CAAP Report Spring 2009-10

Introduction

The Collegiate Assessment of Academic Proficiency (CAAP) Test was given early spring term 2009-10 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, 360 of the selected 719 (50%) junior students took it. Examining the sample representativeness (Table 1), reveals that it is quite proportional to original sample with slight under representation of FAFS and slight over representation of OSB. 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 ≥50th percentile received a Certificate of Achievement.

Table 1. Representativeness of CAAP Sample Spring 2009-10

Total Population			CAAP Sample			Took CAAP		
College	%	#	College	%	#	College	%	#
AG	**10**	162	AG	9	**57**	AG	5	17
AS	**36**	597	AS	35	**259**	AS	34	124
EA	**30**	506	EA	30	**214**	EA	32	114
HS	**3**	54	HS	2	**14**	HS	2	9
NU	**1**	27	NU	2	**7**	NU		
SB	**20**	327	SB	22	**168**	SB	27	96
Total	**100**	**1673**		**100**	**719**		**100**	**360**

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' best performance is still on MR and SCR while the others (CT, Reading and Writing) have similar performances. In comparison with 2008-9, performance improved on CT, R, and MR, while it remained same on SCR and W. Compared to national norms; AUB performance is significantly higher on MR and SCR only, while it is similar on CT and R and still lower on Writing.

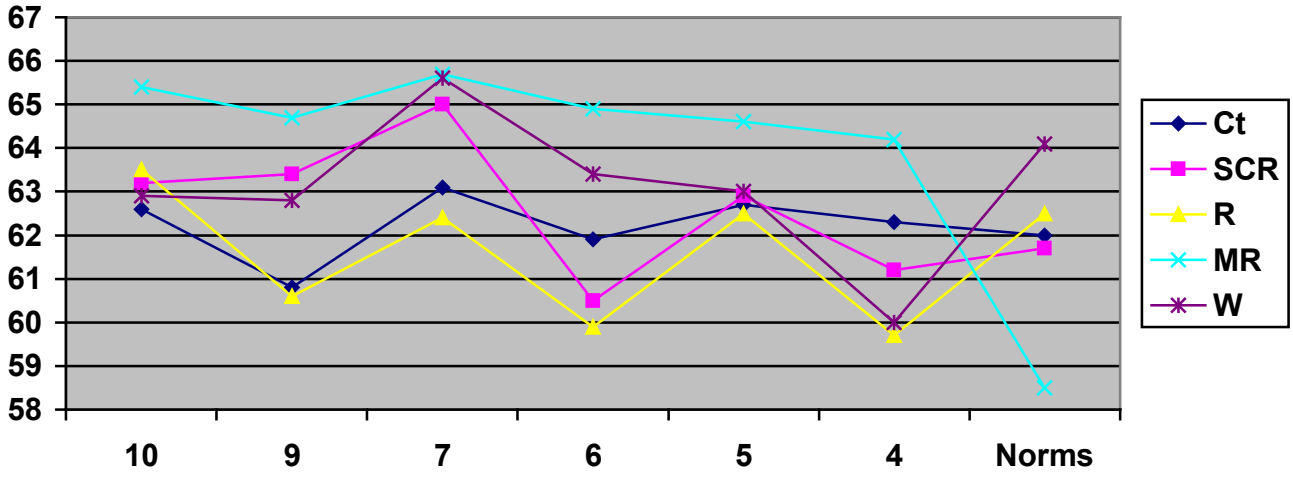
Figure 1 also provides a figural representation of the results. It is clear from the figure that over the years, AUB performance on CT was average except for 2008-9 when it

dropped below average. Also, that AUB performance on MR has been consistent and above average, while on SCR it was slightly less consistent but mostly 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 below norms.

