surveys must be coordinated more closely with Career Services. This last year there was no cooperation and career services personnel refused to send the surveys in conjunction with the student placement surveys. Since that time a new Career Services personnel has been hired. They have been extremely willing to work with the program areas to collect the needed assessment data with the student survey.

Some new equipment must be budgeted for the electronics area. This will allow student to work two to an electric training board versus the current three. This is not an extremely high dollar item, but will depend on equipment budget approvals. The estimated cost will be \$8000.00.

Pre and Post tests in several areas need significant rewriting. Although all areas are reviewed on a yearly basis several of the chassis areas need more work than the others.

The ASE end of program tests no longer allow for a national comparison of our student scores to other students. They have gone to a pass/fail format which still has value but changes the use of the data for assessment purposes. We will probably be dropping the ASE end of program tests from the assessment process due to the dramatic increase in the cost of the tests. The cost has increased from a maximum of \$10.00 per student to \$50.00 per student. In our estimation this is too cost prohibitive to continue as an assessment tool.

Residential Carpentry

The Carpentry program utilizes curriculum from the National Center for Construction, Education and Research. Assessment methods include written and performance testing, student and employer surveys.

The NCCER curriculum and testing is based on national standards, competencies and objectives. The testing includes written and performance tests to assess knowledge and skill. The curriculum is updated every three years. Based on the students's achievements on the tests, it appears evident

that continued use of current methods and materials is appropriate. The student and employer surveys show that both are satisfied with the level of training provided. Given these indicators the faculty of the Carpentry program intends to continue to provide future educational opportunities substantially similar to those offered in the 2002-2003 school year.

The carpentry program also will be seeking to gain ATEF certification of its program. The certification process will begin in the Spring of 2005.

Commercial Art

The commercial art program at Bismarck State College uses a juried portfolio review for their direct measure. Select members of the industry, the commercial art advisory committee, student peers and faculty were used for the review. 92% of the reviews resulted in a favorable rating. Plans are to continue with the advisory committee to review, to improve the judging criteria and the assessment vehicle, and to keep the curriculum current with industry standards. Plans are to improve direct measures of specific classes to gain a more relevant insight into overall program assessment.

Electronics/Telecommunications Technology

The results of the graduate survey, employer survey, pre-test/post-test and PTAs were all positive, indicating no major changes are necessary.

Curriculum updates will continue as industry changes dictate. The telecommunications technology program is just finishing their first year and will develop its assessment program to begin reporting at the conclusion of this 2003-2004 academic year.

Engineering Technology Technician Program

This is a new program area with concentration in the engineering technician area. Assessment parameters are in development and should have a factual basis beginning in the 2004-2005 academic year.

Farm and Ranch Management

RECORDKEEPING/ ANALYSIS

100% successful completion of summer internship by all students enrolled.

100% completion of records and analysis for the complete calendar year by graduates in Farm & Ranch Management Program.

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys after summer internship completion.

100% of respondents indicated a satisfaction level of AVERAGE or above on student surveys after summer internship completion.

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys within one year of graduation

100% of respondents indicated a satisfaction level of AVERAGE or above on graduate surveys.

Pre-test scores accessing Recordkeeping/Analysis = 49.15%

Post-test scores accessing Recordkeeping/Analysis = 82.5%

CROP SCIENCE

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys after summer internship.

100% of respondents indicated a satisfaction level of AVERAGE or above on student internship surveys after summer internship.

100% of respondents indicated a satisfaction level of AVERAGE or above within one year of graduation.

100% of respondents indicated a satisfaction level of AVERAGE or above on graduate surveys.

Pre-test scores accessing Crop Science = 41.56%
Post-test scores accessing Crop Science = 73%

ANIMAL SCIENCE

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys after completion of summer internship.

100% of respondents indicated a satisfaction level of AVERAGE or above on student survey after summer internship.

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys within one year of graduation.

