

Impact of Enrollment Timing on Performance: The Case of Students Studying the First Course in Accounting

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The aim of this study was to expose the impact of enrollment timing on the academic performance of students studying the first course in accounting. Correlation and t-test analyses using a sample of 339 students who passed the first course in accounting and were enrolled in one of the more advanced accounting courses during the 2014/2015 academic year at the College of Business Studies in Kuwait were used to test the study's hypotheses. The results indicate that there was a statistically significant and negative relationship between enrollment timing and students' performance, which explained the superiority of the performance of freshmen students group over the performance of ongoing students group. The study concludes by considering the implications of these findings for the administration team of the College of Business Studies and for similar educational institutions, and suggests avenues for future research.

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1. Introduction

Cuts in Universities' budgets are doubtlessly reflected on the number and/or size of sections of the first course in accounting, with or without contemplating students' benefit. Nonetheless, for two-year colleges, enrollment timing plays an energetic roll, since any deferral in enrollment might correspondingly affect student's graduation day. No less important, any deferral in enrollment could affect students' performance, positively or negatively. Appropriately, it is believed that investigating this issue is worthwhile.

The aim of this study was therefore to expose the impact of enrollment timing on the academic performance of students studying the first course in accounting at the College of Business Studies (the College hereafter), one of the five colleges of the Public Authority for Applied Education and Training in Kuwait.

The importance of the current study emanates from the importance of learning the first course in accounting. Both educational and professional bodies have long recognized the significance of learning the first course in accounting (AECC, 1990, 1992), as the first course

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in accounting represents the cornerstone upon which to build academic and professional success later in life (AECC, 1992). In addition, the first course in accounting is viewed as a gateway to the professional world of accountancy, and it plays an important role in attracting or expelling talent from the profession. Subsequently, the wrong choice in a student's major may affect the value-added of the profession and its future (Hill, 1998; Mladenovic, 2000; Jones and Fields, 2001). Furthermore, the first course in accounting is identified as a critical course for both accounting majors and other business majors (AECC, 1992).

It is evident that learning the first course in accounting is crucial to all business majors and predicting the academic performance of students studying this course has garnered considerable attention in recent years from accounting education scholars. Accordingly, the accounting education literature is replete with articles that investigate various aspects of students' performance when learning the first course in accounting. Yet, the results of these studies have been mixed and have not provide strong and consistent evidence regarding students' performance, which have encouraged further research in this area. Furthermore, the authors are unaware of any previous empirical studies examining the impact of enrollment timing on student performance when learning the first course in accounting. Moreover, this study sought to improve the level of output of the College (one of the tributaries of accounting education in Kuwait, which will be reflected in the Kuwaiti accounting profession) by highlighting the significance of enrollment timing on the academic performance.

The current study compared the performance of freshmen students, who enrolled in the first course in accounting immediately after entering the College, with the performance of ongoing students, who waited at least one semester after entering the College to enroll in the first course in accounting. The study tracked 339 students from different business majors who already passed the first course in accounting and were enrolled in one of the more advanced accounting courses (the second course in financial accounting and cost accounting) at the College during the 2014/2015 academic year. The students were divided into two groups: the freshmen students group and the ongoing students group. The predicted variable in this study was students' performance measured in terms of the final grade of each student in the first course in accounting (for the first time of enrollment), and the predictor variable was enrollment timing. The results indicated that there was a statistically significant and negative relationship between enrollment timing and students' performance, which explained the superiority of the performance of freshmen students group over the performance of ongoing students group.

The remainder of this paper is divided into four sections. Literature Review and Hypotheses Development section covers earlier studies that have been conducted, and which are relevant to the factors influencing academic performance of students learning the first course in accounting. Research Methodology section describes the data collection and data processing procedures adopted in this study. Results and Analysis section discusses and analyzes the findings of the research. Summary and Conclusions section summarizes the study, notes its limitations, and provides guidelines for future studies.

