

CAAP Report Fall 2003-4

Introduction

The Collegiate Assessment of Academic Proficiency (CAAP) Test was given fall 2003-4 to junior students in all AUB faculties. Despite continuous reminders and urging, only 736 junior students took it out of expected 1300. With the help of the Registrar's Office and the Banner system, suitable times for administration were scheduled for all juniors. Each student who took the test was given the Critical Thinking (CT) component of the test and was allowed a test of his/her choice from Mathematics Reasoning (MR), Science Reasoning (SCR), Reading (R), and Writing Skills (W). A sample representative of the junior population was required to take three tests, CT, Essay Writing, and a third test of their choice.

The tests were administered following CAAP standardized administration procedures. The Mathematics Reasoning was very popular to the extent that we ran short of forms and students had to resort to Science Reasoning instead. Completed forms were sent to ACT for scoring and a month later reports were received. There was an institutional report, in addition to individual student reports. Each student received a report detailing his/her performance on tests that were taken, giving score and percentile rank compared to AUB students and also compared to American national norms of comparable 4-year institutions. In addition, students who got $\geq 50^{\text{th}}$ percentile received a Certificate of Achievement.

Results

Results of the various CAAP tests for the whole sample are reported in Table 1. Comparison with 2002 figures and with American national norms is also provided. AUB students' best performance is on MR followed by CT, while their lowest performance is on R and W. Compared to national norms, AUB performance is higher on MR, same on CT and on SCR while lower on R and W. With respect to 2002 figures, the comparison is not very accurate as sample is different. 2003 sample is made up of juniors only, while that of 2002 included all levels. Comparing 2003 with performance of 2002 juniors reveals improvement in 2003 on SCR, R, and MR, while scores on W and CT were quite similar. Figure 1 also provides a figural representation of the results.

Table1. Comparison of CAAP Results with National Norms and with 2002

Year	N	CT	SCR	R	MR	W
2003	736	62.3	61.2	59.7	64.2	60.0
2002*	188	63.1	60.5	59.1	61.6	60.6
2002 Jr.	46	63.0	59.0	58.0	60.0	60.0
Norms	39,463	62.1	61.1	62.6	58.1	64.5

* Includes students from all levels

Performance on CAAP tests was also compared by gender, age, GPA, major and if English was a first language or not. With respect to gender, examining Table 2 reveals that highest differences between males and females were on MR in favor of males, followed by differences on CT also in favor of males, while the differences on Reading were in favor of females. Performance on SCR and W was similar. Reading and Math differences are in agreement with findings in the literature on gender differences, however, CT ones are not supported by the literature that reports non significant differences on CT between gender. However, we need to check for the significance of these differences.

Figure 1. CAAP Test Results for 2003 and 2002

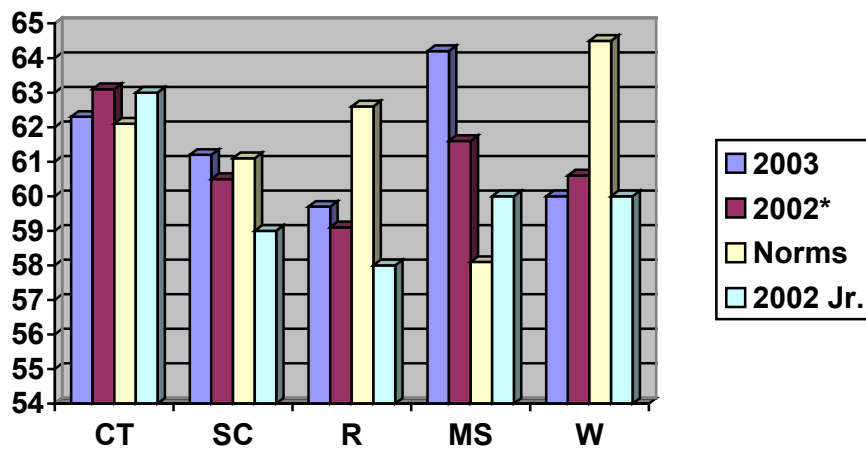


Table 2. CAAP Results by Gender

Gender	N	CT	SCR	R	MR	W
Male	401	63	61	59	65	60
Female	333	62	61	60	63	60

As to age differences on the CAAP tests, all who took the test were juniors and there should not have been large differences in age level nor in results due to age. However, results as reported in Table 3 revealed variability in age as well as differences in scores in favor of the younger group 18-20. This can be interpreted by the fact that the older students must have repeated and are weaker than the others, and accordingly had lower CAAP scores. Usually CAAP scores increase with age and with level.

