**General Education Competencies Assessment Report  
(Spring 2011 Report)**

**TOPICS COVERED:**

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**Background:**  
Amarillo College adopted and piloted the Institutional Portfolio Model in the 2006-2007 academic year. The Institutional Portfolio Model involves a transparent and dynamic process that utilizes subcommittees in the examination of student work.

Since 2006, Amarillo College has continued to modify and improve assessment methods. As a result,   
in 2010, Amarillo College began the transition toward aligning the existing AC general education competencies with the competencies and curriculum mapping outlined in the Texas Higher Education Coordinating Board’s “[Revising the State Core Curriculum: A focus on 21st Century Competencies](http://thecb.state.tx.us/index.cfm?objectid=6EA8957A-D7E2-C369-67F42EC166BC88FC)” report.

For the 2010-2011 year, the *Technology* competency was retired as an active competency assessment area. However, the remaining competencies of Critical Thinking, Communication, and Math were included in the 2010-2011 assessment cycle with the intent that that the areas would be transformed in subsequent assessment periods.

For more information, on the general education competency assessment process, please view the Amarillo College [General Education Competency Methodology](http://www.actx.edu/iea/index.php?module=article&id=70).

**2010-****2011 General Education Competencies Assessed:**

* Critical Thinking
* Communication
* Math

**Participation:**[**(Return to “Topics Covered”)**](#Topics_Covered)Fall 2007-2008 marked the first assessment period that general education data was tracked. The artifacts collected in 2009-2010 were the artifacts that were assessed in the 2010-2011 year. The following table shows an initial trend line for the first 4 years that data was collected for multiple competencies.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Division | Collected for  2007-2008  Assessment | Collected for  2008-2009  Assessment | Collected for  2009-2010  Assessment | Collected for  2010-2011  Assessment |
| Allied Health | 6 | 5 | 11 | 5 |
| Behavioral Studies | 13 | 4 | 6 | 10 |
| Business | 14 | 3 | 5 | 4 |
| ITT | 9 | 3 | 4 | 1 |
| LCFA | 19 | 0 | 5 | 11 |
| Nursing | 18 | 0 | 0 | 11 |
| Sciences and Engineering | 22 | 10 | 14 | 16 |
| Work Force Development | 0 | 1 | 2 | 0 |

\*These numbers do not reflect duplicate faculty submissions. Several faculty members submitted artifacts for more than one class, but each faculty member is only counted once regardless of classes/sections taught.

***COMMUNICATION COMPETENCY ANALYSIS:***[**(Return to “Topics Covered”)**](#Topics_Covered)

* Goal:
  + 70% of students will score a 3 or higher (average) on a scale of 1-5
* Results:
  + 2007-2008 (N=95)
    - 72% of students scored a 3 or higher
  + 2008-2009 (N=98)
    - 67% of students scored a 3 or higher
      * Goal was not met
  + 2009-2010 (N=97)
    - 74% of students scored a 3 or higher
  + 2010-2011 (N=100)
    - **58% of students scored a 3 or higher**
      * **Did not meet minimum standard**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Communication Competency Committee Artifact Evaluation Synopsis** | | | | | | |
|  | **Excellent** | **Good** | **Average** | **Marginal** | **Poor** | **# Students** |
|  | **5** | **4** | **3** | **2** | **1** | **Assessed** |
| **2007-2008 Number and Percentage** | 7 | 26 | 35 | 26 | 1 | 95 |
| 7% | 27% | 37% | 27% | 1% |
| **2008-2009 Number and Percentage** | 1 | 25 | 40 | 30 | 2 | 98 |
| 1% | 26% | 41% | 31% | 2% |
| **2009-2010 Number and Percentage** | 6 | 19 | 47 | 22 | 3 | 97 |
| 6% | 20% | 49% | 23% | 3% |
| **2010-2011\* Number and Percentage** | 2 | 15 | 41 | 33 | 9 | 100 |
| 2% | 15% | 41% | 33% | 9% |

\*2010-2011 Table Averaging Method: For 2010-2011, if the committee average for each artifact contained a decimal point of **.50** or below, the average was rounded down to the nearest whole number (e.g. 3.5 was equated to 3.0 with the justification that the artifact was clearly a 3, but not necessarily a 4). If an average contained a decimal point of **.51** or above, the average was rounded up to the nearest whole number with the justification that the majority of the committee members rated the artifact with a higher whole number rather than a lower whole number.

