
*The Mesa Community College
Program to Assess Student Learning*

Annual Report AY2007-2008

November 2008



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Mesa Community College is part of the Maricopa County Community College District,
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I. Introduction and Background

History and Overview of Assessment

Over the past twelve years Mesa Community College has developed a comprehensive system of assessment focused on a set of common student learning outcomes. The college community uses assessment results to identify areas of strength and areas for improvement in order to develop strategies to enhance student learning. Student outcomes assessment has become a part of the college culture.

The success of MCC's assessment program is due in large part to the principles that evolved as the program developed. These principles are based upon good practice as well as lessons learned while developing and implementing the program. They have provided a sound foundation for assessment to develop and mature.

1. The assessment program is driven by college values.
2. The college makes a long-term commitment.
3. Instructional leaders understand and believe in the value of assessment.
4. Faculty lead the program and own the results.
5. Technical expertise and support are provided.
6. Learning outcomes are defined programmatically.
7. Measurement tools align with outcomes.
8. A viable research design and methodology are used.
9. Results are used by faculty to improve learning.
10. Assessment is linked to college planning.

Development of the assessment program has been a collaborative effort between faculty, staff and administration. Faculty participation has been critical to the development of the assessment program and is fundamental to administration and use of results. College administration has provided consistent support by allocating resources and providing leadership to the assessment initiative and the Office of Research and Planning has provided the technical expertise and support needed to help design the research plan, refine the instruments, coordinate data collection and analyze the data.

Over time assessment measures, data collection procedures, and the use of results have been refined. Commonly accepted student learning outcomes were defined by the faculty when the assessment program was first developed. Instruments were selected or developed by faculty, piloted and administered. The assessment tools have been reviewed by faculty and modified when appropriate after subsequent administrations. Administration of assessments shifted from voluntary student participation outside of class to a system of campus wide assessment conducted by faculty during class time.

As the program to assess student learning has matured, the use of assessment results has been emphasized. Assessment results are integrated into departmental and college planning. Furthermore, college-wide assessment initiatives results have been developed through the activities of the Results Outreach Committee (ROC), a sub-committee of the Student Outcomes Committee (SOC). Outcomes assessment results for academic year (AY) 2007-08 are described in this report. A complete series of annual assessment reports has been written, beginning in 1996-97, and provides further details about the development of the assessment program at MCC.

Organizational Structure for Assessment

A standing faculty committee, the Faculty Senate Student Outcomes Committee (SOC), is charged with making decisions and recommendations related to all aspects of student outcomes assessment at the college. The faculty committee is led by a faculty chair and co-chair who receive reassign time to lead the assessment initiative. Ex-officio members include the Vice President for Academic Affairs and staff from

the Office of Research and Planning. The committee holds regular monthly meetings and schedules additional ad hoc meetings as needed. (SOC meeting minutes for AY 2007-08 are shown in Appendix A.)

The Student Outcomes Resource Committee includes the faculty chair and chair-elect of the SOC and staff from the Office of Research and Planning. The Resource Committee is responsible for all operational aspects of the student assessment program, including coordinating and providing technical assistance to the faculty clusters, and coordinating and conducting Assessment Week activities. The Office of Research and Planning provides technical assistance related to development of assessment tools and scoring rubrics, conducts data analyses, and prepares and disseminates annual assessment reports.

Interdisciplinary faculty teams, or “clusters,” plan and direct the assessment efforts for each of the outcome areas. The clusters typically are comprised of three to five faculty members who select or develop measures to directly assess the outcomes, review the assessment results, and recommend revisions to the assessment tools.

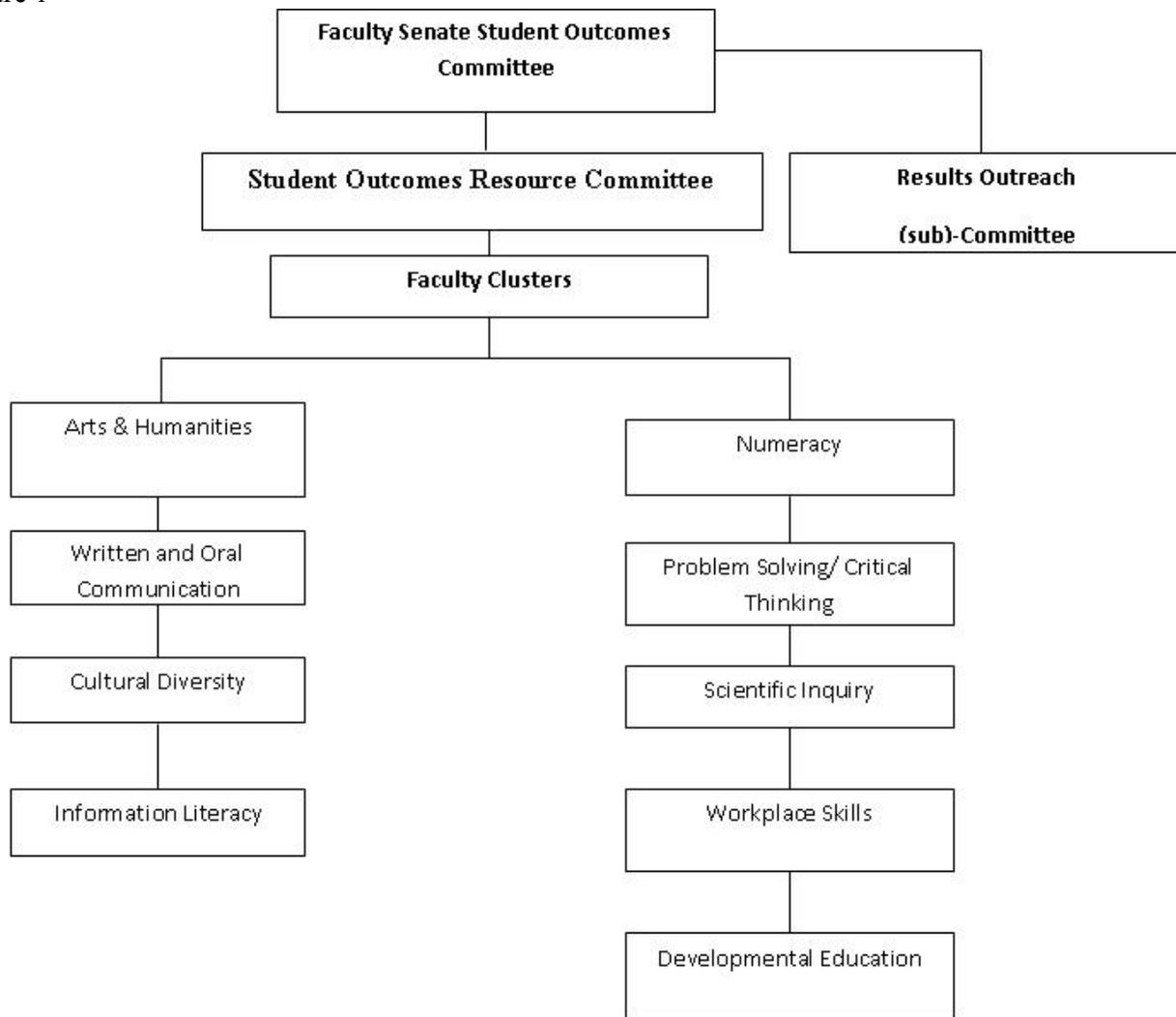
The Results Outreach (sub)-Committee (ROC) explores avenues for facilitating the use of assessment results by departments and faculty members. The committee promotes the use of outcomes data in relation to faculty development, pedagogy, and academic climate; encourages faculty and departments to come forth with specific outcomes-based initiatives and endeavors; and provides the mechanisms for these outcomes-based activities. Committee members worked during the year to initiate pilot projects which directly address the results of student outcomes assessment. Based on a ROC recommendation, the Vice President for Academic Affairs funds projects focused on assessment results. The ROC committee materials are included in Appendix B.

The success of the assessment initiative has been dependent upon the collaboration of faculty, administration and the research department. All academic departments have been represented in developing the assessment program. The SOC is a recognized Faculty Senate committee. Figure 1 on the next page depicts the program’s organizational structure.

In addition, participation extends beyond the committee membership depicted in the chart. Assessment is imbedded within the college culture at the college, departmental, and individual level. There are many opportunities for participation. Faculty from both campuses and all locations have had the opportunity to volunteer to administer an assessment, attend an assessment orientation, participate in departmental planning discussions, attend an assessment dialog, serve on a committee or cluster or submit a pilot project addressing the use of results. A variety of assessment results presentations are made annually. Each fall, an all faculty meeting is held to discuss the student outcomes assessment results from the previous spring, and similar discussions occur within departments. Several departments have used information from assessment results to develop new departmental initiatives as a part of the departmental planning process.

The entire college community was informed and engaged through on-going communication using a variety of media. Articles were published in employee newsletters, the college student paper and on the assessment web page. An informational assessment brochure was distributed to students, faculty and staff. During Assessment Week posters, banners and flyers were disseminated to promote awareness of assessment activities among students, faculty and staff.

Figure 1



Goals and Accomplishments

Each year, the SOC members develop goals for that year. The goals for AY2007-08 and related accomplishments are discussed in this section.

Goal 1. Use assessment results to improve student learning and measurement tools.

The Student Outcomes Committee chose this as the primary goal for the year. Examples of the efforts to facilitate dialog and to address results include the following:

- The Results Outreach (sub)-Committee (ROC) offered funding for interdisciplinary projects that are based upon the results of student outcomes assessment.

Goal 2. Assess student learning in the areas of numeracy, problem solving/critical thinking, scientific inquiry, information literacy and workplace skills.

- Approximately 77 faculty volunteered 143 classroom sections and nearly 3,000 students participated in the assessment of outcomes in numeracy, problem solving/critical thinking, scientific inquiry, information literacy and workplace skills.

Goal 3. Coordinate with the college-wide initiative to examine global awareness/global learning as a general education outcome.

- The Global Learning Cluster began meeting this year. From their meetings, the cluster devised outcomes for a global learning assessment.

Goal 4. Increase communication to students concerning results.

- As in the past, an ad in the student newspaper, a website, flyers and posters all were used to communicate assessment results to students.

Goal 5. Increase awareness and communication to faculty about assessment and SOC/ROC events.

- A SOC newsletter was written and disseminated through email to all faculty.
- The assessment program was featured in the Bulletin.
- A presentation was made to new faculty as a part of the New Faculty Experience.
- SOC presented at the Fall 2007 convocation.

Goal 6. Explore and define a methodology for including students who are only enrolled in distance courses into the assessment process.

- The scientific inquiry assessment was used as an online pilot utilizing WebCT. Students in several courses were asked to take the assessment online and provide feedback on their experience. This feedback is found in Appendix G.

Results Outreach sub-Committee Activities

ROC was formed to focus efforts and ensure increased emphasis on the use of results from the student assessment program. ROC developed a call for proposals which is sent annually to all full-time faculty members. Submitted proposals are reviewed by the ROC members against a set of criteria, and recommendations for funding are forwarded to the Vice President for Academic Affairs for final approval.

Following the procedure established over the last few academic years, SOC solicited ROC proposals in the late fall of 2007 and again in the spring of 2008. No proposals were submitted. SOC members feel that ROC may fail to attract widespread attention from the faculty because it competes with better-established, more “visible” opportunities for professional growth and pedagogical improvement. The consensus among Committee members is that SOC needs to do a better job of promoting ROC and should perhaps consider joining forces with other groups, such as FPLC, to draw more attention from the faculty in pursuit of a common goal.

(See Appendix B for forms used to submit proposals.)

II. Overall Summary of Results

During the twelfth annual Assessment Week in spring 2008 four of the general education assessments (Information Literacy, Numeracy, Problem Solving, and Scientific Inquiry) were administered to nearly 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 2008 results include the following:

Results Across All Outcome Measures

- In all but one assessment area, the mean scores of completing students are significantly higher than the scores of beginning students.
- The assessment results indicate that using information effectively, making inferences, recognizing justifiable and necessary assumptions based on information, and using results are relatively more difficult outcome areas.
- Students are relatively more skilled at evaluating information for currency, relevancy and reliability, in weighing evidence, deciding if generalizations or conclusions based upon the data given in tables and graphs are warranted, and in the use of numeric models.

Results Specific to Problem Solving/Critical Thinking Assessment

- Problem Solving scores are not significantly higher for completing students.

Other highlights for the year include an online pilot of the scientific inquiry assessment utilizing WebCT. Students in several courses were asked to take the assessment online and provide feedback on their experience. This feedback is found in Appendix G.

A summary of results from spring 2007 and 2008 assessments is shown in Table 1 on the next page.

Table 1

Summary of Results from Student Outcomes Assessment Spring 2007 and 2008	
Outcome and Year Assessed	Results
Information Literacy – Assessed 2008	<p>The percent correct was significantly higher for completing students overall and for two of five learning outcomes:</p> <ul style="list-style-type: none"> • identify appropriate print and electronic sources • locate relevant information to match needs <p><i>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 have been relatively lower in all administrations of the assessment.</i></p>
Numeracy – Assessed 2008	<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.</i></p>
Problem Solving/Critical Thinking – Assessed 2008	<p>The average score was not significantly higher for the completing student group overall or for any of sub-sets of the assessment.</p> <p><i>In the past, scores have been highest for the Evaluation of Arguments and Interpretation sections and lowest for Inference section.</i></p>
Scientific Inquiry – Assessed 2008	<p>Completing students performed significantly better than beginning students overall and on two of the five outcome areas:</p> <ul style="list-style-type: none"> • interpretation • evaluation <p><i>Students have been most successful in deciding if conclusions are warranted (Interpretation) and in making a conclusion based upon information presented (Evaluation).</i></p>
Workplace Skills – Assessed 2008	<p>Students scores ranked highest in:</p> <ul style="list-style-type: none"> • ethics • personal and professional responsibility • technology literacy • interpersonal communication <p><i>For the past several years teamwork and organization scores ranked lowest compared to the other outcome areas</i></p>

<p>Arts and Humanities – Assessed 2007 <i>(revised instrument)</i></p>	<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>
<p>Cultural Diversity – Assessed 2007</p>	<p>Students in the completing group:</p> <ul style="list-style-type: none"> • Had significantly higher scores on knowledge • Showed a willingness to be engaged in social action • Recognized the value of diversity • Supported requiring students to complete a diversity course in order to graduate • Agreed more strongly that contact with individuals of different backgrounds is valuable and are willing to get to know individuals from diverse backgrounds. <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>
<p>Oral Communication – Assessed 2007</p>	<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>
<p>Written Communication – Assessed 2007</p>	<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, sentence structure and addressing the prompt and need most improvement in tone and recognizing the opposing position.</i></p>

III. Methodology

Direct Measures of Student Learning

Student learning is measured by assessing knowledge in outcome areas defined by faculty. The seven general education outcome areas as determined by MCC faculty are as follows:

- written and oral communication
- problem solving/critical thinking
- numeracy
- scientific inquiry
- arts and humanities
- cultural diversity
- information literacy

The workplace skills defined by MCC faculty are:

- ethics
- interpersonal skills
- critical thinking
- organization
- team work
- technology literacy
- personal and professional responsibility

Faculty developed instruments were adopted to measure the outcomes in all but three areas (Problem solving/critical thinking, cultural diversity and workplace skills.) Problem solving/critical thinking is measured using a standardized test that aligns with the MCC outcomes. The cultural diversity assessment is adapted from a survey designed by The Diverse Democracy Project at the University of Michigan. Workplace skills are assessed using an adaptation of the SCANS/TEJAS instrument developed through a Carl Perkins grant from the Texas Higher Education Coordinating Board. The faculty-designed instruments were pilot tested and reviewed using classical item analysis. Faculty also evaluated the instruments for content validity. The specific outcome statements and a description of assessment tools are presented for each outcome area in the chart in Appendix D.

Data Collection Procedures

During spring 2008, assessments were administered to general education students in numeracy, problem solving, scientific inquiry and information literacy. Students in a career and technical program were assessed on workplace skills. (Arts and humanities, cultural diversity, oral communication and written communication were assessed in 2007. Results are presented in Appendix E.)

