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# Factors Affecting Students' Academic Performance

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## ABSTRACT

This study determines the factors affecting students' academic performance. It covers 190 student respondents. Results show that class attendance and academic performance of female students are slightly better than males. Students who graduated high school from public school are performing better in class. Students who enrolled in the Accounting program because of their parents' decision have lower class attendance, mid-term and computer based exam (CBE) scores compared to students who choose accountancy course on their own. Students taking two subjects only have higher class attendance, mid-term and CBE scores. Students who live in Phnom Penh have higher class attendance, mean mid-term and CBE scores compared to those coming from the provinces. Majority watched Youtube, use Facebook and Internet surfing however non-users have higher average mid-term and CBE scores and class attendance. Students who combined studying in groups and studying alone got the highest average mid-term and CBE scores. Almost half of the students prefer to study at home but those with higher class attendance are likely to have higher mid-term score regardless of the place they prefer to study. Those who spend 20 hours or more weekly in the library and those who study more than 15 hours before long exams have obtained the highest average mid-term and CBE scores. Students studying one week before the exam have higher scores than those who study one month before. Students with difficulty in reading English have higher risk of failing the exam. Poor reading skills have strong gravity pull on the scores despite student's long study hours.

**Keywords**: Academic performance, paper F1, Computer-based examination (CBE) scores, technology-related activities

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# INTRODUCTION

Many factors influence students' academic performance. Class attendance, study habits and technology-related factors like engagement in online social media and social network which includes mobile games which are within easy grasp via smart phones also affect the study time of students. There are studies which showed that technology-related factors can inevitably impinge on study habits among students. Facebook, playing games and TV are among the top 20 time wasters (Griffith, n.d.). The study of Kolan and Dzandza (2018) showed that "social media is a useful servant but a dangerous master" and can also be "described as a two edge sword." Social media networks can benefit the students in sharing information, group discussion and in building relationship but can cause addiction and distraction of attention which could have negative consequences on the academic performance of the students.

In Cambodia, 7 million of the population is active Facebook users and 90 percent are accessing it using mobile phones (Digital 2018 Cambodia). But, what are these factors affecting the academic performance of CamEd students? This study looks into the various facets of influences affecting the academic performance of students of CamEd Business School in the second semester of 2018 (JD 2018).

# RESEARCH PROBLEM

This study was undertaken to determine the factors affecting CamEd students' academic performance. Specifically, it sought to answer the following questions:

1. What is the profile of CamEd students' in terms of

    1.1 gender,
    1.2 school where they graduated High School from (private or public),
    1.3 whether accountancy course is their own choice,
    1.4 number of subjects enrolled, and
    1.5 where family lives (Phnom Penh or in the province)?

2. What is the percentage of students watching TV, playing mobile games, computer games, video games, watching Youtube, using Facebook and doing internet surfing?

3. How many hours students spent using Facebook, watching Youtube, doing internet surfing and playing mobile games?

4. Whether using Facebook, playing mobile games, watching Youtube and doing internet surfing have negative effects on the respondents' study?

5. What are the study practices of students in terms of
    5.1 preferred mode of study,
    5.2 favorite place of study,
    5.3 hours spent in CamEd library,
    5.4 number of hours spent studying for mid-term and ACCA CBE,
    5.5 how far in advance students start studying for the exams?

6. What is the academic performance of students in terms of their mid-term exam scores and CBE scores in view of:

6.1 their profile and class attendance,
6.2 study practices,
6.3 time spent on technology-related activities?

7. Is there a significant relationship between students' mid-term attendance and mid-term exam; final attendance and CBE scores; mid-term and CBE scores?

8. What is the academic performance of students with "difficulty in reading" English texts?

9. What are the problems encountered by CamEd students who are living away from home?

**Statement of the Hypotheses**

$H_{o1}$ There is no significant relationship between students' mid-term attendance and mid-term exam score.

$H_{o2}$ There is no significant relationship between students' final attendance and final exam (CBE) score.

$H_{o3}$ There is no significant relationship between students' mid-term scores and final exam (CBE) score.

## ACRONYMS AND OPERATIONAL DEFINITION OF TERMS

*Academic performance* - As used in this study, it refers to the mid-term and ACCA CBE scores of the respondents

*ACCA* - Association of Chartered Certified Accountants

*CamEd*- *Refers to CamEd Business School in Phnom Penh, Cambodia*

*CBE*- Computer Based Exam

*Final attendance*- Total class attendance for the whole semester

*F1* - *ACCA paper known as Accountant in Business*

*Mid-term score*- Score of students in the mid-term examination

*Mid-term attendance*- Tabulated class attendance from the beginning of the semester until the last meeting before the mid-term examination was conducted

*Student with difficulty in reading*- As used in this study, it refers to students having difficulty in reading the English when asked to read class handouts

*Technology-related activities*- In this study, it refers to using Facebook, watching Youtube, Internet surfing and playing mobile games

# METHODOLOGY

### *Study subjects*

The respondents of this study were 190 second year students enrolled in paper F1 in JD 2018. Only those students who completed the questionnaire and who have mid-term and ACCA CBE scores in paper F1 were included in the study. The distribution of respondents by group is shown in Table 1. The respondents came from the four groups (B,D,E and F) of students enrolled in F1 subject.

Table 1

*Distribution of respondents*

| Group | Number of respondents | Male | Female |
|---|---|---|---|
| B | 53 | 17 | 36 |
| D | 49 | 15 | 34 |
| E | 47 | 12 | 35 |
| F | 41 | 12 | 29 |
| Total | **190** | **56** | **134** |
| Percentage | **100%** | **29.5%** | **70.5%** |

Table 2 presents the city/provinces where the respondents are living. Majority came from Phnom Penh while the rest came from 17 provinces. Three respondents came from Ratanakiri province which is 588 km away from Phnom Penh. Four students came from Banteay Meanchey province which is 359 km from Phnom Penh. This indicates a good geographical reach of CamEd within the country.

Table 2

*Residence of respondents*

| Residence | Frequency | Percentage |
|---|---|---|
| Phnom Penh | 134 | **70.53** |
| Banteay Meanchey | 4 | 2.11 |
| Battambang | 9 | 4.74 |
| Kampong Cham | 5 | 2.63 |
| Kampong Chhnang | 3 | 1.58 |
| Kampong Speu | 2 | 1.05 |
| Kampong Thom | 1 | 0.53 |
| Kampot | 5 | 2.63 |
| Kandal | 3 | 1.58 |
| Koh Kong | 2 | 1.05 |
| Poi Pet | 1 | 0.53 |
| Preah Sihaknouk | 6 | 3.16 |
| Preah Vihear | 1 | 0.53 |

| | | |
|---|---|---|
| Prey Veng | 2 | 1.05 |
| Pursat | 2 | 1.05 |
| Ratanakiri | 3 | 1.58 |
| Siem Reap | 4 | 2.11 |
| Svay Rieng | 3 | 1.58 |
| **Total** | **190** | **100** |

***Data gathering procedure***

A questionnaire was used to gather the primary data for this study. Secondary data were also collected from CamEd LSC office like the students' mid-term attendance, mid-term scores, final attendance and ACCA CBE scores. There were 236 questionnaires distributed to the four groups of students enrolled in paper F1. The purpose of the study was explained to them and the completion of the questionnaire was voluntary. Only 197 questionnaires with complete responses were retrieved. When the ACCA CBE result was released in December 2018, the list showed that seven of the respondents did not take the exam; hence, the seven questionnaires were further excluded leaving 190 final respondents.

The study started since the beginning of the 2nd semester in July 2018. Students' attendance in paper F1 was monitored until the end of the semester in early December 2018. The ability of students to read English was also observed during the whole semester. Each student was asked to read the handouts orally in class.

Technical articles and additional reading materials were provided by the lecturer to the students and a seat plan was also prepared for each class. Those students observed to have problem in reading the materials during the first observation were asked to read the extra handouts again at least four times during the whole semester to assess further the reading ability. Those identified to have problem in reading English texts were operationally referred to as students with "difficulty in reading English" which is one of the variables used in this study.

***Data analysis and interpretation***

Frequency, mean and percentage were used in the analysis of the data. In determining whether mid-term attendance and mid-term scores; final attendance and CBE scores as well as mid-term scores and CBE scores have significant relationship, the Pearson-Product Moment Correlation (r) was used. The correlation value is interpreted using the following classifications shown in Table 3.

Table 3

*Correlation values and interpretation*

| | |
|---|---|
| High correlation | 0.5 to 1.0 or -0.5 to 1.0 |
| Medium correlation | 0.3 to .5 or -0.3 to .5 |
| Low correlation | 0.1 to .3 or -0.1 to -0.3. |

*Note:* Adapted from http://www.statisticshowto.com/what-is-the-pearson-correlation-coefficient/. Copyright (2017) by Statistics How To

# FINDINGS

1.1 Profile of the student in terms of gender, school where they graduated High School from (private or public), whether accountancy course is their own choice, number of subjects enrolled and where family lives (Phnom Penh or in the province).

Out of 190 respondents 70.5% are females and 29.5% are males (Figure 1). Majority or 51.6% graduated high school from public school while 48.4% graduated from private school (Figure 2).

Figure 1. Gender of students

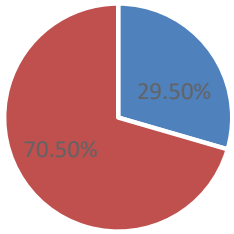
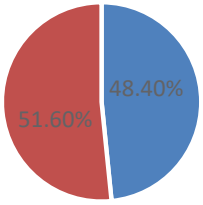



Figure 2. Where graduated high school from




The students were asked whether taking up Accountancy course is their own choice or not. In response, 60.5% said yes, it's their own choice while 39.6% said it's not their own

choice (Figure 3). About 87% of those who said "no" indicated that taking up Accountancy course was their parent's choice (Figure 4).