Table2. Comparison of CAAP Results with National Norms and with 2003-10

Year	N	CT	SCR	R	MR	W
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		**62.0**	**61.7**	**62.5**	**58.5**	**64.1**

Figure 1. CAAP Test Results for 2003-10



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 49% of them reported a GPA of ≥ 3.01, vs. 43%, 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 (same as last year), while average of those who took it is 79 (same as last year) and those who did not take it is 77

(higher than before), so, sample who took CAAP this year is quite representative of ability groups. Differences were noted on CAAP test scores by GPA. In general the higher the GPA the higher the CAAP test sore especially for CT and MR. Table 4 provides summary results by GPA, while figure 2 highlights differences graphically.

Table 3. Breakdown of CAAP Results by GPA / 2010

GPA	N	%	W		MR		R		CT		SR	
			Freq.	Avg.	Freq.	Avg.	Freq.	Avg.	Freq.	Avg.	Freq.	Avg.
< 2.00	8	2							8	59		
2.0-2.50	61	17	6	62	45	63	7	59	61	61		
2.51-3.00	100	28	15	63	52	64	22	63	100	62	10	63
3.01-3.50	127	35	12	64	92	66	7	64	127	63	16	64
≥ 3.51	49	14			32	69	6	64	49	66	8	64
No response	15	4			9	64			15	61		

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 better on most of the tests when comparison with GPA is done, except for SCR where higher GPA students performed better last year.

Table 4. Breakdown of CAAP Results by GPA 2009 and 2010

GPA	N	%	CT		SC		R		MR		W	
			10	09	10	09	10	09	10	09	10	09
< 2.00	8	2	**59**	62								
2.0-2.50	61	17	**61**	60		63	**59**	59	**63**	63	**62**	62
2.51-3.00	100	28	**62**	61	**63**	62	**63**	61	**64**	63	**63**	62
3.01-3.50	127	35	**63**	61	**64**	65	**64**	61	**66**	66	**64**	64
≥ 3.51	49	14	**66**	62	**64**	66	**64**		**69**	68		
No response	15	4	**61**	61		62			**64**	67		

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 almost all scales except for W where it was same. Gender results are also reported graphically in Figure 3.

Table 5. CAAP Results by Gender

Gender	N	WS	MR	R	CT	SR
Male	198	63	66	64	63	64
		N=14	N=144	N=17	N=198	N=22
Female	162	63	64	62	62	62
		N=26	N=88	N=31	N=162	N=17

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 2. CAAP Score Differences by GPA