Seventy-seven faculty members representing nearly all disciplines at both Southern and Dobson and Red Mountain campuses and Extended Campus locations, volunteered one or more classes in which to administer an assessment. A total of 143 sections participated. All assessments were administered by faculty in regular class sessions during Assessment Week, February 25 – March 1, 2008.

Faculty volunteers were recruited by members of the Student Outcomes Committee and through department chairs. Courses with a relatively large share of beginning students or completing students were targeted for participation. Flyers were provided to help recruit volunteers. (Sample informational materials from Assessment Week 2008 are shown in Appendix F.)

General education assessments were assigned to sections across various departments and disciplines. In order to ensure that the general education program, and not a particular department, was being assessed, measures that relate to particular disciplines were not administered in those disciplines (e.g., the writing assessment was not administered in English classes). Workplace skills assessments were administered only in Career and Technical program sections.

Early in the spring 2008 semester, participating faculty members were contacted to confirm participation. Assessment materials for nearly 3,000 students were distributed to departments, as well as tips for faculty, student information handouts, administration directions, and posters. The student information handout contains an explanation of the assessment program, a summary of results from prior years, and information about the upcoming Assessment Week.

Promotion of Assessment Week involved publication of articles in the student newspaper, the college newsletter, "The Bulletin" and other publications. Banners were hung on the clock tower and in the library. A faculty-designed Assessment Week poster was displayed in each department and in common areas college wide.

Administration of assessments occurred during the regular classroom period. Faculty followed a standard protocol for each assessment. Students were informed that the purpose of the assessment is to measure whether education goals are being achieved in order to improve programs and student learning. Students were assured that results are not reported by student or by class but are evaluated across the college. Completed assessments, along with an Assessment Submittal form, were returned to the Office of Research and Planning. Faculty were asked to complete the following information on the submittal form: whether they provided an incentive to students, how long it took to administer the assessment, whether they had any problems administering the assessment, and what they would suggest to improve the process. Sixty-four percent of the faculty reported they had offered an incentive to students for participating in the assessment. This feedback is used to make necessary modifications to Assessment Week processes and procedures.

Description of General Education Participants

From the total pool of students who took a general education assessment, a group of beginning (pre-group) students and a group of completing (post-group) students was selected for the analysis for each assessment measure. The performance of these two cohorts was then compared.

The characteristics of the overall student cohort selected for analysis from the general education assessment pool are compared in Table 2 which follows. On average, the pre-group participants had completed 9.1 credit hours compared to 49.6 credits for post-group students. Equal numbers of pre and post students were selected for comparison using a stratified random sample based upon ethnicity.

For each assessment, pre and post student cohorts were defined using data provided by the students and data from the college student information system. Students were asked a series of background questions to help determine their total earned credit hours, the distribution of their courses and their educational intent (i.e., reason for attending MCC). Students were classified as general education students if they indicated that they attend MCC in order to complete a general education program that fulfills lower-division requirements, obtain a degree or earn core transfer credits for another school. Cumulative earned hours from any Maricopa Community College were extracted from the Data Warehouse and used to determine eligibility for the pre or post cohort. However, self-reported credit hours were used if they exceeded hours from the college system, thus accounting for courses completed outside the Maricopa system. In addition to meeting the general education intent requirements, students in the post-group had to have completed courses in each of the Arizona General Education Curriculum (AGEC) core curricular areas.

Table 2

Mesa Community College Student Outcomes Assessment Spring 2008 Comparison of beginning and completing students By Ethnicity, Gender and Earned Hours			
	Pre-group	Post-group	Total College High Point
Number of Students	333	333	25,167
Ethnicity	%	%	%
Caucasian-Am./White	59	60	62
Hispanic	12	12	16
Black, non-Hispanic	2	2	5
Am. Indian/AK Native	3	2	4
Asian/Pacific Islander	5	5	5
Other	2	2	3
Not Specified	17	17	5
Gender			
Female	45	47	53
Male	41	38	46
Unknown	14	15	1
Cumulative term earned hours as of Spring 2006			
Average	9.1	49.6	

IV. Results and Observations

Numeracy Assessment Results

Outcomes

Numeracy outcomes are to: Identify and extract relevant data; Select or develop models to organize the data; Obtain correct results and state results with qualifiers; Use results.

Data Collection and Measurement

The Numeracy assessment, a 27 item faculty-developed multiple-choice test, was administered to students in 50-minute sections. Students were provided with calculators during the assessment.

Assessment Results

Scores from 87 beginning students (pre-group) are compared to 88 completing students (post-group). The total numeracy score is significantly higher for the post-group for the test overall and for each outcome. The percent of correct responses by outcome is presented in Table 3.

Table 3

Mesa Community College Student Outcomes Assessment 2008 Numeracy - Percent Correct by Outcome and Student Group		
	Percent Correct	
	Pre N=87	Post N=88
Overall	63%	72% *
Use models to organize the data	69%	81% *
Obtain correct results and state results with qualifiers.	65%	73% *
Identify and extract relevant data	61%	70% *
Use of results.	55%	63% *

* Significant difference

Data Trends

A comparison of student performance on the Numeracy assessment over the past five administrations of the instrument shows that the pattern of high and low scores has remained consistent. Students perform best on use of models. Obtaining correct results and stating the results with qualifiers has ranked higher than the ability to identify and extract relevant data. Scores for the use of results have consistently remained the lowest.

Overall, the post-group students have performed significantly better than pre-group students for the past five administrations of the instrument. In addition, completing student scores have been significantly higher than beginning student scores on the use of models to organize data and the ability to obtain correct results and state the results with qualifiers. In four of the past five years the post-group students outperformed the pre-group students on the ability to identify and extract relevant data and to use results.

Scientific Inquiry Assessment Results

Outcomes

Scientific Inquiry has five main outcomes: Hypothesis, Prediction, Assumption, Interpretation, and Evaluation.

Data Collection and Measurement

Students had 50 minutes to complete a 40 item faculty-developed multiple-choice test. The instrument includes questions related to the outcomes from several scientific disciplines.

Assessment Results

Scientific inquiry assessment results from 102 beginning students (pre-group) are compared to the results from 102 completing students (post-group). Scores of the post-group students were significantly higher than the pre-group for two outcomes and overall. Results by outcome and group are presented in Table 4.

Table 4

Mesa Community College Student Outcomes Assessment 2008 Scientific Inquiry - Percent Correct by Outcome and Student Group			
Students will be able to:		Percent Correct	
Outcome		Pre-group N=102	Post-group N=102
Overall		56.7%	61.9% *
Interpretation	Weigh evidence and decide if generalizations or conclusions based upon the data given in tables and graphs are warranted.	65.6%	71.3% *
Hypothesis	Distinguish between possible and improbable or impossible reasons for a problem.	63.0%	66.0%
Prediction	Distinguish between predictions that are logical or not logical based upon a problem presented.	61.4%	65.2%
Evaluation	Make a conclusion based on information presented.	44.9%	56.7% *
Assumption	Recognize justifiable and necessary assumptions based on information given.	45.5%	47.9%

*Significant difference.

Students are most successful deciding if conclusions are warranted (Interpretation) and in distinguishing between reasons for a problem (Hypothesis). The score for prediction (the ability to distinguish between predictions that are logical and not logical) ranks third. Students are least successful in recognizing

justifiable and necessary assumptions based on information given (Assumption) and in making conclusions based on information presented (Evaluation).

Data Trends

The score for the Evaluation outcome, “make a conclusion based upon information presented,” has been below the overall mean for the past five administrations and has ranked at or near the bottom in all of the past administrations. Scores measuring the ability to recognize justifiable and necessary assumptions based on information given has also been relatively difficult, for the past four administrations. For the past four administrations scores have been highest for the ability to distinguish between possible and improbable or impossible reasons for a problem (Hypothesis) and for interpretation (the ability to weigh evidence and decide if generalizations or conclusions based upon the data given in tables and graphs are warranted).

Problem Solving/Critical Thinking Assessment Results

Outcomes

Problem Solving/Critical Thinking outcomes have been defined as the ability to identify a problem or argument, isolate facts related to the problem, differentiate facts from opinions or emotional responses, ascertain the author’s conclusion, generate multiple solutions to the problem, predict consequences and use evidence of sound reasoning to justify a position.

Data Collection and Measurement

The Watson-Glaser Critical Thinking Appraisal, a standardized assessment tool, was administered in 75 minute sections. The 80 item multiple-choice assessment was chosen by faculty because it closely aligns with the outcomes.

This instrument measures critical thinking in the following five areas:

- *Inference*: Discriminating among degrees of truth or falsity of inferences drawn from given data.
- *Recognition of Assumptions*: Recognizing unstated assumptions or presuppositions in given statements or assertions.
- *Deduction*: Determining whether certain conclusions necessarily follow from information in given statements or premises.
- *Interpretation*: Weighing evidence and deciding if generalizations or conclusions based on the given data are warranted.
- *Evaluation of Arguments*: Distinguishing between arguments that are strong and relevant and those that are weak or irrelevant to a particular question at issue.

Assessment Results

The performance of 74 beginning general education students (pre-group) is compared to 73 completing general education students (post-group).

The average score was not significantly higher for the completing student group overall or for any of subsets of the assessment. Table 5 presents the mean scores and the percent correct by skill area. The National mean raw score is 51.9 for students in junior and community colleges; the post-group mean raw score is 48.9. When compared to the nation, the pre-group falls in the 35th percentile (possible range is 33rd-37th) and the post-group is at the 40th percentile (possible range is 38th-42nd).

Table 5

Mesa Community College Student Outcomes Assessment 2008 Watson-Glaser Critical Thinking Appraisal Problem Solving – Percent Correct by Skill Area and Student Group				
	Pre-group N=74		Post-group N=73	
	Score	Percent Correct	Score	Percent Correct
Overall	47.5	59.3%	48.9	61.2%
Evaluation of Arguments	10.6	66.3%	11.2	70.1%
Interpretation	10.2	63.8%	10.5	65.7%
Recognition of Assumptions	10.0	62.4%	9.9	61.8%
Deduction	9.6	60.1%	9.5	59.6%
Inference	7.1	44.2%	7.8	48.7%

Data Trends

This is the sixth year of classroom administration of the *Watson-Glaser Critical Thinking Appraisal*. A comparison of the percent correct by outcome for the post-group between the 2002, 2004, 2006 and 2008 is presented in Table 6. Patterns are consistent across years. Average student scores are consistently highest for the Interpretation and Evaluation of Arguments sections and lowest for Inference.

Table 6

Mesa Community College Student Outcomes Assessment Watson-Glaser Critical Thinking Appraisal Problem Solving/Critical Thinking: Percent Correct for Post-groups				
	Spring 2002 Post-group N=62	Spring 2004 Post-group N=88	Spring 2006 Post-group N=83	Spring 2008 Post-group N=73
	Percent Correct	Percent Correct	Percent Correct	Percent Correct
Overall	64.1%	61.6%	65.2%	61.2%
Evaluation of Arguments	70.0%	68.2%	72.6%	70.1%
Interpretation	73.0%	71.1%	70.3%	65.7%
Recognition of Assumptions	66.0%	60.2%	69.4%	61.8%
Deduction	60.6%	58.9%	62.0%	59.6%
Inference	53.0%	50.5%	51.8%	48.7%

Information Literacy Assessment Results

Outcomes

Information Literacy outcomes are: Given a problem, define specific information needed to solve the problem or answer the question; Identify and use appropriate print and/or electronic information sources; Locate appropriate and relevant information to match informational needs; Evaluate information for currency, relevancy, and reliability; Use the information effectively.

Data Collection and Measurement

The Information Literacy assessment is comprised of 38 multiple-choice questions and an open ended question. In the open ended question, students are asked to read a several articles and respond by writing a letter using the information from the articles. Answers were then blind scored and assigned a point value based upon a rubric.

Assessment Results

The mean score for the 70 completing students (post-group) is significantly higher than the mean score for 70 beginning students (pre-group) overall and on two of five outcomes (See Table 7).

Table 7

Mesa Community College Student Outcomes Assessment 2008 Information Literacy – Percent Correct by Outcome and Student Group		
	Percent Correct	
	Pre- group N=70	Post- group N=70
Overall	68.8%	72.7% *
Evaluate information for currency, relevancy, and reliability.	86.8%	90.9%
Given a problem, define specific information needed to solve the problem or answer the question.	70.9%	70.7%
Identify and use appropriate print and/or electronic information sources.	69.7%	79.1% *
Locate appropriate and relevant information to match informational needs.	56.5%	63.5% *
Use information effectively.	64.7%	61.0%

* Significant difference

Data Trends

Over the past four administrations of the Information Literacy assessment students have been most successful evaluating information for currency and relevancy. The scores have been relatively lower on the ability to locate appropriate and relevant information to match informational needs and to use information effectively. Completing students have consistently scored higher overall than beginning students for all five administrations of the instrument.

Workplace Skills Results

Outcomes

The workplace skills outcomes are:

- *Ethics*: The ability to commit to standards of personal and professional integrity, honesty and fairness.
- *Interpersonal Communication Skills*: The ability to utilize oral, written and listening skills to effectively interact with others.
- *Critical Thinking*: The ability to analyze and evaluate information and utilize a variety of resources in making decisions or solving problems.
- *Organization*: The ability to prioritize, meet deadlines and complete assignments in a timely manner; adapt to a constantly changing workload and environment; and identify realistic goals and inventions for short and long term planning.

- *Team Work*: The ability to collaborate with others toward the accomplishment of common goals.
- *Technology Literacy*: The ability to use and understand technologies' value and purpose in the workplace.
- *Personal and Professional Responsibilities*: The ability to assess the range of one's abilities, accept responsibility for setting realistic goals, and implementing a plan for personal and professional well-being.

Data Collection and Measurement

The workplace skills assessment was developed by a committee of Career and Technical faculty representing a variety of programs. The instrument was adapted from SCANS/TEJAS, a workplace skills item bank developed through a grant from the Texas Higher Education Coordinating Board. The assessment was administered in Career and Technical classes representing a cross-section of eight disciplines. The 61-item measure took approximately 50 minutes to administer.

Assessment Results

Samples were not large enough to conduct the pre-post analysis as in prior years. The relative ranking of the scales has been consistent over time as shown in Table 8. The percent correct for each outcome is: Technology Literacy (76.4%); Interpersonal Communication (75.4%); Personal and Professional Responsibility (77.2%); Ethics (80.1%); Teamwork (70.1%); and Organization (58.4%).

Table 8

	Ranking		
	2006	2007	2008
<i>Technology Literacy</i> : The ability to use and understand technologies' value and purpose in the workplace.	1	1	3
<i>Interpersonal Communication</i> : The ability to utilize oral, written and listening skills to effectively interact with others.	3	2	4
<i>Personal and Professional Responsibility</i> : The ability to assess the range of one's abilities, accept responsibility for setting realistic goals, and implement a plan for personal and professional well-being.	2	3	2
<i>Ethics</i> : The ability to commit to standards of personal and professional integrity, honesty and fairness.	4	4	1
<i>Team Work</i> : The ability to collaborate with others toward the accomplishment of common goals.	5	5	5
<i>Organization</i> : The ability to prioritize, meet deadlines and complete assignments in a timely manner; adapt to a constantly changing workload and environment; and identify realistic goals and inventions for short and long term planning.	6	6	6

Data Trends

The ranking of skill areas changed slightly in 2008. Students had scored highest in technology literacy in each of the past two administrations, but that category ranked third this year. Ethics moved from fourth ranked to top ranked. The lowest ranking areas, organizational skills and teamwork, have remained consistent over the last three years.

V. Indirect Measures of Student Learning

In addition to the direct measures of the achievement of student learning provided by evaluating the results of the assessments administered to students annually, a number of indirect measures of student learning are collected at the college. These indirect measures provide further evidence of student learning; results from several indirect measures are presented in this section.

Graduate Exit Survey

Upon application for graduation, all students are asked to complete an on-line survey. A total of 2,448 students completed the survey from summer 2007 through spring 2008. The majority of students, 82%, indicated that they intended to transfer to another school, 14% of students are planning to use their degrees for career related reasons and 2% of students plan to use their degree for personal reasons.