Figure 3. Whether Accountancy course is student's own choice

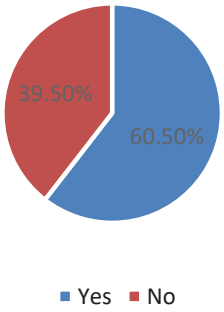



Figure 4. Whose choice is the accountancy course

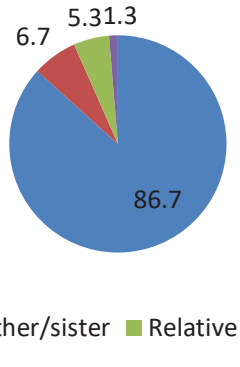
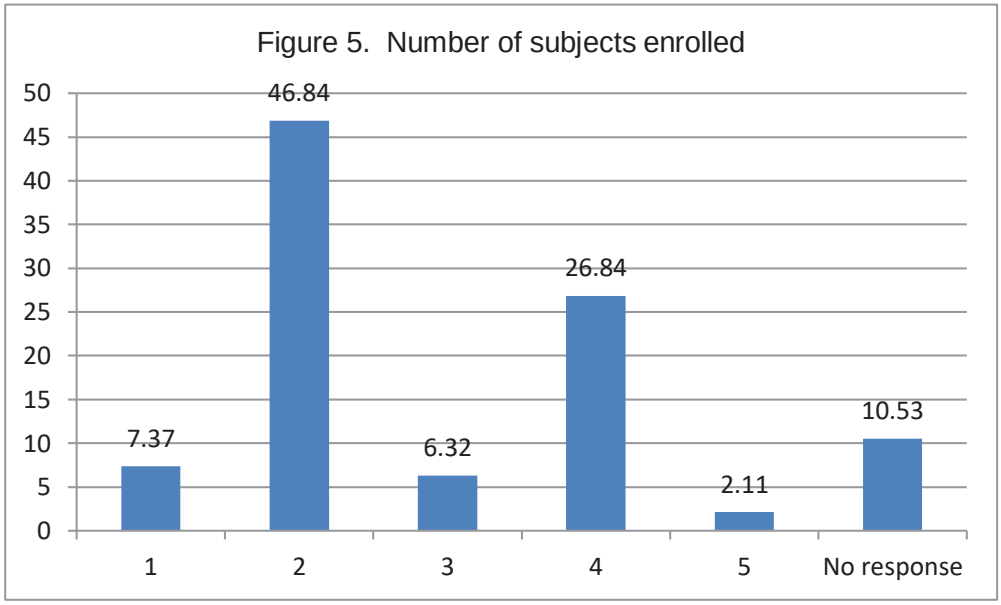
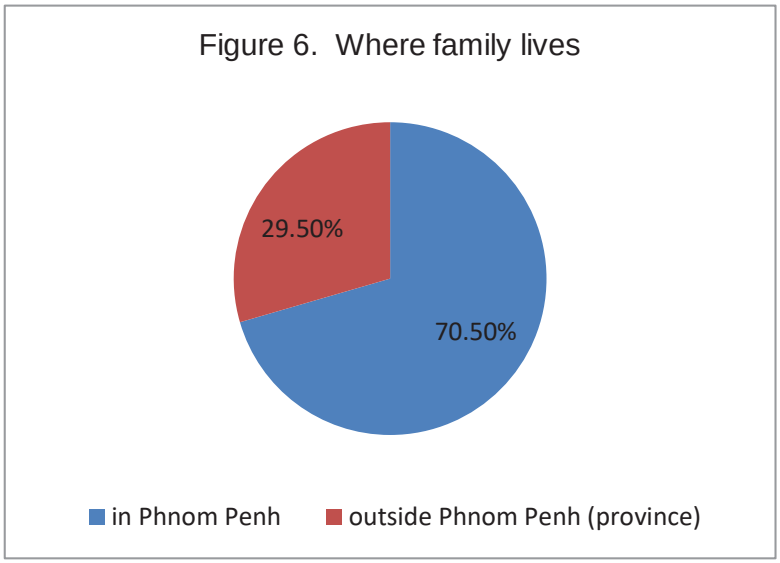



Figure 5 shows that 46.84% of the students are taking two subjects during the semester while 26.84% are taking four subjects.

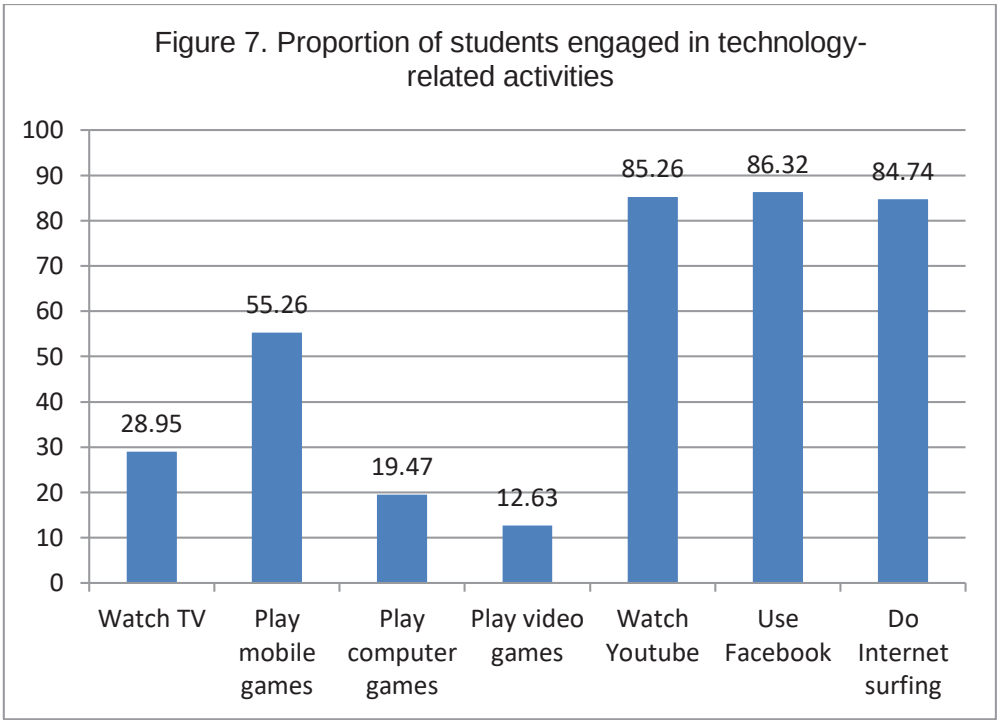



Seven out of ten students live in Phnom Penh while the rest are from the different provinces outside Phnom Penh (Figure 6).




1.2 Percentage of students who watch TV, play mobile games, computer games, video games, watch Youtube, use Facebook and do internet surfing.

Figure 7 shows that of the 190 respondents, 29% said that they watch TV. More than half said they play mobile games, 19% play computer games and only 12.6% play video games. Among other technology-related activities, 85.3% watch Youtube, 86.3% use Facebook and 84.7% do internet surfing.




1.3 Number of hours students spent in using Facebook, watching Youtube, doing internet surfing and playing mobile games.

The data in Table 4 present the hours spent by the students in using Facebook, Youtube, doing Internet surfing and playing mobile games. There are students who spent more than five hours a day using Facebook (6.32%), watching Youtube (7.89%), doing Internet surfing (5.26%) and playing mobile games (3.68%).

About 39% of the students spend one hour or less per day using Facebook; 36% spends at least two to three hours a day watching Youtube; 39% and 30% spend one hour or less per day on internet surfing and playing mobile games respectively. It is noted that 34% of the students do not play mobile games.

Table 4.

*Hours spent in technology-related activities*

| Variables | Category | Frequency | Percentage |
|---|---|---|---|
| Hours spent in using Facebook per day | More than 5 hrs | 12 | 6.32 |
| | At least 4 hrs | 29 | 15.26 |
| | At least 2-3 hrs | 49 | 25.79 |
| | 1 hr or less | 74 | **38.95** |
| | Not using | 7 | 3.68 |
| | No response | 19 | 10.00 |
| | | **190** | |

| | | | |
|---|---|---|---|
| Hours spent watching Youtube per day | More than 5 hrs | 15 | 7.89 |
| | At least 4 hrs | 21 | 11.05 |
| | At least 2-3 hrs | 69 | **36.32** |
| | 1 hr or less | 57 | 30.00 |
| | Not using | 7 | 3.68 |
| | No response | 21 | 11.05 |
| | | **190** | |
| Hours spent on Internet surfing | More than 5 hrs | 10 | 5.26 |
| | At least 4 hrs | 22 | 11.58 |
| | At least 2-3 hrs | 54 | 28.42 |
| | 1 hr or less | 75 | **39.47** |
| | Not using | 8 | 4.21 |
| | No response | 21 | 11.05 |
| | | **190** | |
| Hours spent on playing mobile games | More than 5 hrs | 7 | 3.68 |
| | At least 4 hrs | 9 | 4.74 |
| | At least 2-3 hrs | 30 | 15.79 |
| | 1 hr or less | 58 | **30.53** |
| | Not playing | 65 | **34.21** |
| | No response | 21 | 11.05 |
| | | **190** | |

1.4 Whether using Facebook, playing mobile games, watching Youtube and doing internet surfing have negative effects on their study.

Students were asked whether using Facebook, playing mobile games, watching Youtube and doing internet surfing have negative effects on their study. Table 5 presents that 41.05% of the respondents said that using Facebook has negative effect on their study; while 47.90% said it has no negative effect. Half of the students said that playing mobile games has reduced their study hours. Majority of the students however said that watching Youtube having 67.89% respondents, and using Internet having 87.89% respondents have no negative effect on their study.

Table 5

*Whether technology-related activities have negative effect on their study*

| Variables | Frequency | Percentage |
|---|---|---|
| Whether using Facebook has negative effect on their study | | |
| Yes | **78** | **41.05** |
| No | **91** | **47.90** |
| No response | 21 | 11.05 |
| Whether playing mobile games has reduced study hours | | |
| Yes | **101** | **53.16** |
| No | 32 | 16.84 |
| Don't know | 36 | 18.95 |
| No response | 21 | 11.05 |
| Whether Youtube has negative effect on their study | | |
| Yes | 40 | 21.05 |
| No | **129** | **67.89** |
| No response | 21 | 11.05 |
| Whether using the Internet has negative effect on their study | | |
| Yes | 2 | 1.05 |
| No | **167** | **87.89** |
| No response | 21 | 11.05 |
| | | |

1.5 Study practices of students in terms of preferred mode of study, favorite place of study, hours spent in CamEd library, number of hours spent studying for mid-term and ACCA CBE, how far in advance students start studying for the exams.

In terms of study practices, Figure 8 shows that majority or 69.6% of the students prefer to study alone, 25% prefer to study in group and 5.4% prefer to combine studying in group and studying alone.

For their favorite place of study, 20.5% choose the library while 46% choose to study at home. Some students prefer to study in a coffee shop (14.74%) while 8.42% prefer to study in the student lounge/reading room.

