Collegiate Assessment of Academic Proficiency (CAAP)

Calhoun Community College

Coordinated by
Office of Planning and Research

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Calhoun Community College
Spring 2008

METHODS

The Writing Skills, Critical Thinking, and Science Reasoning CAAP assessments were administered on March 24, 25, 26, and 27 to a total of 1,088 Calhoun students—383 completed the Writing Skills assessment, 325 the Critical Thinking assessment, and 380 the Science Reasoning assessment. The total number of students assessed represents a statistically significant sample at the 99% confidence level with a 4 percent margin of error. However, the number of students assessed in each subject area is not statistically significant.

Faculty were notified that their classes had been selected for CAAP assessments, but they were asked not to inform their students in order to maximize student attendance on assessment day. A total of 58 classes were carefully selected to ensure participation from students enrolled in day and evening classes as well as classes at various sites.

Objectives for CAAP Testing: The CAAP assessment was administered primarily for the purpose of assessing student attainment in the general education learning outcomes. The 2008 CAAP results will be compared to that of previous CAAP testing in order to assess areas of weakness and improve instruction in the areas tested.

Selection of Sample: The Dean for Planning and Research selected the courses in which CAAP assessments were administered. Selection was based on the following criteria: 1) a representative sample of students from each location including Huntsville Day, Huntsville Evening, Decatur Day, and Decatur Evening; 2) classes that likely contained students who had taken preparatory courses for the selected assessment; and 3) “high enrollment” classes to optimize the sample size. A total of 1,595 students were targeted in the selected classes, but not all the students attended on assessment day and some of the answer sheets were not scored for a variety of reasons.

A copy of the master schedule is attached.

Timeline:
January 2 – memo to instructors announcing spring semester assessment dates
February 20 – email to all instructors of sections selected for CAAP testing
February 25 – memo to all division chairpersons, site directors, and appropriate faculty to provide master schedule for CAAP testing
March 12 – reminder email to all faculty of selected courses
March 24 – testing begins
**Study Limitations:** Students completing the CAAP assessments realize their scores have no effect on their overall course grade. Consequently, some students do not perform at their best level. This is evident because some students indicated they did not “give it their best effort” on the assessment form and some completed the hour-long exam in approximately ten minutes. A total of 104 students taking one of the three assessments administered marked either “Gave Little Effort” or “Gave no Effort” on their answer sheets. Providing a performance-based incentive for students may encourage more enthusiastic participation.

The College has adopted seven general education learning outcomes. The cost of administering the CAAP assessment prohibits a statistically significant sample in each area for which a test is available. Currently, no CAAP test is available for “Information and Computer Literacy” and “Cultural Diversity” skills.

Although attempts are made to administer the assessment in sophomore level classes, many freshman level students completed the tests. In those instances, it is difficult to ascertain what, if any, demonstrated skill was the result of instruction obtained at Calhoun.

**Suggestions for Future Testing:** Approximately $10,000 was budgeted for CAAP assessments in 2008. In future years, additional funding is needed to ensure more test instruments are administered in a broad range of topics. In addition, some method for encouraging students to give their best effort in completing the test should be developed.

**ACKNOWLEDGEMENTS**

The Office of Planning and Research at Calhoun Community College acknowledges the Vice President for Instruction and Student Services, Division Chairs, and selected faculty for their cooperation in this endeavor.

The assessments were administered by volunteers including Tammy Kerby, Alicia Taylor, Sandra Romberg, Chuck Brasher, Waymon Burke, Donna Bass, Gwen Baker and Dena Stephenson.
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Findings

COMPARISON OF CALHOUN MEAN TO NATIONAL MEAN

2008 CAAP assessment results included a comparison of the mean score of Calhoun students to the national mean for sophomore-level students at other two-year institutions. Results revealed the mean score for Calhoun students on the Writing Skills, Critical Thinking, and Science Reasoning assessments was slightly lower than the national mean. Scores on all three assessments could range from 40 (low) to 80 (high) for the total test score and 5 (low) to 25 (high) for the subtest scores. Depicted in this report are the results for all students, the results for freshmen-level students, and the results for sophomore-level students.

ALL STUDENTS

Writing Skills. The Writing Skills assessment was administered to 23 ENG 102 classes. A total of 558 students were enrolled in the courses, but only 383 tests were scored due to absences, withdrawals, and answer sheets that were discarded due to their being incomplete, damaged, or marked in some way that was obviously bogus. The following table depicts the comparison of the Calhoun mean score with the national mean score.

<table>
<thead>
<tr>
<th>WRITING SKILLS</th>
<th>CALHOUN MEAN COMPARED TO NATIONAL MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>383 Students</td>
</tr>
<tr>
<td>Calhoun Mean</td>
<td>61.7</td>
</tr>
<tr>
<td>National Mean</td>
<td>62.1</td>
</tr>
</tbody>
</table>

In Writing Skills, the CAAP assessment contains subset scores in Usage/Mechanics and Rhetorical Skills. The following table compares the mean scores of Calhoun Students in the subset scores with the national mean score in each of the subset areas.
The Usage/Mechanics scores showed that the mean score for Calhoun students was slightly lower than the national mean.

