

Factors Affecting Arab Open University (AOU) Students' Low Accumulative Gpas

Dr. Salim Bagadeem¹, Dr. Gamal R. Elkahout²,
Dr. Yehia Ahmed Al-Sohbani³

¹Arab open university, faculty of business studies,
Saudi Arabia bagadeem@arabou.edu.sa

²Arab open university, faculty of business studies,
Saudi Arabia g.elkahout@arabou.edu.sa

³ Arab open university, faculty of language studies,
Saudi Arabia y.alsohbani@arabou.edu.sa.
Arab Open University, Riyadh, Saudi Arabia.

Abstract

This study intended to explore the factors behind students' low accumulative grade point average (GPA) among AOU learners. Six hundred and nine 609 students (females = 415; males = 194) completely filled out a questionnaire. The responses were calculated by statistical analysis in terms of means, standard deviations, one-way analysis (ANOVA) and the Person correlation coefficient. It was found that the major factors which might contribute to low GPAs of these learners are mainly (i) students' factors, (ii) teaching and guidance, (iii) affective factors (motivation and interest), (iv) students' family and residence, and (v) tests and exams. Age, marital status, gender, monthly income, faculty branch, specialty in high school, and the type of high school have no significant correlations with students' GPAs. Students' GPAs correlated significantly ($r=0.178$, $p<0.01$, $r=0.156$, $p<0.01$ and $r=0.087$, $p<0.05$) with their nationality, high school grades and high school graduation year. A high negative significant correlation ($r=-.184$, $p<0.05$) between admission in university and students' GPAs was found. More, Students' jobs and their completed credits have scored negative significant correlations ($r=-.100$, $p<0.05$ and $r=-.102$, $p<0.05$) with their GPAs.

Keywords: Factors, GPAs, AOU students.

1. Introduction

Education plays a prominent role in developing human capital and it is associated with people's better life as it provides more job opportunities (Battle & Lewis, 2002).

AOU is one of the private universities in the Kingdom of Saudi Arabia (KSA) and there are eight branches in eight Arab countries. This university adopts well-established system of blended learning with well technical infrastructure and partnership of Open University in UK. As the number of students enrolled in AOU is increasing every year due to different factors such as low fees that suits low-income students, it has become necessary to explore how they experience education at this university with regard to factors that may positively or negatively affect their academic success.

The number of graduates from various universities is increasing and as a result, job competition is also becoming very high. Job markets in KSA and Arab countries use graduates' cumulative grade point average (CGPA) as a measure of the students' qualifications.

This study attempts to explore factors affecting AOU students' academic achievement. By exploring the factors that affect negatively students' success, AOU will have insights to create more appropriate environment that helps such learners to overcome difficulties and further improve their performance.

2. Literature Review

Number of studies have been conducted to explore factors that positively or negatively contribute to students' academic performance (e.g. Atieh, 1997; Chambers & Schreiber, 2004; Al-Mutairi, 2011; Dao, Doan & Nguyen, 2016; Singh, Malik & Singh, 2016; Baothman, Aljefri, Agha & Khan, 2018; Richelle & Erik, 2019; Alabdulkarem, Alhojailan, & Alabdulkarim, 2021). As indicated earlier, the major measurement of student performance in most universities and AOU is the students' grade point average (GPA), which is the main outcome measure of the present study. Variables such as age, schools, economic status, students' living situation, students' time management, students' employment status, learning modes and gender can affect students' efforts, concentration and interest, which lead to score high or low GPAs.

Tinto (1999) and Astin (1984), who approach the concept of students' success with an emphasis on their persistence levels, pointed out that learners' engagement and interaction with the academic environment have been found as critical factors affecting their persistence. The work of Tinto (1999), who has been identified by several studies as the 'founder of the student integration model', assessed the impact of off campus and on-campus residency.

Bozic (2008) also found that students, who work, travel to campus and face financial difficulties had negative impact on their continuing success because students who spend more time on working, they spend less time on their academic activities and obligations. Mussie, Kathryn & Marzie (2014) found that students who worked for more than 11 hours a week, their satisfaction and GPAs declined for each additional category of work.