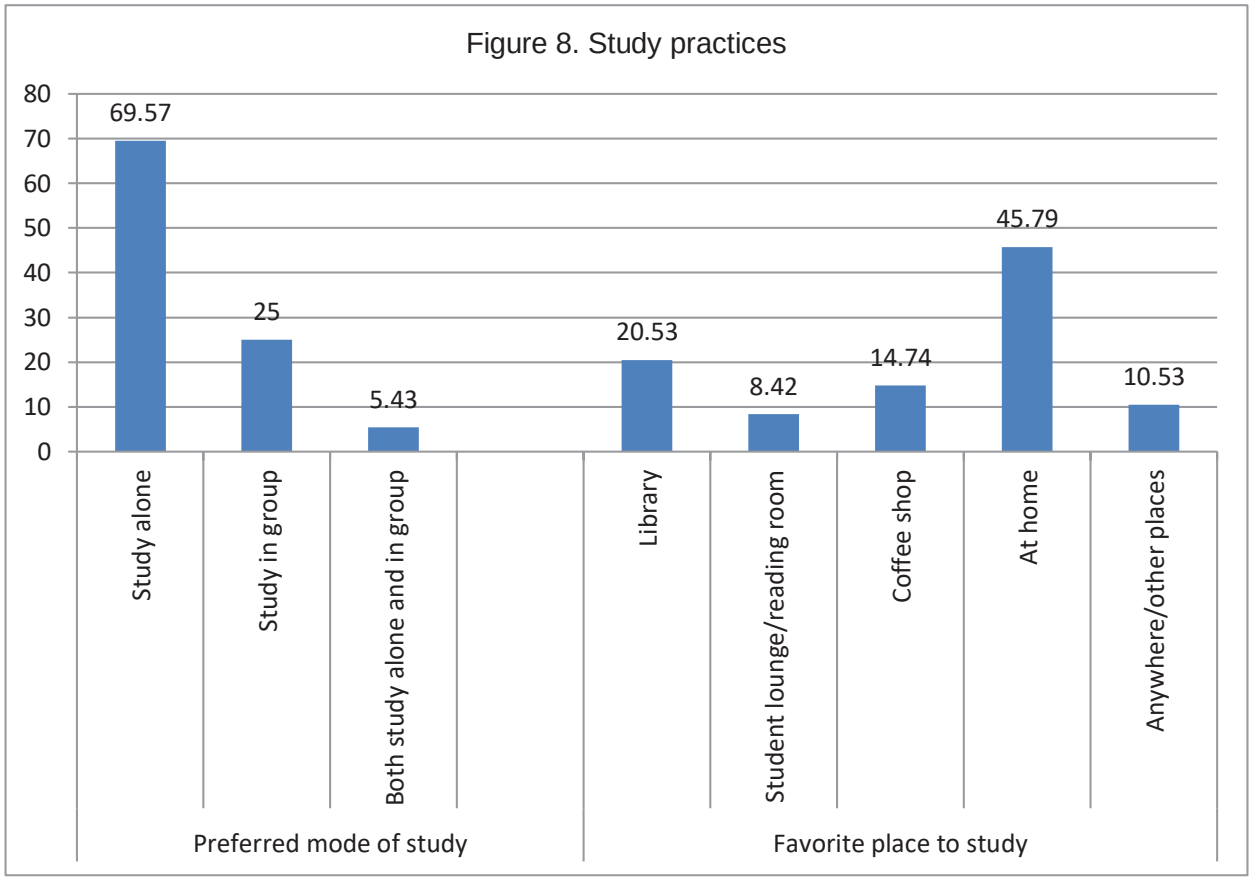
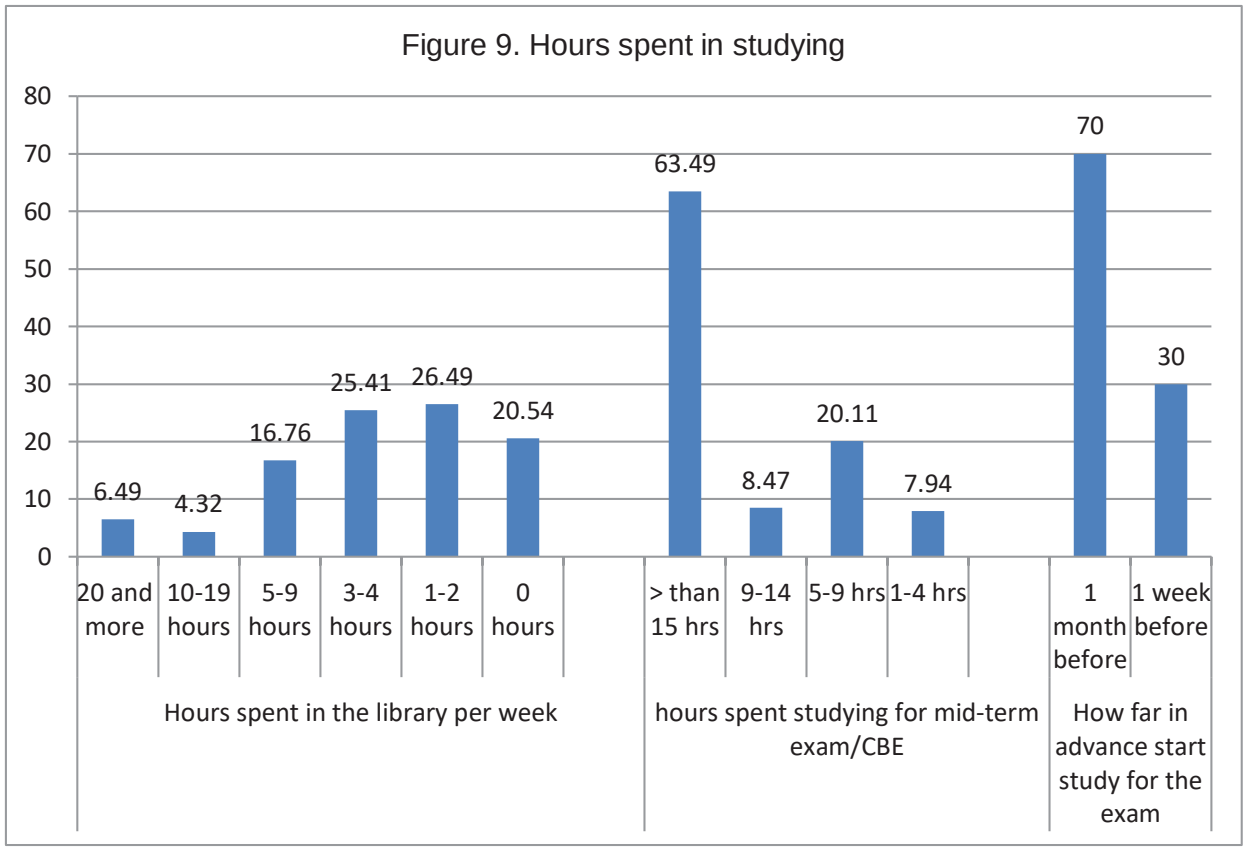



Figure 9 shows the study hours spent by the students in the library per week. They vary from 1-2 hours to > 20 hours. Only 6.49% spend more than 20 hours per week at the library. More than 25% spend 1-2 hours and 3-4 hours per week. There were 20.54% of the students who do not study at the library because they prefer to study at home.

In terms of hours spent in studying for the mid-term and final examinations, 63.49% study more than 15 hours before their long examinations. As to how far in advance they start studying for the exams, 70% start one month before the exams while 30% start one week before the exams.

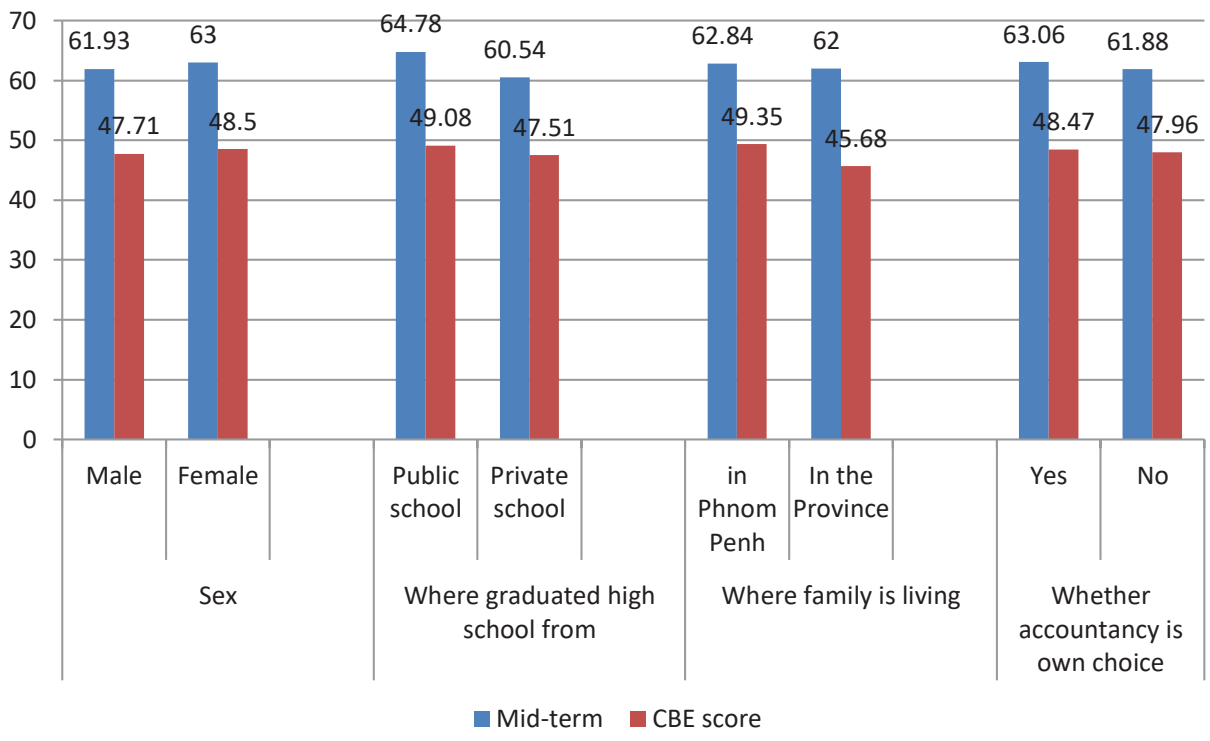



1.6 Academic performance in terms of students' mid-term scores and CBE scores in view of their profile, class attendance and study practices.

*5.6.1 Students' profile and class attendance*

The mean mid-term scores and CBE scores of male and female students were analyzed. The average mid-term score of female students was 63% and for male students 61.93%. The average CBE score for females was 48.5% and for males 47.71% (Figure 10). These results show that the academic performance of females is a bit better than males. The slight difference can be attributed to the class attendance where female students' mid-term attendance is slightly higher, that is 93.91% than male students' mid-term attendance that is 92.88%. The study of Hassan (2016) showed that the overall performance of female students was better than male students as females are more serious in their studies and they come to class more regularly.

