

## **Executive Summary**

### **Student Outcomes Assessment Update: AY2004-2005**

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The Mesa Community College Program to Assess Student Learning has engaged the college community in the assessment process over the past nine years. Evidence of student learning is clear across both general education and career and technical areas based upon assessment results over the past several years.

During Assessment Week 2005 four of the general education assessments (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. More than one hundred and twenty faculty members representing nearly all disciplines, both campuses, and extended campus sites participated.

Highlights from the 2005 results include the following:

- In all assessment areas the mean scores of completing students (post-group) are significantly higher than the scores of beginning students (pre-group).
- 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.

During Assessment Week 2004 assessments in Information Literacy, Numeracy, Problem Solving, and Scientific Inquiry were administered to more than 3,400 general education students. Students enrolled in Career and Technical programs participated in the Workplace Skills assessment.

Additional highlights from spring 2004 results include the following:

- In all assessment areas the mean scores of completing students (post-group) are significantly higher than the scores of beginning students (pre-group).
- Critical thinking scores are significantly higher for completing students but lag the community college comparison cohort.

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

The Results Outreach Committee was formed two years ago to encourage the use of assessment results. ROC developed a call for proposals and reviewed and recommended several projects.

- Three projects designed to directly address student assessment results have been funded and implemented: a writing-across-the-curriculum workshop series held during AY2004-2005; an information literacy workshop series begun in August 2005 and planned to continue throughout the year; and a workshop to apply brain research to writing instruction scheduled for February.

## Summary of Results from Student Outcomes Assessment Spring 2004 and 2005

Outcome and Year Assessed	Results
Arts and Humanities – Assessed 2005	<p>Significant differences were observed between completing (post) and beginning (pre) student scores in the following areas:</p> <ul style="list-style-type: none"> <li>• a basic knowledge of human creations;</li> <li>• an awareness that different contexts and/or world views produce different human creations;</li> <li>• an understanding and awareness of the impact that a piece has on the relationship and perspective of the audience;</li> <li>• an ability to evaluate human creations.</li> </ul> <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 (post) 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"> <li>• Agreed more strongly that contact with individuals of different backgrounds is valuable;</li> <li>• Expressed a stronger sense of social obligation and indicated that they can make the world a better place;</li> <li>• Agreed more strongly that voting in national elections is critical;</li> <li>• Supported offering related college courses.</li> </ul> <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 subscales:</p> <ul style="list-style-type: none"> <li>• Knowledge about effective interpersonal interchanges,</li> <li>• Small group interaction and</li> <li>• Conducting oral presentations.</li> </ul> <p><i>Student scores were highest for questions related to interpersonal communication followed by presentation skills. Students performed the poorest on questions related to group interaction.</i></p>

Written Communication – Assessed 2005	<p>The mean score for the post-group was significantly higher overall and on the scales for</p> <ul style="list-style-type: none"> <li>• Content,</li> <li>• Organization and</li> <li>• Mechanics/style.</li> </ul> <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>Post-group students performed significantly better than pre-group students overall and on four scales.</p> <ul style="list-style-type: none"> <li>• Ethics</li> <li>• Interpersonal Communication</li> <li>• Technology Literacy</li> <li>• Personal and Professional Responsibility</li> </ul> <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>
Information Literacy – Assessed 2004	<p>The percent correct was significantly higher for the post-group overall and for three of five outcome areas. Students were most successful in evaluating information for currency, relevancy and reliability, followed by identifying appropriate sources, and defining information needed to solve a problem. Scores for locating information and use of information were relatively lower.</p>
Numeracy – Assessed 2004	<p>The average percent correct was significantly higher for the post-group overall and for outcomes related to using models to organize data, obtaining results and stating results with qualifiers and use of results. Patterns of performance have remained consistent over several years. Use of models is the strongest area and use of results is the weakest area.</p>
Problem Solving/Critical Thinking – Assessed 2004	<p>The average total score was significantly higher for the post-group (completing) overall and for three sub-scales: Interpretation, Evaluation of Arguments, and Inference. Average student scores have been consistently highest for the Interpretation and Evaluation of Arguments sections and lowest for Inference.</p>

<p>Scientific Inquiry – Assessed 2004</p>	<p>Completing students performed significantly better than beginning students overall and on four of the outcomes. Students have been most successful in deciding if conclusions are warranted (Interpretation) and in distinguishing between reasons for a problem. Making a conclusion based upon information presented (Evaluation) and recognizing assumptions needed have been relatively more difficult.</p>
<p>Workplace Skills – Assessed 2004</p>	<p>Post-group students performed significantly better than pre-group students overall and on four scales. For the past two years teamwork and organization ranked lowest and technology literacy and personal and professional responsibility ranked highest when compared to the other outcome areas.</p>