2. Literature Review and Hypotheses Development

Predicting the academic performance of students studying the first course in accounting has garnered considerable attention in recent years from accounting education scholars who have examined several factors that were thought to influence students' performance when learning the first course in accounting such as gender, age, race, major, nationality, marital status, personality type, grade history, college GPA and experience, high school GPA and

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experience, motivation and expectations, study approaches, lecture attendance (absenteeism), lecture environment, and residential status (e. g., Eskew and Faley, 1988; Doran et al., 1991; Gul and Fong, 1993; Tho, 1994; Wooten, 1998; Hill, 1998; Paisey and Paisey, 2004; Elias, 2005; Nelson et al., 2008; Bealing et al., 2009; Mohrweis, 2010). The following are some earlier studies relevant to the current study.

Hill (1998) studied the consequence of university budget cuts that were represented on class size and its association with students' performance in the first course in accounting and the second course in financial accounting. The study found that students in large classes outperformed students in small classes when controlling for GPA and lecture attendance.

Elias (2005) investigated the effect of study approaches, exploring how deep or surface study approaches affected students' performance while students learned the Principles of Financial Accounting and the Principles of Managerial Accounting. The results indicated that female, non-traditional, accounting major, and other non-business major students using a deep studying approach, which was positively correlated with students' performance and GPA.

Chen et al (2005) examined the effect of college experience (in terms of the students' overall experience) on the decision to choose a career as chartered accountant (CA). The study found that experience in the first course in accounting weighted heavily in importance for both sophomores and seniors. The study also found that the first course in accounting was the most important factor in distinguishing major choice between accounting and non-accounting students.

Bealing et al. (2009) examined the relationship between performance in the first course in accounting and type of learning by determining the personal desires of students. The study hypothesized that personality type determines a student's ability to perform well in the accounting program. The study positively correlated students' success with six questions of the Keirsey Temperament Sorter, which could be used to supervise and guide students to the right path to success in this subject.

Mohrweis (2010) investigated the relationship between each student's age and performance in the first course in accounting with three controlling attributes: GPA, gender, and class timing. The study found that the performance of non-traditional students was better than the performance of traditional students, and there was a significant and positive correlation between students' performance and their age.

Alanzi (2012) investigated the influence of some selected factors on the academic performance of students studying Principles of Financial Accounting (II). The study found that the prerequisite grade had the most significant influence on student performance, followed by student GPA, time lag, and finally college experience. Students' gender, age, and major showed no significant influence on students' performance.

Alanzi (2013) examined the influence of the deferral of enrollment in the second course in financial accounting by assessing the impact of time lag (the time elapsed between studying the first course in accounting and studying the second course in financial accounting) on students' performance. The study found a significant and negative relationship between time lag and students' performance.

It is obvious from the above studies that the decision to include or exclude factors in any study requires wide experience in the surrounding environment of the research population;

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accordingly, it is strongly believed that examining the influence of enrollment timing on students' performance is no less important than any other factor, which inspired the conduction of this study.

In light of the foregoing literature review and given the data available for this study, the following testable hypotheses will be developed in the next part of this section.

The current study hypothesized that students' performance would be influenced by the enrollment timing. This statement needs to be examined; if this statement is true then the performances of the groups would differ. For the purpose of this study, students' performance was measured by each student's final grade in the first course in accounting (for the first time of enrollment).

H1₀: There is no significant difference between the performance of the freshmen students group and the performance of the ongoing students group when learning the first course in accounting.

In order to boost the interpretative ability of the reasoning relationship of the above difference or non-difference, examining the correlation between the predictor variable (enrollment timing) and predicted variable (students' performance) is believed to be a necessity.

H2₀: There is no statistically significant correlation between enrollment timing and students' performance in learning the first course in accounting.

3. Research Methodology

The subjects of this study were 339 students (172 male and 167 female) who passed the first course in accounting and were enrolled in one of the more advanced accounting courses (the second course in financial accounting and cost accounting) at the College during the 2014/2015 academic year. Studying the first course in accounting is compulsory for all business majors at the College. It is a prerequisite for the second course in financial accounting, which is also compulsory for all business majors at the College and is a prerequisite for some more advanced accounting courses. The College policies state that students' performance is to be evaluated by allocating 50% of the overall score to a semester's work, and the rest is dependent on the result of the final exam, which is comprehensive, unified, and generated by a committee from the Accounting Department.

