

CAAP Report Spring 2010-11

Introduction

The Collegiate Assessment of Academic Proficiency (CAAP) Test was given early spring term 2010-11 to a representative sample of junior students from all AUB faculties. With the help of the Registrar's Office and the Banner system, suitable times for administration were scheduled for the sample. With continuous reminders and urging, 332 of the selected 717 (46%) junior students took it. However, for some reason, only reports covering 250 students were received. ACT is still investigating the matter. Examining the sample representativeness (Table 1), reveals that it is quite proportional to original sample with under representation of OSB and over representation of FEA. This could be because of missing scores, as OSB lost 14% of its sample, while FEA only 11%. 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).

The tests were administered following CAAP standardized administration procedures. 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.

Table 1. Representativeness of CAAP Sample Spring 2010-11

Total Population			CAAP Sample			Took CAAP		
College	%	#	College	%	#	College	%	#
AG	10	152	AG	10	68	AG	9	23
AS	38	563	AS	39	277	AS	40	102
EA	25	373	EA	27	194	EA	32	81
HS	4	55	HS	5	32	HS	6	15
NU	2	32	NU	2	17	NU		
SB	20	291	SB	18	129	SB	12	31
Total		1466			717			252

Results

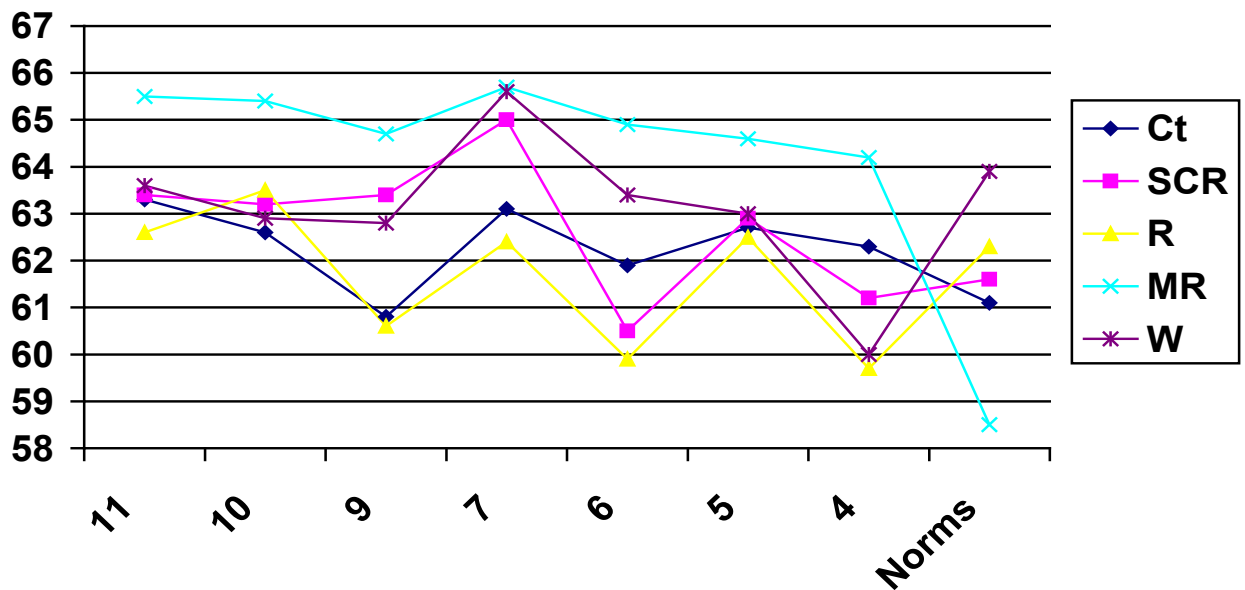
Results of the various CAAP tests for the whole sample are reported in Table 2. Comparison with previous years and with American national norms is also provided. AUB students' performance this year improved on all tests with best performance still on MR and SCR and CT, while the others (Reading and Writing) are similar to national norms, though used to be lower. Compared to national norms; AUB performance is significantly higher on MR, SCR, and CT, while it is similar on Reading and Writing.