Al-Mutairi (2011) who conducted an empirical study on AOU' students, found that students' GPAs were affected by age, high school's score and nationality. The findings of this study also showed that the more students are young, the more their performance is improved. The study also revealed significant differences between female and male students regarding their performance in favor of females. That is, the performance of the female students was better than males' performance, which is similar to the study of Chambers & Schreiber (2004) and Dao, Doan , & Nguyen' study (2016), who examined Vietnamese university students' GPAs and family background, which showed that the performance of female students is better than the male students' performance. Moreover, the study confirmed that the performance of married students is better than unmarried students. Similarly, the study of Cohn, Cohn, Balch and Bradley (2004) also revealed that female students achieved higher CGPAs than male students. Similarly, Dayioğlu and Türüt-Aşık (2007) conducted a study to explore if there were significant differences between female and male undergraduate students with regard to their academic performance. It was reported that female students performed better than male students. In contrast, Young and Fisler (2000) reported that male students outperformed their female counterparts in SAT-M exam due to different socio-economic background of students.

As Saudi Arabia context is concerned, Atieh (1997) investigated students' perceptions regarding the causes of their low performance in principles of accounting at King Fahd University of Petroleum and Minerals. The results revealed that the complexity and difficulty in exams on information processing in teaching accounting principles played a significant role in students' low performance. More, Atieh presented evidence that the obstacles most students face were related to material as being long with lack of adequate advices.

Students' satisfaction has been examined by many scholars (e.g. Eyck, Tews & Ballester, 2009; Elliott & Healy, 2001; Elliott, 2003; Billups, 2008; Witowski, 2008; Tessema, Ready & Yu, 2012; Ciobanu and Ostafe, 2014; Banahene, Jay Kraa, and Kasu, (2018), because such studies give institutions insights to make their curriculum addressing learners' needs and stakeholders. Bryant (2009) and Özgüngör (2010) concluded that satisfied students tend to make more effort than the students who are not satisfied. Studies of Shea, Pickett, & Pelz, 2003; Stein, Wanstreet, Calvin, Overtoom, & Wheaton, 2005; Eom, Wen & Ashill, 2006; Witowski, (2008)) revealed that there was no significant effect of the instructional support on students' satisfaction in an online environment.

Extracurricular Activities have been dealt with by many scholars (e.g. Cooper, Valentine, Nye, and Lindsay, 1999; Darling, 2004; Massoni, 2011). Darling, Caldwell and Smith (2005) conducted a longitudinal study on extracurricular activities and found that students who were involved in extracurricular activities scored high grades.

Similarly, Watkins (2004) came to conclusion that students who participated in any extracurricular activity had significant improvement in their cumulative GPAs than those who were not involved in any extracurricular activities. For Reeves (2008), students who participated in certain extracurricular activities got higher grades than those who did not participate in any extracurricular activities. After reviewing the literature related to extracurricular activities, Kelepolo (2011) reported a strong relationship between students' academic achievement and their participation in such activities.

Ekundayo and Alonge (2012) came to conclusion that the availability of material and human resources did not influence students' academic performance. However, Andrea Crampton, Angela, and Heather (2012) pointed out that learners who accessed the online resources obtained higher academic success. Similarly, Okello Obura and Magara (2008) mentioned a considerable number of benefits for the users of electronic resources.

Roach and Lemasters (2006) and Carlson (2005) categorized online learners into two types; the "net" learners, and the "reflective" learners. Students in the former category consist of the learners who like to utilize all forms of electronic technology (Carlson, 2005; Roach & Lemasters, 2006) and these online generation learners who have experienced different types of 'digital media' (Peters, 2001 & Carlson, 2005).

Urien (2003) reported that personal characteristics, family background and study discipline affected the students' academic performance. Considine and Zappala (2002) argued that students' performance also can be influenced by social status and income of the parents. Similarly, Graetz (1995) stated that the students' academic achievement depends to great extent on their parents' social status.

Smith and Naylor (2004) investigated the effect of the students' school characteristics on students' university performance. It was revealed that students who graduated from private schools were likely to graduate from the university with 5.9% CGPAs higher than students who graduated from public schools. Erdem, Şentürk, and Arslana (2007) reported that the parents' education, the type of high school graduates, gender and other factors affected the learners' GPAs. Based on previous studies, Birch and Miller (2007) concluded that the high school influences university performance.

Eamon (2005) argues that students whose socio-economic status is low, achieve low scores compared with their counter parts. Shoukati, Zubair, Fahad, Hamid and Awais (2013) has found that age, social economic status of the father or guardian variables as well as daily study hours remarkably influence the graduate students' academic performance. However, Lotsi, (2019) conducted a study to explore the effect of gender,

residential status, and previous high school on the students' GPAs and it was found that these variables have no significant effect on students' GPAs.