***COMMUNICATION COMPETENCY ANALYSIS CONTINUED:***

* Additional Communication Artifact Data/Information:
  + Use of Different Averaging Methods (Minimally Affects Results):
    - If all averages that contained a decimal point of .50 had been rounded up to the next whole number rather than rounded down, the numbers and percentages would have been as followed:
      * Average Rating of 0 or 1: **9 and 9%**
      * Average Rating of 2: **32 and 32%**
      * Average Rating of 3: **42 and 42%**
      * Average Rating of 4: **14 and 14%**
      * Average Rating of 5: **3 and 3%**
      * **Percent to Score a 3 or Higher: 59%**
    - If all the averages that contained a decimal point of .99 or lower had all been rounded down to the nearest whole number, the numbers and percentages would have been as followed:
      * Average Rating of 0 or 1: **1 and 1%**
      * Average Rating of 2: **1 and 13%**
      * Average Rating of 3: **39 and 39%**
      * Average Rating of 4: **34 and 34%**
      * Average Rating of 5: **11 and 11%**
      * **Percent to Score a 3 or Higher: 47%**
  + Committee Member Artifact Averages (rounded to 2 decimal places):
    - Committee Member A: **2.81**
    - Committee Member B: **2.84**
    - Committee Member C: **2.62**
    - Committee Member D: **2.61**
    - Committee Member E**: 2.64**
    - **Committee Artifact Average: 2.70**
* Overall Synopsis:

Regardless of the averaging method used, the competency goal was not reached. The mode for 4 of the 5 committee members was a score of “3.” However, the large number of artifacts that scored a 1 or 2, pulled each committee member’s overall average down below the “3” benchmark.

* Comparison to Previous Years’ Results:

In the past, the average number of students who score at least a “3” on the artifact rubric has stayed right around the benchmark of 70%. However, this year the average artifact score had a huge dip that placed AC students 12% below the 70% benchmark. No committee member was able to pinpoint what it was about this year’s artifacts that caused them to fall so much below the standard and/or previous years’ results. Therefore, it is the Assessment Coordinator’s judgment that the scoring deficiency can primarily be attributed to artifacts and assignments that may not have best fit the qualifications outlined by the current Communications rubric and committee training issues.

* Strengths and Room for Improvement:
  + **Strength:** Students typically follow the instructor’s assignment instructions.
  + **Improve student punctuation, grammar, and logical thinking**: The committee cited that there is a need to increase public awareness about the Writer’s Corner and assure instructors provide adequate feedback regarding proper writing style and technique.

***COMMUNICATION COMPETENCY ANALYSIS CONTINUED:***

* Room for Improvement (Cont):
  + **Improve student ability to write a 5-paragraph essay**: The committee suggested that a generic “how-to-guide” be created by the English Department or Library.
    - Assessment and Development Plan of Action: From the year 2011 forward, certificate students will not be included in the assessment process. However, it is still possible that students who have not completed English composition may be included in Communication assessment.
  + **AC should require writing assignments across the curriculum**.
    - Assessment and Development Plan of Action:

Although the committee sentiment echoes the Community College Survey of Student Engagement (CCSSE) findings that AC students are not producing as many research paper’s as other “large” community colleges, the intent of the General Education Assessment is not to specifically assess instructors or class content. As a result, students will now be double sampled, when necessary, in order to produce a more diverse body of artifacts (e.g. student work that may have only been used for critical thinking, in the past, may now also be used for communication as long as it meets the communication criteria so that students can truly be assessed across the curriculum).

* + **Provide better/clear instructions and increase student penmanship requirements:** The committee members noted that they had to speculate on assignment instructions and/or student work that was illegible or difficult to read. As a result, the committee collectively scratched two complete sets of artifacts due to unclear instructions and skipped three, individual student assignments due to illegibility. Additionally, one committee member skipped 5 additional artifacts, but the Assessments Coordinator opted to scratch these artifacts as they were not rated by each committee member.
    - Assessment and Development Plan of Action:

Assure that the committee is aware that if they have questions about an assignment’s instructions, they need to contact either a committee co-chair or the Assessments Coordinator because the group must be consistent in the artifacts each group member assesses. The Assessments Coordinator will also assure that any future artifacts given to a committee have clear instructions.

* + **AC should assess more speech artifacts**.
    - Assessment and Development Plan of Action:

Unfortunately, many introductory general education courses are not included because the students do not meet the 30 or more hour requirements set by the General Education Competency or the instructors do not already video their students. However, the Assessments Coordinator contacted Heather Voran, Instructor for Teaching & Learning in an attempt to better utilize online content and is willing to assist with videotaping as prompted by instructors.