Figure 1 also provides a figural representation of the results. It is clear from the figure that over the years, AUB performance on CT has been improving and is now higher than national average. Also, that AUB performance on MR has been consistent and above average, while on SCR it has also improved in last three years and is above average. Performance on Reading has been fluctuating between average and below average, while Writing has shown an improvement then started to stabilize but still slightly below norms. Norms showed a drop this year on most of tests except MR.

Table2. Comparison of CAAP Results with National Norms and with 2003-11

Year	N	CT	SCR	R	MR	W
2010-11	250	63.3	63.4	62.6	65.5	63.6
2009/10	360	62.6	63.2	62.5	65.4	62.9
2008/9	421	60.8	63.4	60.6	64.7	62.8
2006/7	235	63.1	65.0	62.4	65.7	65.6
2005/6	245	61.9	60.5	59.9	64.9	63.4
2004/5	403	62.7	62.9	62.5	64.6	63.0
2003/4	736	62.3	61.2	59.7	64.2	60.0
Norms		61.1	61.6	62.3	58.5	63.9

Figure 1. CAAP Test Results for 2003-11



These findings need to be checked against candidates' GPA to check if this group is academically similar or weaker than that of previous years. Examining GPA data (Table 3) reveals that this year's sample has a higher GPA than last year as 54% of them reported a GPA of ≥ 3.01 , vs. 49% last year, but quite similar to 51% and 55% in 2007 and 2005 respectively. This is also confirmed when we examine their actual GPA as we find that average of whole sample required to take CAAP this year is **78.5** (same as last year), while average of those who took it is **79.7** (same as last year) and those who did not take it is **77.9** (slightly higher than before), so sample is of higher ability but this is usually the case in those who sit for the CAAP. Differences were noted on CAAP test scores by GPA. In general the higher the GPA the higher the CAAP test score especially for CT, MR and R.

Table 3. Breakdown of CAAP Results by GPA / 2011

GPA	N	%	W		MR		R		CT		SR	
			Freq.	Avg.	Freq.	Avg.	Freq.	Avg.	Freq.	Avg.	Freq.	Avg.
< 2.00	4	2	1		2				4		1	
2.0-2.50	36	15	9	64	19	63	5	59	36	61	3	
2.51-3.00	72	30	11	63	34	64	11	63	72	62	16	63
3.01-3.50	90	37	10	64	62	66	5	64	90	64	13	63
≥ 3.51	42	17	3		28	68	6	63	42	65	5	67
No response	6	3	0		4		0		6	63	2	

Table 4. Breakdown of CAAP Results by GPA 2011 and 2010

GPA	N	%	CT		SC		R		MR		W	
			10	11	10	11	10	11	10	11	10	11
< 2.00	4	2	59									
2.0-2.50	36	15	61	61		61	59	59	63	63	62	64
2.51-3.00	72	30	62	62	63	62	63	63	64	64	63	63
3.01-3.50	90	37	63	64	64	64	64	64	66	66	64	64
≥ 3.51	42	17	66	65	64	65	64	63	69	68		
No response	6	3	61	63		63			64			

Results were further examined by comparing CAAP scores for students with similar GPA in both years. Table 4 reports breakdown of scores by GPA for both years. This year's group performed quite similarly on most of the tests when comparison with GPA is done, except for W when this year's 2-2.5 GPA group performed much better than last year's. Figure 2 highlights differences graphically.

Performance on CAAP tests was also compared by gender, major and whether English was a first language or not. With respect to gender, examining Table 5 reveals that performance was slightly better for males on all scales. Gender results are also reported graphically in Figure 3.