It has been pointed out by scholars that students' English level to be one of the most important factors affecting their success in education (e.g. Irfan Mushtaq & Shabana Nawaz Khan, 2012; AL-Mutairi, 2011). Based on their study, Harb and El-Shaarawi (2006) concluded that students' competence in English found to be the most important factor affecting their performance. It was also found that students who used to participate in class discussion performed better than other students. In addition, the study revealed that missing many classes negatively affected students' performance the most. Singh, Malk (2016) stated that students' communication skills affected their academic performance.

3. Research Objectives

1. To explore factors affecting AOU students' low GPAs.
2. To find if there are significant differences among students' GPAs attributed to their independent variables (age, schools, nationalities, teaching and guidance, affective factors, student's family and residence, and Tests and exams)?
3. To explore if there are correlational relationships between students' GPAs and their independent variables?

4. Research questions

1. What are the factors that contribute to AOU students' low GPAs?
2. What are the major factors (reasons) that highly contribute to the negative effect of learners' GPAs?
3. Are there significant differences among AOU students regarding their GPAs attributed to the 36 reasons?
4. Are there correlational relationships between students' GPAs and their independent variable?

5. Methodology

5.1 Participants

The questionnaire targeted 4000 students in all AOU branches in KSA who have completed successfully 60 credit hours or more. The respondents in this study consisted of 629 (females =427; males =202), representing the three faculties (faculty of computer studies, faculty language studies and faculty business studies). Twenty (20) questionnaires were discarded as they were incomplete, as a result, 609 (females = 415; males =194) questionnaires were subjected to statistical analysis. Forty-five-point eight percent [(45.8%) of these participants are Saudi and the rest of them (54.2%) are non-Saudi. The ages of the participants ranged from less than 20 years to more than 40 years. The students were informed that their responses to the questionnaire would be kept confidential and would be used only for a research purpose. Table 1 provides more details about the participants.

Table1. participants' distribution according to gender, marital status, age, nationality, and GPAs

Category	Gender		Marital Status			Age					Nationality		GPAs		
	Male	Female	Single	Married	Others	20 years or less	21 – 25	26 – 30	31-40	over 40	Saudi	Non Saudi	Less than 2	2-3	3-4
Freq	194	415	421	164	24	42	339	124	79	25	279	330	17	258	275
%	31.9	68.1	69.1	26.9	3.9	6.9	55.7	20.4	13.0	4.1	45.8	54.2	2.8	42.4	45.2

5.2 Instrument

The instrument used in the present study was a questionnaire. A first draft was created; it consisted of 58 items. Then, it was given to a panel of five associate and assistant professors and two professors, who are experts in educational research and evaluation to ensure its face and content validity. Guided by the panel's comments and notes, a final draft of 36 items was developed. The last version of the questionnaire consists of two parts. Part 1 elicited participants' background (e.g. gender, age, marital status and so on). Part 2 consisted of 36 items dealing

with factors related to students, teaching and guidance, effective factors, students' family and residence and tests and exams.

It should be mentioned that the items of this instrument were tested for the internal consistency reliability estimate by using Cronbach's alpha, which yielded 0.81. Dornyei (2003) states that an instrument with a Cronbach's Alpha of 0.8 and above is considered as a very reliable instrument. The instrument was designed on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" with values 1-5 assigned to each alternative. The participants voluntarily filled this questionnaire. It was given in Arabic because the respondents are Arab native speakers. Twenty (20) questionnaires were discarded, as they were incomplete; as a result, 609 questionnaires were subjected to statistical analysis.

4.3 Data Analysis

The data were analyzed by using the SPSS version 25. Descriptive statistics; means, standard deviations (SD), frequency and percentages were utilized. Pearson correlation coefficient was used to determine if there was any relationship between the learners' variables and their GPAs. One-way analysis of variance (ANOVA) was used to find if there were significant differences regarding students' GPAs.

6. Results and discussion

As indicated earlier, the purpose of the present study is to explore the factors, which may contribute to AOU students' low GPAs. The responses of the participants on the questionnaire were calculated by statistical analysis in terms of means, standard deviations, one way analysis (ANOVA) and correlation.

The quantitative analytical techniques resulted in the identification of five major dimensions emphasizing distinct explanations. To put it another way, each factor is a set that contains a collection of reasons, and conferring to the participants, have negatively contributed to their GPAs. The following results and discussion of these factors are reported on the bases of the key questions that were formulated earlier.

Question 1

What are the factors that contribute to AOU students' low GPAs?