Students are asked the degree to which their college experience has prepared them to transfer to a four-year college or university. The mean scores and share of students who say they are “very well prepared” for transfer has remained stable over the last five years as illustrated in Table 9.

Table 9

Mesa Community College Graduate Exit Survey Results “How well prepared do you feel to transfer?”					
	AY 2003-2004	AY 2004-2005	AY 2005-2006	AY 2006-2007	AY 2007-2008
Mean score (scale 1-4)	3.6	3.6	3.5	3.5	3.6
Very well prepared	61%	61%	59%	59%	65%
Somewhat prepared	35%	36%	38%	37%	32%
Somewhat unprepared	3%	2%	3%	3%	2%
Very unprepared	1%	1%	1%	1%	1%

The responses of a subset of students whose educational goals are in a Career and Technical field are presented in Table 10. Students were asked, “How well prepared do you feel for entering the workplace?” Overall more than half of the students feel they are very well prepared.

Table 10

Mesa Community College Graduate Exit Survey Results “How well prepared do you feel for entering the workplace?”					
	AY 2003-2004	AY 2004-2005	AY 2005-2006	AY 2006-2007	AY 2007-2008
Mean Score (scale 1-4)	3.5	3.5	3.6	3.6	3.6
Very well prepared	59%	57%	60%	62%	69%
Somewhat prepared	37%	38%	37%	34%	26%
Somewhat unprepared	3%	2%	2%	3%	3%
Very unprepared	1%	4%	1%	1%	1%

Licensure and Certification

Students in Fire Science, Mortuary Science, the Network Academy, and Nursing programs are able to receive licensure from outside licensure bodies after their studies at MCC. Data on licensure is presented below for these programs.

The MCC Fire Science and EMT programs offer certification in several areas as detailed in Tables 11-13. The Fire-Fighter I and II Certification and the Hazardous Materials First Responder are both granted by the Arizona State Fire Marshall's Office. The actual success rate of attainment of the certificates may be underestimated because only the initial attempt at passage is reported back to the college. Students have three chances to pass the certification.

Table 11

Fire Science Licensing Agencies	
License/Certification	Agency
TRT Class	City of Phoenix Certificate
	State Fire Marshal
Haz-Mat Tech Class	City of Phoenix/IFSAC combined
	State Fire Marshal
	IAFS - Department of Energy
	IAFS - Department of Justice
Candidate Physical Agility Test (CPAT)	International Association of Firefighters
	International Fire Chiefs Association
Hazardous Materials/First Responder (FSC 105)	State Fire Marshal
Fire Operations (FSC 102)	State Fire Marshal
Wildland Firefighter (FSC 110)	Arizona State Land Department, Fire Management Division

Table 12

Mesa Community College Fire Science Certification Examinations			
	Enrolled	Passed	%
Fall 2007			
Technical Rescue Technician	36	36	100%
Hazardous Materials Technician	28	28	100%
Hazardous Materials/First Responder (FSC 105)	73	65	89%
Candidate Physical Agility Test (CPAT)	225	199	88%
Wildland Firefighter (FSC 110)	13	12	92%
Fire Department Operations (FSC 102)	19	16	84%
Total	394	356	90%
Spring 2008			
Hazardous Materials/First Responder (FSC 105)	62	54	87%
Candidate Physical Agility Test (CPAT)	268	246	92%
Wildland Firefighter (FSC 110)	13	13	100%
Fire Department Operations (FSC 102)	10	10	100%
Total	353	323	92%
Summer I 2008			
Hazardous Materials/First Responder (FSC 105)	15	14	93%
Total	15	14	93%

Table 13

Mesa Community College EMT Certification Examinations			
Fall 2004	Enrolled	Certified	%
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	122	122	100%
EMT104 Basic Emergency Medical Technology	154	122	79%
EMT200 Refresher Course for Certified Emergency Medical Technicians	52	52	100%
EMT208 Intermediate Emergency Medical Technology	65	57	88%
EMT272 Advanced Emergency Medical Technology	65	57	88%
EMT272LL Advanced Emergency Medical Technology Practicum	65	57	88%
Spring 2005			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	61	61	100%
EMT104 Basic Emergency Medical Technology	166	123	74%
EMT200 Refresher Course for Certified Emergency Medical Technicians	72	70	97%
EMT208 Intermediate Emergency Medical Technology	22	22	100%
EMT272 Advanced Emergency Medical Technology	22	22	100%
EMT272LL Advanced Emergency Medical Technology Practicum	22	22	100%
Summer 2005			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	67	67	100%
EMT104 Basic Emergency Medical Technology	72	58	81%
EMT200 Refresher Course for Certified Emergency Medical Technicians	36	36	100%
EMT208 Intermediate Emergency Medical Technology	23	23	100%
EMT272 Advanced Emergency Medical Technology	23	23	100%
EMT272LL Advanced Emergency Medical Technology Practicum	23	23	100%
Fall 2005			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	126	126	100%
EMT104 Basic Emergency Medical Technology	139	100	72%
EMT200 Refresher Course for Certified Emergency Medical Technicians	32	32	100%
EMT200AB	3	3	100%
Spring 2006			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	127	127	100%
EMT104 Basic Emergency Medical Technology	134	94	70%
EMT200 Refresher Course for Certified Emergency Medical Technicians	97	97	100%
Summer 2006			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	104	104	100%

*EMT certification data for semesters after summer 2006 has not been reported.

The students in the Mortuary Science program must take the National Board Examination to graduate. Most all states accept the scores on the NBE in lieu of having their own state exam. The National Board Exam is administered by the International Conference of Funeral Service Examining Boards. Licensure is on a state by state basis. The statistics reported here reflect the pass rate on the NBE for first time takers of that exam. Almost all graduates eventually pass the exam and get licensed. Most of those students graduating in recent years are still completing state requirements for licensure. Along with their score on the NBE, each student must complete an internship of one or two years after graduation prior to licensure. These requirements vary from state to state. Approximately 33% of the students in each year's class are from states other than Arizona. Details are provided below.

Table 14

Mesa Community College Mortuary Science Examinations					
	Graduates	Passed licensure test		National Pass Rate	Licensed
	#	#	%		
1999-00	22	20	91%	82%	20
2000-01	14	13	93%	86%	11
2001-02	17	17	100%	85%	16
2002-03	21	19	95%	84%	15
2003-04	29	26	90%	67%	17
2004-05	16	12	75%	74%	16
2005-06	25	22	88%	72%	19
2006-07	21	14	67%	70%	*

* Not Reported

Mesa Community College's Business & Industry Institute offers several credit and non-credit information technology programs. Non credit training is offered through contracts and partnerships with leading technology companies. Degree programs and Certificates of Completion are offered under the Network Academy. The Network Academy offers certification pathways in Network Administration, Network Security, Programming, Database Technologies, Fiber Optics, Information Assurance, Home Technology Integrator and Work Place Skills. Training formats include fast tracks, traditional semesters, distance learning, and internet deliveries. Network Academy students earn industry certification after completion of the program; however, there is not a formal mechanism for reporting certifications back to the program.

Nursing students who complete a four semester curriculum and receive the Associate of Applied Science degree are eligible to take an exam to become licensed through the NCLEX RN licensure exam (The National Council of State Boards of Nursing Examination for Nursing); pass rates are detailed below.

Table 15

Mesa Community College Nursing Program NCLEX Examination pass rate						
	Total # Graduates	# Graduates NCLEX Completed	# Graduates NCLEX Not Taken	# Graduates Passed	# Graduate Failed	NCLEX Pass Rate, to date
Spring 2001	41	41	0	31	10	75.6%
Fall 2001	45	43	2	38	5	88.4%
Spring 2002	50	48	2	45	3	93.8%
Fall 2002	59	57	2	56	1	94.9%
Spring 2003	68	68	0	68		100%
Fall 2003	75	75	0	69	6	92%
Spring 2004	70	70	0	67	3	95.7%
Fall 2004	100	99	1	95	4	96%
Spring 2005	75	74	1	68	6	91.9%
Fall 2005	71	69	2	65	4	94.2%
Spring 2006	58	58	0	55	3	94.8%
Fall 2006	38	36	2	32	4	88.9%
Spring 2007	75	75	0	69	6	92%
Fall 2007	50	47	3	46	1	97.8%

Course Completion

Data about course completion is provided for fall semesters in Table 16. The relative share of successful completion (grades of A,B,C, or P) as fallen since fall 2003 and the share of grades that reflect withdrawal (W,Y) has increased over the same time period.

Table 16

Mesa Community College Course Completion Fall 1998 – 2007				
	Successful (A, B, C, P)	Unsuccessful (D, F, Z)	Completer Sub-total	Withdrew (W,Y)
Fall 98	68%	8%	76%	24%
Fall 99	68%	8%	76%	24%
Fall 00	69%	8%	77%	23%
Fall 01	69%	8%	77%	23%
Fall 02	71%	8%	79%	21%
Fall 03	71%	8%	79%	21%
Fall 04	71%	8%	78%	22%
Fall 05	69%	8%	77%	23%
Fall 06	68%	8%	76%	24%
Fall 07	68%	8%	77%	23%

Persistence

Cohorts of new full time students were followed for two semesters to track their enrollment in the college. Students are further grouped based upon what they declared as their intent at the time of registration. The tables below show the overall persistence of new full time students who started attending MCC in fall 2005 and fall 2006.

Table 17

Mesa Community College New Full Time Student Persistence			
	Enrolled Fall 2006	Remained Spring 2007	Remaining Fall 2007
Full time total new students	1,510 (100%)	1,321 (88%)	953 (65%)
Full time transfer students	1,183 (100%)	1,051 (89%)	73 (66%)
Full time career students	327 (100%)	270 (84%)	180 (59%)

Table 18

Mesa Community College New Full Time Student Persistence			
	Enrolled Fall 2005	Remained Spring 2006	Remaining Fall 2006
Full time total new students	1,500 (100%)	1,294 (86%)	946 (63%)
Full time transfer students	1,176 (100%)	1,032 (88%)	762 (65%)
Full time career students	324 (100%)	262 (81%)	184 (57%)

Transfer

The number of students subsequently enrolled in an Arizona State Universities and received undergraduate degrees is described in the following tables.

Table 19

Mesa Community College Undergraduate Enrollment of Students with MCC Transfer Credits at Arizona Universities							
	2001	2002	2003	2004	2005	2006	2007
Arizona State University	7,561	7,996	8,379	8,767	8,716	8,601	8,195
Northern Arizona State University	727	755	773	772	789	854	943
University of Arizona	534	607	656	638	552	552	549
Total	8,822	9,358	9,808	10,177	10,057	10,007	9,687

*Assist Database October 2008

Table 20

Mesa Community College Students with MCC Transfer Credits Receiving Undergraduate Degrees at Arizona Universities							
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Arizona State University	2,208	2,373	2,477	2,538	2,891	2,819	2,824
Northern Arizona State University	197	224	242	232	262	264	255
University of Arizona	149	133	140	123	163	104	130
Total	2,554	2,730	2,859	2,893	3,316	3,187	3,209

*Assist Database October 2008

Developmental Education Course Completion and Subsequent Success

The overall course completion for developmental reading, English and math students is detailed in the table that follows.

Table 21

Mesa Community College Developmental Education Course Completion				
	Successful (A, B, C, P)	Unsuccessful (D, F, Z)	Completer Sub-total	Withdrew (W,Y)
Fall 2003	56%	14%	70%	30%
Fall 2004	52%	15%	67%	33%
Fall 2005	48%	16%	64%	36%
Fall 2006	51%	14%	65%	35%
Fall 2007	53%	14%	67%	33%

Of students who were successful in a developmental course, performance in subsequent 100 level or higher courses is described in Table 22.

Table 22

Mesa Community College Developmental Education students Success in a subsequent 100 level or Above Course				
	Successful in any subsequent course	Unsuccessful in all subsequent courses	Withdrew from all subsequent courses	Did not enroll in subsequent courses
Fall 2002 followed through Fall 2003	74%	3%	8%	15%
Fall 2003 followed through Fall 2004	73%	4%	7%	16%
Fall 2004 followed through Fall 2005	73%	4%	9%	15%
Fall 2005 followed through Fall 2006	70%	6%	8%	16%
Fall 2006 followed through Fall 2007	72%	5%	9%	15%

Appendix A

Student Outcomes Committee Meeting Minutes for AY 2007-2008

Minutes from the Faculty Senate Student Outcomes Committee (SOC)

Thursday, September 13, 2007

Attendees: Derek Borman, Christina Santacruz Del Rosario, Tim Florschuetz, Mark Gooding, John Griffith, Dave Harris, Carolyn Hemingway, Craig Jacobsen, Stan Kikkert, Beth Hunt Larson, Sara Martinez, Ly Tran-Nguyen, Janell Pierce, and Naomi Story.

Welcome/Introductions: The SOC committee introductions were made.

Discussion of goals for the year

- a. Use Results: ROC Grants – Two Results Outreach Committee Proposals for projects were funded based upon the assessment results.
- b. Results from 2007 Assessment – Significant differences were seen between the beginning and completing students in all assessment areas. Assessment week was successfully held with participation of 100 faculty and approximately 3,000 students. The executive summary of the report will be distributed to the colleges with a full report to follow. Student suggestions for use of results will be presented at the next SOC meeting.
- c. Global Learning Outcome Proposal – SOC members were encouraged to review results from the May 2006 online survey before the next meeting. Discussion ensued and the following questions were raised:
 - Do we form a student/faculty group to see if there is enough interest in proceeding? Do we determine if there is consensus so we can proceed to the next step? Do we form another cluster? Do another survey?
- d. Student communication/faculty awareness and participation - Suggestions presented during the meeting:
 - Approach Jim Mancuso about presenting at convocation or End of the Year event.
 - Derek Borman is a part of a new PR committee being formed - this could be a useful link.

New goals, strategies and themes

A “flavor of the month” theme noting specific outcomes and best practices of faculty members should be published in the SOC newsletter. Faculty would outline how they document course competency and how the outcomes are being used. Faculty can also submit case studies/suggestions on how they would address an issue. This could be a useful strategy in getting faculty involved in a ROC grant. SOC could initially supply ideas for the first 1-2 issues.

As SOC moves forward on establishing this year’s goals members should contact Mark Gooding about areas they would like to focus on for the year.

Future meeting dates: 10/11; 11/ 8; 1/17; 2/14; 3/20; 4/10

Meeting adjourned.

Thursday, October 11, 2007

Shereen Lerner provided background on the proposal to add a global learning outcome to the assessment program. The committee reviewed the faculty survey, the student information and concluded that there was sufficient faculty support to form a cluster. The cluster will be formed to further define the outcomes and then explore possible instruments to measure the outcome. The cluster will report back to the SOC committee.

The committee decided to hold assessment week on the last week of February and wants to proceed with administering all of the normal instruments. There are going to be some sections that will receive the

CCSSE survey. We will try to coordinate the assessment so that no one will be given two measures to administer.

The assessment orientation by Derek Borman is now updated. It includes the faculty orientation and the student orientation and has download capability for those IBM computers that do not have Flash.

Mark Gooding will attend the Assessment Forum on behalf of SOC. It is about accreditation and features a panel of presenters.

The distance committee and SOC will collaborate to discuss how assessment can be administered to students who are strictly online. A literature review will be conducted so that we can determine if there will be a difference administering the assessment in person versus on-line. We will seek a volunteer from the distance committee to participate.

The normal presentation of the results and discussion will be held during the week of accountability instead of October as in the past. It is hoped that a faculty dialog about the results will occur. Naomi and Jim will work to set a time.

The goals for the year have been set and follow.

SOC goals 2007-08

1. Use assessment results to improve student learning and measurement tools.
2. Assess student learning in the areas of Numeracy, Scientific Inquiry, Problem solving, Information Literacy and Workplace Skills.
3. Form a cluster for global learning group to define outcomes and then consider possible measures for global awareness as a general education outcome.
4. Communicate with students.
5. Increase awareness and communication to faculty about college assessment, SOC/ROC events and general assessment issues.
6. Explore and define a methodology for including students who are only enrolled in distance courses into the assessment process.