Figure 10. Academic performance in relation to students' profile




The mid-term and CBE scores of students who finished high school from private and public school were also analyzed. Those who graduated from public school got an average mid-term score of 64.78% while those who graduated from private schools got 60.54%. For average CBE scores, those who graduated from public school got 49.08% while those from private school got 47.51% (also shown in Appendices A and A-1). This result suggests that graduates from public school are performing better in class.

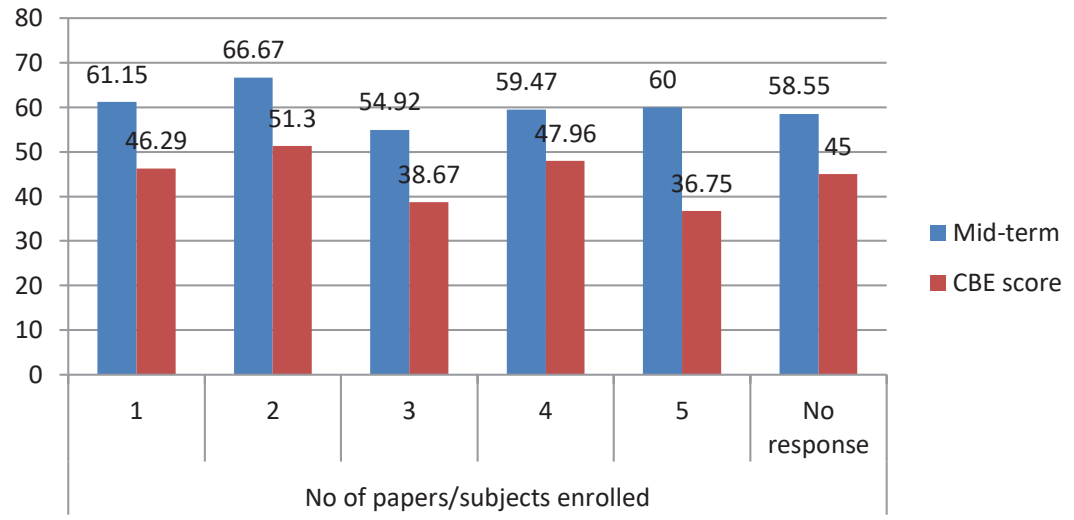
Those students whose families are living in Phnom Penh got an average mid-term score of 62.84% which is slightly higher than the 62% obtained by students coming from the provinces. In terms of average CBE score, those from Phnom Penh got higher average score of 49.35% compared to the 45.68% obtained by those coming from the provinces. The class attendance of students from Phnom Penh is also slightly higher. This study also looks into the problems of students who are living away from home which may have influenced their score. The problems encountered by these students are presented in Table 8.

The students who said that Accountancy course is their own choice got higher average mid-term score of 63.06% compared to the 61.88% obtained by those who said that Accountancy is not their own choice. For CBE scores, those who said Accountancy is their own choice got an average score of 48.47% which is slightly higher than the 47.96% average CBE score of those who did not choose the Accountancy course. The data in Appendix A also show that the class attendance of students who reported Accountancy is not their personal choice is lower (92.92% for mid-term and 92.72% for finals) compared to the 94.05% and 94.13% mid-term and finals attendance of students who choose Accountancy as their course. These trends suggest that those who did not choose Accountancy for their course have lower class attendance and lower mean scores in mid-term and final exams compared to students who really choose the course

on their own. As shown in the earlier section (Figure 4), 86.7% of these students who did not choose Accountancy said that their parents were the ones choosing the course for them.

Regarding students' academic performance based on the number of subjects enrolled (Figure 11), the data showed that those students who enrolled two subjects got the highest average mid-term and CBE scores of 66.67% and 51.30%, respectively. The data further showed that these students also had the highest class attendance scores, 95.52% and 95.49%, compared to others (Appendix A).

Figure 11. Academic performance based on number of subjects enrolled

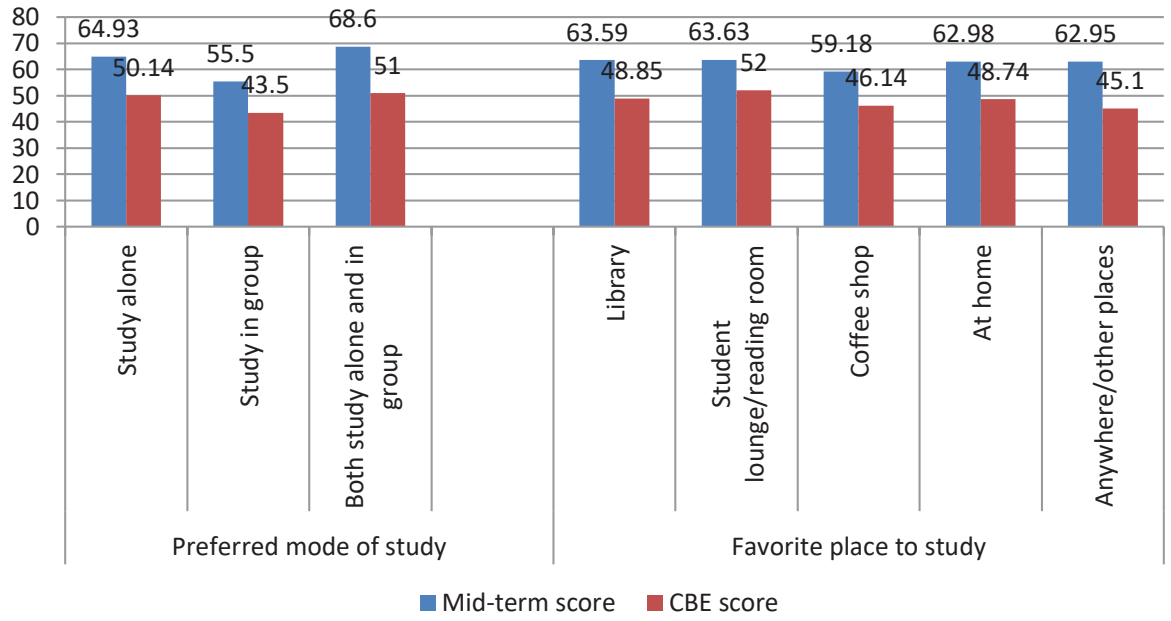



### 5.6.2 *Study practices*

In terms of preferred mode of study, the data in Figure 12 show that those who combined studying in groups and studying alone got the highest average mid-term score of 68.60% and average CBE score of 51%. Those who study alone got an average of 64.93% and 50.14% while those who study in group got the lowest average mid-term score of 55.5% and CBE score of 43.50%. These results show that a combination of studying in groups and studying alone appeared to be more effective than the other two modes of study- study alone, study in group.

Those students whose favorite place of study is the student lounge or reading room got the highest average mid-term score of 63.63% and average CBE score of 52% followed by those who study at the library who got an average mid-term and CBE scores of 63.59% and 48.85% respectively. The difference could be attributed to the class attendance of those studying in the student lounge/reading room of 98.13% and 98% while those who study in the library have class attendance of 94.46% and 94.38% (Appendix B). This trend implies that as long as class attendance is high, the mid-term and CBE scores are also high regardless of the place where students prefer to study.

Figure 12. Academic performance of students in terms of study practices

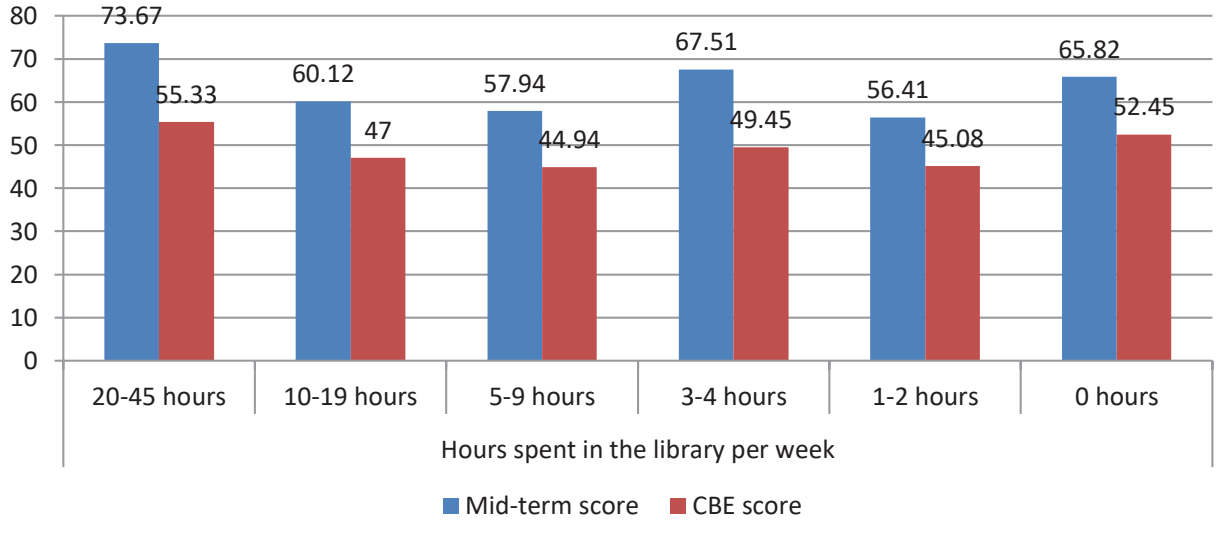



The number of hours spent by students at the school library was further analyzed. Figure 13 shows that those who spend 20 hours or more weekly in the library got the highest average mid-term and CBE scores of 73.67% and 55.33%, respectively. The next highest

mid-term score was obtained by those who spend 3-4 hours in the library. This is followed by those who spent zero hours in the library with mid-term of 65.82% and CBE score of 52.45%.

Further analysis of the data showed that this group which does not come to the library has preferred to study at home instead.