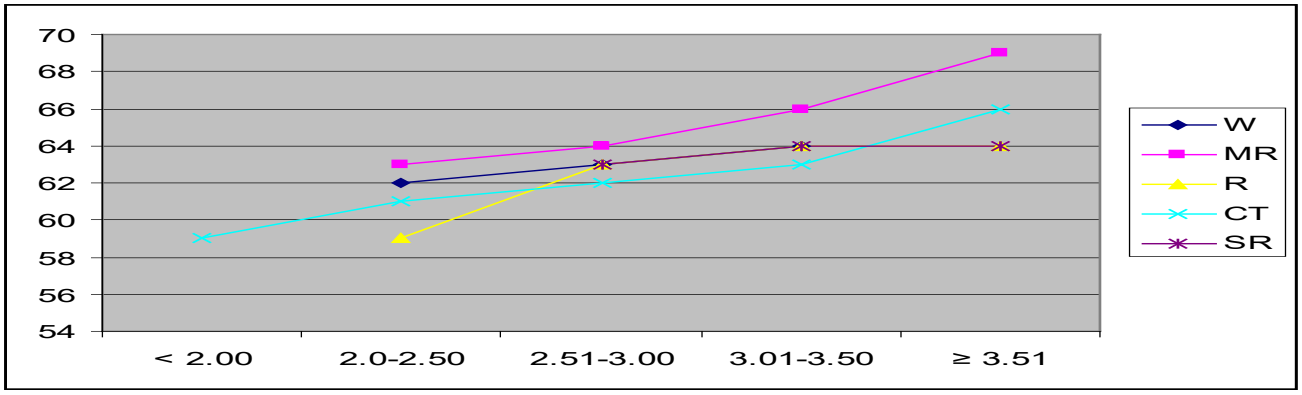
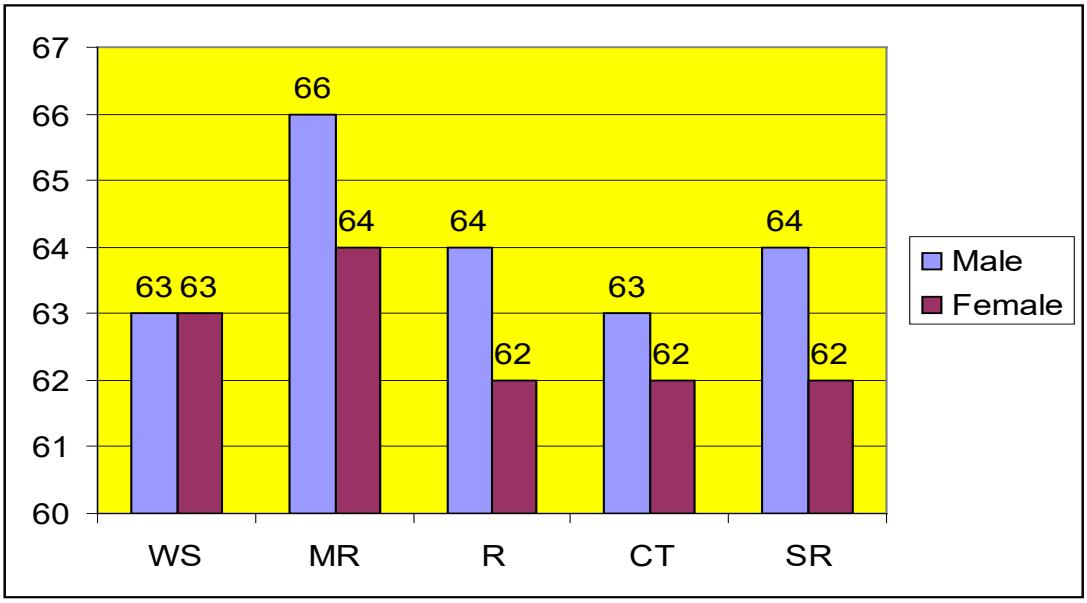


Figure 3. CAAP Results by Gender



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, R, and CT and this is because this group is of a higher ability.

Table 6. CAAP Results by Native Language

English	N	WS	MR	R	CT	SR
First Language	95	63	65	62	62	63
		N=19	N=49	N=19	N=95	N=8
Not First Language	264	63	66	63	63	63
		N=21	N=183	N=29	N=264	N=30

Differences by major were also noted, students from Engineering got highest score in MR and R. Biological sciences got highest scores on SCR, 2nd highest on CT and MR. Social Sciences got highest in W, 2nd highest in R, and third in MR and CT. Business got 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, 2008 and 2009. In CT, all majors show some stability in performance over the years with biological and social sciences leadings. As for MR, most of the majors maintained their positions, though dropping from 2007, with business showing some improvement over 2006.

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 2003-7. 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 and it is slightly lower than national norms. 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.

Table 7. Results by Major

Major	N	W	MR	R	CT	SR
Agriculture	5				62	
Architecture	2					
Biol. Sc.	41		**67**		**65**	**63**
Business	96	61	62	**63**	62	
Marketing	1					
Community Service	3					
Computer and Info Sciences	5				62	
Engineering	106		**68**	**63**	62	
Fine Arts	3					
Health Professions	11			61	62	
Home Economics	12		63		61	
Letters	5				**69**	
Math	2					
Physical sc.	13				61	
Social sc.	45	**63**	65	62	63	
No response	9				63	

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

Test	N	2010	2009	2007	2006	2005	2004	2003	Norms
Writing: Usage/Mechanics	40	17.2	17.1	18.1	16.8	17.2	15.6	15.9	**17.0**
Writing: Rhetorical	40	15.8	16.0	17.6	16.6	16.0	14.7	14.9	**17.0**
Reading: Arts/literature	48	15.6	15.6	16.2	14.3	15.5	14.5	14.3	**15.6**
Reading: Social sciences	48	16.7	15.0	15.9	15.5	16.5	15.2	15.0	**16.6**
Math: Basic algebra	232	18.2	18.0	18.3	18.0	17.6	17.8	16.6	**15.6**
Math: College algebra	232	20.4	18.8	19.2	20.2	20.4	20.0	18.2	**15.4**