SOC Meeting Minutes

Thursday, November 8, 2007

Orientation for Faculty- Created by Derek Borman

A new faculty orientation was shared. It can be downloaded or used online. It provides all the information about administering assessments as well as background information

Recruitment of volunteers for Assessment Week 2008: The goals for assessment week were distributed. SOC members agreed to recruit specific targets by department. Flyers for faculty were made available as well. We need 120 sections. Numeracy, Science, Information Literacy, Workplace Skills and Problem Solving/Critical Thinking.

Global Learning Cluster Membership: Several people were mentioned as possible members of the Cluster. The cluster will first be defining outcomes. It is important that the cluster be cross-departmental and have the right number of members 5-8.

Distance Discussion and Ideas for pilot test. SOC is going to proceed with a pilot test of distance assessment. We will use distance sections from Mark Gooding and Dave Harris. We will pick an assessment that is relatively straightforward to test. A separate meeting will be held to work out the plans. Naomi Story has done a lit review and the group will look at her findings before developing the assessment. Confidentiality of student ID and of the assessment are issues that need to be addressed.

Assessment Results report: A draft of the assessment report was shared with the committee. It is anticipated that the final report will be produced before the end of the term.

Convocation- Themes and participants. Student Outcomes Assessment will be a topic of the convocation this spring. Jim Mancuso asked that we review the report and highlight several themes. The themes that the committee picked are application of knowledge, workplace skills teamwork and seeing beyond the personal perspectives. There will possibly be panel discussions.

ROC- It is time to put out the call for proposals. The flyer was distributed.

Co-Chair for spring- It is time to select a co-chair for the spring. Send your nomination or self-nominate to Mark Gooding.

DSAAAC Meeting follow-up. Mark attended a DSAAAC meeting that was primarily concerned with assessment and how to meet the goals of accrediting bodies.

A. Future meeting dates for this year: 1/17; 2/14; 3/20

SOC Meeting Minutes January 17, 2008, AS196, 3:00-4:30 pm

Committee Picture

IA came to take a group picture of the committee.

Assessment Week

Matt discussed that we are currently short of the target number of sections and students. The committee discussed ways to recruit more sections.

The Assessment Week Poster is in design by Tom Kline, an art faculty member, and will be done by Jan. 28th. The poster will be sent to the committee for their input

The committee decided not to have an orientation this year because turnout for previous years has been extremely low.

There is a possibility of eliminating an assessment if we can't get enough students. The committee agreed to eliminate the numeracy assessment if that were to happen.

CCSSE

Matt will write an article for the bulletin that will focus on CCSSE. Mark will write an article focusing on assessment week.

Global Learning Cluster

Mark said that the global learning cluster hasn't gone anywhere. Mark will contact Shereen about this later in the semester to see if there's been any progress

Distance Learning

The committee discussed putting the scientific inquiry assessment online as a pilot for distance students. It was emphasized that this would be an informal pilot that will produce no data. Matt is meeting with CTL to see about have the assessment put on WebCT.

ROC Grants

The committee briefly discussed the need to do a ROC grant call for proposals. Jim said he thought that the budget for the ROC grants was still \$10,000.

Election

Mark talked about the procedures for electing a new SOC president. Derek Borman nominated himself to be put on the ballot. Mark emphasized the need to follow election procedures due to the fallout from the previous election that didn't follow procedures. The resource committee will review any nominees and will forward to the rest of the committee for election.

Meeting dates for spring 2008: 2/14 CTL Conference; 3/20 AS196; 4/10 CTL Conference

SOC Meeting Minutes February 14, 2008, CTL Conference Room, 3:00-4:30 pm

Assessment Week

The Assessment Week 2008 poster was unveiled. Mark suggested that the committee should acknowledge Tom Klare, the art faculty member who created this year's poster. The poster was well received by committee members.

Matt provided an update from the Office of Research and Planning on the status of section recruiting for Assessment Week. Thanks to the renewed effort by committee member to recruit more faculty, we now have close to the target number of students. Materials and packets are in progress and will go out to volunteers next week. We received more workplace skills sections to push the total to 11 sections for that assessment. This still might not be enough for results, so maybe we should put more push behind workplace skills in the future.

Ly and Tim asked if giving the assessment in their sections after the official Assessment Week was acceptable. Mark and Matt both confirmed that it was and that we are flexible with faculty scheduling for the assessment. Matt mentioned already sending materials out to one faculty to complete the assessment early.

Mark reiterated his thanks to the committee for their last ditch recruiting effort to get more assessment sections.

CCSSE

Jim and Matt discussed the status of CCSSE. About 120 sections have been randomly assigned. ORP has sent department chairs and selected faculty notifications. Some faculty have asked how they were selected to participate. A modified version of Jim's original CCSSE memo may be sent out to faculty. Matt will look into getting a sample CCSSE questionnaire to committee members.

Distance Pilot Assessment

The scientific Inquiry Assessment has been put online using WebCT. Mark discussed potentially using better programs in the future. This pilot will only have four sections, volunteered by an economics faculty. Mark noted that we want to expand as quickly as we can, but we don't want to rush into something. Students will access the pilot assessment from home. ORP is working with CTL to make sure that the online assessment is as similar to the paper assessment as possible.

Mark brought up that an error in the question number in the scientific inquiry exam was discovered and the assessment had to be re-printed. We will look at this year's results to see this error caused any problems in past years.

Naomi has been working on literature review for assessing learning in an online environment. The committee would like her to summarize results at the next meeting.

Closing the Loop

Matt discussed the use of a faculty survey at GCC that asks if they use assessment results. GCC has had good feedback with this survey and has the ultimate goal of developing best practices.

The committee discussed (lack of) internal mechanisms for using assessment results and said that an ongoing discussion of developing a way to use these results is needed. Matt suggested looking at how other processes at MCC have been institutionalized and using this to institutionalize the use of assessment results. Jim suggested having the faculty take the assessments themselves and gearing department level meetings more toward student learning and success.

ROC Grants

Mark will send ROC call for proposals tomorrow.

Technology Literacy Outcome

Mark asked the committee if we should have technology literacy as a learning outcome. The committee discussed whether this could be added to a current assessment (information literacy) or if a new assessment would need to be created. The committee discussed that many students seem to lack basic computer skills, and Derek noted that we would probably see big gains in technology literacy. Jim said that Dr. Pan is open to the discussion and a Vice President overseeing technology, and that MCC has lacked leadership in this area for nine years. Dave Harris in the business department was named as a possible contact regarding the technology literacy assessment. It was suggested that we pilot technology literacy in workplace skills.

Global Learning Cluster

Naomi indicated that Shereen is assembling a committee.

ORP Director

Jim mentioned that he plans to ask Bernie Ronan to move ahead with the process to post for the Director position in ORP.

Remaining meeting dates for spring 2008: 3/20 AS196; 4/10 CTL Conference

SOC Meeting Minutes March 20, 2008, AS196, 3:00-4:30 pm

Assessment Week 2008 Update

Matt gave update on return rates for Assessment Week. Total return rate is about 93 percent and is in line with previous years.

Matt gave an overview of faculty comments from the assessment submittal form. A report with these comments was distributed to attending committee members. Matt noted that some 50 minutes sections had time problems in administering the assessment. There were also complaints about having to provide student ID numbers. The committee looked at the report and discussed some of the faculty comments.

Matt briefly updated the committee on the status and return rates of the CCSSE. Return rates included 93 of 121 sections and about 55 percent of the total number of surveys distributed.

Online Assessment Literature Review

This item was tabled until the next meeting.

Online Assessment Pilot (Scientific Inquiry) Update

Matt gave an update on student input concerning the online assessment pilot of the scientific inquiry assessment. A handout with student comments was distributed to attending committee members. Overall, only about 43 percent of students having the option to participate in the online pilot did so.

The committee also discussed the possibility of the college moving to a new online delivery system.

Global Awareness Update

The committee for the global awareness outcomes met on Tuesday, March 18th. Mark updated the committee on positive progress towards developing the outcomes for global awareness. He said that the global awareness committee members unanimously decided that the global awareness and cultural diversity outcomes were not same measure. He also said that the global awareness committee will synthesize five outcomes for global awareness from the ten they discussed at their meeting.

Information Literacy – Request from Library

Mark discussed a request from Chas Moore from the library to give the information literacy assessment to a library science class for the purpose of program review. Matt said that this would need to be completely separate from Assessment Week results. Mark suggested that the committee wait to make a decision on this issue until Chas can present his proposal at the next meeting.

Technology Literacy

Mark briefly discussed looking at adding a technology literacy outcome next year.

Human Subjects Research – CRRC

Mark discussed that SOC falls under the human subject research heading because the committee shares results with outside constituencies. Because of this, SOC needs to have a primary investigator. Mark suggested the committee have two primary investigators: the current SOC chair and a member of ORP. Some training will be required to be certified as a PI.

ROC Grants - Call for Proposals

Since there were no responses to the first call for proposals, Mark will issue another call for proposals. The committee discussed several ideas for increasing awareness of ROC Grants. One idea was to consider ROC Grants to be another avenue for EDP grants that align with the intent of ROC to be funded.

Remaining meeting dates for spring 2008: 4/10, CTL Conference Room

SOC Meeting Minutes April 10, 2008, CTL Conference Room, 3:00-4:30 pm

In Attendance

Mark Gooding, Chair; Janell Pierce, Craig Jacobsen, Ly Tran-Nguyen, Tim Florschuetz, Matt Ashcraft, Christina Santacruz Del Rosario, Dennis Mitchell.

Library Request

Mark notified the committee that the request from Chas at the library has been put on hold and was struck from the agenda.

Online Assessment Literature Review

Mark notified the committee that Naomi would not be able to attend, so there will be no online assessment literature review this meeting. He said he would contact Naomi about getting a written literature review from her to send to the committee.

Global Learning Update

Mark and Matt gave an update of the progress of the Global Learning Committee. It has met twice and has five outcome statements in the draft stage. Mark suggested getting cluster members to work on developing measure questions over the summer with a goal of piloting this assessment next year.

Looking to the Future – Scalability of the Assessment Program

Mark asked the committee to discuss the state of the Assessment program and whether any changes need to be made. Mark asked if the program is sustainable if it continues to expand with new outcomes and with online administration.

The committee discussed other options to the current program, including portfolios, class-level assessments and capstone courses.

Janell discussed her experience with a portfolio-based assessment program at Central Arizona College, but noted that she didn't get to see the final end product of that model.

Craig commented that the current system does a good job of getting numbers to show that post students perform better than pre students. He said that if that is the purpose, then the committee doesn't need to keep adding outcomes because the assessment results aren't getting plugged back in to help improve learning.

Matt commented that college-level assessment data is usually difficult to plug back in and that it is tough to make the leap down to the course level. He added that maybe the next step of MCC's program is to get this nailed down as far as closing the loop.

Mark said that he would prefer a portfolio assessment but noted that a fluid student population and a majority of non-degree seeking students would be problematic.

Ly said that the committee should explore other models of assessment.

Mark suggested examining what other schools are doing for assessment.

Tim suggested that the committee keep going with what it's doing, yet also try to get a group of students to do the portfolio.

Craig commented in the difficulty of using assessment data because assessments are run at the college level and curriculum changes take place at the district level.

Matt asked if any system is in place to review older assessments so that the committee can know if they are they still assessing what they are trying to assess.

Ly said that there is no review procedure in place, and that she's heard comments about errors on the assessments.

Matt suggested that the committee put the assessments on a comprehensive review cycle.

Mark passed out a sheet of objectives from Derek, chair-elect.

Tim asked if it would be possible to use ROC money for other purposes like CTL workshops or best practice workshops. He also mentioned giving reassign time to faculty to head the clusters because content experts should serve as heads.

Mark suggested that the committee start with reexamining the current program.

Matt described the assessment program at Glendale. They use a 40-minute nationally-normed assessment that covers three outcomes. He mentioned the possibility of using MCC faculty to collapse current assessments so that one assessment could assess multiple outcomes.

There are no more spring meeting dates for the SOC committee.

Appendix B

Results Outreach Committee Materials

ROC

The Results Outreach Committee

Designed to help teams of faculty or departments use the student outcomes assessment results

ROC Mission

Provide a mechanism and resources to support faculty and/or departments in developing outcomes-based instructional initiatives or projects directly linked to assessment results data.

ROC Purpose

- Promote the use of outcomes data in relation to faculty development, pedagogy, and academic climate;
- Encourage and stimulate faculty, departments, interdisciplinary teams to develop specific outcomes-based initiatives or projects based on assessment data;
- Provide the mechanisms and/or resources for these outcomes-based initiatives

MCC's Gen Ed Outcomes are:

Written and Oral Communication
Problem Solving/Critical Thinking
Numeracy
Arts & Humanities
Scientific Inquiry
Information Literacy
Cultural Diversity

MCC's Workplace Skills are:

Ethics
Interpersonal Skills
Critical thinking
Organization
Teamwork
Technology Literacy
Personal and Professional Responsibility

Results Outreach Committee Call for Proposals

The Results Outreach Committee (ROC) is a sub-committee of MCC's Student Outcomes Committee (SOC). Its mission is to provide a mechanism and the resources to support faculty and/or departments in developing outcomes-based initiatives directly linked to assessment results data.

ROC Call for Proposals

The Results Outreach Committee (ROC) is seeking proposals for faculty projects to be developed during summer and completed during the following academic year. Proposals are for instructional initiatives or **projects based on MCC's outcomes assessment results**. Preference will be given to proposals that involve groups of faculty or entire departments and demonstrate a long-term benefit to students and the academic climate. Interdisciplinary teams are encouraged.

Compensation will depend upon the nature of the project and might include grants, resources or support, stipends, expenditures, equipment, or recognition. Funding for past proposals have ranged from \$1,500-7,000 for teams of 3-10 participants. Proposals will be reviewed by an ad hoc faculty committee comprised of SOC and ROC members.

Proposals must:

1. Focus on an instructional initiatives **based on college-wide outcomes assessment results**.
2. Benefit students, programs, and departments. Preference will be given to proposals that involve groups of faculty or entire departments. Interdisciplinary teams are encouraged.

Assessment Background Information

Several themes have emerged from student outcomes assessment over the past years

- Students have difficulty with recognizing the opposing viewpoint and expanding their personal perspective to adopt a broader view.
- Students need to be further challenged in their ability to apply knowledge, draw valid conclusions and judge the validity of inferences.
- Organization and teamwork have been identified as areas of relative weakness for students in career and technical programs.

You can address one of these themes or any of the findings presented in a summary of Assessment Week results at: <http://www.mc.maricopa.edu/about/orp/assessment/>: OR obtain a complete Annual Report of assessment data by contacting the Office of Research and Planning at 461-7213.