***CRITICAL*** ***THINKING COMPETENCY ANALYSIS:***[**(Return to “Topics Covered”)**](#Topics_Covered)

* Goal:
  + 60% of students will score a 3 or higher (competent) on a scale of 1-5
* Results:
  + 2007-2008 (N=91)
    - 96% of students scored a 3 or higher\*

(Scoring system was changed mid-year)

* + 2008-2009 (N=97)
    - 95% of students scored a 3 or higher
  + 2009-2010 (N=108)
    - 96% of students scored a 3 or higher
  + 2010-2011 (N = 99)
    - **93% of students scored a 3 or higher**

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| --- | --- | --- | --- | --- | --- | --- |
| **Critical Thinking Competency Committee Artifact Evaluation Synopsis** | | | | | | |
| **Year** | **Exemplary** | **Excellent** | **Competent** | **Needs Work** | **Unacceptable** | **# Students** |
|  | **5** | **4** | **3** | **2** | **1** | **Assessed** |
| **2007-2008 Number and Percentage** | 5 | 57 | 25 | 4 | 0 | 91 |
| 5% | 63% | 27% | 4% | 0% |
| **2008-2009 Number and Percentage** | 18 | 57 | 17 | 4 | 1 | 97 |
| 19% | 59% | 18% | 4% | 1% |
| **2009-2010 Number and Percentage** | 1 | 61 | 42 | 4 | 0 | 108 |
| <1% | 56% | 39% | 4% | 0% |
| **2010-2011\* Number and Percentage** | 0 | 36 | 56 | 7 | 0 | 99 |
| 0% | 36% | 57% | 7% | 0% |

\*2010-2011 Table Averaging Method: For 2010-2011, if the committee average for each artifact contained a decimal point of **.50** or below, the average was rounded down to the nearest whole number (e.g. 3.5 was equated to 3.0 with the justification that the artifact was clearly a 3, but not necessarily a 4). If an average contained a decimal point of **.51** or above, the average was rounded up to the nearest whole number with the justification that the majority of the committee members rated the artifact with a higher whole number rather than a lower whole number. Also, for 2010-2011, one committee member chose to use decimal points within the member’s own rating system (e.g. the member might choose to give an artifact a score of 2.5 on a 5 point scale). In the table and in the below “Use of Different Averaging Methods” section, an individual’s scores were never rounded and were used, with the decimal, to tabulate each artifact’s average.

***CRITICAL THINKING COMPETENCY ANALYSIS CONTINUED:***

* Additional Critical Thinking Artifact Data/Information:
  + Use of Different Averaging Methods (Greatly Affects Results):
    - If all averages that contained a decimal point of .50 had been rounded up to the next whole number rather than rounded down, the numbers and percentages would have been as followed:
      * Average Rating of 0 or 1: **0 and 0%**
      * Average Rating of 2: **5 and 5%**
      * Average Rating of 3: **40 and 40%**
      * Average Rating of 4: **52 and 53%**
      * Average Rating of 5: **2** **and 2%**
    - If all the averages that contained a decimal point of .99 or lower had all been rounded down to the nearest whole number, the numbers and percentages would have been as followed:
      * Average Rating of 0 or 1: **0 and 0%**
      * Average Rating of 2: **20 and 20%**
      * Average Rating of 3: **60 and 61%**
      * Average Rating of 4: **19 and 19%**
      * Average Rating of 5: **0 and 0%**
  + Committee Member Artifact Averages (rounded to 2 decimal places):
    - Committee Member A: **3.06**
    - Committee Member B: **3.24**
    - Committee Member C: **3.26**
    - Committee Member D: **3.97**
    - **Committee Artifact Average: 3.4**
* Overall Synopsis:

Regardless of the averaging method used, the goal was met and over 60% of AC students scored a 3 or higher artifact rating.