Figure 4 CT Scores by Major, Comparison with 2006, 07, 09 & 10

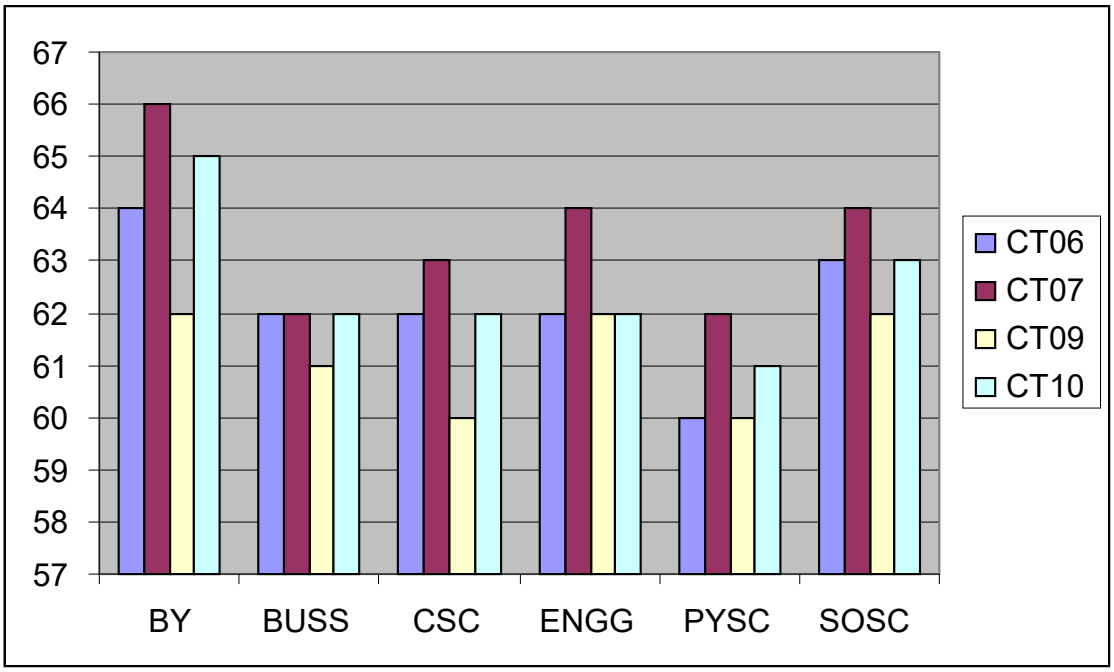
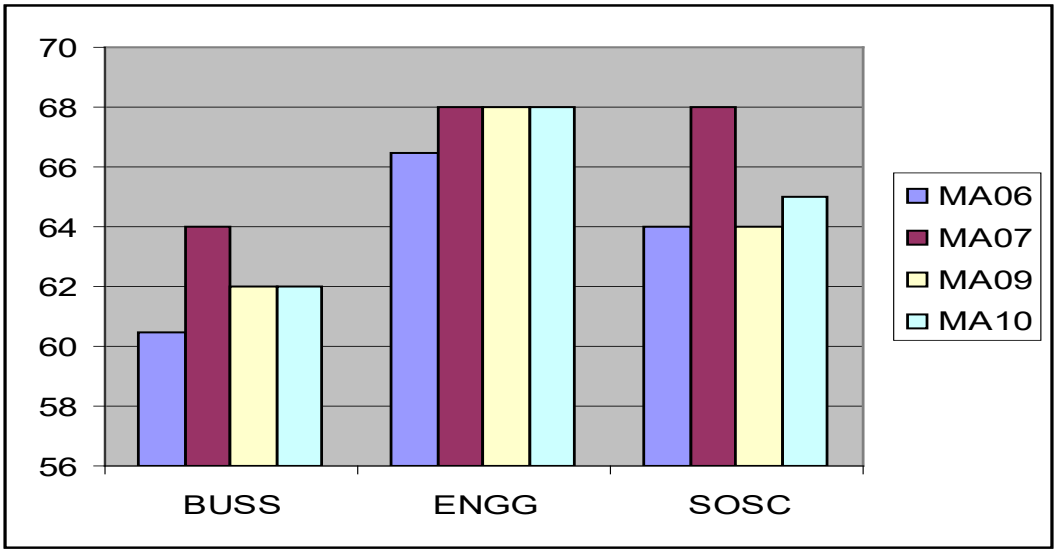