Submit your proposal:

Project ideas might include:

- Sponsoring workshops, speakers, or a scholarly event on campus;
- Engaging faculty in peer mentoring on outcomes assessment and using results;
- Forming a faculty learning community addressing a given outcome result;
- Creating a service learning activity to improve student outcomes performance-
- Designing new, interdisciplinary approaches to instruction that are outcomes centered

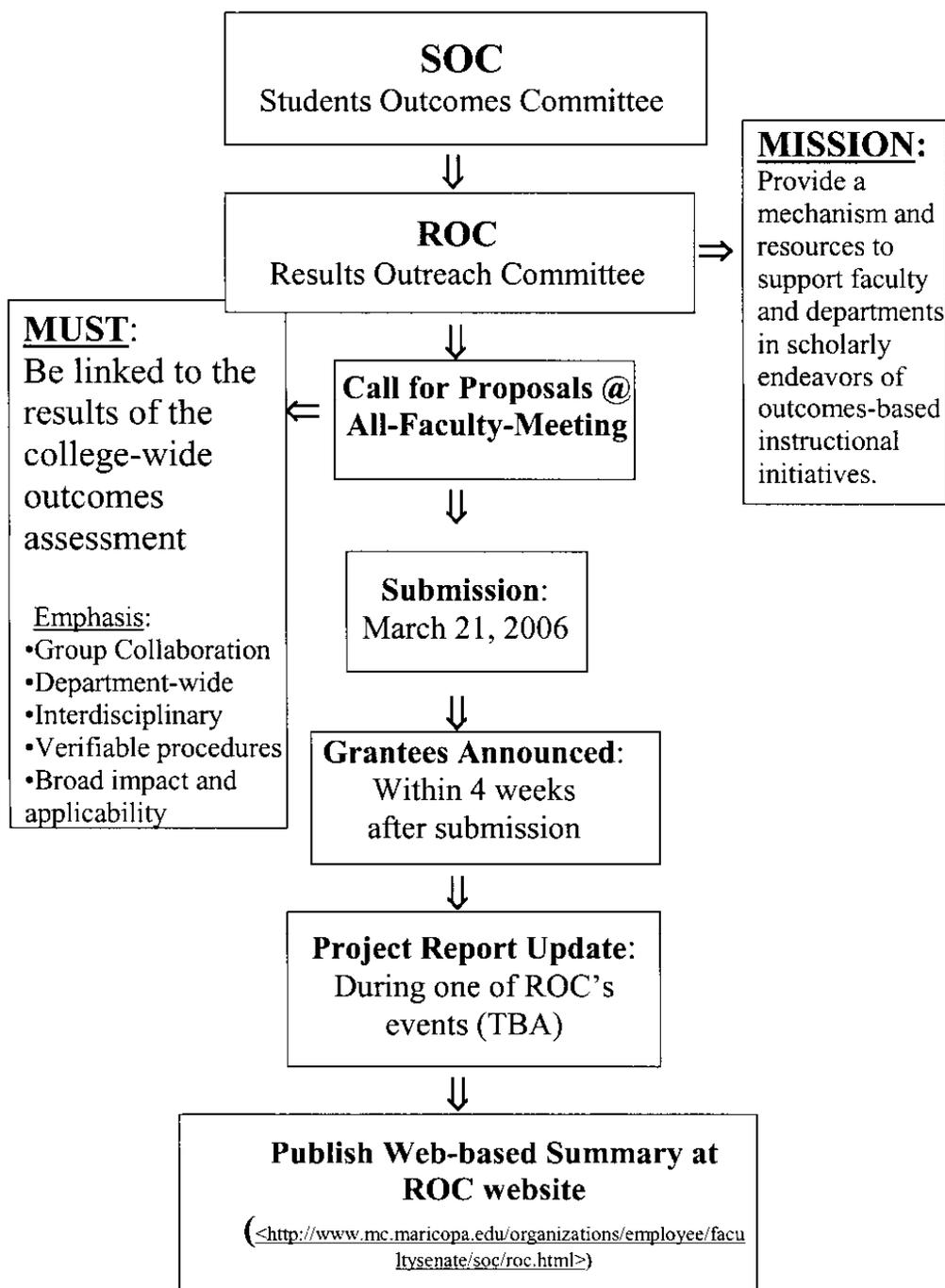
Submission forms, samples of projects funded in the past, project reports and information about the Results Outcome Committee are located at:

<http://www.mc.maricopa.edu/about/orp/ROC.html>

SUBMISSION DEADLINE IS 3 PM Monday March 24, 2008

Recipients will be notified by April 25, 2008

Participants will be expected to report out on their project annually. Proposals must be less than three pages. Submit a word document through intercampus mail AND as an email attachment to the current SOC Chair: Mark Gooding, English Department (gooding@mail.mc.maricopa.edu): For further information contact: Mark Gooding, SOC chair @ 461-7624 (phone) or gooding@mail.mc.maricopa.edu (email).



Results Outreach Committee ROC Proposal	
ROC Project Title	
Name(s) and Department	
Work Phone Number(s)	
Abstract	
	Write a concise overview describing the project, timeline, and intended outcome (120 word limit).
Intended Outcome of Project	
	Explain how the project will benefit: 1) students, 2) the college-wide outcomes assessment endeavor, and 3) the educational climate of the college.
Timeline	
	Describe start/finish dates and schedule of activities. Delineate these by Summer I, Summer II, and/or Fall 2006. If working as a group, state the primary responsibility of each team member.
Compensation Needs	
	Provide a detailed budget including resources and/or expenses needed in order to complete the project. Be specific and include a rationale for each. Proposal expenses may be accepted as is or with noted modifications. Indicate if you are willing to accept partial awards.
Dissemination of Completed Project	
	Participants will be expected to showcase their project on the SOC page of the Office of Research and Planning website either as a scholarly report in pdf format, an html overview, or an interactive web page. The technical help required to accomplish this task will be provided by ROC. Please use good judgment in the scope of your request. Proposals must be less than three pages. Submit a word document through intercampus mail AND as an email attachment to the current SOC Chair: Mark Gooding in the English Department: gooding@mail.mc.maricopa.edu .

Appendix C

Process for Adding an Outcome

Process for Modifying/Adding/Deleting College-Wide Outcome

A. Modifying an outcome/measure

1. A motion is made and a rationale provided by a residential faculty to modify a college-wide outcome. The motion must be seconded by another SOC member to initiate the process.
2. Upon a consensus of SOC members for this need, a faculty cluster will be recruited and charged with reviewing, refining, and operationalizing the modified components of the outcome.
3. Assessment tools aligned to the outcome will be identified and/or developed by the faculty cluster.
4. The assessment tool will then be administered as a pilot test during a subsequent assessment period.
5. Results will be analyzed and assessment tool revised and refined if necessary.
6. Steps 4 and 5 will be repeated until the tool has been validated.

B. Adding an outcome

1. A motion is made and a rationale provided by a residential faculty to add a college-wide outcome. The motion must be seconded by another SOC member to initiate the process.
2. A discussion will take place and upon agreement by SOC members for this need, a proposal will be drafted by the initiating member justifying the rationale for the need of the new outcome.
3. The proposal will be reviewed by the student outcomes resource committee and suggestions for revision made if necessary.
4. The final proposal will be presented to SOC at the next meeting for approval.
5. The SOC Chair and/or Chair-elect will make a formal presentation of the proposal to Faculty Senate.
6. Upon support by Faculty Senate, an interdisciplinary team of faculty will then be recruited to discuss the components of the outcome and design a matrix/survey that measures the degree to which faculty emphasize the proposed outcome in the courses of their respective discipline.
7. The survey/matrix will be sent college-wide to determine campus consensus. If consensus is reached a faculty cluster will be formed.
8. The faculty cluster will be charged with reviewing, refining, and operationalizing the components of the outcome.
9. Assessment tools aligned to the outcome will be identified and/or developed by the faculty cluster.
10. The assessment tool will then be administered as a pilot test during a subsequent assessment period.
11. Results will be analyzed and assessment tool revised and refined if necessary.
12. Steps 10 and 11 will be repeated until the tool has been validated.

C. Deleting an outcome

1. A motion is made and a rationale provided by a residential faculty to delete a college-wide outcome. The motion must be seconded by another SOC member to initiate the process.
2. Upon a consensus of SOC members for this need, a proposal will be drafted by the initiating member justifying the rationale for the need to delete the outcome.
3. The proposal will be reviewed by the student outcomes resource committee and suggestions for revision made if necessary.
4. The final proposal will be presented to SOC for approval.
5. College-wide consensus on the matter will then be determined electronically by the SOC Chair who will send out an email to all residential faculty for comment about any concerns or objections.
6. Once college-wide consensus is determined, the SOC Chair and/or Chair-elect will make a formal presentation of the proposal to Faculty Senate.
7. Upon support by Faculty Senate, the outcome will be deleted.

Appendix D

Learning Outcomes and Assessment Measures as of AY 2007-2008



**MESA
COMMUNITY
COLLEGE**

Mesa, Arizona

Student Outcomes Assessment Program

Summary of Student Learning Outcomes and Assessment Measures

Outcome Area	Student Learning Outcome Statements	Description of Assessment Measure
Arts and Humanities	<ol style="list-style-type: none"> 1. Demonstrate knowledge of human creations. 2. Demonstrate an awareness that different contexts and/or world views produce different human creations. 3. Demonstrate an understanding and awareness of the impact that a piece (artifact) has on the relationship and perspective of the audience. 4. Demonstrate an ability to evaluate human creations. 	<p>Faculty-developed: The measure consists of a series of visual, aural, and written stimuli representing different aspects of arts and humanities. Students view/hear/read the stimuli and respond to a series of open-ended questions requiring personal response to the work, critical evaluation of the work, or contextual interpretation of the work. Faculty blind-score responses using a scoring rubric.</p>
Cultural Diversity	<ol style="list-style-type: none"> 1. Identify and explain diverse cultural customs, beliefs, traditions, and lifestyles. 2. Identify and explain major cultural, historical and geographical issues that shape our perceptions. 3. Identify and explain social forces that can effect cultural change. 4. Identify biases, assumptions, and prejudices in multicultural interactions. 5. Identify ideologies, practices, and contributions that persons of diverse backgrounds bring to our multicultural world. 	<p>Adaptation of a student survey developed through University of Michigan <i>Diverse Democracy Project</i>.</p>
Information Literacy	<ol style="list-style-type: none"> 1. Given a problem, define specific information needed to solve the problem or answer the question. 2. Locate appropriate and relevant information to match informational needs. 3. Identify and use appropriate print and/or electronic information sources. 4. Evaluate information for currency, relevancy, and reliability. 5. Use information effectively. 	<p>Faculty developed: Cluster members chose items from a district-developed item bank. In Part I, students respond to multiple choice items aligned with the outcomes. In Part II, students write a response to an article about the effects on marijuana, using information from the article to take a position. Faculty blind-score the open-ended response using a scoring rubric.</p>
Numeracy	<ol style="list-style-type: none"> 1. Identify and extract relevant data from given mathematical situations. 2. Select known models or develop appropriate models that organize the data into tables or spreadsheets, graphical representations, symbolic/ equation format. 3. Obtain correct mathematical results and state those results with the qualifiers. 4. Use the results. 	<p>Faculty developed: Measure includes multiple choice items aligned with the four outcomes, including graphing and interpreting data and using given quantitative information to solve problems.</p>

Outcome Area	Student Learning Outcome Statements	Description of Assessment Measure
Oral Communication	<ol style="list-style-type: none"> 1. Construct and deliver a clear, well-organized oral presentation. 2. Interact in a collaborative, synergistic manner within a small group problem solving meeting. 3. Maintain an interpersonally effective climate within a one to one dyadic interchange. 	Faculty developed: Measure consists of multiple choice items designed to assess concepts and knowledge related to each of the outcomes.
Problem Solving/Critical Thinking	<ol style="list-style-type: none"> 1. Identify a problem or argument. 2. Isolate facts related to the problem. 3. Differentiate facts from opinions or emotional responses. 4. Ascertain the author's conclusion. 5. Generate multiple solutions to the problem. 6. Predict consequences. 7. Use evidence or sound reasoning to justify a position. 	Commercially produced: The <i>Watson-Glaser Critical Thinking Appraisal</i> was selected by faculty as an appropriate measure of the problem solving/ critical thinking outcomes. It is a standardized measure that has been normed on a junior and two-year college population.
Scientific Inquiry	<p>Demonstrate scientific inquiry skills related to:</p> <ol style="list-style-type: none"> 1. Hypothesis 2. Prediction 3. Assumption 4. Interpretation 5. Evaluation 	Faculty developed: Measure presents information about scientific problems; students respond to questions about the problems that are aligned with the outcome statements. The measure has undergone two substantial revisions based on previous three years of data analysis.
Workplace Skills	<ol style="list-style-type: none"> 1. Ethics 2. Interpersonal skills 3. Critical thinking 4. Organization 5. Team work 6. Technology literacy 7. Personal and professional responsibility 	A multiple choice test was developed from a work-place skills item bank developed by the state of Texas. Test has been administered for three years with appropriate modifications made based on analysis of results.
Written Communication	Write a clear, well-organized paper using documentation when appropriate.	Faculty developed: Students respond to a prompt requiring the development of an argumentative essay. Students have 90 minutes during which they prepare a rough draft and a final draft of a multi-paragraph essay. Faculty blind score the essays using a scoring rubric that includes ratings on several sub-skills.

Appendix E

Student Outcomes Results from AY 2006-2007

Student Outcomes Results from AY 2006-2007

Arts and Humanities Assessment Results

Outcomes

The Arts and Humanities outcomes defined by faculty are that students will be able to:

1. Demonstrate knowledge of human creations.
2. Demonstrate awareness that different contexts and/or world views produce different human creations.
3. Demonstrate an understanding and awareness of the impact that a piece (artifact) has on the relationship and perspective of the audience.
4. Demonstrate an ability to evaluate human creations.

Data Collection and Measurement

The Arts and Humanities assessment is a multi-media presentation that includes a photograph of a provocative art exhibit, a performance from “To Kill A Mockingbird”, a musical composition, and a story-telling segment. The assessment requires a 75 minute class session; 411 students participated in the assessment. Students respond to a set of questions about each of the four segments. For example, they are asked to write their immediate personal reaction, discuss what qualifies the presentation as art, comment on the political or historical context of each segment and the perception of the audience.

Comparison groups are selected based upon student intent and course taking patterns. Beginning students (pre-group) have fewer than fifteen hours completed and indicate that they intend to complete a general education program of study. The completing cohort or post group has completed more than 30 hours, have a general education program of study planned and have completed courses in each core curricular area. On average, the pre-group had completed six credit hours and the post-group had completed 55 hours. Detail of student ethnicity and the average number of credit hours completed is provided in the table that follows.

Table 2

Arts and Humanities Assessment Cohorts Spring 2007				
	Pre		Post	
Number of Students	83		83	
Ethnicity				
Caucasian-Am./White	65	78%	65	78%
Hispanic	10	12%	10	12%
African-Am./Black	3	4%	3	4%
Native-Am./AI Native	3	4%	1	1%
Asian-Am./Pacific Isl.	1	1%	3	4%
Other	1	1%	1	1%
Total specifying ethnicity	83	100%	83	100%
Mean hours completed	6.4		54.6	

The student responses are scored by a team of MCC faculty members who teach in the arts and humanities disciplines. The faculty participate in a norming session during which they review examples of the rubric, practice scoring writing samples, and discuss the evaluation criteria prior to scoring the assessments. Each student booklet is scored independently by two faculty scorers. Student identification and background information is not shared with the faculty.

Student responses are rated on a scale of 1 through 5 using a faculty-developed rubric for each outcome. The scale is: 1 = response is completely undeveloped, 2 = shows a lack of understanding of the content, 3 = shows a basic understanding but is limited to a personal response, 4 = shows a basic understanding in a broader view (beyond a personal view), 5 = shows a high level of understanding in a broader view and illustrates coherent integrated thinking about the work.

Assessment Results

Pre/Post Comparison

For spring 2007 the average total score, and the mean scores for each outcome, were significantly higher for the post-group than the pre-group as seen in Table 3. There have been consistent differences between pre and post groups in all administrations of the assessment.

Table 3

Mesa Community College Student Outcomes Assessment								
Arts and Humanities - Group Average Score by Outcome and Student Group								
Outcome	2001		2003		2005		2007	
	Pre N=68	Post N=80	Pre N=88	Post N=88	Pre N=85	Post N=86	Pre N=83	Post N=83
Overall 1=undeveloped, 3=basic understanding, 5=high level of understanding	2.5	2.8*	2.7	2.9*	2.7	3.1*	2.8	3.0*
1. Demonstrate knowledge of human creations.	2.4	2.7*	2.8	2.9	2.7	3.0*	2.8	3.0*
2. Demonstrate an awareness that different contexts and/or world views produce different human creations	2.6	2.9*	2.7	2.9*	2.7	3.1*	2.8	3.1*
3. Demonstrate an understanding and awareness of the impact that a piece (artifact) has on the relationship and perspective of the audience.	2.6	3.0*	2.7	2.9*	2.7	3.1*	2.8	3.1*
4. Demonstrate an ability to evaluate human creations.	2.5	2.8*	2.7	2.9*	2.7	3.0*	2.7	3.0*

* Significant difference

Relatively few students achieved a rating of four indicating understanding beyond a personal view in any of the outcome areas. Virtually no scores of five were given. A five represents an answer

that shows a high level of understanding in a broader view and illustrates coherent integrated thinking about the work.