Figure 2. CAAP Score Differences by GPA

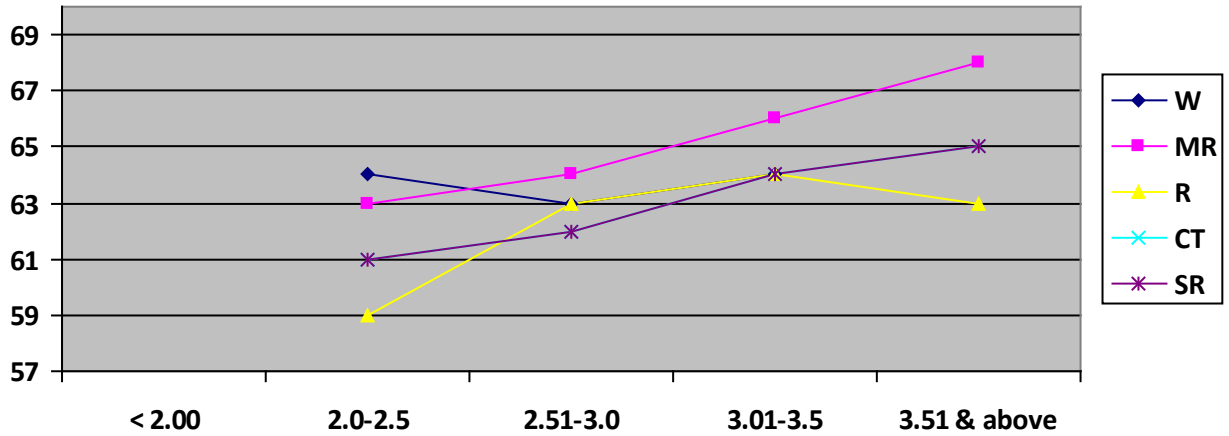
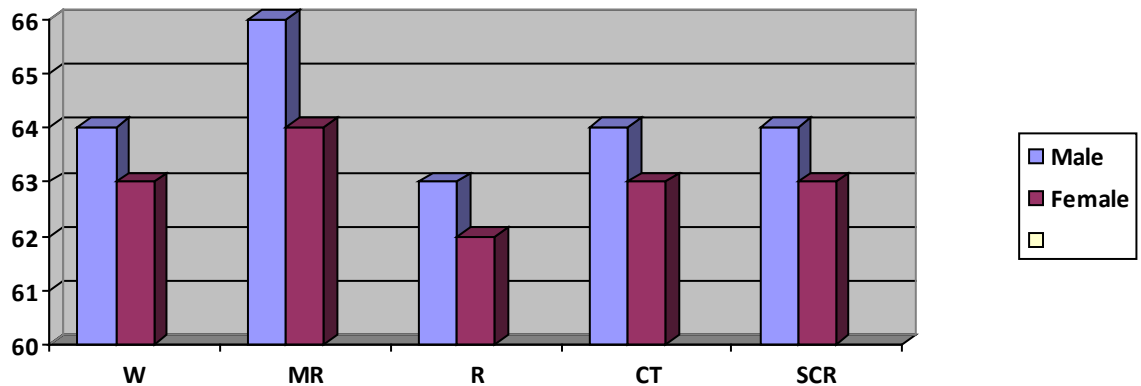


Table 5. CAAP Results by Gender

Gender	N	WS	MR	R	CT	SR
Male	124	64	66	63	64	64
		N=11	N=84	N=9	N=124	N=20
Female	126	63	64	62	63	63
		N=23	N=65	N=18	N=126	N=20

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.

Figure 3. CAAP Results by Gender



With respect to differences resulting from English being a first language or not, there were practically no differences as noted in Table 6 with group whose native language is

not English scoring slightly higher on MR, while native speakers scored better on SCR. Cannot identify significance of these results for lack of sufficient data.

Table 6. CAAP Results by Native Language

English	N	WS	MR	R	CT	SR
First Language	53	64	65	63	63	65
		N=9	N=31	N=6	N=53	N=7
Not First Language	196	64	66	62	63	63
		N=25	N=118	N=21	N=196	N=32

Differences by major were also noted, students from Engineering got highest score in MR. Biological sciences got highest scores on SCR and CT, and 2nd highest in MR. Social Sciences got highest in R, 2nd highest in W, while Business got highest in W and 2nd highest in R. Table 7 presents CAAP test results by major, while figures 4-5 present differences in CT and MR by major and in comparison with 2006-2-10. In CT, all majors show some improvement this year with biological sciences leading. As for MR, most of the majors maintained their positions, with engineering showing highest performance.

