

Executive Summary

Student Outcomes Assessment Update: AY2005-2006

The Mesa Community College Program to Assess Student Learning has demonstrated evidence of student learning in both general education and career and technical areas. A common set of student learning outcomes provide the foundation for assessment. The assessment process is a part of the college culture and is a collaborative effort of faculty in many disciplines. Faculty members representing nearly all disciplines, both campuses, and extended campus sites participate.

During the tenth annual Assessment Week in spring 2006 four of the general education assessments (Information Literacy, Numeracy, Problem Solving, and Scientific Inquiry) were administered to approximately 3,000 general education students. In addition, a group of students enrolled in Career and Technical programs participated in the workplace skills assessment.

Highlights from the 2006 results include the following:

- In all assessment areas, the mean scores of completing students are significantly higher than the scores of beginning students.
- Critical thinking scores are significantly higher for completing students and are similar to the community college comparison cohort.
- The assessment results show that using results, making conclusions based upon information, making inferences, and using information effectively are relatively more difficult outcome areas.
- Students are relatively more skilled in the use of numeric models, evaluating information for currency, relevancy and reliability and distinguishing between possible reasons for a problem.

During Assessment Week 2005, assessments in Arts and Humanities, Cultural Diversity, Oral Communication, Written Communication were administered to approximately 3,000 general education students. Approximately 600 students enrolled in Career and Technical programs participated in a workplace skills assessment.

Additional highlights from spring 2005 results include the following:

- In all assessment areas, the mean scores of completing students are significantly higher than the scores of beginning students.
- Completing students show a stronger sense of social obligation. They agree more strongly that they can improve the world, that voting in national elections is critical, and that interaction with people from different backgrounds is valuable. Student scores are higher on items related to knowledge of cultural differences.
- Students are relatively more skilled in making and supporting personal observations than in recognizing opposing positions and seeing topics in a broad perspective.
- Student scores are relatively higher for interpersonal communication when compared to team work and group interaction.

When examining results across measures over the past several years, students had the most difficulty with skills involving the use, application and/or evaluation of knowledge.

The Results Outreach Committee sponsored several projects addressing assessment results including an information literacy workshop series and a workshop to apply brain research to writing instruction.

Summary of Results from Student Outcomes Assessment Spring 2005 and 2006

Outcome and Year Assessed	Results
Information Literacy – Assessed 2006	<p>The percent correct was significantly higher for completing students overall and for four of five learning outcomes:</p> <ul style="list-style-type: none"> • evaluate information for currency, relevancy and reliability • identify appropriate print and electronic sources • locate relevant information to match needs • use information effectively <p><i>Students were most successful in evaluating information for currency, relevancy and reliability, followed by defining information needed to solve a problem, and identifying appropriate sources. Scores for locating information and use of information have been relatively lower in all administrations of the assessment.</i></p>
Numeracy – Assessed 2006	<p>The percent correct was significantly higher for the completing students overall and four learning outcomes:</p> <ul style="list-style-type: none"> • use models to organize the data • obtain correct results and state results with qualifiers • identify and extract relevant data • use information effectively <p><i>Patterns of performance have remained consistent over several years. Use of models is the strongest area and use of results is the weakest area.</i></p>
Problem Solving/Critical Thinking – Assessed 2006	<p>The average score was significantly higher for the completing student group overall and for four sub-sets of the assessment:</p> <ul style="list-style-type: none"> • the evaluation of arguments • interpretation • recognition of assumptions • inference <p><i>Scores have been highest for the Interpretation and Evaluation of Arguments sections and lowest for Inference.</i></p>
Scientific Inquiry – Assessed 2006	<p>Completing students performed significantly better than beginning students overall and on each outcome area:</p> <ul style="list-style-type: none"> • interpretation • hypothesis • prediction • evaluation • assumption <p><i>Students have been most successful in deciding if conclusions are warranted (Interpretation) and in distinguishing between reasons for a problem (Hypothesis). Making a conclusion based upon information presented (Evaluation) and recognizing assumptions needed have been relatively more difficult.</i></p>

Workplace Skills – Assessed 2006	<p>Completing students performed significantly better than beginning students overall and on all learning outcome areas:</p> <ul style="list-style-type: none"> • technology literacy • ethics • interpersonal communication • personal and professional responsibility • teamwork • organization <p><i>Teamwork and organization ranked lowest and technology literacy and ethics ranked highest when compared to the other outcome areas.</i></p>
Arts and Humanities – Assessed 2005	<p>Significant differences were observed between completing and beginning student scores in the following learning outcome areas:</p> <ul style="list-style-type: none"> • a basic knowledge of human creations • an awareness that different contexts and/or world views produce different human creations • an understanding and awareness of the impact that a piece has on the relationship and perspective of the audience • an ability to evaluate human creations <p><i>Overall, students demonstrated a basic understanding in all areas but generally their responses reflected a personal perspective rather than a broader view.</i></p>
Cultural Diversity – Assessed 2005	<p>Students in the completing group had significantly higher scores on direct measures of knowledge and on several diversity and democracy outcomes. Completing students:</p> <ul style="list-style-type: none"> • agreed more strongly that contact with individuals of different backgrounds is valuable • expressed a stronger sense of social obligation and indicated that they can make the world a better place • agreed more strongly that voting in national elections is critical • supported offering related college courses <p><i>Students indicated that they have positive interactions with people different from themselves at MCC and said that their experience at MCC has expanded their knowledge and awareness of diverse people and cultures.</i></p>
Oral Communication – Assessed 2005	<p>Significant differences between beginning students and completing students were shown in the total percentage correct for the assessment overall and for each of the learning outcome areas:</p> <ul style="list-style-type: none"> • knowledge about effective interpersonal interchanges • small group interaction • conducting oral presentations <p><i>Student scores were highest for questions related to interpersonal communication followed by presentation skills. Scores were lowest on questions related to small group interaction.</i></p>

Written Communication – Assessed 2005	<p>The mean score for the completing student group was significantly higher overall and on each outcome area:</p> <ul style="list-style-type: none"> • content • organization • mechanics/style <p><i>Students showed relative strength in stating their own position, tone, sentence structure and addressing the prompt and need most improvement in recognizing the opposing position and the logical development of their writing.</i></p>
Workplace Skills – Assessed 2005	<p>Completing students performed significantly better than beginning students overall and on four learning outcome areas:</p> <ul style="list-style-type: none"> • ethics • interpersonal communication • technology literacy • personal and professional responsibility <p><i>Student scores were highest in technology literacy, ethics, personal and professional responsibility and interpersonal communication. For the past two years teamwork and organization scores ranked lowest compared to the other outcome areas.</i></p>