Table 3. CAAP Results by Age

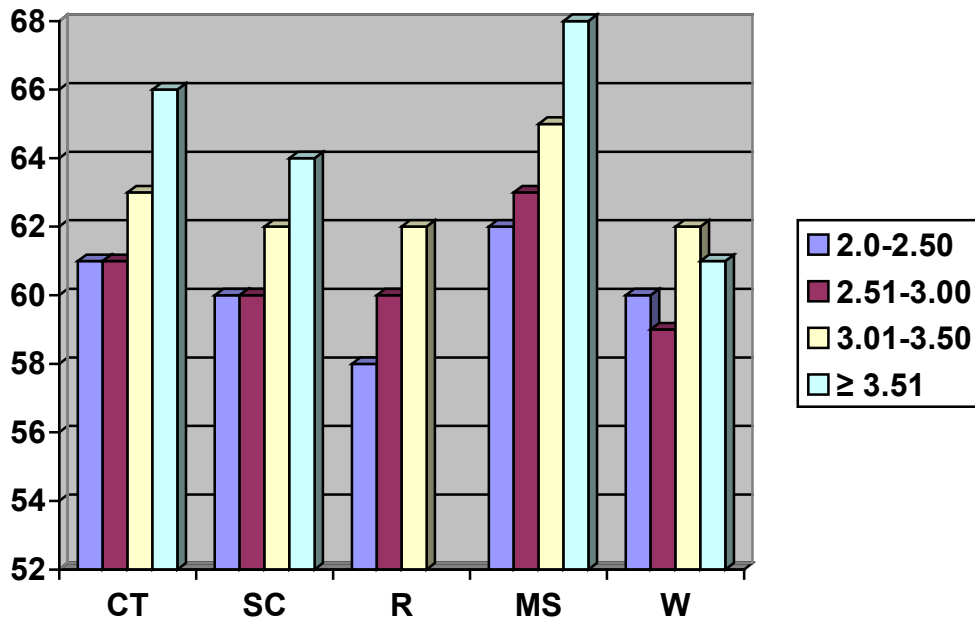
Age	N	CT	SCR	R	MR	W
18 & less	78	63	61	61	66	61
19-20	549	63	61	60	64	60
21-25	89	60	60	58	61	59
> 25	20	61	59		64	

With respect to differences resulting from English being a first language or not so, no differences were noted between the two groups except on Writing (61 vs. 60). Significant differences were noted, however, on CAAP test scores by GPA. In general, the higher the GPA the higher the CAAP test score. Table 4 provides summary results by GPA, while figure 2 highlights differences graphically.

Table 4. CAAP Results by GPA

GPA	N	CT	SC	R	MR	W
< 2.00	18	60			62	
2.0-2.50	137	61	60	58	62	60
2.51-3.00	214	61	60	60	63	59
3.01-3.50	231	63	62	62	65	62
≥ 3.51	77	66	64		68	61
No response	59	62	61	57	65	58

Figure 2 CAAP Score Differences by GPA



Differences by major were also noted, students from biological sciences got highest scores on all tests, except MR, where they were superseded by Engineering and Architecture students. Table 5 presents CAAP test results by major, while figures 3-7 present differences in CT, SCR, R, MR and W by major.

