

ASSESSING STUDENT READING AND WRITING IN THE CRAIG SCHOOL OF BUSINESS, Spring 2006

Report of Results Submitted by Dr. Robert Harper, CSB Associate Dean

In Spring 2006, students in several BA 105W Business Communication courses were given the CAAP Reading Test and CAAP Writing Test to determine whether the hypotheses stated below were supported.

This study is based on the following demographic statistics. Of the students majoring in Business Administration who took either the reading or the writing exams, there were:

- ◆ 95 males and 93 females;
- ◆ 142 native English speakers and 45 non-native English speakers;
- ◆ 71 first-time freshmen 71 and 117 transfer students;
- ◆ 1 freshman, 24 sophomores, 143 juniors, and 18 seniors, and
- ◆ 171 full-time students and 24 part-time students.

Of the exam-takers who were not majoring in Business Administration, there were:

- ◆ 55 males and 47 females;
- ◆ 82 native English speakers and 17 non-native English speakers;
- ◆ 42 first time freshman numbered 42 and 57 transfer students;
- ◆ no freshmen, 9 sophomores, 40 juniors, and 99 seniors, and
- ◆ 91 full-time students and 8 part-time students.

The mean age for all students was 25.1 for CSB-majors and 24.2 for students not majoring in Business Administration.

Hypothesis 1 – *CSB students taking the CAAP Reading Test as part of a course in their major will perform better than professional majors on the same test the year before in GE IC courses.*

Hypothesis 1 was not supported in that CSB student performance on the CAAP Reading Test in Spring 2006 did not differ statistically from the performance of professional majors in GE IC classes in Spring 2005. This was based on 337 professional majors in 2005 and 56 CSB students in 2006 who took the CAAP Reading Test. The unequal-variances *t*-test statistic was 0.46 with a *p*-Value of 0.64.

Hypothesis 2 – *CSB student scores on the CAAP Writing Test will correlate positively and significantly with scores earned by the same students on the CAAP Reading Test.*

Hypothesis 2 was supported. All *t*-coefficients were highly significant with a *p*-Value of $< 6.4 \times 10^{-7}$. The *t*-test statistics for correlations ranged from a low of 5.66 to a high of 46.83. Specific results were as follows:

Correlation Matrix

	Writing	Mechanics	Rhetoric	Reading	LangArts	SocSt
Writing Score	1					
Mechanics Write Sub	0.943339	1				
Rhetoric Write Sub	0.960109	0.827329	1			
Reading Score	0.808526	0.734139	0.777718	1		
LangArts Read Sub	0.665169	0.613389	0.629674	0.870057	1	
SocSt Read Sub	0.783428	0.699374	0.767363	0.922377	0.637464	1

t-Test Ratios on Correlations

	Writing	Mechanics	Rhetoric	Reading	LangArts	SocSt
Writing Score	1					
Mechanics Write Sub	38.77121	1				
Rhetoric Write Sub	46.82738	20.0871	1			
Reading Score	10.00263	7.871308	9.006934	1		
LangArts Read Sub	6.485267	5.654146	5.900801	12.84939	1	
SocSt Read Sub	9.177151	7.123445	8.712385	17.38328	6.023264	1

For those majoring in Business Administration, students who scored well on the total score for the CAAP Writing Test also scored well on the total score for the CAAP Reading Test. Students who scored well on each of the reading test sub-scores also scored well on each of the writing test sub-scores.