Students' factors

As shown in Table 2, the participants' responses seem to suggest that factors related to students play prominent roles in affecting their GPAs. Five items (i.e., 6, 7, 2, 8 and 9) received high agreement responses from the majority of the participants. A high mean score of agreement ($M= 4.54$) was recorded for item 6, "Difficulty in absorbing some academic courses negatively affects the student's GPA." Of the total number of respondents, 71.2 % strongly agreed, 13.0 % agreed and 14.6% somehow agreed. Item 7, "The student's weakness in English language negatively affects his/her GPA." with a high mean score ($M=4.30$). Of the total number of respondents, 59.7% strongly agreed, 15.0 % agreed and 21.4% somehow agreed, indicating the prominent role of students' English in their learning which can lead to low GPAs. This result is in line with studies conducted by Irfan Mushtaq & Shabana Nawaz Khan (2012) and (AL-Mutairi, 2011). Similarly, a high mean score of agreement ($M= 4.25$) was recorded for item 2, in which respondents generally agreed that their GPAs are affected negatively by their inability to comprehend some courses, which could be due to their poor level of English as the course material are in English. Of the total number of respondents, 51.8 % strongly agreed, 25.6 % agreed and 19.3% somehow agreed. Items also received high mean scores of agreements. Items 8, 9 and 3 also have high mean scores (4.03, 4.02 & 4.00). This result shows that students' lack of awareness regarding the importance of university studies, their ability to adapt to university' life and their failure to follow up and revise their courses on a regular basis affect negatively and positively their GPAs. As seen in Table 2, ninety point-three percent (90.3%), 94.3% and 93.0% generally agreed that their lack of awareness of the university studies affects their GPAs negatively, whereas their ability to adapt to the life of the university helps them to highly attain academic success that lead to high GPAs and being unable to follow up and revise in regular bases their courses lead to low GPAs.

Items 10, 11, 3 and 4 received remarkable agreement responses as their means are above 3.50 (3.88, 3. 78, 3.75 & 3.69). These items, as shown in Table 2, suggest that students' insufficient study skills, being unfamiliar with the university 'academic regulations and instructions, having weak infrastructure online lectures and being frequently absent from lectures lead to low GPAs. This result implies that the AOU needs to bear in mind the necessity of providing more orientation sessions and more regular meeting to keep such learners aware of all the university bylaws related to students' affairs. More, tutors should always check students' attendance.

A moderate mean score of agreement (M= 3.39) was recorded for item 12, which deals with students who are not in compliance with the times of lectures. Of the total number of respondents, 51.8 % strongly agreed, 46.1 % agreed and 26.9% somehow agreed, followed by item 1 " When a student depend on themselves rather than on their tutors, their GPA is negatively affected." received a mean score of 3.13. Forty-one point-six percent (41.6%) agreed and 19.4% somehow agreed, implying that students prefer to rely on tutors. Such a result can be due to the believe that tutors are most important factor in learning process and it could be due to inappropriate training/teaching to help students to be independent learners. Item 13 which is related to the act of copying or plagiarizing others' work scored the least mean score (2.50), indicating students' believe that such an act does not lead to good success.

Table 2. Percentages, means and SDs related to students' factors

Items	SD	D	SHA	A	SA	Mean	SD
1. When a student depend on themselves rather than on their tutors, their GPAs is negatively affected.	13.7%	25.4%	19.4%	17.5%	24.1%	3.13	1.387
2. Difficulty in comprehending some of the academic courses weakens the student's academic achievement.	0.8%	2.5%	19.3%	25.6%	51.8%	4.25	0.908
3. The student's failure to follow up and revise the courses on a regular basis negatively affects his/her academic	0.3%	5.3%	24.9%	32.8%	36.6%	4.00	0.926

Items	SD	D	SHA	A	SA	Mean	SD
4. Students' frequent absence from lectures weakens their academic achievement and GPAs.	5.0%	14.6%	18.9%	29.2%	32.3%	3.69	1.205
5. Students' weak infrastructure for online lectures negatively affects their GPAs.	9.7%	13.2%	15.2%	16.2%	45.7%	3.75	1.398
6. Difficulty in absorbing some academic courses negatively affects the student's GPA.	0.0%	1.2%	14.6%	13.0%	71.2%	4.54	0.782
7. The student's weakness in English language negatively affects his/her GPA.	0.7%	3.3%	21.4%	15.0%	59.7%	4.30	0.956
8. Students' lack of awareness of the importance of university studies negatively affects their GPAs.	2.6%	7.1%	18.3%	28.9%	43.1%	4.03	1.065
9. A student's ability to adapt to university life leads to outstanding academic achievement and therefore a high GPA	0.8%	6.1%	23.8%	28.9%	40.3%	4.02	0.981
10. Students' lack of sound study skills negatively affects their GPA.	1.8%	9.4%	22.2%	31.6%	34.9%	3.88	1.048
11. Students' lack of familiarity with the academic regulations and instructions of the university negatively affects their GPA	3.3%	13.3%	20.1%	29.0%	34.3%	3.78	1.152
12. Students' non-compliance with lecture times leads to a decline in their academic achievement.	6.3%	20.7%	26.9%	20.0%	26.1%	3.39	1.246
13. Students copy or plagiarize others' work leads to an increase in their GPAs.	22.8%	38.9%	13.9%	14.5%	9.9%	2.50	1.262