100% of respondents indicated a satisfaction level of AVERAGE or above on graduate surveys.

Pre-test scores accessing Animal Science = 40.25%
Post-test scores accessing Animal Science = 81%

AGRICULTURE MECHANICS

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys after completion of summer internship.

100% of respondents indicated a satisfaction level of AVERAGE or above on student survey after summer internship.

100% of respondents indicated a satisfaction level of AVERAGE or above on employer surveys within one year of graduation.

100% of respondents indicated a satisfaction level of AVERAGE or above on graduate surveys.

Pre-test scores accessing Agriculture Mechanics = 42.1%
Post-test scores accessing Agriculture Mechanics = 76.8%

ACTION: Continue to work with advisory committee and agricultural groups to keep curriculum in pace with industry needs.

Lineworker Program

The assessment for this academic year started off with a completer survey. The results were less than satisfactory. We spent many hours on the telephone with little or no luck in reaching many of our students. About 15%

is what we actually made contact with, all of whom were gainfully employed. Due to the excellent job market for our graduates we feel that the remaining 85% are either employed in the line worker field or by choice have chosen to go on to other things.

We also continue to pre and post test our students on the classroom content. In addition we work closely with an advisory board to keep current on industry needs. The pre/post test results show a significant improvement in what we teach, many times 90% or greater. We keep a close eye on the results to see if adjustments need to be made. Like many technical fields ours is in current change. By meeting with our advisory board biannually we keep updated on industry needs.

Power Plant/ Process Plant Technologies

These two programs are currently in the process of rewriting all assessment surveys as changes in the industry have made it necessary to better address criteria. BSC continues to analyze all classes in this area, and future assessment will better reflect changes necessary in curriculum development areas. New assessment data should be available upon the conclusion of the 2003-2004 school year.

Welding Program

The pre/post test exams, along with the competency based curriculum will show that 100% of the students have demonstrated the ability to use welding technology and the equipment specific to the Bismarck State College

Welding Program. This data will also show that the students have the ability to explain and use the equipment for welding technology equipment.

Conclusions

Although great work has been completed by faculty and staff alike to complete assessment measures in 2003-2004, it has become apparent that assessment has not been one of the major focuses in program areas. Future concerns and concentration will be necessary to better utilize the raw data that is being collected. Once collected, this data needs to be placed into a usable format to ensure that our students are gaining the most from their experiences here at Bismarck State College. It is time to analyze our data and effect change in the programs in order to make the work relevant.

With new programs beginning here at Bismarck State College, like the Paramedic Technician, Fire-fighting technology, Human services Technician program, and others, it will become necessary to institute a formal mentorship program and sustained cooperation with new faculty. Early training should eliminate most reluctance by faculty to participate. Along with the training and mentorship, this should develop into second nature habits that will become engrained into the program area.

Computers and Office Technology

Executive Summary

For the Computers and Office Technology Faculty Group, the 2003-2004 year was the second year our programs reported the results for program completers only, not anyone who completed one of our courses. Historically, any student taking any course in any program was included in the results. After much discussion last year, the Faculty Group decided a more accurate picture of our programs' assessment would be to report only those students listed as program completers by the Bismarck State College Registrar's Office. Therefore, during the summer months, we requested a list of program completers from the Registrar's Office. Our Faculty Group must wait until July as graduation applications are not all verified and processed until summer.

No significant software changes in any of our five programs occurred for the academic year.

In this report, one of the five programs will not show any results for the academic year 2003-2004, since the programs now only report on program completers listed by the Registrar's Office. The Administrative Assistant – Legal program showed only two completers. It was decided by the Faculty Group the two completers could be potentially identified and associated with a particular score; therefore, no report was generated for the program.

In the Computer Support Specialist program, 26 completers demonstrated 100% on four of the eight objectives for the program. Two of the objectives were only partially assessed due to the departure of an adjunct instructor.