Results also revealed important information for Writing, Mathematics, and Reading in terms of sub scores. Table 8 provides sub scores for each of these tests, in addition to a comparison with national norms and with 2004-10. In Writing, AUB students consistently do better on usage/mechanics than on rhetorical writing and they have attained national norm level on this skill. In rhetorical writing they are maintaining average but is slightly lower than national norms and need to work on this. With respect to Reading, they performed usually slightly better on social science readings than on arts/literature, with both close to national norms With respect to math; they do very well on both sections and much higher than the norms though with higher performance on college algebra than basic algebra.

Figure 4 CT Scores by Major, Comparison with 2007-2011

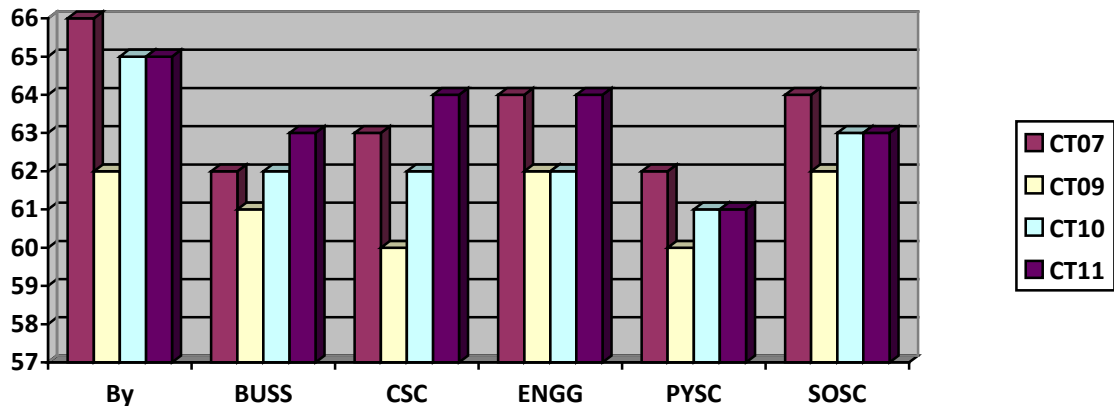


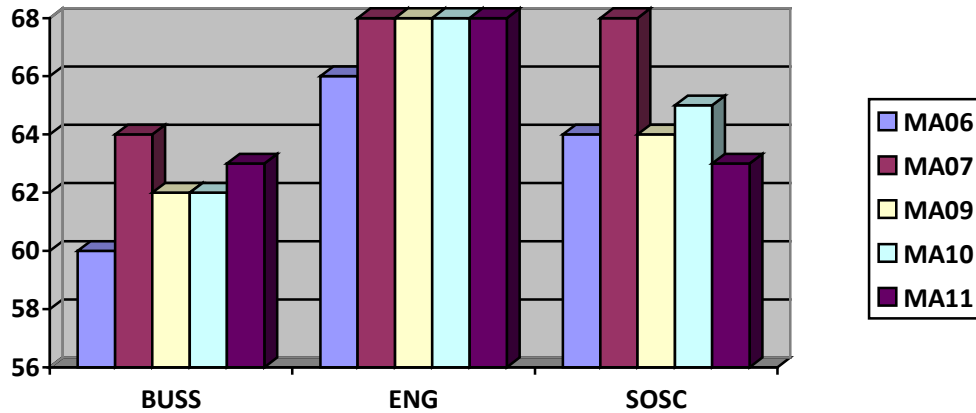
Table 7. Results by Major

Major	N	W	MR	R	CT	SR
Agriculture	4					
Architecture	10		62		61	
Biol. Sc.	30		67		65	65
Business	32	65	63	63	63	
Marketing	1					
Community Service	3					
Computer & Info Sciences	9		64		64	
Education	6				58	
Engineering	78		68		64	
Fine Arts	2					
Health Professions	16	62	61		62	
Home Economics	11		65		64	
Letters	3					
Math	2					
Physical sc.	10		65		61	
Social sc.	26	64	63	65	63	
No response	3					