SD=strongly disagree, D=disagree, SHA=somehow agree, A=agree, SA=strongly agree

Teaching and guidance

Table 3 shows that 3 items (14, 17 & 18) received high agreement responses. A high mean score of agreement (M= 4.09) was recorded for item 14, that is dealing with the role of academic guidance. Of the total number of respondents, 48.6% strongly agreed, 23.1% agreed and 18.1% somehow

agreed, followed by item 17 ($M=4.04$). Of the total number of respondents, 49.3% strongly agreed, 19.6 % agreed and 19.6 % somehow agreed, indicating that tutor's quality of teaching plays a prominent role in students' performance. This result is in consistence with many studies (e.g. Darling-Hammond, 2000; Halabi, 2017; Blazar, 2015; Gershenson, 2016). Similarly, item 19, which is also related to students and tutors' inadequate interaction, reveals that students' GPAs can be negatively affected. This is supported by the high mean score of this item ($M=3.47$). Of the total number of respondents, 31.3% strongly agreed, 20.9% agreed and 19.1% somehow agreed. The inadequacy of the LMS (See, item 18) and weak interaction between learners and their tutor (item 19) also affect negatively students' GPAs. As seen, a high mean score of agreement ($M= 3.57$) of this item.

Table 3. Percentages, means and SDs related to teaching and guidance

Items	SD	D	SHA	A	SA	Mean	SD
14. Weak academic guidance in the faculty negatively affects the academic achievement of students.	1.3%	9.0%	18.1%	23.1%	48.6%	4.09	1.067
15. The large number of students in one session/class weakens their academic absorption.	7.8%	36.8%	17.1%	15.8%	22.5%	3.08	1.316
16. Online lecture leads to a lack of concentration and a weak GPA.	21.9%	23.2%	11.7%	8.2%	35.0%	3.11	1.607
17. The course tutor does not communicate the information/ideas clearly to the students, which negatively affects their GPAs.	2.5%	9.1%	19.6%	19.6%	49.3%	4.04	1.129
18. Inadequate academic content in the Learning Management System (LMS) negatively affects students' GPAs.	4.1%	21.7%	18.1%	24.7%	31.3%	3.57	1.248
19. Weak interaction between the student and their tutor negatively affects their GPAs.	7.6%	21.1%	19.1%	20.9%	31.3%	3.47	1.325

SD=strongly disagree, D=disagree, SHA=somehow agree, A=agree, SA=strongly agree

Affective factors

Students' anxiety in exams, their satisfaction, motivation, ambition, desire and interest have been considered as affective factors. As seen in Table 4, all means fell between 3.68 and 4.37 on a scale of 1 to 5, illustrating high agreement. Most of the participants of this study strongly agreed that students' anxiety during exams affects their GPAs negatively (ranked the highest with a mean score of 4.37). 'The increase of the student's motivation towards studying positively affects his/her GPA.' (Ranked the second with a mean score of 4.12). 'The student's low level of ambition towards studying negatively affects his/her GPA.' (Ranked the third with a mean score of 4.08). The enrollment of students in majors, which they are not interested in, affects their achievement negatively, (ranked the fourth with a mean score of 4.04). Similarly, item, 25 'Students' lack of interest in organizing their time negatively affects their GPAs.' (Mean=3.99). The satisfaction of students just to get the degrees with pass marks scored the least (Mean=3.68. This result generally ascertain that affective factors play an important role in students' achievements and GPAs.