Students were divided into two groups. One group included students who enrolled in the first course in accounting immediately after entering the College (freshmen students group). The other group was comprised of students who did not enroll in the first course in accounting immediately after entering the College, and who enrolled after at least one semester (ongoing students group).

The predicted variable in this study was students' performance represented by the final grade of each student in the first course in accounting, for the first time of enrollment (0 – 4 points). The predictor variable in this study was enrollment timing, which was measured in terms of students groups (0 for the freshmen group; 1 for the ongoing group). In addition, gender (0 female; 1 male) and major (0 accounting; 1 other majors) were considered.

Data were drawn from each student's academic record, which is accessible for all faculty members through the College's registration system. Data were then entered into the

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researchers' personal computer and using Statistical Package for Social Sciences (SPSS) for statistical analyses. A descriptive statistic was used to describe the study findings, while a *t*-test was employed to examine the significance of the performance difference between the two groups and to test the first hypothesis. In addition, a correlation analysis was done on the relationship between all variables.

4. Results and Analysis

4.1 Descriptive Statistic

Table (1) presents the number of participants in terms of total, groups, final grades, gender, and major. The total number of participants was 339 students. The number of students who enrolled in the first course in accounting immediately after entering the College (freshmen students group) was 247 students (72.9%), while the number of students who did not enroll in the first course in accounting immediately (ongoing students group) was 92 students (27.1%).

The number of male students was 172 students (50.7%), in which 110 male students (64%) were freshmen and 62 male students (36%) were ongoing. The number of female students was 167 students (49.3%), where 137 female students (82%) were freshmen and 30 female students (18%) were ongoing. The number of accounting major students was 102 students (30.1%), in which 87 accounting students (85.3%) were freshmen and 15 accounting students (14.7%) were ongoing. The number of other majors' students was 237 students (69.9%), where 160 students (67.5%) were freshmen and 77 students (32.5%) were ongoing.

Table (1) also shows the students' final grades, mean, and standard deviation (SD) for all students and by groups. There were 97 students (28.6%) who failed the course (68 students from the freshmen students group and 29 students from the ongoing students group). The freshmen students group's average grade (mean \pm SD) was 1.528 ± 1.267 , while the ongoing students group's average grade (mean \pm SD) was $1.076 \pm .867$, resulting in a difference between the two means of 0.452 point out of a possible 4 points (11.3%). The total students' average grade (mean \pm SD) was 1.405 ± 1.187 points out of a possible 4 points.

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Table 1: Descriptive Statistic

Grade	Code	Point	Freshmen Group	Ongoing Group	Total
95 > 100	A	4.00	16	0	16
90 > 95	A -	3.67	14	0	14
86 > 90	B+	3.33	4	0	4
83 > 86	B	3.00	8	1	9
80 > 83	B -	2.67	8	1	9
75 > 80	C+	2.33	17	7	24
70 > 75	C	2.00	37	17	54
66 > 70	C -	1.67	14	7	21
63 > 66	D+	1.33	16	4	20
60 > 63	D	1.00	45	26	71
> 60	**F	0.00	68	29	97
Total	=	=	247	92	339
Male Students	=	=	110	62	172
Female Students	=	=	137	30	167
Accounting Major	=	=	87	15	102
Other Majors	=	=	160	77	237
Mean	=	=	1.528	1.076	1.405
Standard Deviation	=	=	1.267	.867	1.187

** Includes: (F) failed in the course, (FA) failed due to not attending the final exam and (HM) failed due to not maintained the required lecture attendance rate.

4.2 Analysis of Differences and Correlations

An independent-sample *t*-test was run to determine if there were differences in the academic performance of freshmen and ongoing students. Table (2) shows that the assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variance ($p = 0.000$). Alternatively, the unequal variance *t*-test was assumed to compensate for the unequal variances in the study population. The results show that there was a statistically significant difference in mean performance between the two groups ($t = 3.734$, $p = 0.000$). The results presented on Table (2) suggest freshman students mean performance score was 0.452, with 95% confidence interval {0.213 to 0.690} higher than ongoing students mean performance score. Since the difference in performance was in favor of the freshmen group; consequently, the first null hypothesis was rejected since there was a significant difference between the performance of the freshmen group and the performance of the ongoing group when learning the first course in accounting.