Figure 3 CT Scores by Major

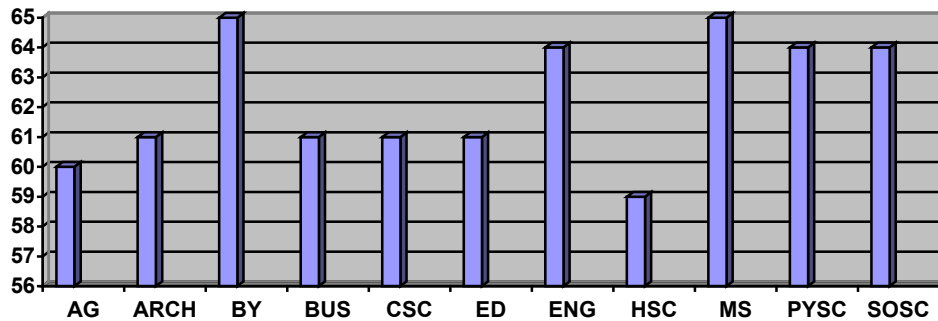


Table 5 Results by Major

Major	N	CT	SCR	R	MR	W
Agriculture	25	60	62	58		
Architecture	17	61		63	66	
Biol. Sc.	72	65	63	64	64	63
Business	171	61	60	58	61	59
Comp. Sc.	71	61	59	59	63	
Education	10	61			60	
Engineering	178	64	61	60	68	
Fine & App. Arts*	24	63		63		
Health sc.	17	59				58
Home Economics**	13	61			62	
Letters***	6	63				
Math	6	65			65	
Physical sc.	11	64			67	
Social sc.	40	64		62	63	61
No response	64	61	60	57	64	59
Other	11					
Total	736	62	61	60	64	60

* Probably Graphic Design

** Probably Economics

*** Probably English or Arabic

Figure 4 SCR by Major

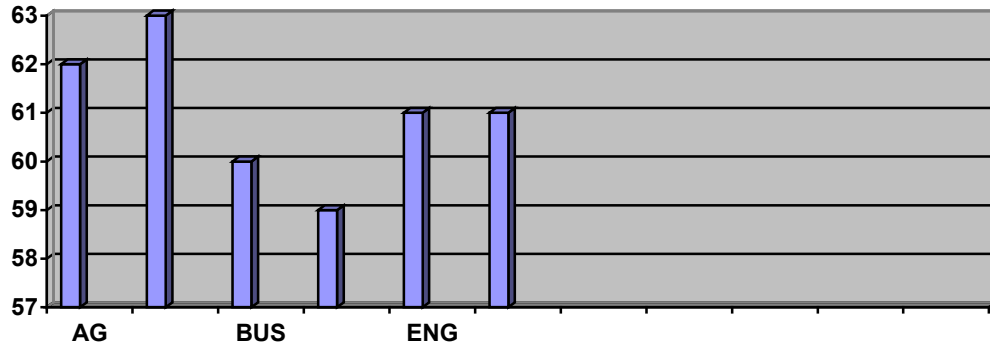


Figure 5 Math by Major

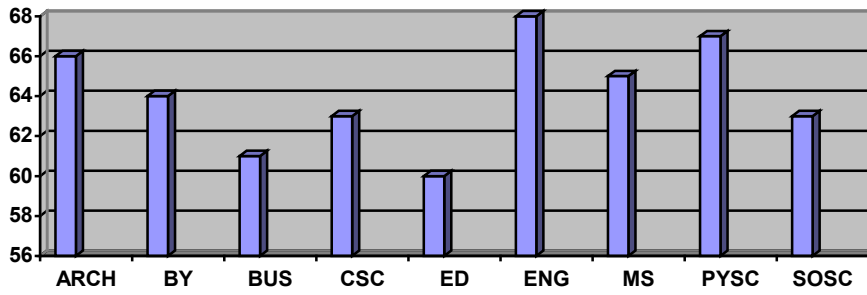


Figure 6 Reading by Major

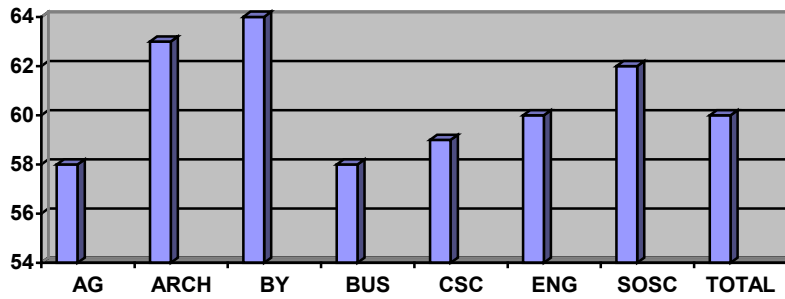
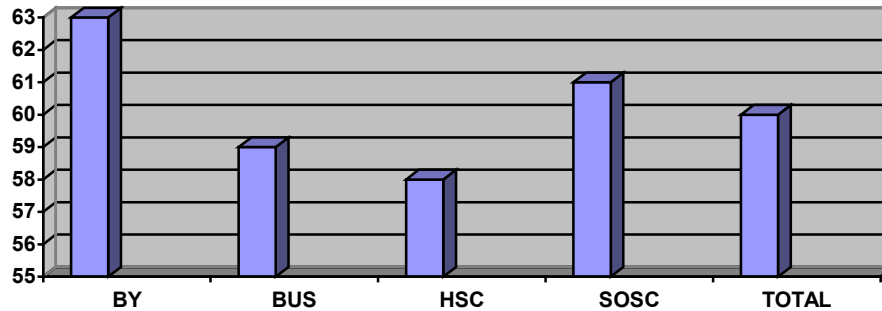