![Writing Skills Usage/Mechanics Comparison](image)

The Rhetorical scores shows that the mean score for Calhoun students was slightly lower than the national mean.

![Writing Skills Rhetorical Comparison](image)

**Critical Thinking.** The Critical Thinking assessment was administered to 15 HIS 201 and 202 classes. A total of 513 students were enrolled in the courses, but only 325 tests were scored due to the reasons described above. The following table depicts the comparison of the Calhoun mean score with the national mean score.
Science Reasoning. The Science Reasoning assessment was administered to 21 BIO 201 and 202 and PHS 111 and 120 classes. A total of 549 students were enrolled in the courses, but only 380 tests were scored. The following table depicts the comparison of the Calhoun mean score with the national mean score.

FRESHMEN STUDENTS

Self-reported demographics revealed that 244 freshmen completed the Writing Skills assessment, 203 Critical Thinking, and 113 the Science Reasoning assessment. Freshmen scores of Calhoun students are compared to scores of freshmen at other two-year institutions. The results of these comparisons revealed that Calhoun freshmen mean scores are slightly higher than the
national mean score in Writing Skills, slightly lower in Critical Thinking, and slightly lower in Science Reasoning. The following table depicts these results.

**Freshmen Writing Skills Results**  The freshmen students who took the writing skills assessment scored slightly higher than the national mean.

![Writing Skills Bar Chart]

**Freshmen Critical Thinking Results**  Freshmen students who took the Critical Thinking assessment scored slightly lower than the national mean.

![Critical Thinking Bar Chart]

**Freshmen Science Reasoning Results**  Freshmen students who took the science reasoning scored lower than the national mean.
Self-Reported demographics revealed that 107 sophomore students took the Writing Skills assessment, 91 took the Critical Thinking Assessment, and 185 took the Science Reasoning Assessment. The scores of Calhoun sophomore students are compared to scores of sophomores at other two-year institutions. The results of these comparisons revealed that Calhoun sophomores scored lower than the national mean in Writing Skills, Critical Thinking, and Science Reasoning. The following tables depict these results.

**Sophomore Writing Skills Results** Sophomore students who took the Writing Skills assessment scored lower than the national mean.
**Sophomore Critical Thinking Results.** Sophomore students who took the Critical Thinking scored lower than the national mean.

![Bar Chart: Critical Thinking]

**Sophomore Science Reasoning.** Sophomore students who took the Science Reasoning assessment scored lower than the national mean.

![Bar Chart: Science Reasoning]
PERCENTAGE OF STUDENTS SCORING AT OR ABOVE THE NATIONAL MEAN

Another way to view the comparison of Calhoun student performance to students at other two-year institutions is to consider the percentage of students taking each assessment that scored at or above the national mean score. CAAP results for 2008 reveal that Calhoun students did not perform as well as their counterparts at other two-year institutions around the nation. The following tables depicts these results.

**Writing Skills.** For all Calhoun students taking the Writing Skills assessment, 46% of them scored at or above the national mean score level.

![Writing Skills Pie Chart](image)

**Critical Thinking Skills.**

![Critical Thinking Skills Pie Chart](image)
Science Reasoning Skills

COMPARISON OF 2006 AND 2008 RESULTS

The College administered the CAAP test in the Spring of 2006 as a pilot study. Because it was a pilot, fewer numbers of students were tested in a wider variety of tests which included Mathematics, English Writing Skills, English Writing Essay, Reading, Science Reasoning, and Critical Thinking. Although a significantly larger number of students were tested in 2008, a comparison of student performance in Writing Skills, Critical Thinking, and Science Reasoning suggests areas for improvement.

PERCENTAGE OF STUDENTS SCORING AT OR ABOVE THE NATIONAL MEAN

2006 to 2008

A comparison of 2006 to 2008 results reveals that the percentage of students taking the assessment who scored at or above the national mean decreased in all three assessments. However, it is important to note that the number of students participating in the assessment significantly increased from 2006 to 2008. The following table depicts these changes:

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>2006 Percentage of Calhoun Students Scoring at or Above National Mean</th>
<th>Number of Students Assessed</th>
<th>2008 Percentage of Calhoun Students Scoring at or Above National Mean</th>
<th>Number of Students Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Skills</td>
<td>57%</td>
<td>46</td>
<td>46%</td>
<td>383</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>42%</td>
<td>38</td>
<td>41%</td>
<td>325</td>
</tr>
<tr>
<td>Science Reasoning</td>
<td>64%</td>
<td>58</td>
<td>31%</td>
<td>380</td>
</tr>
</tbody>
</table>
SUMMARY

Results of the 2008 CAAP assessment results indicate that Calhoun students did not perform as well as their peers at other two-year institutions in Science Reasoning, English Writing Skills, and Critical Thinking. The 2008 CAAP assessment results are shared college-wide for use in generating ideas to enhance general education skills.

Calhoun plans to continue the use of the CAAP assessment to monitor the achievement of Calhoun students in mastering general education learning outcomes adopted by Calhoun. However, the CAAP assessment is only one instrument in the College’s ongoing assessment model. Departmental data through standardized testing and CCSSE results are also being collected and analyzed.