Table 4. Percentages, means and SDs related to affective factors

Items	SD	D	SHA	A	SA	Mean	SD
20. Anxiety during the exam negatively affects the student's GPA.	0.3%	3.3%	16.3%	19.2%	60.9%	4.37	0.892
21. A student's satisfaction only to obtain a bachelor's degree with pass marks, leads to a decrease in his/her GPA.	3.5%	16.6%	18.6%	31.3%	30.0%	3.68	1.167
22. The increase of the student's motivation towards studying positively affects his/her GPA.	0.3%	4.0%	24.0%	26.4%	45.3%	4.12	0.931
23. The student's low level of ambition towards studying negatively affects his/her GPA.	1.3%	5.3%	21.1%	28.7%	43.6%	4.08	0.986
24. A student enrolls in a major he does not like negatively affects his achievement.	2.0%	6.1%	22.1%	25.6%	44.2%	4.04	1.042
25. Students' lack of interest in organizing their time negatively affects their GPAs.	2.0%	7.6%	19.6%	31.3%	39.5%	3.99	1.036

SD=strongly disagree, D=disagree, SHA=somewhat agree, A=agree, SA=strongly agree

Student's family and residence

Table 5 shows that students' family and residence generally affect students' GPAs negatively. This is clearly implied from the high and moderate score means of four items, i.e. 27, 28, 29 and 30. A high mean score of agreement (M= 3.79) was recorded for item 26, "Students' preoccupation with family requirements negatively affects their GPAs." Of the total number of respondents, 36.9% strongly agreed, 24.5% agreed and 22.9% somehow agreed. This result reveal that students being involved in family issues affect negatively their GPAs. Item 27, "Not allocating places at home for studying negatively affects the student's GPA." with a quite high mean score (M=3.48). Of the total number of respondents, 23.8% strongly agreed, 29.6% agreed and 22.5% somehow agreed. In the same vein, a moderate mean score of agreement (M= 3.20) was recorded for item 28, in which respondents generally agreed that their GPAs are affected negatively by their remoted residence from the university which make transportation difficult and results in being late for lectures and may spend less time on their academic activities and obligations. Of the total number of respondents, 17.8 % strongly agreed, 19.6% agreed and 17.2% somehow agreed. This result is in line with the findings of their inability to comprehend some courses, indicating the prominent role of students' residence. Item 29 is related to students' family cultural/educational level also scored a moderate mean (M=3.03). Of the total number of respondents, 17.8% strongly agreed, 19.6 % agreed and 21.4% somehow agreed

Table 5. Percentages, means and SDs related to student's family and residence

Items	SD	D	SHA	A	SA	Mean	SD
26. Students' preoccupation with family requirements negatively affects their GPAs.	3.8%	11.9%	22.9%	24.5%	36.9%	3.79	1.171
27. Not allocating places at home for studying negatively affects the student's GPA	5.6%	18.4%	22.5%	29.6%	23.8%	3.48	1.197

Items	SD	D	SHA	A	SA	Mean	SD
28. Student's distant residence from the university and the difficulty of transportation negatively affect his/her GPA.	8.3%	31.2%	17.2%	18.8%	24.5%	3.20	1.331
29. The weak cultural/educational level of the family negatively affects the student's GPA.	11.3%	29.9%	21.4%	19.6%	17.8%	3.03	1.288

SD=strongly disagree, D=disagree, SHA=somewhat agree, A=agree, SA=strongly agree

Tests and exams

As shown in Table 6, the nature, types, marking and administering tests and exams affect students' GPAs. This is clearly implied from the high and moderate score means of five items, i.e. 31, 32, 33, 34 and 36. A high mean score of agreement (M= 4.68) was recorded for item 31, "Difficult tests/exams for some courses lead to a low student' GPA." Of the total number of respondents, 81.8% strongly agreed, 7.9% agreed and 7.6 % somehow agreed. Item 32, which deals with inadequate time given to students for the tests/ exams scored a high mean score (M=4.36). Of the total number of respondents, 67.8% strongly agreed, 10.2% agreed and 14.0% somehow agreed. Items 33, "Tutors' lack of accuracy and objectivity in marking students' answers leads to a weak GPA." This item scored, as seen in Table 6, a high mean (4.07) of agreement. Of the total number of respondents, 46.2% strongly agreed, 26.7% agreed and 17.1 % somehow agreed. Similarly, item 34, which states that using just open-ended questions affect students' GPAs negatively, scored the same high mean (4.07) of agreement. Finally, item 36, related to technical problems encountering students during online exams weaken students' concentration which directly or indirectly affect their GPAs, scored moderate mean (M=3.75) of agreement. Thirty-seven point six (37.6%) strongly agreed, 25.9% agreed and 16.8% somehow agreed. This result implies students' need for more guidance and computer skills.