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Table 2: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Final Grade	Equal variances assumed	18.738	.000	3.157	337	.002	.45167	.14307	.1703	.7331
	Equal variances not assumed			3.734	237.811	.000	.45167	.12098	.2134	.6900

T-TEST // TESTVAL = 0 / MISSING = ANALYSIS / VARIABLES = FINAL GRADES / CRITERIA = CI (.95).

Table (3) presents the results of the correlation between the predictor variable (enrollment timing), the predicted variable (students' performance), and other variables. The outcome of this analysis indicates that there is a significant and negative relationship between enrollment timing and students' performance ($r = -.169$ -, $p < .002$). Accordingly, the second null hypothesis was rejected since there was a statistically significant correlation between enrollment timing and students' performance in learning the first course in accounting.

It is evident from the preceding that the ongoing students group had a lower mean than the freshmen students group, although the rate of success did not differ that much. However, an 11.3 % difference between the two means coupled with a (t) value of 3.734 concluded that the difference between the performances of the two groups was statistically significant. Likewise, the relationship between enrollment timing and students' performance was significantly and negatively correlated, which explained the superiority of the performance of freshmen students group over the performance of ongoing students group.

It is also obvious from the preceding that there were 92 students (27.1%) who have not enrolled in the first course in accounting immediately after entering the College, which has certainly affected their performance in this particular course. In addition, the rate of male students who did not enroll in the first course in accounting immediately after entering the College (36%) was higher than the rate of female students (18%). More significantly, there were 15 accounting major students (16.3% out of ongoing students group) who have not enrolled in the first course in accounting immediately after entering the College, where this rate should presumably be zero. This could be explained by the argument of Alanzi (2013), which stated that the absence of active academic supervision accompanied with the unfamiliarity of students using the College education system have created some special situations that are related to this particular educational institute.

Despite of the fact that the results of this study can be considered to be decisive, the outcomes cannot be compared with any previous study, since this study is the first of its kind, and is considered an exceptional case in terms of place and time.

Table 3: Pearson Correlations

	Final Grade	Enrollment Timing	Gender	Major
Final Grade	1			
Enrollment Timing	-.169 ^{**}	1		
Gender	.005	.203 ^{**}	1	
Major	-.043 ⁻	.183 ^{**}	-.132 [*]	1

^{**}. Correlation is significant at the 0.01 level (2-tailed).

^{*}. Correlation is significant at the 0.05 level (2-tailed).

5. Summary and Conclusions

The aim of this study was to expose the impact of enrollment timing on the academic performance of students studying the first course in accounting at the College of Business Studies in Kuwait. The study found that 27.1% of the College's students have not enrolled in the first course in accounting immediately after entering the College, which has affected their performance in this particular course. The results of this study indicate that there was a statistically significant and negative relationship between enrollment timing and students' performance, which explained the superiority of the performance of freshmen students group over the performance of ongoing students group.

The results of the current study reflect the significance of enrollment timing to students' performance when learning the first course in accounting. The study findings have practical implications for how the administration of the College and similar educational institutions should take action. The findings suggest that the administration of the College should adopt strategies that impose and/or encourage students to enroll immediately in the first course in accounting after entering the College, especially for accounting major students, since enrollment timing is negatively correlated with students' performance and has a significant influence on it.

The outcomes of this study cannot be compared with any previous study, since this study is considered a unique case in terms of place and time; therefore, generalization of the findings of this study is a questionable issue. Consequently, reexamining the influence of enrollment timing on students' performance studying the first course of accounting in different educational environments is recommended. Furthermore, the superiority of the performance of freshmen students group over the performance of ongoing students group could be culturally interpreted as the influence of negative perceptions, which students may have generated during their time of study in the College (college experience) prior to their enrollment in the first course in accounting. Accordingly, the negative perception issue needs to be investigated by using an in-depth study, as another potential avenue for future research.

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