Figure 13. Academic performance based on hours spend in the library

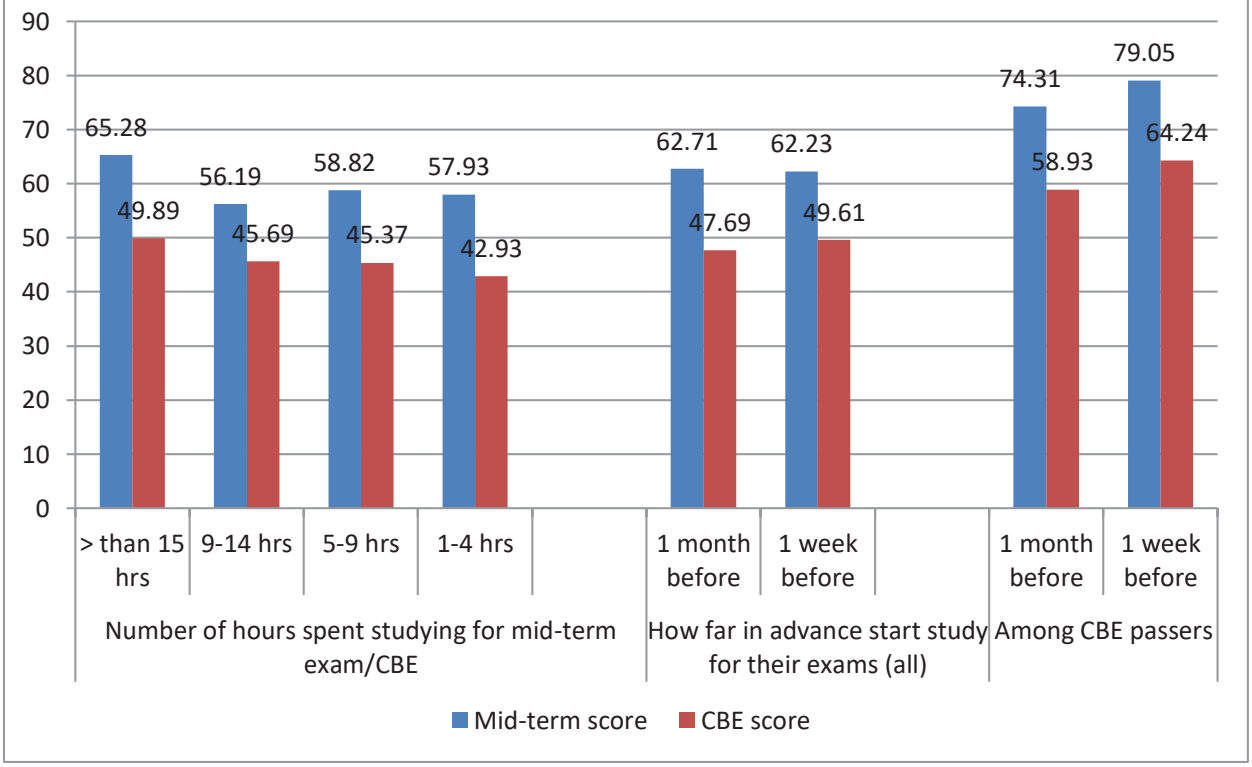


Regarding number of hours spent in studying before taking the mid-term exam and CBE (Figure 14), the data show that students who study more than 15 hours got the highest average mid-term score of 65.28% and CBE score of 49.89%. Those who study less than five hours got only 57.93% for mid-term and 42.93% CBE scores.

As to how far in advance students study for their exams (Figure 14), majority said that they study one month before while others study one week before the exam. Overall average scores show that those who study one week before the exam got 49.61% in CBE and those who study one month before got 47.69%.

The average scores among CBE passers were also compared. The passers are those students who got a CBE score 50 and above. It was found that those who study one week before the exam got 64.24% and those who study one month before got only 58.93%. This result shows that studying one week before the exam yielded better results.

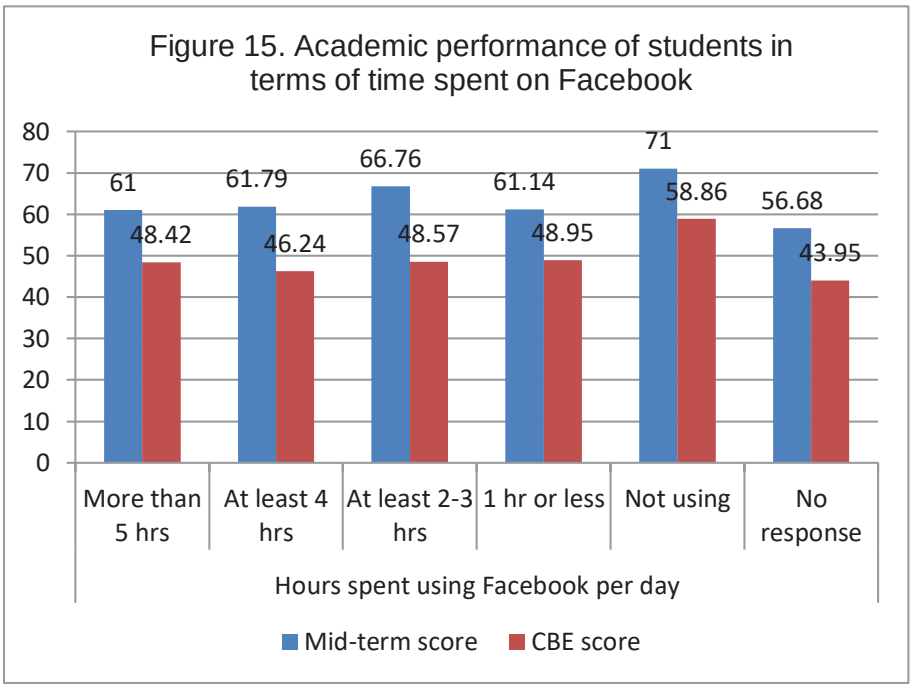
Figure 14. Academic performance based on study hours for mid-term and CBE



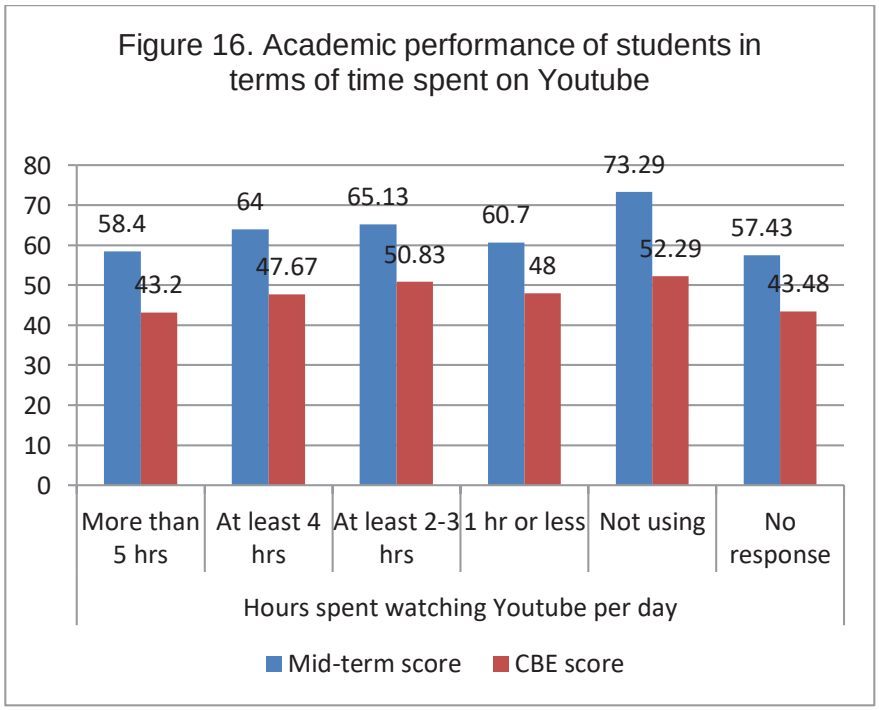

*5.6.3 Time spent on technology-related activities*

Figure 15 presents the academic performance of students in terms of their time spent on technology-related activities. The result shows that those who spend more than 5 hours on Facebook got an average mid-term score of 61% and CBE score of 48.42%. Students who are not using Facebook obtained a higher average scores of 71% and 58.86% for mid-term and CBE score respectively. This result conforms to the findings of Kirschner, P.A. and Karpinski, A.C. (2010) that Facebook users spend less hours per week studying and reported to have lower grade point average than nonusers.

The data further show that those students not using Facebook have the highest class attendance of 98%.

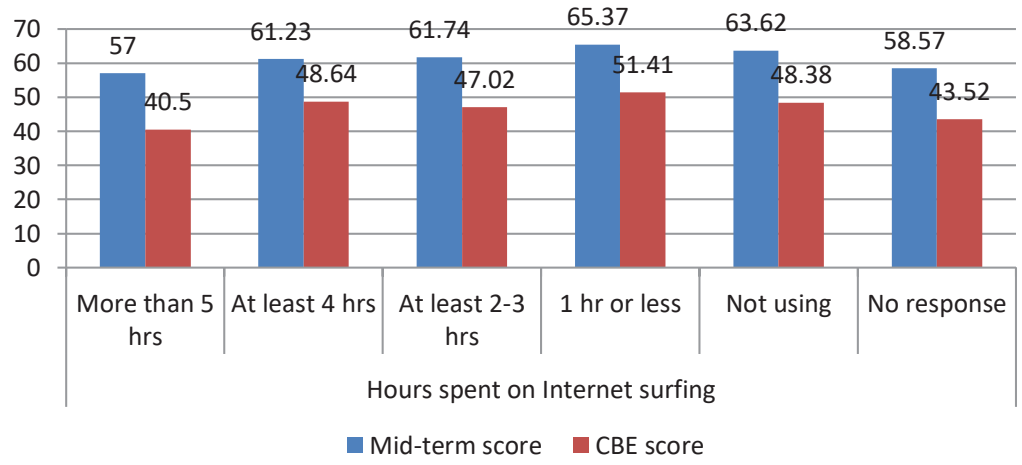



Those students watching Youtube more than 5 hours per day got 58.40% in mid-term score and 43.20% in CBE score while students who do not watch Youtube got the highest mid-term score of 73.29% and CBE score of 52.29% (Figure 16). Nonusers also have the highest class attendance of 97.43%.