Table 6, Percentages, means and SDs related to tests and exams

Items	SD	D	SHA	A	SA	Mean	SD
30. Difficult tests/exams for some courses lead to a low student' GPA.	1.2%	1.5%	7.6%	7.9%	81.8%	4.68	0.774
31. The student's allotted time for the tests/exams is not adequate to answer the questions leads to a low GPA.	1.8%	6.3%	14.0%	10.2 %	67.8%	4.36	1.050
32. Tutors' lack of accuracy and objectivity in marking students' answers leads to a weak GPA.	1.5%	8.6%	17.1%	26.7 %	46.2%	4.07	1.052
33. Using only open-ended questions (e.g., essays) in exams negatively affects the student's GPA.	4.0%	10.6 %	15.1%	15.1 %	55.3%	4.07	1.218
34. Using only objective questions (multiple choices or true and false) in exams negatively affects the student's GPA.	42.5 %	33.2 %	6.9%	6.6%	10.7%	2.10	1.311
35. Facing technical problems during online exams weaken students' concentration and negatively affect their academic performance and GPAs.	6.9%	12.7 %	16.8%	25.9 %	37.6%	3.75	1.271
36. Online exams lead to poor educational achievement and negatively affect his/her GPA.	44.7 %	30.1 %	6.6%	6.1%	12.5%	2.12	1.368

SD=strongly disagree, D=disagree, SHA=somewhat agree, A=agree, SA=strongly agree

Question 2

What are the major factors (reasons) that highly contribute to the negative effect of learners' GPAs?

As presented and discussed above, out of 36 items related to factors affecting students' GPAs, ten (10) factors scored high means. They are related to tests and exams (30, 31 & 32), students' abilities to absorb and comprehend some of the academic courses and their English level (6, 7 & 2), affective factors, i.e. anxiety, motivation and ambition (20, 22 & 23) and the remaining factor is related to academic guidance, item 14. It is worth pointing out that these factors are interrelated. As shown in item 30, the majority of the participants, a mean score of 4.68, agreed that 'Difficult tests/exams for some courses lead to a low student' GPA', followed by students' difficulty to absorb some academic courses, item 6, with a mean score of 4.54, which indicates that this problem can be due to students'

weakness in English, the syllabus and teaching. Students' anxiety during exam that negatively affect their GPAs (item 20), ranked the third with a mean score of 4.37. Similarly, the time allocated for the tests/exams (item 31, with a mean score of 4.36), according to the participants, is inadequate and negatively affect their GPAs, followed by students' level of English as being weak (item 7, with a mean score of 4.30) and leads to low GPAs. Students' difficulty to comprehend some academic courses, item 2, with a mean score of 4.25, can also negatively affect their GPAs. The increase of students' motivation towards studying, affects positively their GPAs, item 22, ranked the seventh with a mean score of 4.12, followed by 'academic guidance in the faculty' (item 14, with a mean score of 4.09) that, in accordance with the participants' response, leads to low GPAs. Students' low ambition to study, item 23, ranked the ninth factor with a mean score of 4.08, followed by item, 32 "Tutors' lack of accuracy and objectivity in marking students' answers leads to a weak GPA" with a score of 4.07, implying that either students try to find excuses for their low achievement or there might be some tutors who do not abide by the roles and ethics of marking.

Table 7. Percentages, means and SDs related to the major factors highly affecting learners' GPAs

Items	SD	D	SHA	A	SA	Mean	SD
30. Difficult tests/exams for some courses lead to a low student's GPA.	1.2%	1.5%	7.6%	7.9%	81.8%	4.68	0.774
6. Difficulty in absorbing some academic courses negatively affects the student's GPA.	0.0%	1.2%	14.6%	13.0%	71.2%	4.54	0.782
20. Anxiety during the exam negatively affects the student's GPA.	0.3%	3.3%	16.3%	19.2%	60.9%	4.37	0.892
31. The student's allotted time for the tests/exams is not adequate to answer the questions leads to a low GPA.	1.8%	6.3%	14.0%	10.2%	67.8%	4.36	1.050
7. The student's weakness in English language negatively affects his/her GPA.	0.7%	3.3%	21.4%	15.0%	59.7%	4.30	0.956
2. Difficulty in comprehending some of the academic courses weakens the student's academic achievement.	0.8%	2.5%	19.3%	25.6%	51.8%	4.25	0.908
22. The increase of the student's motivation towards studying, positively affects his/her GPA.	0.3%	4.0%	24.0%	26.4%	45.3%	4.12	0.931

Items	SD	D	SHA	A	SA	Mean	SD
14. Weak academic guidance in the Faculty negatively affects the academic achievement of students.	1.3%	9.0%	18.1%	23.1%	48.6%	4.09	1.067
23. The student's low level of ambition towards studying negatively affects his/her GPA.	1.3%	5.3%	21.1%	28.7%	43.6%	4.08	0.986
32. Tutors' lack of accuracy and objectivity in marking students' answers leads to a weak GPA.	1.5%	8.6%	17.1%	26.7%	46.2%	4.07	1.052

Research Question 3

Are there significant differences among AOU students regarding their GPAs attributed to the 36 reasons?