In the Computer Information Systems – Information Processing Specialist program, the Assessment Implementation Plan was completely revised to more accurately include more results from faculty other than the industry exam. A major area of revision for next year based upon this year's assessment will be to coordinate online versus on-campus assessment for the same course.

In the Administrative Assistant – Medical program, eleven completers were recorded. Of the eleven program completers, 100% obtained the required keyboarding speed, 10 of 11 scored 80% or better on Anatomical Structures, and 7 of 11 scored 80% or better on the terminology.

The Administrative Assistant – General reported 14 completers, including three certificates. 100% of the completers achieved the timed writing skill and oral presentation score. The program will look at online assessment as well this next academic year.

Assessment of the Computers and Office Technology Programs at Bismarck State College

Introduction

The Computers and Office Technology Faculty Group at Bismarck State College is a unique group within the assessment process on this campus. The uniqueness of the Faculty Group is shown in three different aspects:

1. Although the Faculty Group is considered “programs”, individual courses within each program are considered “open enrollment”. This “open enrollment” feature allows students other than those enrolled in the programs to attend and take individual courses within the program for credit.
2. The “open enrollment” feature of the programs also permits program students to take most courses in any sequence the student prefers, often based upon the student’s individual schedule outside of the academic world. This differs from other programs in that most programs on campus have a definite, narrowly-defined sequence for courses, as well as “closed” enrollment.
3. Also, many students enrolled in the programs are part-time attendees, often taking only one or two courses at a time. As a result, it may be several years before a student is considered a program completer, therefore, spanning several academic years of assessment changes.

As a result of the above three characteristics of the Computers and Office Technology programs, tracking and recording results for only program completers of the program is a challenge for the Faculty Group.

The Computers and Office Technology Faculty Group at Bismarck State College (BSC) consists of all full-time and adjunct faculty teaching any required courses included in any of the following programs:

1. Administrative Assistant – General
2. Administrative Assistant – Legal
3. Administrative Assistant – Medical
4. Computer Information Systems – Information Processing Specialist
5. Computer Support Specialist

During the 2003-2004 academic year, no new faculty members were added to the programs. A listing of all full-time and adjunct faculty members in the programs is included in this report as “Appendix A”. This was the third full year of the term for the assessment group leader of the Computers and Office Technology Programs.

In 2003, after much discussion with the Faculty Group and the Assessment Coordinator, it was decided that only true completers, those who were listed with the Registrar's Office at BSC as completers of the programs, would be included in the Faculty Group Reports. Previously, all students taking any courses from the programs were included in the Faculty Group Report results. This was the second year for reporting program completers in this manner.

Another change was the addition of the Computer Information Systems – Information Processing Specialist – Web Page Option to the program curriculum. Only one completer was listed in the Registrar's Office, therefore, the program completer's scores were reported with Information Processing Specialist program.

A complete listing of all required courses in the Computers and Office Technology programs are included in this report as "Appendix B."

Matrices used in Computers and Office Technology Assessment

Each year, the Faculty Group members submit four documents for the assessment process:

1. Assessment Implementation Plan
2. Program Curriculum Matrix
3. Composite Multiple Measures Matrix
4. Faculty Group Assessment Report

Each of the five programs submits each of the four documents each academic year. Each document is explained in the following paragraphs.

Assessment Implementation Plans

The Assessment Implementation Plan submitted by each lead instructor identifies the objectives for the program, assessment methods planned for the program, and an implementation timeline for the program. This document is completed by the lead instructor and then submitted to the group leader. The group leader then submits an electronic and hard copy to the Assessment Coordinator's Office. This document is submitted by September 15 of the academic year.

Any changes planned which were reported on the Faculty Group Assessment Report from the previous academic year should be reflected on the new Assessment Implementation Plan.

All Implementation Plans for the Computers and Office Technology programs for the 2003-2004 academic year are on file in the Assessment Coordinator's office and in the group leader's office.

All Implementation Plans for the Computers and Office Technology programs for the 2003-2004 academic year are included in this document as "Appendix C."