Table 8. Writing, Reading, and Math Sub score Results, 2003-10

Test	N	2011	2010	2009	2007	2006	2005	2004	Norms
Writing: Usage/Mechanics	34	17.3	17.2	17.1	18.1	16.8	17.2	15.6	16.9
Writing: Rhetorical	34	16.4	15.8	16.0	17.6	16.6	16.0	14.7	17.0
Reading: Arts/literature	27	15.8	15.6	15.6	16.2	14.3	15.5	14.5	15.5
Reading: Social sciences	27	16.6	16.7	15.0	15.9	15.5	16.5	15.2	16.5
Math: Basic algebra	149	18.3	18.2	18.0	18.3	18.0	17.6	17.8	15.6
Math: College algebra	149	21.0	20.4	18.8	19.2	20.2	20.4	20.0	15.4

Figure 5 Math Reasoning by Major, Comparison with 2006, 07, 09 & 10



Certificates of Achievement

A good number of students obtained Certificates of Achievements (93%) indicating that they achieved $\geq 50^{\text{th}}$ %ile of the normative sample. Table 9 provides the number and percentage of certificates obtained in different subjects and in comparison with 2005-10. Percentages in 2011 were higher than 2010 and nearly the highest ever in most subjects, except in Writing. Figure 5 provides the figures graphically by subject, while Figure 6 shows development over years. Examining trend over years shows that Certificates in MR and SCR have always been the highest, and that CT and R have been steadily improving in last two years. Some students obtained certificates in one subject, others in two. Table 10 details this information in comparison with 2007-10. The percentage of students who obtained two certificates (62%) increased and is highest, and the percent of total certificates obtained was 90, as only 10% of students who took CAAP (N=26) did not obtain any certificate. The highest percentage of certificates was obtained, as usual, in Math Reasoning followed by Science Reasoning. Figure 7 provides graphic distribution of certificates

Table 9. Distribution of Certificates of Achievement by Subject

Subject	N	Certif. 11	%Certif. 11	%Certif. 10	%Certif. 09	%Certif. 07	%Certif. 06	%Certif. 05
CT	252	154	61	55	38	52	49	55
MR	149	146	98	97	90	100	94	81
SR	40	32	80	67	62	78	45	72
WS	34	17	50	38	47	69	55	41
R	27	17	63	52	32	57	33	52