Figure 7 Writing by Major



Results also revealed important information for Writing, Mathematics, and Reading in terms of sub scores. Table 6 provides sub scores for each of these tests, in addition to a comparison with national norms for 2003 and 2002. In writing, AUB students do better on usage/mechanics than on rhetorical writing, while in reading they do better on social science readings than on arts/literature. With respect to math, they do very well on college algebra and much higher than the norms. Comparison between both years is not justified, as sample is different in terms of levels. 02 results are based on a multi-level sample, while 03 are based on juniors only.

Table 6 Writing, Reading, and Math Sub score Results, 2003, 2002

Test	2003 av.	2002 av.	Norms 03
Writing: Usage/Mechanics	15.6	15.9	17.2
Writing: Rhetorical	14.7	14.9	17.3
Reading: Arts/literature	14.5	14.3	15.7
Reading: Social sciences	15.2	15.0	16.5
Essay	3.2	3.4	3.3
Math: Basic algebra	17.8	16.6	15.3
Math: College algebra	20.0	18.2	15.2

Certificates of Achievement

A good number of students obtained Certificates of Achievements indicating that they achieved $\geq 50^{\text{th}}$ %ile of the normative sample. Table 7 provides the number and percentage of certificates obtained in different subjects. Figure 8 provides the percentiles by subject graphically. Some students obtained certificates in one subject, others in two and still others in three. Table 8 details this information. The highest percentage of certificates was obtained in math reasoning followed by critical thinking and science reasoning. Lowest was in writing skills.

Table 7 Distribution of Certificates of Achievement by Subject

Subject	N	Certificate	%Certificate
Critical Thinking	733	372	51
Math Reasoning	348	305	88
Science Reasoning	175	88	50
Writing Skills	78	11	14
Reading	107	33	31
Essay	108	38	35

Figure 8 Percentage Certificates by Test

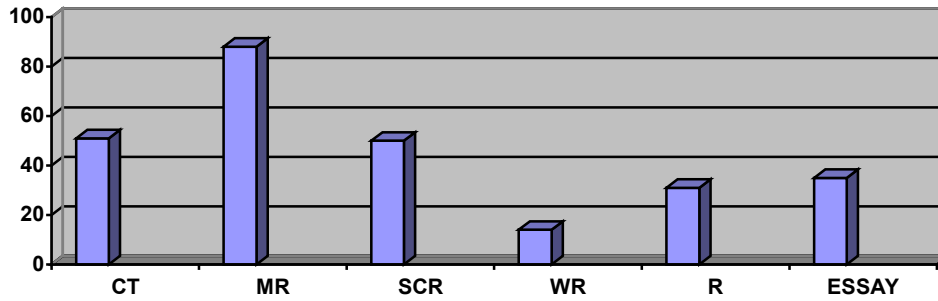


Table 8 Frequency of Number of Distributions

	N	%of Certificates	% of Total
# who got certificates in 1 subject	265	48	36
# who got certificates in 2 subjects	272	49	37
# who got certificates in 3 subjects	17	3	2.3
Total	554		76

Nearly one third of the students got certificates in the two subjects they sat for, while another third got a certificate for one subject. 17 students got certificates in 3 subjects, although the sample that took 3 was not that large.

Conclusion

Administering the CAAP is very useful as it provides AUB with an indicator of the level of its students in basic general education skills and competencies that include thinking critically, reasoning and written communication. The information provides us with information regarding skills needing improvement and the changes over time. It is a very important and serious outcome that needs to be maintained and even encouraged. Students took the CAAP more seriously this year, they showed more interest and followed up on their results. I think we need to work more on this side by finding ways to motivate all juniors to take the tests and to put their best effort while doing so. At the same time we need to work on improving the writing and reading components by highlighting them as learning outcomes in all courses, especially general education

courses. We have administered the CAAP this year on juniors as it enables AUB to identify skills that need improvement before graduation and enables students who still have weaknesses in certain areas to work on them.