* Comparison to Previous Years’ Results:  
   Since 2007, the number of “Exemplary” artifacts has gone down. Although rubric and committee member changes may account for the decline in exemplary and excellent artifacts, critical thinking skills could be continually improved. Overall, Amarillo College students still show as highly competent and no artifacts were found to be unacceptable.
* Strengths and Room for Improvement:
  + **Strength:** Students typically follow the instructor’s assignment instructions.
  + **Increase Elaboration**: Some assignments did not include open-ended questions which made them difficult to evaluate. Committee members noted that short statements and multiple choice questions are very difficult to grade for critical thinking. Problems that require more student elaboration would be helpful in the grading of critical thinking.
    - Assessment and Development Plan of Action:

True/False and Multiple choice questions will no longer be included as acceptable artifacts

* + **Increase Use of Audio/Visual Elements:** Oral presentations did not contain audio/visual elements and were therefore graded solely on visual aids. Grading based on visual aids allows for an incomplete analysis of critical thinking skills so good audio is also needed.

***CRITICAL THINKING COMPETENCY ANALYSIS CONTINUED:***

* + **Increase Independent/Critical Thinking:** One group assignment involved a program that could be repeated as often as the student desires and that provided hints and reviews. While the program could act as a study tool, it was not viewed as a critical thinking activity.
  + **Provide Better/Clear Instructions:** Instructors can clarify their instructions and assure that an assignment’s purpose is evident. For some artifact groups, it was difficult to find clear instructions and/or a clear purpose for the assignment. For example, one artifact group contained student work that seemed to involve a copying of sources and student work that failed to provide thorough interpretations and failed to effectively link cause and effect relationships.
    - One obstacle to the effective assessment of Critical Thinking is that one rubric is used to assess a broad range of artifacts from various disciplines. Although the rubric is written in a manner broad enough so that it can assess multiple disciplines, the committee members do not always see an obvious evidence of critical thinking in assignments—particularly assignments from differing disciplines.
      * Committee Suggestion: One committee member suggested that it would be beneficial for each instructor, who submits artifacts, to also provide a summary explanation of how critical thinking was involved in their particular discipline’s assignment. A summary explanation would allow committee members, from varying discipline backgrounds, to be readily aware of how the contributing instructor had intended to implement critical thinking within a particular submitted assignment. For instance, without an assignment explanation, a committee member with a Math background would generally have an easier time rating effective math critical thinking skills than a committee member with an English or History background.
      * Points of Discussion:
        + If the suggestion of assignment explanations is implemented into future assessment cycles, the assessment committee members may not agree with the instructor’s synopsis of how critical thinking was present in the assignment. However, the instructor’s assignment explanation could initially serve as a guiding force of how the instructor had intended to implement critical thinking into the submitted assignment.
        + The new rubrics may make it easier to define what constitutes “critical thinking”
      * Assessment and Development Plan of Action: Based on this recommendation, a discussion will be integrated into the PowerPoint training of how committee members can affectively assess a competency across the disciplines and use the rubric as a guide to assess the competencies.

***MATHEMATICS*** ***COMPETENCY ANALYSIS:***[**(Return to “Topics Covered”)**](#Topics_Covered)

* Goal:
  + 75% of students will demonstrate at least 3 outcomes AND
  + 60% will demonstrate at least 4 outcomes
* Results:
  + 2007-2008 (N=99)
    - 84% of students scored a 3 or higher
    - 0% scored a 4 or higher \*

*(\* Few assignments allowed students to score above 3 points)*

* + 2008-2009 (N=102)
    - 86% of students scored a 3 or higher
    - 47% of students scored a 4 or higher
  + 2009-2010
    - 93% of students scored a 3 or higher
    - 50% of students scored a 4 or higher
      * Did not meet minimum standard
  + 2010-2011
    - **81% of students scored a 3 or higher**
    - **63% of students scored a 4 or higher**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Math Competency Committee Artifact Evaluation Synopsis** | | | | | | |
| **Year** | **All 5 Major Outcomes Demonstrated/ Met**  **5** | **4 Major Outcomes Demonstrated/ Met**  **4** | **3 Major Outcomes Demonstrated/ Met**  **3** | **2 Major Outcomes Demonstrated/ Met**  **2** | **Only 1 or 0\* Major Outcomes Demonstrated/ Met**  **1 or 0** | **Total Number of Students Assessed** |
| **2007-2008 Number and Percentage** | 0 | 0 | 83 | 12 | 4 | 99 |
| 0% | 0% | 84% | 12% | 4% |
| **2008-2009 Number and Percentage** | 31 | 16 | 41 | 9 | 5 | 102 |
| 30% | 16% | 40% | 9% | 5% |
| **2009-2010 Number and Percentage** | 7 | 40 | 40 | 4 | 1 | 94 |
| 8% | 43% | 43% | 4% | 1% |
| **2010-2011 Number and Percentage\*** | 34 | 29 | 18 | 9 | 3 (1 Outcomes) 6 (0 Outcomes) | 99 |
| 34% | 29% | 18% | 9% | 3% (1 Outcomes) 6% (0 Outcomes) |

**\*** In 2010, students who did not meet any outcome on the problems chosen by the committee were granted a score of 0. The first 3 year’s lowest ranking could be no lower than a ranking of 1 so the   
2010-2011 results were slightly skewed.