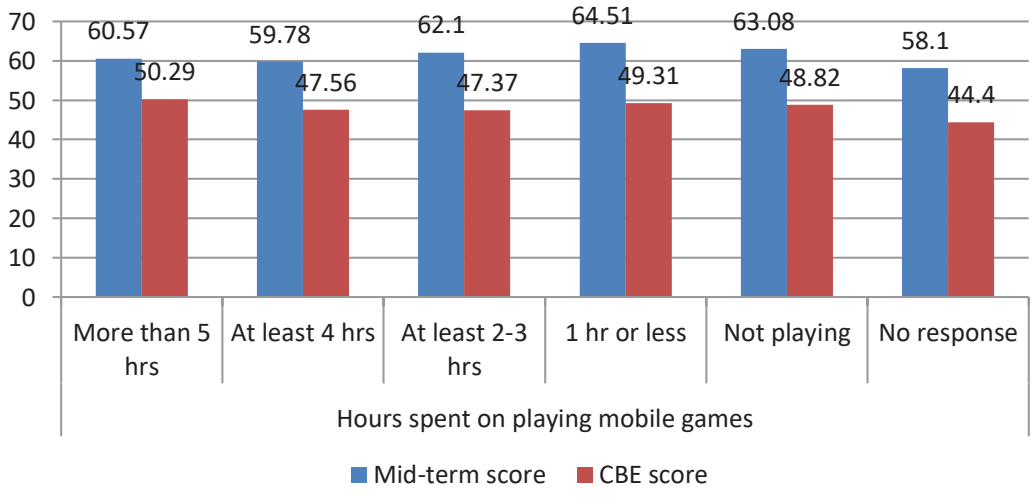
Students who do internet surfing one hour or less in a day got the highest mid-term score of 65.37% and CBE score of 51.41%. Those spending more than five hours per day on the Internet got lower scores of 57% and 40.50% in mid-term and CBE score, respectively (Figure 17).

Figure 17. Academic performance of students in terms of time spent on Internet surfing




Students who spend *one hour or less* playing mobile games got the highest mid-term average score of 64.51% on the other hand those who spend *more than five hours* playing mobile games got an average mid-term score of 60.57%. The highest average CBE score of 50.29% was obtained by students who spend more than 5 hours playing mobile games (Figure 18). Although they spend more hours playing mobile games, they also had 94.29% class attendance.

Figure 18. Academic performance of students in terms of time spent playing mobile games



5.7 Significant relationship between mid-term attendance and mid-term exam; final attendance and CBE scores; and mid-term scores and CBE scores?

Figure 19 presents the comparative average scores among CBE passers. Their scores were grouped into three ranges: 70% and higher, 60%-69% and 50%-59%. The passing score of paper F1 computer based exam is 50%. The average mid-term and final class attendance of these three groups had been analyzed and compared with their mid-term and CBE scores. The result shows that students who got CBE score of 70% and above have 97.64% class attendance. Those who got 60% to 69% in CBE have 95.86% class attendance while those with 50%-59% have 95.12%.

Considering that there are 50 class sessions in one semester, a 98% class attendance means students have only one day absent from class. A 96% class attendance means the student has two days absence from class and a 94% attendance means 3 absences.

Those who got 60% to 69% in CBE have an average two days absence from class. Those who got 50-59% in CBE have at least two to three days absence from class. This pattern is similar to the mid-term scores where students with higher class attendance are likely to have higher mid-term score.

Figure 19. Comparative mid-term and CBE scores and mid-term and final class attendance among CBE passers

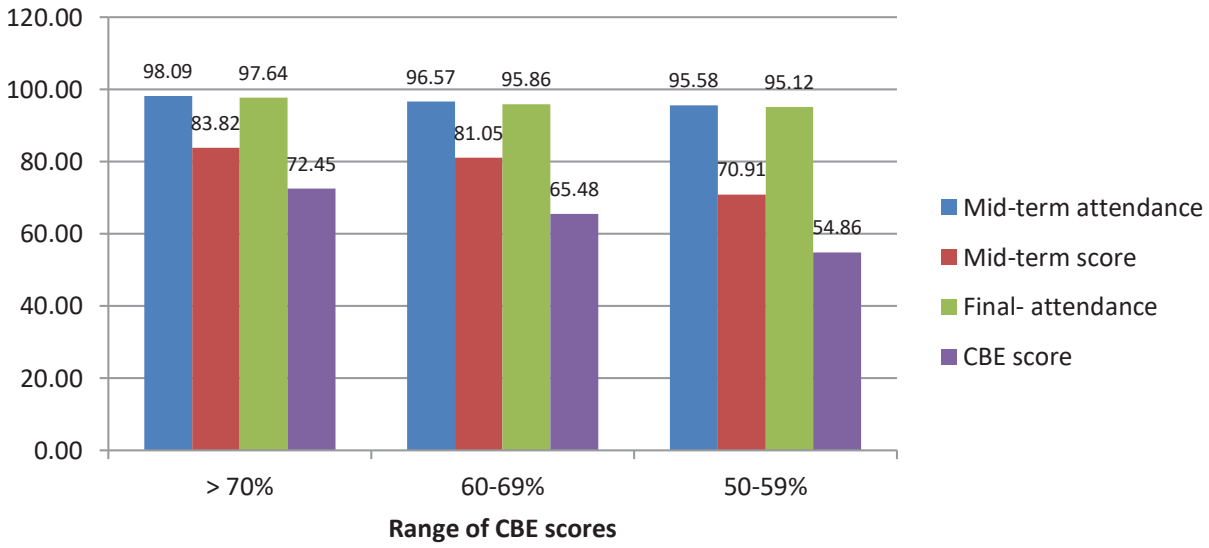



Table 6 presents the comparative mean scores and correlation values between mid-term attendance and mid-term exam score; between final attendance and CBE scores; and between mid-term scores and CBE scores. Detailed values are also found in Appendices D, E and F. Figures 20-22 also show the relationship between these variables.

Table 6

*Comparative mean scores and correlation values of selected variables*

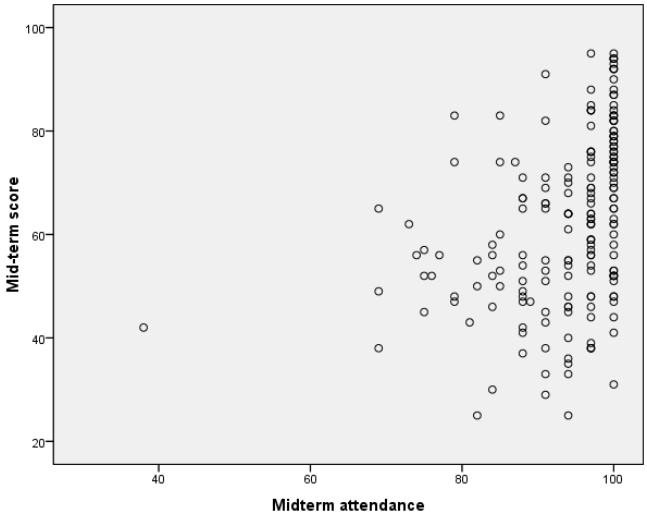
| Variables | n | Mean | Std. Deviation | R value | p-value | |
|---|---|---|---|---|---|---|
| Midterm score | 190 | 62.59 | 16.34 | r= .366 | p= .000 | Correlation is significant at the 0.01 level (2-tailed) |
| Midterm attendance | 190 | 93.61 | 8.42 | | | |
| | | | | | | |
| CBE score | 190 | 48.27 | 11.89 | r= .248 | p= .001 | Correlation is significant at the 0.01 level (2-tailed) |
| Final attendance | 190 | 93.57 | 7.73 | | | |
| | | | | | | |
| Midterm score | 190 | 62.59 | 16.34 | r= .691 | p= .000 | Correlation is significant at the 0.01 level (2-tailed) |
| CBE score | 190 | 48.27 | 11.89 | | | |
| | | | | | | |

*Relationship between mid-term class attendance and midterm scores*

The percentage of mid-term class attendance of students was compared to their mid-term scores using Pearson Correlation to determine whether mid-term score has relationship with mid-term class attendance. The computed value r = .366 indicated medium correlation with p-value =.000. Hence, the hypothesis ($H_{o1}$) that there is no significant relationship between students' mid-term attendance and mid-term exam score is rejected.

This means that the mid-term attendance and mid-term exam scores of students show positive moderate relationship (Figure 20). The coefficient of determination, $r^2$ = .134 or 13% implies that the linear relationship contributes only 13% on the variation of the mid-term scores.

Figure 20. Relationship between mid-term attendance and mid-term scores

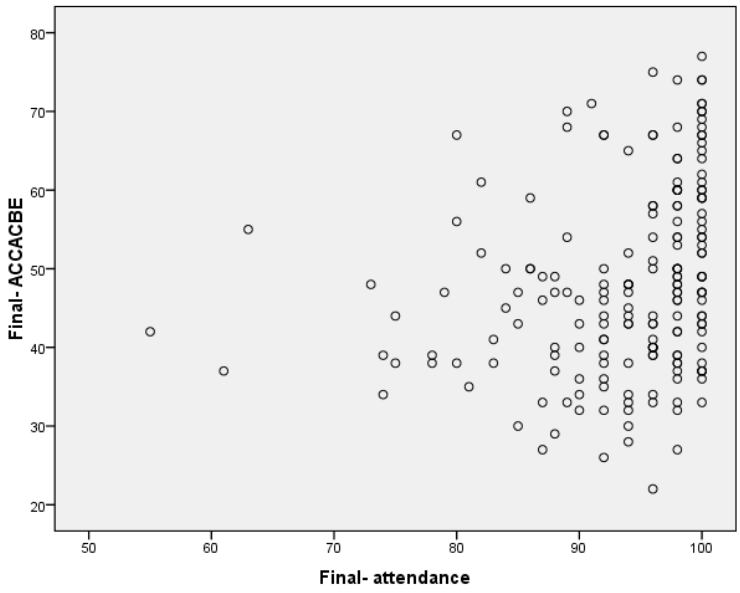


*Relationship of final class attendance and CBE scores*

The percentage of final attendance of students was compared to their final scores (CBE score). Pearson Correlation was also used to determine whether final attendance has relationship with final scores. The computed value r = .248 indicated low correlation with p-value =.001. The hypothesis ($H_{o2}$) that there is no significant relationship between students' final attendance and final exam (CBE) scores is therefore rejected.

This means that the mid-term attendance and mid-term exam scores of students show low relationship (Figure 21). The coefficient of determination, $r^2$ = .06 implies that 6% of the variance in CBE scores is predictable from class attendance.

Figure 21. Relationship between final attendance and final scores

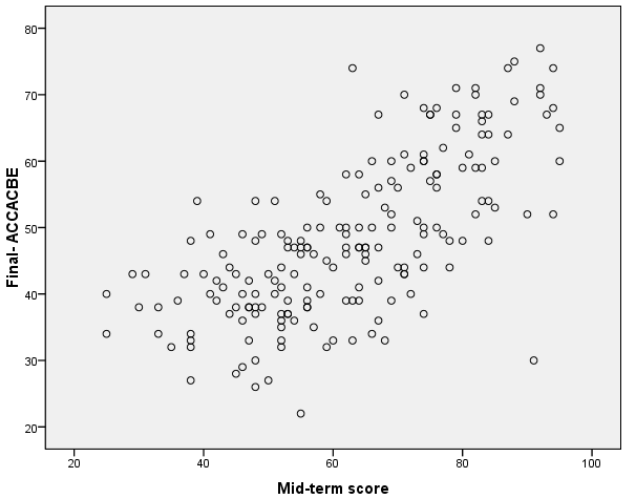



*Relationship between CBE and Midterm scores*

The CBE scores were also compared with the midterm scores as shown in Table 6 and Figure 22. The computed value *r* = .691 indicates a high positive correlation with p-value = 0.00. This means that the midterm and CBE scores of the students showed a significant linear relationship with a p-value = 0.00. The hypothesis ($H_{o3}$) that there is no significant relationship between students' mid-term scores and final exam (CBE) scores was rejected because a significant correlation was found.