Figure 5. Number of Certificates by Test

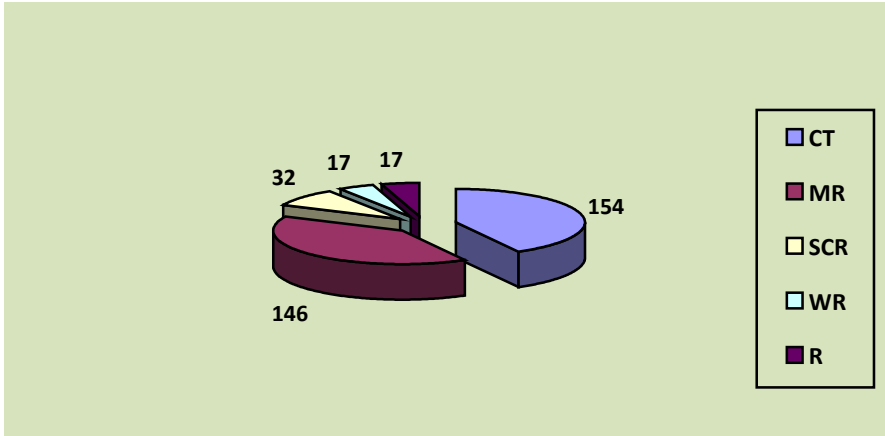


Figure 6. Distribution of Certificates of Achievement by Subject

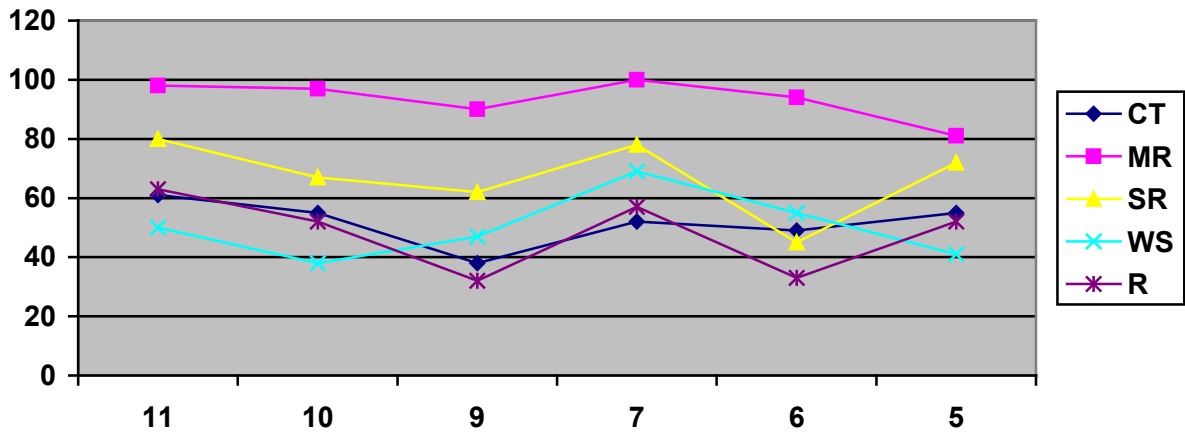
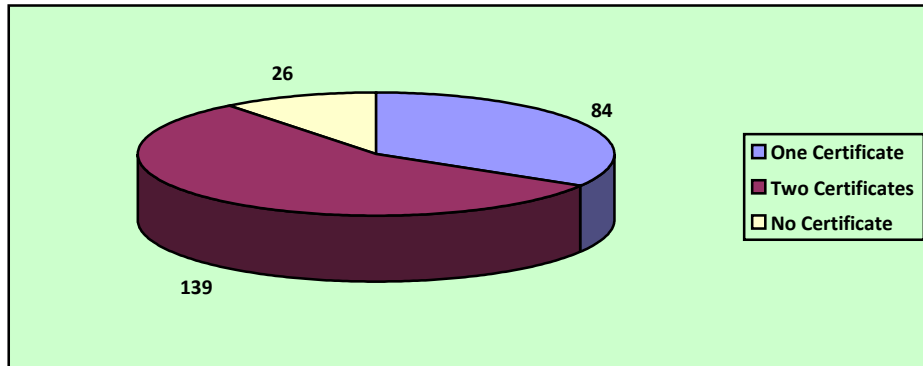


Table 10. Frequency of Number of Distributions, Comparison with 2006-10

	N (11)	% Cert 11	% Cert 10	%Cert 09	%Cert 07	% Total 11	% Total 10	% Total 09	% Total 07
# who got certificates in 1 subject	84	38	47	52	39	34	44	38	34
# who got certificates in 2 subjects	139	62	53	48	61	56	49	35	52
Total	223	100	100	100	100	90	93	73	86

Figure 7. Distribution of Certificates



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.

Although we had a lower participation rate this year especially with the missing answer sheets, yet sample was somehow representative. We still have problems with students taking the CAAP. 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. This year's results showed an improvement over previous years on most subjects and higher performance than national norms. This could be partially explained by higher ability level of the candidates who took CAAP but this is usually the case that better students opt to take it. We do hope that this upward trend continues especially on CT. Need to work on improving Writing skills especially the rhetoric skills.