Cultural Diversity Results

Outcomes

Cultural Diversity Outcomes defined by the faculty cluster are that students will be able to:

1. Identify and explain diverse cultural customs, beliefs, traditions, and lifestyles.
2. Identify and explain major cultural, historical, and geographical issues that shape our perceptions and interpretations of our world.
3. Identify and explain social forces that can effect cultural change.
4. Identify biases/assumptions/prejudices in multicultural interactions.
5. Identify ideologies, practices, and contributions that persons of diverse backgrounds bring to our multicultural world.

Data Collection and Measurement

The diversity assessment was adapted from an instrument used by ten universities participating in the national Diverse Democracy project. The measure contains direct measures of student knowledge as well items designed to measure student attitude and behavior. The assessment is comprised of 125 multiple choice items and background questions. Three open-ended questions allow students to describe more fully their experience at MCC.

The assessment was administered in classes that were at least 50 minutes long. One hundred beginning students (pre-group cohort) and a comparison group of 100 post-group students were selected for analysis. The distribution of students by ethnicity and the mean hours completed for each cohort is compared in the table that follows.

Table 4

Cultural Diversity Assessment Cohorts Spring 2007				
	Pre		Post	
Number of Students	100		100	
Ethnicity				
Caucasian-Am./White	66	66%	67	67%
Hispanic	22	22%	22	22%
African-Am./Black	4	4%	4	4%
Native-Am./Al Native	2	2%	1	1%
Asian-Am./Pacific Isl.	6	6%	6	6%
Total	100	100%	100	100%
Mean hours completed	6.4		48.3	

Assessment Results

Pre/Post Comparison

The Assessment results were categorized into the following categories:

1. Interaction: questions that relate to the type and quality of interaction between diverse groups of students and experiences at MCC.
2. Value of Diversity: questions that relate to tolerance for differences, pluralistic orientation, perspective taking and the value of diversity.
3. Democracy: questions that relate to an understanding of conflict, social obligation, civic responsibility, engagement in social action, self-efficacy for social change, and interest in social issues
4. Support for race-based initiatives and institutional involvement.
5. Knowledge: faculty designed questions and a self-assessment of cultural knowledge.

Interaction: The assessment includes several items regarding the amount and quality of interaction students have with diverse groups of people. Groups of questions (scales) include frequency of interaction with other racial/ethnic groups, the type of interaction with diverse groups, friendships with diverse peers and the level of discomfort with diverse groups.

Completing students report regular or substantial interaction with people who differ from themselves in the following categories: disability (89%); race/ethnicity (87%); sexual orientation (56%); religion (41%). The mean interaction score between people with different religious beliefs is significantly higher for students in the post group.

Students indicate the types of activities they share with a racial/ethnic group other than their own. The activities ranked by the share of post-group students who report the experience “often or very often” follows: Studied or prepared for class (57%); socialized or partied (56%); dined or shared a meal (56%); had intellectual discussions outside of class (53%); shared personal feeling and problems (50%); had meaningful honest discussions about race/ethnic relations outside of class (48%); attended events sponsored by other racial/ethnic groups (30%). Significantly more post-group students study or prepare for class with students from a different racial/ethnic group. The relative share of students who attend events sponsored by other racial/ethnic groups is also significantly higher for post-group students.

Most students rarely experience discomfort with people different from themselves and frequently report having a close friend of a different religion or ethnicity. However, there are no significant differences between beginning and completing students in these areas.

Campus Experience:

Eighty-six percent of the completing students agreed that their experience at MCC expanded their knowledge and awareness of diverse people and cultures.

Students were asked to list their academic experiences at MCC that “would help prepare them for active citizenship in a diverse global society.” They were also asked what experiences outside of the classroom developed their understanding of diverse people and ideas; and what activities gave them a chance to be engaged with the community.

More than three hundred students responded to these questions. Over half (64%) of the students said that they received preparation for active citizenship in a diverse global society through a course such as those in the Religion, Sociology, Education, Psychology, Communication, and History departments. Learning from interaction with other students was mentioned by 32% of the students. Interaction with instructors was mentioned by 4% of the students.

Students most often indicated that these extra curricular activities helped develop their understanding of diverse people and ideas and gave them the opportunity to be engaged with the community: volunteering; work; cultural/community events and activities; clubs/organizations/conferences; sports; and religious activities. The results of the open-ended questions are included in Appendix H.

Value of Diversity: Completing students (post group) are significantly more likely to agree with statements concerning the value of diversity when compared to the pre-group. Completing students agree more strongly than beginning students that contact with individuals whose background is different is valuable.

There were no significant differences between the two student groups on tolerance for differences, pluralistic orientation or the perspective taking scales. The completing student group agrees more strongly with the statement that “There are two sides of every issue and I try to look at both of them.”

Democracy: Significant differences were noted between the pre and post groups in the scales relating to the willingness to engage in social action. No differences were seen between groups on scales that reflect an understanding that conflict enhances democracy, civic responsibility, social obligation or self efficacy for social change

Significantly more completing students feel that it is important to make consumer decisions based on a company’s ethics. Further, there are significantly more say that they have challenged others on racially or sexually derogatory comments; made efforts to educate others about social issues and made efforts to get to know individuals from diverse backgrounds.

Support for race-based initiatives and institutional involvement. The scale includes several items related to actions an institution of higher education could take to help develop an understanding of diversity. Students are asked the extent to which they support these actions.

Significantly more completing students agree that students should be required to take at least one cultural or ethnic diversity course in order to graduate.

Knowledge

Completing students had significantly better scores on the knowledge questions. They also felt that they were knowledgeable about the cultural backgrounds of others.

A comparison of the areas that have shown significant differences between scales in the past three administrations of the assessment are shown in Table 5. Students in the completing (post) group have significantly higher scores on direct measures of knowledge and on the value of diversity. In the most recent administration, the completing students agree more strongly with statements that describe their engagement in social action.

Table 5

Mesa Community College Student Outcomes Assessment						
Diversity – Significant Differences by Scale and Student Group						
Item/Scale	2003		2005		2007	
	Pre N=119	Post N=118	Pre N=99	Post N=99	Pre N=100	Post N=100
Diversity Scales						
Pluralistic Orientation: Self-rating on openness to challenges to own view, ability to see other’s perspectives, discuss controversial issues, work cooperatively 1=a major weakness, 3=average, 5=a major strength	3.86	4.05*	4.05	4.13	3.97	4.02
Perspective Taking: Self-rating on ability to see both side of issues, and see other’s views. 1=a major weakness, 3=average, 5=a major strength	2.97	3.14*	3.06	3.09	3.0	3.1
Value of diversity: Statements concerning the value of diversity 4 = Strongly agree 3=Agree somewhat 2=Disagree somewhat 1= Strongly disagree	2.97	3.15*	3.09	3.23*	3.09	3.29*
Tolerance: Tolerance of differences in gender/sexual orientation 4 = Strongly agree 3=Agree somewhat 2=Disagree somewhat 1= Strongly disagree	3.32	3.49*	3.43	3.51	3.47	3.54
Democracy Scales						
Social Obligation 4 = Strongly agree 3=Agree somewhat 2=Disagree somewhat 1= Strongly disagree	2.73	2.89*	2.8	3.0*	2.76	2.76
Low Self-Efficacy for social change 4=Strongly agree 3=Agree somewhat 2=Disagree somewhat 1= Strongly disagree	2.20	2.06	2.2	2.0*	2.17	2.01
Willingness to Engage in Social Action 1=Never, 2= Seldom, 3=Sometimes, 4=Often, 5=Very Often	2.06	2.37*	2.59	2.62	2.3	2.6*
Knowledge						
Knowledge (self assessment of cultural knowledge) 1=a major weakness, 3=average, 5=a major strength	3.42	3.6*	3.65	3.73	3.6	3.9
Knowledge (faculty developed items) Percent correct	81.5	91.0*	83.8	90.7*	88%	91%

* Significant difference

Oral Communication Assessment Results

Outcomes

The general education outcomes for oral communication are that students will be able to construct and deliver a clear, well-organized verbal presentation; interact in a collaborative, synergistic

manner within a small group, problem solving meeting; and maintain an effective interpersonal climate in one to one, dyadic interchange.

Data Collection and Measurement

The oral communication instrument measures concepts and knowledge related to the outcomes. The assessment tool is comprised of 52 item multiple choice items and background questions. It was administered to 809 students. The composition of the pre and post groups is compared in the table which follows.

Table 6

Oral Communication Assessment Cohorts Spring 2007				
	Pre		Post	
Number of Students	120		119	
Ethnicity				
Caucasian-Am./White	77	72%	76	71%
Hispanic	14	13%	14	13%
African-Am./Black	3	3%	5	5%
Native-Am./AI Native	2	2%	0	0%
Asian-Am./Pacific Isl.	7	7%	7	7%
Other	4	4%	5	5%
Total specifying ethnicity	107	101%	107	101%
Mean hours completed	6.3		45.7	

Assessment Results

Pre/Post Comparison

As noted in Table 7, the total percentage correct is significantly higher for the post-group overall and for scales relating to one-on-one interchanges, small group interaction and oral presentations. Completing students performed better than beginning students on all of the areas.

Table 7

Mesa Community College Student Outcomes Assessment				
Oral Communication - Percent Correct by Outcome and Student Group				
Outcome	2005		2007	
	Pre N=117	Post N=117	Pre N=120	Post N=119
Overall	57.9%	68.5%*	57.1%	71.1%*
Maintaining an interpersonally effective climate within a one to one interchange.	63.3%	75.1%*	59.7%	74.8%*
Interacting in a collaborative synergistic manner within a small group.	53.4%	60.9%*	54.3%	66.5%*
Conducting and delivering a clear, well organized oral presentation.	57.2%	69.5%*	56.9%	71.3%*

* Significant difference

Written Communication Assessment Results

Outcome

The general education outcome for written communication is that “Students will be able to write a clear, well organized paper using documentation and quantitative tools when appropriate.”

Data Collection and Measurement

445 students participated in the assessment of written communication. Students were given 70 minutes to write in response to a prompt. Students were directed to write a “well-developed multi-paragraph essay that argues for your position on this issue.”

From the pool of students who participated, 83 students were classified as beginning students and 83 were classified as completing students. The characteristics of the students are described in Table 8.

A panel of English faculty members evaluated each writing sample based on a rubric. Each essay was blind-scored by two judges. Items relating to content and organization are rated on a scale of zero through three (0=not present, 1=poor, 2=satisfactory, 3=excellent). Mechanics and style are evaluated using a scale of 0-3 where the impact of errors is evaluated (0=excessive, 1=distracting, 2=minimal, 3=error free).

Table 8

Written Communication Assessment Cohorts Spring 2007				
	Pre		Post	
Number of Students	83		83	
Ethnicity				
Caucasian-Am./White	53	65%	53	65%
Hispanic	14	17%	14	17%
Asian-Am./Pacific Isl.	5	6%	5	6%
Native-Am./AI Native	4	5%	4	5%
African-Am./Black	3	4%	3	4%
Other	2	2%	2	2%
Total specifying ethnicity	81	100%	81	100%
Mean hours completed	6.6		49.7	

Assessment Results

Pre/Post Comparison

Essays from beginning students (pre-group) are compared to essays from completing students (post-group). The mean score for the post-group is significantly higher overall when compared to the pre-group. The post-group performs significantly better on content skills, organization and mechanics/style. The results by item and skill area are presented in Table 9.

Table 9

Mesa Community College Student Outcomes Assessment Written Communication – Mean Scores by Skill Area and Student Group				
	2005		2007	
	Pre N=84	Post N=84	Pre N=83	Post N=83
Overall Score	1.6	1.8*	1.3	1.6*
Content Skills: Scale = 0-3 (not present, unsatisfactory, satisfactory, excellent)	1.5	1.8*	1.2	1.5*
1. The paper accurately addresses the prompt.	1.7	2.0*	1.3	1.6*
2. The writer clearly states his/her position.	2.0	2.2	1.7	2.0*
3. The writer develops clear, logical ideas in support of the thesis.	1.4	1.7*	1.2	1.6*
4. The writer develops each point with appropriate detail and commentary.	1.4	1.7*	1.1	1.6*
5. The writer successfully acknowledges the opposing position.	1.1	1.3	0.9	1.0
6. The tone demonstrates an awareness and consideration of audience.	1.7	2.1*	0.8	1.0
Organization Skills: Scale = 0-3 (not present, unsatisfactory, satisfactory, excellent)	1.6	1.8*	1.2	1.6*
1. The paper begins with a clear and engaging introduction that frames the issue.	1.6	1.9*	1.3	1.5*
2. The development progresses logically and smoothly.	1.5	1.7*	1.2	1.6*
3. The essay demonstrates a strong grasp of paragraphing conventions.	1.7	1.9*	1.2	1.6*
4. The essay demonstrates a strong grasp of transitions/orienting statements.	1.6	1.9*	1.3	1.6*
5. The conclusion gives a sense of completion and/or indicates direction.	1.5	1.8	1.2	1.5*
Mechanics/Style Skills: Scale = 0-3 (excessive, distracting, minimal, error-free)	1.8	1.9*	1.6	1.8*

Mesa Community College Student Outcomes Assessment
Written Communication – Mean Scores by Skill Area and Student Group

	2005		2007	
	Pre N=84	Post N=84	Pre N=83	Post N=83
1. The paper is free of distracting mechanical errors (syntax, diction, spelling, punctuation).	1.6	1.8*	1.5	1.7
2. The voice and style are appropriate and free of errors (over use of passive voice, wordy phrases, vague or obvious statements).	1.7	1.8	1.6	1.8*
3. The paper is free of sentence structure errors (fragments, run-ons, comma-splices.)	2.0	2.2*	1.8	2.1*

* Significant Difference

Students scores were highest in stating their own position, and sentence structure and were lowest on recognizing the opposing position and using a tone that demonstrates an awareness and consideration of the audience.

Workplace Skills Results

Outcomes

The workplace outcomes are:

Ethics: The ability to commit to standards of personal and professional integrity, honesty and fairness.

Interpersonal Communication Skills: The ability to utilize oral, written and listening skills to effectively interact with others.

Critical Thinking: The ability to analyze and evaluate information and utilize a variety of resources in making decisions or solving problems.

Organization: The ability to prioritize, meet deadlines and complete assignments in a timely manner; adapt to a constantly changing workload and environment; and identify realistic goals and inventions for short and long term planning.

Team Work: The ability to collaborate with others toward the accomplishment of common goals.

Technology Literacy: The ability to use and understand technologies' value and purpose in the workplace.

Personal and Professional Responsibilities: The ability to assess the range of one's abilities, accept responsibility for setting realistic goals, and implementing a plan for personal and professional well-being.

Data Collection and Measurement

The workplace skills assessment was developed by a committee of Career and Technical faculty representing a variety of programs. The instrument was adapted from SCANS/TEJAS, a workplace

skills item bank developed through a grant from the Texas Higher Education Coordinating Board. The assessment was administered in Career and Technical classes in two disciplines. The 61-item measure took approximately 50 minutes to administer.

Assessment Results

Samples were not large enough to conduct the pre-post analysis as in prior years. The relative ranking of the scales has been consistent over time as shown in Table 10. The percent correct for each outcome is: Technology Literacy (73.2%); Interpersonal Communication (73.1%); Personal and Professional Responsibility (72.8%); Ethics (72.5%); Teamwork (70.6%); and Organization (57.9%).

Table 10

Mesa Community College Student Outcomes Assessment Workplace Skills Assessment Ranking of Outcomes		
	Ranking 2006	Ranking 2007
Overall		
<i>Technology Literacy</i> : The ability to use and understand technologies' value and purpose in the workplace.	1	1
<i>Interpersonal Communication</i> : The ability to utilize oral, written and listening skills to effectively interact with others.	3	2
<i>Personal and Professional Responsibility</i> : The ability to assess the range of one's abilities, accept responsibility for setting realistic goals, and implement a plan for personal and professional well-being.	2	3
<i>Ethics</i> : The ability to commit to standards of personal and professional integrity, honesty and fairness.	4	4
<i>Team Work</i> : The ability to collaborate with others toward the accomplishment of common goals.	5	5
<i>Organization</i> : The ability to prioritize, meet deadlines and complete assignments in a timely manner; adapt to a constantly changing workload and environment; and identify realistic goals and inventions for short and long term planning.	6	6

Data Trends

The ranking of skill areas has been consistent over time. Student scores are highest for technology literacy while organizational skills and teamwork have ranked lowest.