Program Curriculum Matrix

Each year, the Faculty Group reviews and submits a Program Curriculum Matrix for each program. The Program Curriculum Matrix indicates which courses emphasize which objectives of the program. These objectives were identified in the Assessment Implementation Plan. This document is completed by the lead instructor for the program with the assistance of the rest of the Faculty Group. The lead instructor then submits this document to the group leader, who retains an electronic copy and a hard copy for the Faculty Group's files. Another electronic copy and hard copy is submitted to the Assessment Coordinator's office. This document is completed by October 31 of the academic year.

All Program Curriculum Matrices for the Computers and Office Technology programs for the 2003-2004 academic year are on file in the Assessment Coordinator's office and in the group leader's office.

All Program Curriculum Matrices for the Computers and Office Technology programs for the 2003-2004 academic year are included in this document as "Appendix D."

Composite Multiple Measures Matrix

The Composite Multiple Measures Matrix submitted by each lead instructor illustrate multiple measures exist to assess each of the program's objectives previously identified in the Assessment Implementation Plan. Each year, the lead instructor works with the Faculty Group to review objectives and courses which measure the objectives. The Matrix is then submitted to the group leader, who retains an electronic and hard copy of the document for the Group's files. Another electronic and hard copy is then submitted to the Assessment Coordinator's office. This report is submitted by November 20 of the academic year.

All Composite Multiple Measures Matrices for the Computers and Office Technology programs for the 2003-2004 academic year are on file in the Assessment Coordinator's office and in the group leader's office.

All Composite Multiple Measures Matrices for the Computers and Office Technology programs for the 2003-2004 academic year are included in this document as "Appendix E."

Faculty Group Assessment Report

Each fall, the lead instructor for each program submits a Faculty Group Assessment report for the previous year. This report compiles the results of the assessment process throughout the previous academic year, as identified in the Assessment Implementation Plan. This report includes the results for only completers of the programs.

Also a part of the Faculty Group Report is for the Group to identify changes which need to be made in the program and/or the program's assessment process for the next academic year based on assessment results and reports. These changes should be reflected in the next year's Assessment Implementation Plan.

The report is not submitted until fall in order to allow time for 1) the Registrar's Office to process graduation applications and therefore identify the completer's of the program and 2) to allow time for any Employer Surveys to be completed by the Faculty Group.

The Faculty Group report is then submitted to the group leader, who retains an electronic and hard copy of the document for the Group's files. Another electronic and hard copy is then submitted to the Assessment Coordinator's office. This report is submitted by September 30 of the academic year.

All Faculty Group Reports for the Computers and Office Technology programs for the 2003-2004 academic year are on file in the Assessment Coordinator's office and in the group leader's office.

All Faculty Group Reports for the Computers and Office Technology programs for the 2003-2004 academic year are included in this document as "Appendix F."

Summary of Program Assessment for 2003-2004

Administrative Assistant – General

The Administrative Assistant – General program had 14 completers reported by the Registrar's Office during the time of September 2003 – August 2004. This number included three certificate completers. 100% of completers achieved keyboarding skill and oral presentation competencies. 71% achieved the portfolio competency, 76% completed the grammar competency, and 55% achieved the transcription competency.

Changes Made 2003-2004 Academic Year

The following changes were made during the 2003-2004 academic year in the Administrative Assistant – General program:

1. A new text was used in Business Communications by Mary Ellen Guffey. A supplementary CD is included and the use of INFOTRAC for research is also part of this text. More research has been presented along with doing group presentations and speeches. A pretest in Business Communications was given covering all aspects of grammar, punctuation, capitalization, and word usage. A post test will be given at the end of the semester and the results compared by student and for the entire class.
2. A different keyboarding text was used in Keyboarding I—it parallels to the software used for mastering the keyboard. It also has a CD which brings in student files to be inserted in different documents. Also, documents are called up from this CD from which to make corrections.
3. A new book and software for the CIS 103 Course (WordPerfect 10) was installed and in use—updated from the WordPerfect 9.