The coefficient of determination, $r^2$ = .477 means that 48% of the variance in CBE score is predictable from the mid-term score. Those with high midterm scores are more likely to pass F1 computer based exam.

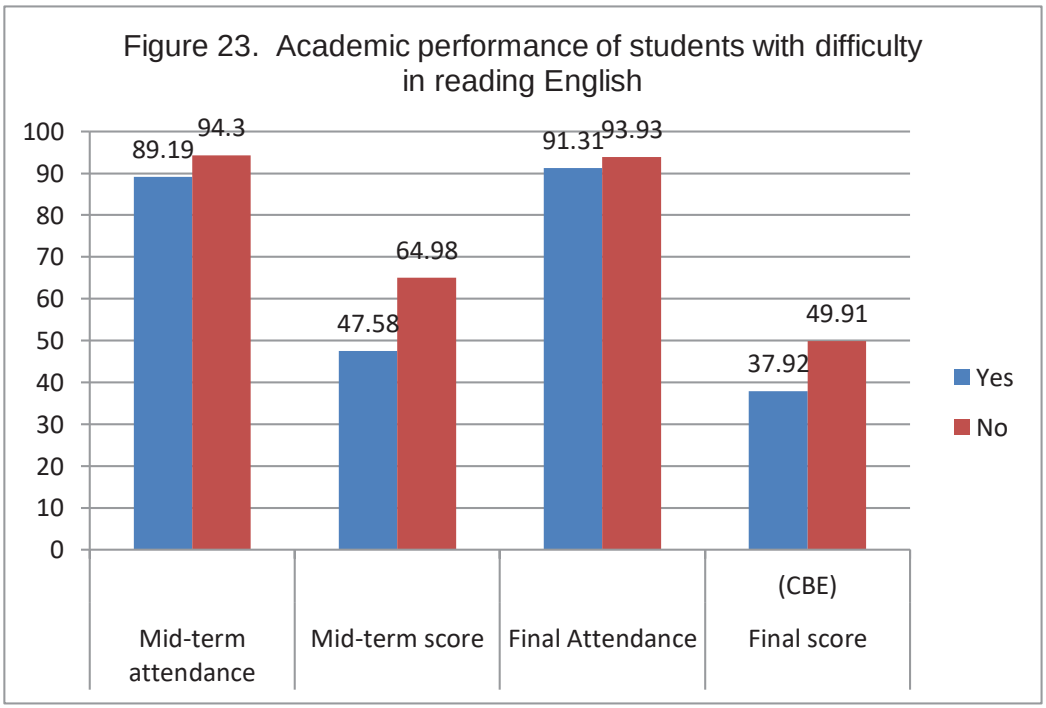
Figure 22. Relationship between mid-term scores and final scores




5.8 Academic performance of students' with difficulty in reading English texts.

There were 26 students observed to have difficulty in reading English texts. Their class attendance, mid-term and CBE scores were also analyzed. The data in Figure 20 show that their mid-term class attendance of 89.19% was lower compared to the mid-term class attendance of 94.30% of students who have no problem in reading English. Their final attendance of 91.31% was also lower compared to the 93.93% of those who can read well. The mean mid-term exam scores and CBE scores are also lower. The result further shows that of these 26 students, 25 failed in the CBE exam. This result also related to the study of Casey (2010) that reading skills are necessary skill and has strong impact on students' academic success.

Figure 23. Academic performance of students with difficulty in reading English



The circumstances of the CBE top scorer and lowest scorer were compared in terms of 12 variables one of which is the difficulty in reading English (Table 7).

One of the respondents got the highest CBE score of 77% and one got the lowest CBE score of 22%. When the LSC report was reviewed, the top scorer in this batch was 78% and the lowest was 21% but the ID numbers of these two students did not appear in the list of those who completed the questionnaire. Hence, the highest score of 77 and lowest score of 22 were taken from the range of CBE results among the respondents.

The data show that the top scorer has 100% class attendance while the lowest scorer has only 94%. Both are females and graduated from private schools. They are also from Phnom Penh and Accountancy course was their own choice. The top scorer spends 15-19 hours of study before the exam while the lowest scorer spends more than 20 hours. The top scorer studied one week before the exam while the lowest scorer starts studying one month before the exam. Also the lowest scorer has difficulty in reading English. According to Arnbak, E. (2004), “poor reading skills were in fact a threat to the adults' educational achievements”.

Table 7

*Comparative circumstances between top scorer and the lowest scorer of paper F1*

| Variables | Top scorer | Lowest scorer |
|---|---|---|
| CBE score | **77** | **22** |
| Attendance- final | 100 | 94 |
| Mid-term score | 92 | 55 |
| Mid-term attendance | 100 | 96 |
| Sex | Female | Female |
| Graduate high school from | Private school | Private school |
| Accountancy own choice | Yes | Yes |
| Living in Phnom Penh | Yes | Yes |
| Hours spent in the library per week | 0 | 7 |
| Advance study starts | 1 week before exam | 1 month before exam |
| Hours of study | 15-19 hours | More than 20 hours |
| With difficulty in reading English | No | Yes |
| | | |

5.9 Problems encountered by CamEd students living away from home.

Students who are from the different provinces were asked about the problems they encountered while living away from their parents. While half of the students indicated that they have no problem, some students reported that they feel homesick and lonely. There were students who said that they experience having no proper food and having problem with money (Table 8). These students also said that they only go home to the province when there is long holiday. As observed in class these are the ones who usually ask if there is a quiz immediately before and after long public holidays as there is a tendency for them to extend their time with their family. As mentioned in the earlier section, their class attendance, mid-term and CBE scores are also lower compared to those living in Phnom Penh. The study of Bhattarai (2017) found that among the reasons why students missed school is their attendance of celebrations and festivals and other social functions where they had to go home to their village. The result of the study of Aleyamma (2012) showed that students residing in the hostel have reported that ‘absence of parental encouragement and monitoring was the major reason for not scoring better marks.’

Those students who are staying with their parents have reported that 'parental encouragement and monitoring for day to day studies' has helped them in getting better marks at the University examination.

Table 8.

*Problems encountered while living away from home*

| Problems encountered while living away from home | Frequency | Percent |
|---|---|---|
| Homesick, loneliness | 11 | 19.64 |
| Money | 2 | 3.57 |
| No proper food | 2 | 3.57 |
| Food, Money, Transportation | 1 | 1.79 |
| Live alone and got sick | 1 | 1.79 |
| Many pressures, sometimes no motivation to study, help relatives most of the time and less time to study | 1 | 1.79 |
| Safety problem | 1 | 1.79 |
| Spend much money; spend more time on house work | 1 | 1.79 |
| Stress | 1 | 1.79 |
| Traffic, Food, Homesick | 1 | 1.79 |
| Other problem (not specified) | 5 | 8.93 |
| No problem | 29 | 51.79 |
| **Total** | **56** | **100.00** |

## CONCLUSION

The academic performance of female students is slightly better than males. Class attendance of females is also higher than that of male students. Students who graduated high school from public school are performing better in class. Majority of the students graduated high school from public schools. Their class attendance, mid-term and CBE scores were found to be higher compared to those who graduated high school from private schools.

Four out of ten students did not choose Accountancy as their course but they enrolled in the Accounting program because of their parents' decision. These students have lower class attendance, lower mean scores in mid-term and final exams compared to students who choose accountancy course on their own. Students who are taking two subjects only during the semester have higher class attendance, mid-term and CBE scores compared to those taking more subjects.

Seven out of ten students live in Phnom Penh. These students have higher class attendance, mean mid-term and CBE scores compared to those students coming from the provinces.

Eight out of ten students watch Youtube, use Facebook and do Internet surfing. Most of them said that watching Youtube and Internet surfing have no negative effect on their study. Non-users of Youtube and Facebook however have higher average mid-term and CBE scores and class attendance. Half of the students said that playing mobile games has reduced their study hours. However, the result also shows that the highest average CBE score was obtained by students who spend more than 5 hours playing mobile games but these students also had higher class attendance.

In terms of mode of study, majority prefers to study alone. However, those who combined studying in groups and studying alone got the highest average mid-term and CBE scores. Almost half of the students prefer to study at home. Students with higher class attendance are likely to have higher mid-term score regardless of the place where students prefer to study.

Among users of school library, those who spend 20 hours or more weekly in the library got the highest average mid-term and CBE scores. Regarding number of hours spent in studying before taking the mid-term exam and CBE, students who study more than 15 hours got the highest average mid-term and CBE scores.

As to how far in advance students study for their exams, those who study one week before the exam have higher scores than those who study one month before.

The mid-term class attendance and midterm scores have positive moderate correlation. The coefficient of determination implies that 13% of the variance of mid-term score is predictable from mid-term attendance. The final class attendance and CBE scores have low relationship. The coefficient of determination shows that the linear relationship contributes only 6% on the variation of the CBE scores. The mid-term and CBE scores have significant linear relationship. About 48% of the variance in CBE score is predictable from the mid-term score. Those with high midterm scores are more likely to pass F1 computer based exam.

Students' with difficulty in reading English have higher risk of failing the exam. Poor reading skills have strong gravity pull on the scores despite student's long study hours.

Students living away from home experienced loneliness and homesickness. They go home only when there is long holiday. This group of students also has lower mid-term score, CBE score and class attendance compared to students coming from Phnom Penh.