Figure 5 Math Reasoning by Major, Comparison with 2006, 07, 09 & 10



Certificates of Achievement

A good number of students obtained Certificates of Achievements (93%) indicating that they achieved ≥50th %ile of the normative sample. Table 9 provides the number and percentage of certificates obtained in different subjects and in comparison with 2004-7. Percentages in 2010 were higher than 2009, except in Writing, and were close to the highs of 07 and 05. Figure 5 provides the figures graphically by subject, while Figure 6 shows development over years. Examining trend over years shows that MR and CT have been quite stable while SCR and R have been fluctuating and W has witnessed a drop in last few years in number of certificates. Some students obtained certificates in one subject, others in two. Table 10 details this information in comparison with 2006-9. The percentage of students who obtained only two certificates (53%) increased in comparison with previous year (48%) at expense of those who obtained one, and the percent of total certificates obtained also went up to 93, as compared to 73 in 2009 and 80s in previous years. 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. 10	%Certif. 10	%Certif. 09	%Certif. 07	%Certif. 06	%Certif. 05	%Certif. 04
CT	360	**197**	55	38	52	49	55	51
MR	232	**226**	97	90	100	94	81	88
SR	39	**26**	67	62	78	45	72	50
WS	40	**15**	38	47	69	55	41	14

R	48	**25**	52	32	57	33	52	31

Figure 5. Number of Certificates by Test

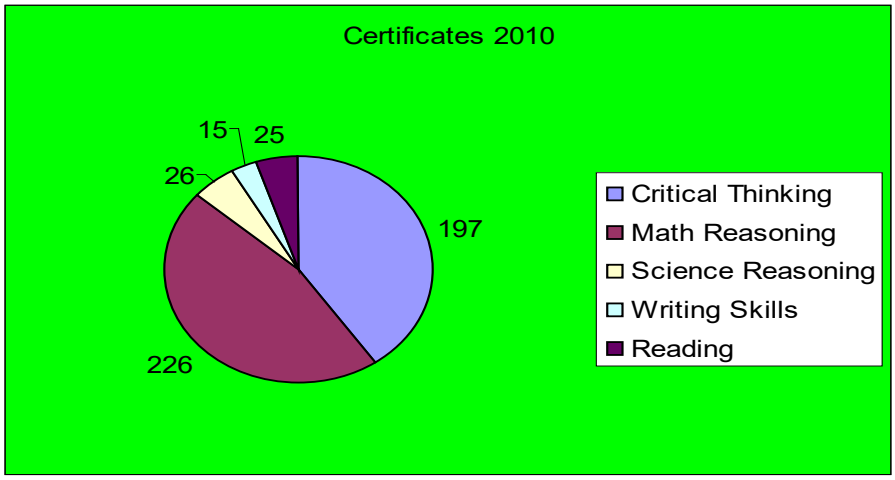


Figure 6. Distribution of Certificates of Achievement by Subject

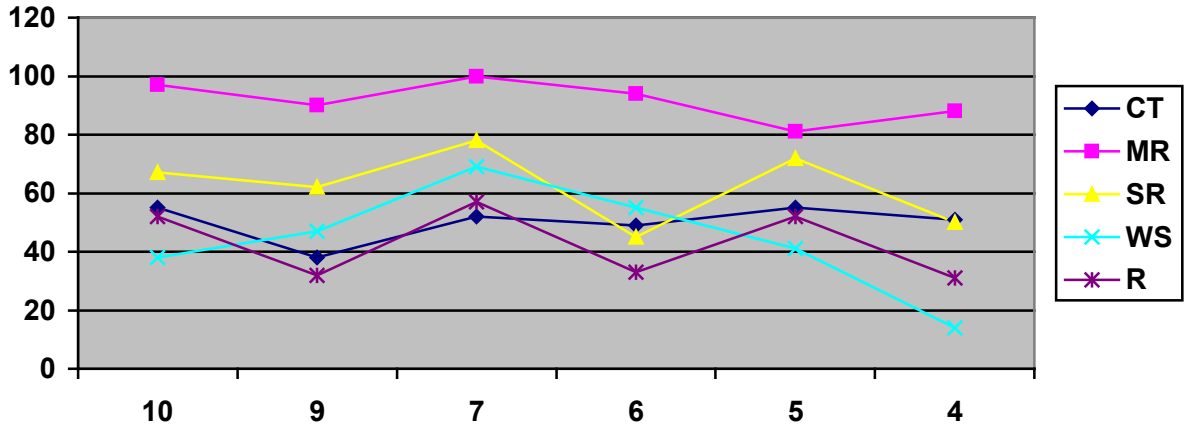
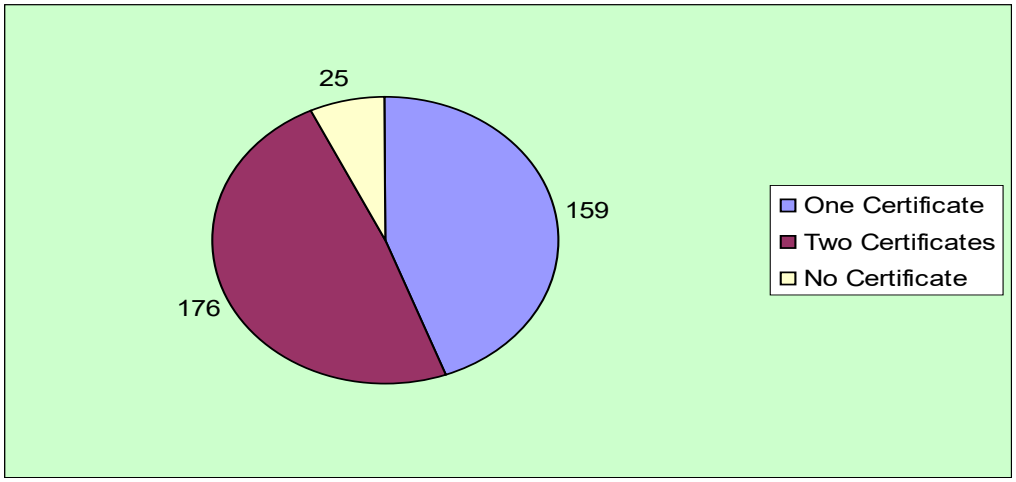


Table 10. Frequency of Number of Distributions, Comparison with 2006-10

	N (10)	% Cert 10	%Cert 09	%Cert 07	%Cert 06	% Total 10	% Total 09	% Total 07	% Total 06
# who got certificates in 1 subject	159	**47**	52	39	54	**44**	38	34	44

# who got certificates in 2 subjects	176	**53**	48	61	46	**49**	35	52	38
Total	**335**	**100**	**100**	**100**	**100**	**93**	**73**	**86**	**82**

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 (50%) but sample was quite 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 last year and revealed similar trends to what we have been observing for the last five years. However, we can conclude that AUB's performance has been quite stable on CT, MR, and R and more fluctuating on SCR and W. It is average to norms on CT and R, above average on MR and SCR, and below average on W. Accordingly, AUB needs to work on improving CT and Reading scores, to maintain its excellent performance in MR and SCR, and to continue progress made on W, as it is still insufficient.