Changes Planned for Administrative Assistant - General

The following are changes planned for the 2003-2004 academic year, according to the Faculty Assessment Group Report:

1. Coordination with online instructors so that all are using exact same assessment methods.
2. Create a list of approved courses for those courses substituted by a completer.
3. Require oral presentation may not be read by student.
4. Create database to maintain student assessment records.

Courses required for the Administrative Assistant – General program are not exclusive to the program; the courses are also required for other programs and contain a mix of students enrolled in various programs.

The Assessment Implementation Plan, the Multiple Measures Matrix, the Composite Curriculum Matrix and the Faculty Group Report for the Administrative Assistant – General program were completed and are on file with the Assessment Coordinator's office and the group leader's office.

Administrative Assistant – Legal

Courses for the Administrative Assistant – Legal program had students which were enrolled in the courses, however, the Registrar's Office reported two completers during the time of September 2003 – August 2004. Therefore, no results were submitted on the Faculty Group Report for the academic year since reporting on only two students' results could potentially identify the students.

Changes Made During 2003 - 2004 Academic Year

The following changes were made during the 2003-2004 academic year in the Administrative Assistant – Legal program:

1. Program requirements were changed beginning with the 2003-2004 academic year. Legal terminology will no longer be offered on campus. Instead, students enrolled in this program will take Criminal Law, Intro to Criminal Justice and Human Resources Management.
2. New textbooks for the core Legal Office Procedures course were implemented.
3. More hands-on projects reflecting content.
4. New adjunct instructor who is employed full-time in the field was employed.

Changes Planned for Administrative Assistant - Legal

The following are changes planned for the 2004-2005 academic year, according to the Faculty Assessment Group Report:

1. Filing requirement for assessment.
2. Maintain database for student assessment records.

Courses required for the Administrative Assistant – Legal program are not exclusive to the program; the courses are also required for other programs and contain a mix of students enrolled in various programs.

The Assessment Implementation Plan, the Multiple Measures Matrix, the Composite Curriculum Matrix and the Faculty Group Report for the Administrative Assistant – Legal program were completed and are on file with the Assessment Coordinator's office and the group leader's office.

Administrative Assistant – Medical

Courses for the Administrative Assistant – Medical program had students which were enrolled in the courses. The Registrar's Office reported eleven students who completed the program during the time of September 2003 – August 2004.

Changes Made During 2003-2004 Academic Year

The following changes were made during the 2003-2004 academic year in the Administrative Assistant – Medical program:

1. Full-time instructor retired at the end of the academic year.

Changes Planned for Administrative Assistant - Medical

The following changes are planned for the 2004-2005 academic year, according to the Faculty Assessment Group Report:

1. Use flash cards for review of terminology
2. Provide more practice and more examples on body parts.
3. Maintain database for student assessment records.

Courses required for the Administrative Assistant – Medical program are not exclusive to the program; the courses are also required for other programs and contain a mix of students enrolled in various programs.

The Assessment Implementation Plan, the Multiple Measures Matrix, the Composite Curriculum Matrix and the Faculty Group Report for the Administrative Assistant – Medical program were completed and are on file with the Assessment Coordinator's office and the group leader's office.

Computer Information Systems – Information Processing Specialist

Courses for the CIS-Information Processing Specialist program had students which were enrolled in the courses; the Registrar's Office reported 12 students who completed the program during the time of September 2003 – August 2004. Of those students, one student was a CIS Information Processing Specialist – Web option completer.

Of the 12 completers in the program, a total of four Microsoft Office Specialist exams received passing scores. The students may have taken more than one exam during the student's time at Bismarck State College. All students in this program are required to take Word, Excel, PowerPoint and Access MOS exams.