***MATHEMATICS COMPETENCY ANALYSIS CONTINUED:***

* Additional Artifact Data/Information:
  + Out of the 11 sets submitted for assessment, the values of the artifacts were distributed as follows:
    - 6 artifact sets worth 5 points = 54.5% of the artifact distribution
    - 3 artifact sets worth 4 points = 27.3% of the artifact distribution
    - 2 artifact sets worth 3 points = 18.2% of the artifact distribution
  + Out of the 99 individual items that were assessed, the values of the individual items were distributed as follows:
    - 42 items worth 5 points = 42.4% of the items distribution
    - 31 items worth 4 points = 31.3% of the items distribution
    - 26 items worth 3 points = 26.3% of the items distribution
  + How did Amarillo College students perform in this assessment? The assessment scores show that:
    - 34 out of 42 items worth 5 points earned 5 points = 81% success rate
    - 24 out of 31 items worth 4 points earned 4 points = 77% success rate
    - 15 out of 26 items worth 3 points earned 3 points = 58% success rate
    - **Average success rate of 72%**
* Overall Synopsis:

These assessment scores demonstrate that the majority of Amarillo College students are successfully performing the mathematical tasks given to them by their instructors. The scores also clearly exceed the minimum standard originally established by the Math Assessment Subcommittee that 60% of the students assessed should be able to perform successfully on a 3 point problem.

* Comparison to Previous Years:

In the past, there has been a concern that there were not enough 5 point problems that were submitted for assessment (only 7.4% of submitted items were 5 point questions) or not enough of these type questions were being asked of the students. This year 42.4% of the submitted items were worth 5 points which suggests that the instructors are asking more questions that involve higher-level thinking, analyzing, estimating, drawing qualitative conclusions, and making predictions*.* The increase in question quality is a seemingly positive result.

* Strengths and Room for Improvement :
  + **Strength**: Students answered more higher-order questions than previous years.
  + **Still Need More Higher-Order Questions:** Although it appears that higher-order thinking questions that use mathematics applications are being asked, it is also possible that the Mathematics committee simply received overall better artifacts this year than they had received in previous years. When artifacts that are judged to be below a ranking of 3 in difficulty are not assessed by the committee, it would also reason that they quality of artifacts that are ultimately judged would be of a higher quality. Based on the artifacts that the committee received, it is obvious that more instructors are submitting artifacts that meet all 5 designated outcomes, but increased measures could be used to check for improvement across the board.
    - Assessment and Development Plan of Action:  
      Next year’s change from the math competency to the Empirical and Quantitative Skills competency should help address some improvement reliability issue.

***MATHEMATICS COMPETENCY ANALYSIS CONTINUED:***

* + **Increased Critical Thinking and Real-Life Application Needed**: Critical thinking skills and real-life application examples could be incorporated into lower-level mathematics problems. For example, if a question was asked that dealt with the conversion of medicine, a good follow-up question to that conversion problem might be “If you had this amount of medicine, would you have enough medicine for Patient A?” or “How many days would this amount of medicine be able to treat Patient A?”

**Future Assessment Plans:**[**(Return to “Topics Covered”)**](#Topics_Covered)

For the 2011-2012 academic year, the Math competency will evolve into the Empirical and Quantitative Skills competency. New rubrics have been developed for the Empirical and Quantitative Skills Competency, the Communication Skills Competency, the Critical Thinking Skills Competency, and the Teamwork Competency. The above 4 competencies will debut in fall 2011 and be assessed in the fall 2012-2013 year.

New rubrics will likewise be developed for the Social Responsibility and Personal Responsibility competencies. Artifacts will be collected for Social and Personal Responsibility during the fall 2011 and spring 2012 (if needed) semesters. Social Responsibility and Personal Responsibility will likewise be assessed in the fall 2012-2013 year.

Competencies to Be Assessed for 2012-2013 Year:

* Communication Skills
* Critical Thinking Skills
* Empirical and Quantitative Skills
* Teamwork
* Personal Responsibility
* Social Responsibility