

Executive Summary

Student Outcomes Assessment Spring 2002

The Mesa Community College program to assess student learning has helped to answer the question, “Are students learning as a result of their experience at the college?” Based on the results of the 2002 assessment, there is clear evidence of student learning in both the general education and the career and technical assessments. General education assessments were conducted in problem solving/critical thinking, numeracy, scientific inquiry, information literacy and cultural diversity. The general education assessments were randomly distributed across departments in order to ensure that the general education program, and not a particular department, was being assessed. The workplace skills assessment was administered in career and technical programs. The cultural diversity assessment was pilot tested for the first time and the workplace skills assessment was revised and administered for the second year.

Completing students (post-group) performed significantly better than beginning students (pre-group) in five of six areas assessed. On several measures significant differences between beginning and completing students have been documented over multiple years. When examining results across measures, students had the most difficulty with skills involving application and/or evaluation of knowledge or information. The table on the back of this page provides an overview of findings for each of the assessment areas.

The methodology for the analysis compares the performance of groups of students. For general education, the performance of students who had completed less than 10 hours of coursework and who claimed general education as their intent (pre-group) was compared to that of general education students who had completed at least 30 hours of general education coursework distributed across core curricular areas. For Career and Technical programs, the performance of students who had taken one, two, or three occupational courses (pre-group) was compared to that of students who had taken at least four occupational courses (post-group). Group mean scores of beginning students (pre-group) and completing students (post-group) are compared for each measure to test the hypothesis that completing students perform at a significantly higher level than beginning students.

Active faculty participation has been critical to the success of the assessment program. During the sixth Annual Assessment week, February 25 through March 1, 2002 more than 111 faculty members volunteered 173 class sections. Faculty were also involved in reviewing learning outcomes and designing and refining measures and scoring rubrics.

The student assessment program has grown since its inception and is now actively assessing a large pool of students annually. What then is the next stage of development for outcomes assessment at MCC? The Faculty Senate Student Outcomes Committee (SOC) has made the use of results the primary focus of its agenda during the year. They have recommended that these results be used to inform department and program initiatives, be discussed college-wide, and that continued emphasis be placed on building a culture that uses assessment results. The SOC committee has suggested that initiatives begin at the department/program level and that assessment results be incorporated into the annual department planning and budgeting process.

Summary of Results from Student Outcomes Assessment Spring 2002

Outcome	Results
Numeracy	The average percent correct is significantly higher for the post-group overall and for outcomes related to identifying and extracting relevant data, use of models to organize data and the ability to obtain results and state results with qualifiers. Patterns of performance have remained consistent between years. Use of models is the strongest area and use of results is the weakest area.
Scientific Inquiry	There is no significant difference in the average percent correct between groups. Significant differences were noted, overall, in prior years. The ability of students to make a conclusion based upon information presented has had the lowest percent correct for the past three years of administration. Students have been most successful in recognizing possible reasons for a problem.
Problem Solving/Critical Thinking	The average total score is significantly higher for the post-group, overall and for two sub-scales: Interpretation and Evaluation of Arguments. The post-group score is at the 45 th percentile when compared to a national sample, an improvement from the prior year. Average student scores are consistently highest for the Interpretation and Evaluation of Arguments sections and lowest for Inference.
Information Literacy	The percent correct is significantly higher for the post-group, overall and for three of five outcome areas: evaluating information, identifying sources, and locating information. Students were most successful in evaluating information followed by defining information needed to solve a problem and identifying appropriate sources. Locating information was relatively more difficult. Students were least successful in use of information.
Cultural Diversity	Significant differences were observed in post-group students for several items and on scales relating to democracy outcomes and cultural diversity knowledge. Since this is a pilot test, more analysis will be conducted.
Workplace Skills	The average percent correct is significantly higher for the post-group, overall and for organization and technology literacy. Students performed highest on interpersonal communication and teamwork followed by technology, ethics, and organization.