Table 9

*Summary of factors affecting students' academic performance*

| | Factors | Result of the study |
|---|---|---|
| 1 | School where students graduated high school | Students who graduated high school from public school have higher mid-term and CBE scores |
| 2 | Whether accountancy course is the student's own choice | Students who chose accountancy on their own have higher mid-term and CBE scores |
| 3 | Number of subjects enrolled | Students taking two subjects only have higher mid-term and CBE scores |
| 4 | Whether students are staying with or away | Students who are staying with their parents have |

| | | |
|---|---|---|
| | from their parents. | higher mid-term and CBE scores |
| 5 | Time spent on technology-related activities (YouTube, Facebook, mobile games) | Playing mobile games has reduced students' study hours. Students who do not engage on YouTube, Facebook, mobile games have higher mid-term and CBE scores |
| 6 | Mode of study | Students who combined studying in group and studying alone have higher mid-term and CBE scores |
| 7 | Hours spent studying before long exams | Students who spend >15 hours studying before long exams have higher mid-term and CBE scores |
| 8 | How far in advance students study for long exam | Those who study one week before the exam have higher mid-term and CBE scores |
| 9 | Class attendance | Students with high class attendance are likely to have high mid-term and CBE scores. |
| 10 | Difficulty in reading English | 96% of students' with difficulty in reading English failed in F1 CBE and 58% got a score of below 50% in the mid-term exam. |

## RECOMMENDATIONS

Students must be encouraged to come to class regularly by giving bigger mark for class attendance. To register students' class attendance, the biometric thumb print must be used both at the start and end of class.

Students must be made to understand that Accountancy is a high profile profession and they are in the right course and school that can shape a better future for them. They must be encouraged to spend more study hours especially before long exams and to have intensive review preferably one week before long exams. Promote interactive and reflective mode of study which is a combination of studying in groups and studying alone which appear to be more effective.

Students may be given homework/assignment to reduce their time spent on time-wasters technology related activities and advised to use social media in ways that will enhance their learning.

Pre-enrolment assessment must include English test (or IELTS must be above 5.0) and students with low scores must undertake compulsory remedial English classes. English reading and comprehension skills of students must be strengthened through either English tutorial or other supplemental classes.

Quizzes may not be given before and after long public holidays to allow students to have quality time with their family especially among those coming from the provinces.

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# APPENDICES

Appendix A. Academic performance of students in terms of profile and class attendance

| Variables | Frequency | Mean scores (%) | | | |
|---|---|---|---|---|---|
| | | Mid-term attendance | **Mid-term score** | Final Attendance | **Final score (CBE)** |
| Sex | | | | | |
| Male | 56 | *92.88* | 61.93 | *93.18* | 47.71 |
| Female | 134 | *93.91* | **63.00** | *93.74* | **48.50** |
| Where graduated high school from | | | | | |
| Public school | 92 | *93.92* | **64.78** | *94.17* | **49.08** |
| Private school | 98 | *93.31* | 60.54 | *93.01* | 47.51 |
| Where family is living | | | | | |
| in Phnom Penh | 134 | *93.73* | **62.84** | *93.68* | **49.35** |
| In the Province | 56 | *93.30* | 62.00 | *93.32* | 45.68 |
| Whether accountancy is own choice | | | | | |
| Yes | 115 | *94.05* | **63.06** | *94.13* | **48.47** |
| No | 75 | *92.92* | 61.88 | *92.72* | 47.96 |
| No of papers/subjects enrolled | | | | | |
| 1 | 14 | *92.50* | 61.15 | *92.00* | 46.29 |
| 2 | 89 | ***95.52*** | **66.67** | ***95.49*** | **51.30** |
| 3 | 12 | *85.33* | 54.92 | *87.83* | 38.67 |
| 4 | 51 | *93.57* | 59.47 | *92.98* | 47.96 |
| 5 | 4 | *90.25* | 60.00 | *86.25* | 36.75 |
| No response | 20 | *91.60* | 58.55 | *92.55* | 45.00 |
| | | | | | |

Appendix A-1. Academic performance of students who graduated high school from public and private schools

| Where family is living | n | School graduated high school from | n | Mid-term score | CBE score |
|---|---|---|---|---|---|
| Phnom Penh | 134 | Public | 55 | **64.91** | **50.75** |
| | | Private | 79 | 61.41 | 48.38 |
| | | | | | |
| Provinces | 56 | Public | 37 | **64.59** | **46.59** |
| | | Private | 19 | 56.95 | 43.89 |
| | | | | | |

Appendix B. Academic performance of students in terms of study practices and class attendance

| Mode and place of self-study | Category | Mean scores (%) | | | |
|---|---|---|---|---|---|
| | | Mid-term attendance | Mid-term score | Final Attendance | Final score (CBE) |
| Preferred mode of study | Study alone | *94.71* | 64.93 | *94.66* | 50.14 |
| | Study in group | *92.00* | 55.50 | *92.20* | 43.50 |
| | Both study alone and in group | *89.00* | **68.60** | *88.70* | **51.00** |
| | | | | | |
| Favorite place to study | Library | *94.46* | 63.59 | *94.38* | 48.85 |
| | Student lounge/reading room | ***98.13*** | **63.63** | ***98.00*** | **52.00** |
| | Coffee shop | *92.07* | 59.18 | *91.64* | 46.14 |
| | At home | *92.60* | 62.98 | *92.92* | 48.74 |
| | Anywhere/other places | *94.85* | 62.95 | *94.00* | 45.10 |
| | | | | | |
| Hours spent in the library per week | 20-45 hours | *94.75* | **73.67** | *94.25* | **55.33** |
| | 10-19 hours | *90.75* | 60.12 | *93.13* | 47.00 |
| | 5-9 hours | *94.03* | 57.94 | *94.19* | 44.94 |
| | 3-4 hours | *95.19* | 67.51 | *94.72* | 49.45 |
| | 1-2 hours | *92.63* | 56.41 | *92.61* | 45.08 |
| | 0 hours | *92.76* | 65.82 | *92.53* | 52.45 |
| | | | | | |
| Number of hours spent studying for mid-term exam/CBE | > than 15 hrs | *94.03* | **65.28** | *93.81* | **49.89** |
| | 9-14 hrs | *95.14* | 56.19 | *96.06* | 45.69 |
| | 5-9 hrs | *90.42* | 58.82 | *91.18* | 45.37 |
| | 1-4 hrs | *97.27* | 57.93 | *95.47* | 42.93 |
| | | | | | |
| How far in advance start study for their exams | 1 month before | *93.53* | 62.71 | *93.95* | 47.69 |
| | 1 week before | *93.77* | 62.23 | *92.70* | **49.61** |
| | | | | | |
| Among CBE passers<br>How far in advance start study for their exams | 1 month before | *95.26* | 74.31 | *95.00* | 58.93 |
| | 1 week before | ***98.71*** | **79.05** | *97.48* | **64.24** |
| | | | | | |

Appendix C. Academic performance of students in terms of time spent on technology-related activities

| Variables | Category | Mean scores (%) | | | |
|---|---|---|---|---|---|
| | | Mid-term attendance | Mid-term score | Final Attendance | Final score (CBE) |
| Hours spent in using Facebook per day | More than 5 hrs | *93.83* | 61.00 | *92.92* | 48.42 |
| | At least 4 hrs | *94.14* | 61.79 | *93.52* | 46.24 |
| | At least 2-3 hrs | *94.67* | 66.76 | *94.98* | 48.57 |
| | 1 hr or less | *92.84* | 61.14 | *92.91* | 48.95 |
| | Not using | ***97.43*** | **71.00** | ***98.00*** | **58.86** |
| | No response | *91.47* | 56.68 | *91.42* | 43.95 |
| | | | | | |
| Hours spent watching Youtube per day | More than 5 hrs | *93.07* | 58.40 | *91.33* | 43.20 |
| | At least 4 hrs | *94.76* | 64.00 | *94.86* | 47.67 |
| | At least 2-3 hrs | *93.91* | 65.13 | *94.32* | 50.83 |
| | 1 hr or less | *93.72* | 60.70 | *93.39* | 48.00 |
| | Not using | ***97.00*** | **73.29** | ***97.43*** | **52.29** |
| | No response | *90.38* | 57.43 | *90.67* | 43.48 |
| | | | | | |
| Hours spent on Internet surfing | More than 5 hrs | *93.20* | 57.00 | *93.20* | 40.50 |
| | At least 4 hrs | *92.05* | 61.23 | *92.14* | 48.64 |
| | At least 2-3 hrs | *93.31* | 61.74 | *93.94* | 47.02 |
| | 1 hr or less | ***94.75*** | **65.37** | *94.09* | **51.41** |
| | Not using | *94.25* | 63.62 | *94.88* | 48.38 |
| | No response | *91.86* | 58.57 | *91.95* | 43.52 |
| | | | | | |
| Hours spent on playing mobile games | More than 5 hrs | *94.43* | 60.57 | *94.29* | **50.29** |
| | At least 4 hrs | *93.78* | 59.78 | *94.89* | 47.56 |
| | At least 2-3 hrs | *93.27* | 62.10 | *93.07* | 47.37 |
| | 1 hr or less | ***95.00*** | **64.51** | *94.42* | 49.31 |
| | Not playing | *92.91* | 63.08 | *93.31* | 48.82 |
| | No response | *91.9* | 58.1 | *91.85* | 44.40 |
| | | | | | |

Appendix D. Correlation values for mid-term attendance vs mid-term exam scores

| | | Mid att | Mid score |
|---|---|---|---|
| Mid att | Pearson Correlation | 1 | .366** |
| | Sig. (2-tailed) | | .000 |
| | N | 190 | 190 |
| Mid score | Pearson Correlation | .366** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 190 | 190 |

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

Appendix E. Correlation values for final attendance vs Final exam scores

**Correlations**

| | | Final- att | Final-score |
|---|---|---|---|
| Final- att | Pearson Correlation | 1 | .248** |
| | Sig. (2-tailed) | | .001 |
| | N | 190 | 190 |
| Final-score | Pearson Correlation | .248** | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 190 | 190 |

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

Appendix F. Correlation values for mid-term exam scores vs final exam scores

**Correlations**

| | | Final-score | Mid score |
|---|---|---|---|
| Final-score | Pearson Correlation | 1 | .691** |
| | Sig. (2-tailed) | | .000 |
| | N | 190 | 190 |
| Mid score | Pearson Correlation | .691** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 190 | 190 |

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

Appendix G. Descriptive statistics for mid-term scores

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Mid-term score | 190 | 25 | 95 | 62.59 | 16.344 |
| Valid N (listwise) | 190 | | | | |

Appendix H. Descriptive statistics for final scores (ACCA-CBE scores)

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Final- ACCACBE | 190 | 22 | 77 | 48.27 | 11.890 |
| Valid N (listwise) | 190 | | | | |

Appendix I. Descriptive statistics for mid-term attendance

| Descriptive Statistics | | | | | |
|---|---|---|---|---|---|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Midterm attendance | 190 | 38 | 100 | 93.61 | 8.417 |
| Valid N (listwise) | 190 | | | | |

Appendix J. Descriptive statistics for final attendance

| Descriptive Statistics | | | | | |
|---|---|---|---|---|---|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Final- attendance | 190 | 55 | 100 | 93.57 | 7.734 |
| Valid N (listwise) | 190 | | | | |