During this assessment, a significant number of "No records" showed up on the MOS scores. This number is due in large part to online courses not requiring the MOS exam. Faculty discussed this discrepancy and are considering alternative exams for online students.

Of the 12 completers in the program, 5 scored 80% or better on the Access portfolio, 7 completers scored 80% or better on the PowerPoint portfolio, 10 completers scored 80% or better on the PageMaker final project, 9 completers

scored 80% or better on the HTML posttest, and 6 completers scored 80% or better on the Macromedia portfolio, 6 completers scored 80% or better on the Business Communication presentation, and 9 completers scored 80% or better on the Keyboarding project. Business Mathematics was not assessed due to the retirement of the sole instructor.

Changes Made During 2003 - 2004 Academic Year

The following changes were made during the 2003-2004 academic year in the CIS – Information Processing program:

1. Reviewed one week prior to MOS test.
2. Textbooks were changed in Adobe and Web page design.

Courses required for the CIS-Information Processing Specialist program are not exclusive to the program; the courses are also required for other programs and contain a mix of students enrolled in various programs.

The Assessment Implementation Plan, the Multiple Measures Matrix, the Composite Curriculum Matrix and the Faculty Group Report for the CIS-Information Processing Specialist program were completed and are on file with the Assessment Coordinator's office and the group leader's office.

Changes Planned for CIS – Information Processing Specialist

The following are changes planned for the 2004 - 2005 academic year, according to the Faculty Assessment Group Report:

1. Change projects to be aligned with MOS objectives
2. Maintain database of student records.

Computer Support Specialist

Courses for the Computer Support Specialist program had students which were enrolled in the courses; the Registrar's Office reported 26 students who completed the program during the time of September 2003 – August 2004.

In four of the eight objectives for the Computer Support Specialist program, 100% of the students scored at 70% or higher. Two objectives were not fully assessed due to the departure of an adjunct instructor.

Changes Made During 2003-2004 Academic Year

The following changes were made during the 2003 - 2004 academic year in the Computer Support Specialist program:

1. Provide more examples and in-depth coursework for all objectives
2. Maintain database for student assessment records

Changes Planned for Computer Support Specialist

The following change is planned for the 2004 - 2005 academic year, according to the Faculty Assessment Group Report:

1 Continue to provide more examples and in-depth coursework.

Courses required for the Computer Support Specialist program are not exclusive to the program; the courses also required for other programs and contain a mix of students enrolled in various programs.

The Assessment Implementation Plan, the Multiple Measures Matrix, the Composite Curriculum Matrix and the Faculty Group Report for the Computer Support Specialist program were completed and are on file with the Assessment Coordinator's office and the group leader's office.

Coop/Intern Program

Students within each of the programs may sign up for various co-op and internships that become available during the academic year. Employers who accept students into their work environment are then surveyed each summer.

Employers are surveyed on various aspects of the co-op and interns' personal and professional traits as they pertain to the work environment. Twelve personal traits and twelve professional traits are part of the survey.

For each academic year, the survey results are averaged and summarized. Each trait is rated from 1 to 5, with 5 being the highest.

For the 2003-2004 academic year, no surveys were completed due to the transition and retirement of a full-time professor.

Personal Traits:

Punctuality
Cooperation
Willingness to work
Adaptability
Reliability
Initiative
Resourcefulness
Loyalty
Obedience to Rules
Judgment
Tact
Promise of Success

Professional Traits:

Spelling
Penmanship
English
Math
Accounting
Computer Skills
Filing
Telephone Skills
Personality
Following Directions
Neatness
People Skills

Assessment of the Allied Health Programs

Introduction

The Allied Health faculty group consists of all faculty members teaching any program courses included in any of the following programs:

EMT-Paramedic
Medical Lab Technology
Phlebotomy
Practical Nursing
Surgical Technology

In 2003-2004, EMT-Paramedic programs continued to be collaborative endeavors with St. Alexius Medical Center in Bismarck and F-M Ambulance in Fargo, ND. Both programs employed the same curriculum and assessment activities.