Hypothesis 3 – *CSB students who began as first-time freshmen at California State University, Fresno will perform as well on both the CAAP Reading Test and the CAAP Writing Test as CSB students who transferred to California State University, Fresno.*

Hypothesis 3 was supported. In no total score or sub-test score did first-time freshmen perform significantly lower than transfer students. Overall, first-time freshmen on the writing exam had a mean score of 61.72 (68 students), on mechanics a mean score of 15.84 (68 students), on rhetoric a mean score of 15.93 (68 students). Transfer students on the writing exam had a mean score of 60.99 (113 students), on mechanics a mean score of 15.50 (113 students), and rhetoric a mean score of 15.58 (113 students). First-time freshmen had a mean score on reading of 60.04 (27 students), on Language Arts a mean score of 14.37 (27 students), and on Social Studies a mean score of 15.59 (27 students). Transfer students had a mean score on reading of 60.00 (28 students), a mean score on Language Arts of 14.39 (28 students), and a mean score of 15.43 on Social Studies (28 students). The equal variance *t*-tests results between first-time freshmen and transfer students are as follows:

- ◆ On total CAAP Writing Test score - $t = 0.89$ (p -Value = 0.19);
- ◆ On CAAP Writing Mechanics sub-score, $t = 0.84$ (p -Value = 0.20);
- ◆ On CAAP Writing Rhetoric sub-score, $t = 0.79$ (p -Value of 0.22);
- ◆ On total CAAP Reading Test score, $t = 0.03$ (p -Value = 0.49);
- ◆ On CAAP Reading Language Arts sub-score, $t = -0.04$ (p -Value = 0.48), and
- ◆ On CAAP Reading Social Studies sub-test score, $t = 0.23$ (p -Value = 0.41).

No statistical differences were shown between first-time freshmen and transfer student abilities on these test scores.

Hypothesis 4 – *CSB student scores on the CAAP Writing Test will correlate significantly with student age.*

Hypothesis 4 was supported. CAAP Writing test scores correlated significantly but negatively with age. Older students performed statistically worse than younger students. Based on 181 observations, age was a significant predictor of test scores with t -test = - 2.54 (p -value of 0.012).

Hypothesis 5 – *There is no significant gender difference in student performances on the two tests.*

Hypothesis 5 was supported. In no score or sub-test did the men perform statistically different from women. Overall, men on the writing exam had a mean score of 61.51 (94 students), on mechanics a mean score of 15.80 (94 students), on rhetoric a mean score of 15.84 (94 students). Women on the writing exam had a mean score of 61.00 (87 students), on mechanics a mean score of 15.45 (87 students), and rhetoric a mean score of 15.57 (87 students). Men had a mean score on reading of 59.48 (29 students), on Language Arts a mean score of 14.00 (29 students), and on Social Studies a mean score of 15.55 (29 students). Women had a mean score on reading of 60.62 (26 students), a mean score on Language Arts of 14.81 (26 students), and a mean score of 15.46 on Social Studies (26 students). The equal variance t -tests results between men and women are as follows:

- ◆ On total CAAP Writing Test score - t = of 0.36 (p -Value = 0.72);
- ◆ On CAAP Writing Mechanics sub-score, t = 0.50 (p -Value = 0.62);
- ◆ On CAAP Writing Rhetoric sub-score, t = 0.35 (p -Value of 0.73);
- ◆ On total CAAP Reading Test score, t = 0.91 (p -Value = 0.37);
- ◆ On CAAP Reading Language Arts sub-score, t = - 1.43 (p -Value = 0.16), and
- ◆ On CAAP Reading Social Studies sub-test score, t = 0.13 (p -Value = 0.90).

In summary, all hypotheses were supported except for hypothesis 1. A special note includes, however, that even though hypothesis 4 was supported; the correlation was significant and negative, meaning that younger students performed significantly better on the writing test than older students.

Follow-Up: A proposed strategy

Since our study reinforces that reading well and writing well are highly correlated, we believe that exercising student reading skills and having them write about their reading should improve both reading and writing skills. We plan to supplement our curricular materials and diversify our instructional strategies to enhance student learning by adding a new kind of assignment to the class. We will have students identify and read articles of interest to their baccalaureate major/option (e.g., *The Wall Street Journal*, *Business Week*, *Forbes*) and summarize the major concepts in an executive summary, which may also include a graphic overview. Students will include a copy of the article with their assignment.