IV. Indirect Measures of Student Learning

In addition to the direct measures of the achievement of student learning provided by evaluating the results of the assessments administered to students annually, a number of indirect measures of student learning are collected at the college. These indirect measures provide further evidence of student learning; results from several indirect measures are presented in this section.

Graduate Exit Survey

Upon application for graduation, all students are asked to complete an on-line survey. A total of 1,743 students completed the survey from summer 2006 through spring 2007. The majority of students, 68%, indicated that they intended to transfer to another school, 29% of students are planning to use their degrees for career related reasons and 3% of students plan to use their degree for personal reasons.

Students are asked the degree to which their college experience has prepared them to transfer to a four-year college or university. The mean scores and share of students who say they are “very well prepared” for transfer has increased when compared to 2001-2002 as illustrated in Table 11.

Table 11

Mesa Community College Graduate Exit Survey Results						
	AY 2001-2002	AY 2002-2003	AY 2003-2004	AY 2004-2005	AY 2005-2006	AY 2006-2007
How well prepared do you feel to transfer?						
Mean score (scale 1-4)	3.5	3.5	3.6	3.6	3.5	3.5
Very well prepared	53%	60%	61%	61%	59%	59%
Somewhat prepared	43%	35%	35%	36%	38%	37%
Somewhat unprepared	4%	4%	3%	2%	3%	3%
Very unprepared	1%	1%	1%	1%	1%	1%

The responses of a subset of students whose educational goals are in a Career and Technical field are presented in Table 12. Students were asked, “How well prepared do you feel for entering the workplace?” Overall more than half of the students feel they are very well prepared.

Table 12

Mesa Community College Graduate Exit Survey Results						
	AY 2001-2002	AY 2002-2003	AY 2003-2004	AY 2004-2005	AY 2005-2006	AY 2006-2007
How well prepared do you feel for entering the workplace?						
Mean Score (scale 1-4)	3.5	3.5	3.5	3.5	3.5	3.6
Very well prepared	51%	53%	59%	57%	60%	62%
Somewhat prepared	45%	43%	37%	38%	37%	34%
Somewhat unprepared	4%	3%	3%	2%	2%	3%
Very unprepared	0%	1%	1%	4%	1%	1%

Licensure and Certification

Students in Fire Science, Mortuary Science, the Network Academy, and Nursing programs are able to receive licensure from outside licensure bodies after their studies at MCC. Data on licensure is presented below for these programs.

The MCC Fire Science and EMT programs offer certification in several areas as detailed in Table 13. The Fire-Fighter I and II Certification and the Hazardous Materials First Responder are both granted by the Arizona State Fire Marshall's Office. The actual success rate of attainment of the certificates may be underestimated because only the initial attempt at passage is reported back to the college. Students have three chances to pass the certification.

Table 13

Mesa Community College				
Fire Science Licensure Examinations				
	Enrolled	Passed	Certified	%
Fall 2005				
Technical Rescue Technician	53	53	53	100%
Hazardous Materials Technician	69	69	69	100%
Hazardous Materials/First Responder (FSC 105)	88	75	70	93%
Candidate Physical Agility Test (CPAT)	111	93	93	100%
Wildland Firefighter (FSC 110)	14	14	14	100%
Fire Department Operations (FSC 102)	24	19	19	100%
Phoenix Fire Department Training Academy (FSC 102)	69	69	69	100%
	428	392	387	99%
Spring 2006				
Technical Rescue Technician	52	52	52	100%
Hazardous Materials Technician	91	91	91	100%
Hazardous Materials/First Responder (FSC 105)	83	70	61	87%
Candidate Physical Agility Test (CPAT)	28	19	19	100%
Wildland Firefighter (FSC 110)	27	27	27	100%
Fire Department Operations (FSC 102)	14	11	11	100%
Phoenix Fire Department Training Academy (FSC 102)	91	91	91	100%
	334	309	300	97%
Fall 2006				
Technical Rescue Technician	50		50	
Hazardous Materials Technician	47		47	
Hazardous Materials/First Responder (FSC 105)	102		90	
Candidate Physical Agility Test (CPAT)	197		168	
Wildland Firefighter (FSC 110)	12		12	
Fire Department Operations (FSC 102)	79		68	
Phoenix Fire Department Training Academy (FSC 102)	50		50	
	537		485	
Spring 2007				
Technical Rescue Technician	27		27	
Hazardous Materials Technician	26		26	
Hazardous Materials/First Responder (FSC 105)	70		61	
Candidate Physical Agility Test (CPAT)	50		43	
Wildland Firefighter (FSC 110)	25		25	
Fire Department Operations (FSC 102)	34		29	
	205		184	

Table 13

**Mesa Community College
EMT Licensure Examinations**

Fall 2004	Enrolled	Certified	
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	122	122	100%
EMT104 Basic Emergency Medical Technology	154	122	79%
EMT200 Refresher Course for Certified Emergency Medical Technicians	52	52	100%
EMT208 Intermediate Emergency Medical Technology	65	57	88%
EMT272 Advanced Emergency Medical Technology	65	57	88%
EMT272LL Advanced Emergency Medical Technology Practicum	65	57	88%
Spring 2005			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	61	61	100%
EMT104 Basic Emergency Medical Technology	166	123	74%
EMT200 Refresher Course for Certified Emergency Medical Technicians	72	70	97%
EMT208 Intermediate Emergency Medical Technology	22	22	100%
EMT272 Advanced Emergency Medical Technology	22	22	100%
EMT272LL Advanced Emergency Medical Technology Practicum	22	22	100%
Summer 2005			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	67	67	100%
EMT104 Basic Emergency Medical Technology	72	58	81%
EMT200 Refresher Course for Certified Emergency Medical Technicians	36	36	100%
EMT208 Intermediate Emergency Medical Technology	23	23	100%
EMT272 Advanced Emergency Medical Technology	23	23	100%
EMT272LL Advanced Emergency Medical Technology Practicum	23	23	100%
Fall 2005			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	126	126	100%
EMT104 Basic Emergency Medical Technology	139	100	72%
EMT200 Refresher Course for Certified Emergency Medical Technicians	32	32	100%
EMT200AB	3	3	100%
Spring 2006			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	127	127	100%
EMT104 Basic Emergency Medical Technology	134	94	70%
EMT200 Refresher Course for Certified Emergency Medical Technicians	97	97	100%
Summer 2006			
EMT101 Cardiopulmonary Resuscitation/Basic Cardiac Life Support	104	104	100%
Fall 2006			
*In process of being updated			
Spring 2007			
*In process of being updated			

Fire Science Licensing Agencies

TRT Class

- City of Phoenix Certificate
- State Fire Marshal

Haz-Mat Tech Class

- City of Phoenix/IFSAC combined
- State Fire Marshal
- IAFS - Dept of Energy
- IAFS - Dept of Justice

Candidate Physical Agility Test (CPAT)

- International Association of Firefighters
- International Fire Chiefs Association

Hazardous Materials/First Responder (FSC 105)

- State Fire Marshal

Fire Operations (FSC 102)

- State Fire Marshal

Wildland Firefighter (FSC 110)

- Arizona State Land Department, Fire Management Division

The students in the Mortuary Science program must take the National Board Examination to graduate. Most all states accept the scores on the NBE in lieu of having their own state exam. The National Board Exam is administered by the International Conference of Funeral Service Examining Boards. Licensure is on a state by state basis. The statistics reported here reflect the pass rate on the NBE for first time takers of that exam. Almost all graduates eventually pass the exam and get licensed. Most of those students graduating in recent years are still completing state requirements for licensure. Along with their score on the NBE, each student must complete an internship of one or two years after graduation prior to licensure. These requirements vary from state to state. Approximately 33% of the students in each years' class are from states other than Arizona. Details are provided in Table 14.

Table 14

Mesa Community College Mortuary Science Examinations					
	Graduates	Passed Licensure Test		National Pass Rate	Licensed
	#	#	%		
1997-97	18	16	88%	-	12
1997-98	34	30	88%	-	28
1998-99	30	29	97%	79%	24
1999-00	22	20	91%	82%	20
2000-01	14	13	93%	86%	11
2001-02	17	17	100%	85%	16
2002-03	21	19	95%	84%	15
2003-04	29	26	90%	67%	17
2004-05	16	12	75%	74%	16

2005-06	25	22	88%	72%	*
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*In process of being updated

Mesa Community College's Business & Industry Institute offers several credit and non-credit information technology programs. Non credit training is offered through contracts and partnerships with leading technology companies. Degree programs and Certificates of Completion are offered under the Network Academy. The Network Academy offers certification pathways in Network Administration, Network Security, Programming, Database Technologies, Fiber Optics, Information Assurance, Home Technology Integrator and Work Place Skills. Training formats include fast tracks, traditional semesters, distance learning, and internet deliveries. Network Academy students earn industry certification after completion of the program; however, there is not a formal mechanism for reporting certifications back to the program.

Nursing students who complete a four semester curriculum and receive the Associate of Applied Science degree are eligible to take an exam to become licensed through the NCLEX RN licensure exam (The National Council of State Boards of Nursing Examination for Nursing);pass rates are detailed in Table 15.

Table 15

Mesa Community College Nursing Program NCLEX Examination pass rate						
	Total # Graduates	# Graduates NCLEX Completed	# Graduates NCLEX Not Taken	# Graduates Passed	# Graduate Failed	NCLEX Pass Rate, to date
Spring 2001	41	41	0	31	10	75.6%
Fall 2001	45	43	2	38	5	88.4%
Spring 2002	50	48	2	45	3	93.8%
Fall 2002	59	57	2	56	1	94.9%
Spring 2003	68	68	0	68		100%
Fall 2003	75	75	0	69	6	92%
Spring 2004	70	70	0	67	3	95.7%
Fall 2004	100	99	1	95	4	96%
Spring 2005	75	74	1	68	6	91.9%
Fall 2005	71	69	2	65	4	94.2%
Spring 2006	58	58	0	55	3	94.8%
Fall 2006	38	36	2	32	4	88.9%
Spring 2007	75	75	0	69	6	92%
Fall 2007	50	47	3	46	1	97.8%

Course Completion

Data about course completion is provided for fall semesters in Table 16. The relative share of successful completion (grades of A,B,C, or P) as fallen since fall 2003 and the share of grades that reflect withdrawal (W,Y) has increased over the same time period.

Table 16

Mesa Community College Course Completion Fall 1998 – 2006				
	Successful (A, B, C, P)	Unsuccessful (D, F, Z)	Completer Sub-total	Withdrew (W,Y)
Fall 98	68%	8%	76%	24%
Fall 99	68%	8%	76%	24%
Fall 00	69%	8%	77%	23%
Fall 01	69%	8%	77%	23%
Fall 02	71%	8%	79%	21%
Fall 03	71%	8%	79%	21%
Fall 04	71%	8%	78%	22%
Fall 05	69%	8%	77%	23%
Fall 06	68%	8%	76%	24%

Persistence

Cohorts of new full time students were followed for two semesters to track their enrollment in the college. Students are further grouped based upon what they declared as their intent at the time of registration. The tables below show the overall persistence of new full time students who started attending MCC in fall 2004 and fall 2005.

Table 17

Mesa Community College New Full Time Student Persistence			
	Enrolled Fall 2005	Remained Spring 2006	Remaining Fall 2006
Full time total new students	1,500 (100%)	1,294 (86%)	946 (63%)
Full time transfer students	1,176 (100%)	1,032 (88%)	762 (65%)
Full time career students	324 (100%)	262 (81%)	184 (57%)

Table 18

Mesa Community College Mesa Community College New Full Time Student Persistence			
	Enrolled Fall 2004	Remained Spring 2005	Remaining Fall 2005
Full time total new students	1,788 (100%)	1,568 (88%)	1,126 (63%)
Full time transfer students	1,446 (100%)	1,275 (88%)	938 (65%)
Full time career students	342 (100%)	293 (86%)	188 (55%)

Transfer

The number of students subsequently enrolled in an Arizona State University is described in the table which follows.

Table 19

Mesa Community College Undergraduate Enrollment of Students with MCC Transfer Credits at Arizona Universities							
	2000	2001	2002	2003	2004	2005	2006
Arizona State University	7,340	7,561	7,996	8,379	8,767	8,716	8,601
Northern Arizona State University	714	727	755	773	772	789	854
University of Arizona	513	534	607	656	638	552	552
Total	8,567	8,822	9,358	9,808	10,177	10,057	10,007

*Assist Database September 2007

The number of students who received undergraduate degrees from Arizona Universities is presented in Table 20.

Table 20

Mesa Community College Students with MCC Transfer Credits Receiving Undergraduate Degrees at Arizona Universities							
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Arizona State University	2,314	2,208	2,373	2,477	2,538	2,891	2,819
Northern Arizona State University	224	197	224	242	232	262	264
University of Arizona	150	149	133	140	123	163	104
Total	2,688	2,554	2,730	2,859	2,893	3,316	3,187

*Assist Database September 2007

Developmental Education Course Completion and Subsequent Success

The overall course completion for developmental reading, English and math students is detailed in the tables that follow.

Table 21

Mesa Community College Developmental Education Course Completion					
	Successful (A, B, C, P)	Unsuccessful (D, F, Z)	Completer Sub-total	Withdrew (W, Y)	Total
Fall 2003	56%	14%	70%	30%	100%
Fall 2004	52%	15%	67%	33%	100%
Fall 2005	48%	16%	64%	36%	100%
Fall 2006	51%	14%	65%	35%	100%

Of students who were successful in a developmental course, performance in subsequent 100 level or higher courses is described in Table 22.

Table 22

Mesa Community College Developmental Education students Success in a subsequent 100 level or Above Course					
	Successful in any subsequent course	Unsuccessful in all subsequent courses	Withdrew from all subsequent courses	Did not enroll in subsequent courses	Total
Fall 2002 followed through Fall 2003	74%	3%	8%	15%	100%
Fall 2003 followed through Fall 2004	73%	4%	7%	16%	100%
Fall 2004 followed through Fall 2005	73%	4%	9%	15%	100%
Fall 2005 followed through Fall 2006	70%	6%	8%	16%	100%

Appendix F

Sample Assessment Week Materials for AY 2007-2008

February 19, 2008
the Bulletin
MESA COMMUNITY COLLEGE'S EMPLOYEE NEWSLETTER

The Bulletin, February 20, 2008

CGTE: The Engagement Project



The Engagement Project: New Name Reflects Action

The Center for Global Tolerance and Engagement (CGTE) has changed its name to The Engagement Project. The change reflects the concept of moving beyond passive tolerance that endures a different point of view and on to active engagement which facilitates change.

"There is a debate in academia about the word tolerance," said Dr. Keith Crudup, MCC chair of philosophy and religious studies. "People are put off by it; people that may be of race or ethnic minorities."

The CGTE began as a concept in the philosophy department shortly after 9/11 and was the first of its kind in the Valley. Its purpose is to facilitate conversation of world views on religion and ethics and by so doing, encourage understanding of those views.

The move from the word tolerance to engagement is like a stepping stone according to Keith. While tolerance is the first step, engagement follows as the active component that provides a new direction.

"The new title is going to be a gradual process and beyond the politics it really is a mouthful," Keith said. "The Engagement Project is short and sweet and gets to the point."

This semester The Engagement Project will host Every Day in the Global Village: A Day in the Life, a monthly series highlighting South Africa, Palestine, Vietnam and others. Students, faculty and the public are invited to attend these discussions which are held in the Southwest Reading Room of the Paul A. Elsner Library.

"Education is more than what happens in classroom," Keith said. "As far as the students, you'll have to give [the title] some time, this is the first semester we're pressing The Engagement Project."

For more information on The Engagement Project visit <http://www.mc.maricopa.edu/dept/d34/ogte/index.html>

Assessment Week and CCSSE

Mesa Community College's annual Assessment Week is scheduled for February 25 through March 1. The college's nationally recognized assessment program documents the impact of the MCC college experience on student learning.