The Practical Nursing program was a collaboration among Bismarck State College (BSC), Williston State College (WSC), and Lake Region State College (LRSC). Nursing faculty at WSC and LRSC were considered adjunct faculty.

A listing of all full-time and part-time faculty members in the above programs is included in Appendix A.

The courses in the Allied Health programs are listed in Appendix B.

Matrices used in Allied Health Program Assessment

Each year, program faculty members submit an Assessment Implementation Plan that identifies program objectives, competencies, assessment methods, and the planned timing of all assessment activities. The Implementation Plans for the 2003-2004 academic year, due September 15, are on file in the Assessment Coordinator's office and in the Allied Health Program group leader's office.

Each year program faculty members submit a Program Curriculum Matrix by October 31, which indicates which courses emphasize the objectives identified in the Implementation Plan. The Program Curriculum Matrices for the 2003-2004 academic year are on file in the Assessment Coordinator's office and in the Allied Health Program group leader's office.

The Composite Multiple Measures Matrix is submitted before Thanksgiving break. These matrices are on file in the Assessment Coordinator's office and in the Allied Health Program group leader's office.

In the fall of the following academic year, a Faculty Group Assessment Report is submitted. This report includes results gathered from the various assessment tools used. Proposed changes to the programs and their assessments are included in this report. The reports for the 2003-2004 academic year are attached as Appendix C.

SUMMARY OF ALLIED HEALTH ASSESSMENT FOR 2003-2004

EMT-Paramedic Program

The program established competencies and used indirect measures from the National Registry exam for assessment of this program. Of the St. Alexius students, 75% of the students passed the written part of the exam, two students are currently waiting for their results and one student will be testing in November 2004. 100% of students taking the practical exam passed.

Of F-M Ambulance students, all twenty-seven students who attempted the practical part of the exam passed. Twenty-one of the twenty-seven who attempted the written portion passed, the remaining six are retesting.

Revisions will be made to the curriculum after analyzing the strengths, weaknesses and validity of the current entrance process of the program. The assessment results were compiled and are on file with the Assessment Coordinator.

Medical Lab Technology

The MLT/CLT ASCP Board of Registry Examination was taken with BSC students scoring an overall program mean of 580, compared with a national mean of 497. Passing of the board examination is a score of 400. The program mean scores were over the national mean with the exceptions of carbohydrates/acid base/electrolytes, erythrocytes and leukocytes, microscopic and complete urinalysis, platelets and hemostasis, urinalysis and other body fluids, antibody screen and identity, proteins and other nitrogen containing compounds, morphology and differential, and lab operations. All areas of the program are being reevaluated with changes being made where needed. The assessment results were compiled and are on file with the Assessment Coordinator.

Phlebotomy

The Phlebotomy Technician ASCP Board of Registry Examination was taken with BSC students scoring a program mean of 487, compared with a national mean of 520. Passing of the board examination is a score of 400. The program mean scores were over the national mean with the exception of anatomy and physiology, and specimen collection and handling. All areas of the program are being reevaluated with changes being made where needed. The assessment results were compiled and are on file with the Assessment Coordinator.

**Practical Nursing Program
(No Report)**

Surgical Technology

The program established their competencies and used direct measures in the classroom. All eleven students passed the Program Assessment Exam which has been established by the National Surgical Technology Association. Changes are planned to incorporate instructional aids based on the newly published study guide for the Program Assessment Exam. The faculty hopes this will raise students' scores in the areas of knowledge of the role of first scrub on basic surgical procedures, microbiology/wound healing, and knowledge of frequently used surgical procedures. 100 % of students that took the National Certifying Exam passed it, but it is no longer used as an assessment measure, because it is a voluntary credential and not required by all employers. The Assessment Plan, Multiple Measures Matrix, Composite Curriculum Matrix, and Faculty Group Report were completed and are on file with the assessment coordinator.