This year the program will assess students in four areas: Information Literacy, Scientific Inquiry, Numeracy, and Problem Solving. Assessment Week is faculty-owned and faculty-driven, with 76 faculty members volunteering their sections for outcomes assessment this spring, for a total of 123 sections and 2,816 students to be assessed.

"We consider our recruitment efforts particularly successful given the recent enrollment trend at the college," said

Mark Gooding, chair of the Student Outcomes Committee. "We're very grateful to all our faculty volunteers and their students, who will help us gain insights into strengths in the college curriculum as well as areas that might be strengthened."

The student outcomes assessment program is administered by the Student Outcomes Committee with vital support from the Office of Research and Planning and under the purview of the Faculty Senate.

For more information on Assessment Week, or to view previous assessment results, visit <http://www.mc.maricopa.edu/about/orp/assessment/>. This link also provides a section on faculty tips for faculty who will be administering the assessment.

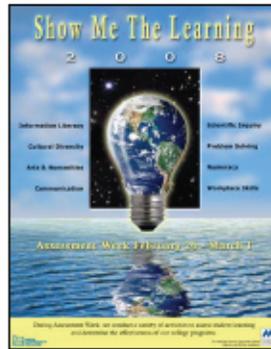
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CCSSE

During Assessment Week, the college will also be involved in the Community College Survey of Student Engagement (CCSSE).

This survey will help the college discover the extent to which students believe that they are engaged in good educational practices at MCC, such as how extensively they interact with faculty, counselors and peers.

It is a requirement of CCSSE that it is administered in randomly selected sections identified by the national office. This process is in sharp contrast to MCC's yearly Student Assessment wherein faculty volunteer their sections for participation. The policy of using randomly



selected sections places some of our faculty in a position of using precious protected time for teaching and learning to administer a survey. However, as Dr. Mark Milliron explained during his keynote address at the January convocation, the CCSSE results can be extremely worthwhile for MCC.

Faculty who teach sections that have been selected for CCSSE will be notified by the Office of Research and Planning well in advance and will receive materials with instructions the week prior to February 25. The college is hoping for the support of those who are asked to be involved in the survey. Additional information about CCSSE is available at <http://www.ccsse.org>.

MCC Assessment vs. CCSSE: What's the difference?

Assessment Week is different from CCSSE in that it provides data on student learning, while CCSSE will provide data on the level and types of student engagement in their college education. Outcomes assessment is done internally; CCSSE is administered by an outside agency.

Campus Beautification Day at Southern and Dobson

Plan to stop by and be a part of sprucing up the campus by attending the Campus Beautification event on Feb. 20. Facilities Beautification committee chairman Diane Gunkel hopes the event resurrects a campus tradition that began over 15 years ago.

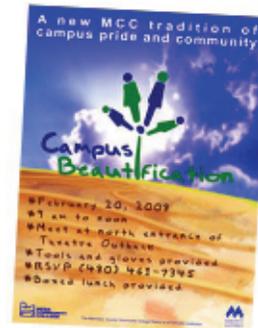
"We're trying to get students and staff involved in campus pride again," Diane said. "This is a way to give back and provides people with a chance to participate in something that you can physically see."

Volunteers should come dressed for light landscaping work and meet at the north entrance of the Theatre Outback. Tools and gloves will be provided, as well as a boxed lunch. Depending on the number of participants, work will expand beyond the theatre area to other parts of campus.

Diane said the committee is planning to archive before and after photos on the website and they'll do a web survey as well. The committee is always looking for new members and suggestions. Visit <http://www.mc.maricopa.edu/employees/beauty/index.html> for more details or contact Diane at (480) 461-7909.

Event Details:
<http://www.mc.maricopa.edu/employees/beauty/events.html>

Campus Beautification Day
Feb. 20, 2008
9 a.m. to noon
Box lunch for all volunteers!
Please call now and register to participate:
(480) 461-7345.



Show Me The Learning

2 0 0 8

Information Literacy

Cultural Diversity

Arts & Humanities

Communication



Scientific Inquiry

Problem Solving

Numeracy

Workplace Skills

Assessment Week February 24 - March 1

During Assessment Week, we conduct a variety of activities to assess student learning and determine the effectiveness of our college programs.



Information for Students
WHAT WE'RE LEARNING ABOUT STUDENT LEARNING

Mesa Community College Student Outcomes Assessment Program

What is the MCC student assessment program?

Student outcomes assessment is a term used to describe measuring and documenting what MCC students are achieving overall in their studies at the college. Faculty members define the outcomes of college programs and develop measures to assess them. The program includes three primary assessment areas - general education, career and technical education, and developmental education.

What is assessed?

For students pursuing their general education studies at the college, seven areas are assessed: Written and Oral Communication, Arts and Humanities, Cultural Diversity, Information Literacy, Scientific Inquiry, Numeracy, Problem Solving/Critical Thinking.

For students enrolled in a career or technical program, seven workplace skills are assessed: Ethics, Interpersonal Communication, Critical Thinking, Organization, Team Work, Technology Literacy, Personal and Professional Responsibilities.

Who is assessed?

For general education, the performance of groups of students who are beginning their general studies is compared to that of groups of students who are completing their general education. For career and technical programs, students who are beginning and completing specific programs leading to AAS degrees or certificates are assessed on their workplace skills.

What can students expect?

Students are asked to take one of the assessments during one class period.

- It is important for students to make an honest effort to complete the assessments to the best of their ability so that the information collected is meaningful.
- Individual student scores are not reported, and a student's grade or class standing is not affected by his or her performance.
- Students are asked to provide background information about themselves so that the assessment data can be analyzed to be sure that the students who participated are representative of the whole student population.

What do the results show?

The Mesa Community College Student Outcomes Assessment Program provides clear evidence of student learning at the college! Assessments are given in Information Literacy, Numeracy, Problem Solving, Scientific Inquiry, Oral communication, Written Communication, Cultural Diversity and Arts and Humanities. Students enrolled in Career and Technical programs participate in workplace skills assessment.

Highlights from the 2007 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 had higher scores on cultural knowledge. The students agreed more strongly that interaction with people from different backgrounds is valuable. The majority of completing students said that their experience at MCC expanded their knowledge and awareness of diverse people and cultures.
- 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.

Assessment Week 2008: February 25 – March 1

MCC's Twelfth Annual Assessment Week is scheduled for February 25 – March 1. A sample of classes will again participate in one of the general education or workplace skills assessments. Through the cooperation of the students and faculty members in these classes, the college will be able to continue to refine the assessment program, document student learning, and identify areas for improvement.

The findings are published in an annual report each fall and used by MCC faculty to document student success and to determine how programs can be improved. Summaries of results are posted on the assessment web site. www.mc.maricopa.edu/orp/

Tips for Faculty Giving Assessments

Mesa Community College – Student Outcomes Assessment Program

Thank you for volunteering one or more of your class sections to give an assessment. It is this that helps make the work of our Student Outcomes Committee so successful.

In the past a number of faculty have had questions about giving assessments. Their concerns typically fell into two categories:

- Should we tell students about the assessment in advance and, if so, what do we tell them?
- Should we offer some kind of incentive for their participation?

SOC has no official or unofficial position on either of these questions. What occurs in the classroom is up to the individual faculty member, but to respond to concerns and perhaps give you some ideas, here are ways other teachers have approached assessment week.

Preparing the Class:

Some faculty felt that if they told their class ahead of time that they would be taking an assessment on a particular day, students may not show up. Other faculty have talked to their class about it extensively and had everyone show up eager to be assessed!

If you do want to talk with your students, you'll need to decide if you want to do it during the same class period you'll be giving the assessment (when they've shown up already) or prior to that. One consideration is that if you have a fifty minute class, you probably won't have time to do both in the same day. If you have a longer class period and the assessment only takes fifty minutes, then you would have time. A handout is available which you can either copy and distribute to your class or use on your own to help guide a discussion.

Use of Incentives:

Again, this is entirely up to you. Last year approximately 60% of assessments were given with an incentive; 40% were not. For faculty who used an incentive, most often it took the form of a 10-point quiz grade or some other type of extra credit.

Here is one scenario that an instructor offered from her experience:

I did not prepare them. Actually I did not tell them. On the day of the assessment, I announced that we had a special project to do that day and that it was voluntary but...I then explained the purpose of assessment, how it was confidential and anonymous, and that if they did not want to do it they did not have to do it; however, if they stayed to complete the assessment (math) they would get 10 points added as extra credit. Everyone stayed.

In the end, we want to stress that the decision to discuss assessment with your classes ahead of time or offer an incentive is entirely up to you. If you try something new and you liked the results, please let us know and we'll share it with others. A feedback form is enclosed with your assessment materials.

Mesa Community College Program to Assess Student Learning

- *Our class has been selected to participate in a large-scale assessment of student learning outcomes at Mesa Community College.*
- *Your effort and cooperation in this activity are very important to understand what students are learning and help us make good decisions about programs at MCC.*
- *Your individual performance on the assessment will NOT be reported to anyone and will NOT affect your grades or standing at MCC in any way.*
- *Background information will only be used to verify that the students sampled represent the entire campus.*

Department
Name

Important Faculty Notification!

Assessment Week 2008 Confirmation

February 25th – March 1st, 2008

Dear ,

Thank you for volunteering to administer a student assessment to one or more of your sections during Assessment Week 2008 (February 25 – March 1). **Please review the sections listed below and contact us with any changes.** Packets of assessment materials and directions for administering the tests are being prepared to help make the week a success.

This notice is to confirm your participation. Please review the information below. If the information is incorrect, or you are unable to administer assessments in these sections, please contact Dennis Mitchell (1-7213, dennis.mitchell@mccmail.maricopa.edu) or Matt Ashcraft (1-7215, matthew.ashcraft@gmail.com) in the Office of Research and Planning by **Monday, February 4th**. For general questions regarding the student outcomes assessment, contact Mark Gooding, Student Outcomes Committee chair, at 1-7624.

You have been scheduled to give assessment(s) any time during the week of February 25 – March 1 in the sections below. The approximate time needed for each assessment is also listed.

Course	Section	Length

Assessment materials will be delivered to the departments of Southern and Dobson Campus faculty during the week of February 18-22. Materials will also be sent to Red Mountain campus during this time.

**Thank you again for your support
of the MCC Student Assessment Program!**

IMPORTANT FACULTY NOTIFICATION!

FINAL ASSESSMENT WEEK 2008 CONFIRMATION

February 25th – March 1st, 2008

Dear ,

This is your final Assessment Week 2008 confirmation. Thank you for volunteering to administer a student assessment to one or more of your sections during Assessment Week 2008 (February 25 – March 1). Packets of assessment materials and directions for administering the tests are being prepared to help make the week a success. These materials will be delivered to the departments of Southern and Dobson Campus faculty during the week of February 18-22. Materials will also be sent to Red Mountain campus during this time.

Please visit <http://www.mc.maricopa.edu/about/orp/assessment/> to view important information about Assessment Week, including our **Assessment Week Orientation**.

PLEASE REVIEW THE INFORMATION BELOW. If the information is incorrect, or you are unable to administer assessments in these sections, please contact Dennis Mitchell (1-7213, dennis.mitchell@mccmail.maricopa.edu) or Matt Ashcraft (1-7215, matthew.ashcraft@gmail.com) in the Office of Research and Planning as soon as possible. For general questions regarding the student outcomes assessment, contact Mark Gooding, Student Outcomes Committee chair, at 1-7624.

You have been scheduled to give assessment(s) any time during the week of February 25 – March 1 in the sections below. The approximate time needed for each assessment is also listed.

COURSE	SECTION	TIME
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Thank you again for your support of the MCC Student Assessment Program!

Assessment Week 2008!

February 25-March 1

Faculty Volunteers Needed

Our 12th Annual Assessment Week is scheduled for February 25- March 1, 2008.

Assessment is faculty-driven and faculty-owned. You are key to the success of the student outcomes assessment program! Your on-going support and cooperation are sincerely appreciated!

Faculty volunteers are needed to ensure that assessment week is a success.

Will you volunteer one or more class period(s) to administer an outcomes assessment during Spring 2008 Assessment Week?

Volunteers are needed for the following areas:

General Education Courses

- Classes likely to contain high percentages of students who are just beginning their general education courses (e.g., English 101, Psychology 101).
- Classes likely to contain high percentages of students who are nearing completion of their general education courses (e.g., 200-level courses in a discipline).

Career and Technical Programs

- Classes with a Career and Technical emphasis leading to an AAS degree.

To Volunteer:

Contact your department's **SOC** representative

_____.

Questions? Please contact Mark Gooding, chair of the Student Outcomes Committee at gooding@mail.mc.maricopa.edu or by phone at 1-7624. Information about assessment is also available at www.mc.maricopa.edu/orp/assessment or from the Office of Research at 1-7211.

Appendix F: Sample Assessment Week Materials

ASSESSMENT SUBMITTAL FORM

Please complete one form for each section and return one section per envelope. Send this form and the completed assessments in the envelope provided to the MCC Office of Research and Planning, Building #42. **The requested information allows us to keep a log of returned assessments; data will not be analyzed by individual student or by section.**

Instructor's Name _____ Section # _____

1. Did you give any type of incentive (e.g., extra credit) to encourage the students to participate?

Yes No

If yes, what type of incentive? _____

2. How long did it take to administer the assessment? _____ minutes

3. What worked well for you in administering the assessment?

4. What suggestions do you have for improving the process for next year?

*THANK YOU FOR SUPPORTING THE
MCC STUDENT ASSESSMENT PROGRAM!*

Appendix G

Student Responses to Online Assessment Pilot

Assessment Week 2008 Online Assessment Pilot: Scientific Inquiry

33 of 76 (43.4%) students participated in the assessment.

Please indicate the extent to which you agree or disagree with the following statement:

I found this online system easy to use

Strongly Agree	30.3%
Agree	36.4%
Neutral	21.2%
Disagree	12.1%
Strongly Disagree	0.0%
Total	100.0%

Please indicate how familiar you are with WebCT:

Very familiar	60.6%
Somewhat familiar	36.4%
Not at all familiar	3.0%
Total	100.0%

Please rate your general computer skills:

Excellent	36.4%
Good	45.5%
Fair	15.2%
Poor	3.0%
Total	100.0%

Please indicate your comfort level with taking:

Paper and pencil tests		Online tests
Very comfortable	63.6%	45.5%
Somewhat comfortable	33.3%	45.5%
Not at all comfortable	3.0%	9.1%
Total	100.0%	100.0%

How many tests have you taken online?

More than 10	60.6%
5-9	15.2%
1-4	21.2%
Zero	3.0%
Total	100.0%

Additional Comments:

i was quite comfortable
it seemed as though most of the questions were very tough to read so i didnt understand it that well at all. so i am afraid that i didnt do very well because of the difficulty on reading the answers. other than that it was easy to take the test just hard to understand.
I very helpfull
good test
I felt rushed.
Overall, taking this test online is straightforward; not too much knowledge is needed to successfully use WebCT.
the system used for the test was easy since multiple choice questions are easy to do in webct. The survey questions represented the basic questions need to see what you wanted out of webct.
nothing
give more time , or make icon large
On the last few questions on porpane there was no gragh I had to guess on those questions.
I'm generally horrible at graphs and the comprehension of them so this test seems a little more difficult than others; however, this online program is very user friendly!
I liked it, a little chanlleging but i liked it!
That's all.
it was a good test. It made you think about things that you could be learning in the future!
nothing
Nice to know that MCC is improving the teaching/learning system. very proud of being part of it.
to much trouble too scroll back and forth from graph to questions
Have the chart/reading next to the questions because it is hard to scroll up and down to look at the chart/reading when answering the question. Have more interesting reading like the Marshmallow one.
I dislike scrolling to reference the graphs
The graphs were a little hard to read when trying to answer the questions
thank you for the extra credit
I thought the method of taking this test was fine.
I don't like scrolling up and down to look at the graphs.
I disliked having to scroll back and forth to see the graph or diagram relating to multiple questions.
nice change to have it online rather than in class
have a nice day
none
These types of graphs were hard to read and are rarely used in classes at MCC. The time to take the test should have been longer. You had to scroll left and right to read many of the questions. Too many assumptions were made about a student's ability to understand certain scientific ideas.