Using one-way ANOVA test as shown in Table 8, it is found that among the 36 study items, only 5 of them are significant difference in students' GPAs. These items are as follows:

- 1- Students' lack of awareness of the importance of university studies negatively affects their GPAs ($p < 0.05$, $F = 3.23$).
- 2- Students' lack of interest in organizing their time negatively affects their GPA ($p < 0.5$, $F = 3.61$).
- 3- "The increase of the student's motivation towards studying positively affects his/her GPA ($p < 0.05$, $F = 3.18$).
- 4- When a student depends on themselves rather than on their tutors, their GPA is negatively affected ($p < 0.05$, $F = 3.82$).
- 5- Using only open-ended questions (e.g., essays) in exams negatively affects the student's GPA ($p < 0.05$, $F = 4.79$).

Table 8. One way ANOVA of students' GPAs

GPA classes		Sum of Squares	df	Mean Square	F	Sig.
Students' lack of awareness of the importance of university studies negatively affects their GPAs.	Between Groups	6.885	2	3.443	3.230	0.040
	Within Groups	583.058	547	1.066		
	Total	589.944	549			
Students' lack of interest in organizing their time negatively affects their GPAs.	Between Groups	7.218	2	3.609	3.606	0.028
	Within Groups	545.474	545	1.001		
	Total	552.692	547			

The increase of the student's motivation towards studying positively affects his/her GPA.	Between Groups	5.304	2	2.652	3.182	0.042
	Within Groups	453.413	544	0.833		
	Total	458.717	546			
When a student depends on themselves rather than on their tutors, their GPA is negatively affected.	Between Groups	14.727	2	7.363	3.819	0.023
	Within Groups	1052.716	546	1.928		
	Total	1067.443	548			
Using only open-ended questions (e.g., essays) in exams negatively affects the student's GPA.	Between Groups	14.235	2	7.118	4.788	0.009
	Within Groups	805.794	542	1.487		
	Total	820.029	544			

Research Question 4

Are there any significant relationships of students' GPAs and independent variables; students ages, nationality, year of admission etc.?

Person correlation coefficient was calculated for the independent variables and summarized in Table 9. As expected, it was found that there was no significant correlation among most variables. Significant values at level less than 0.01 and less than 0.05.

It is seen that 8 independent variables (age, marital status, gender, monthly income, faculty, branch, specialty in high school, and the type of high school) have no correlations with students' GPAs. This result is inconsistency with many studies conducted in different sittings. For example, Shoukati, Zubair, Fahad, Hamid and Awais (2013) reported that age, social economic status of the father or guardian status influenced the graduate students' academic performance. Smith and Naylor (2004) also found that students who graduated from private schools tend to score higher GPAs than those who graduated from public schools. Similarly, Erdem, Şentürk, and Arslana (2007) reported that the parents' education, the type of high school graduates, gender and other factors affect the GPAs. The present study, however, is consistent with the study of Lotsi (2019) which revealed no effect of gender and students' GPAs.

However, students' GPAs have correlated with six independent variables. Students' GPAs have scored significant high correlations ($r=0.178$, $p<0.01$ and $r=0.156$, $p<0.01$) with their nationalities (Saudi and non-Saudi) and high school grades, indicating that some students from different nations may study harder than their peers due to factors which may be related to their financial or socio-educational backgrounds, followed by high school graduation year which has scored a significant correlation ($r=0.087$, $p<0.05$) with students' GPAs, which may indicate that the more students being fresh school graduates, the more they get high GPAs. A high negative significant correlation ($r=-.184$, $p<0.05$) between admission in university and students' GPAs has been found as well. It is noted that students' jobs and their completed credits have scored negative significant correlations ($r=-.100$, $p<0.05$ and $r=-.102$, $p<0.05$) with their GPAs.

Table 9: correlations coefficients between students' GPAs and Independent variables

Correlation coefficient	Age	Marital	Gender	Job	Monthly income	Nationality	Admission in University	Faculty	Branch	Completed credits	High School grades(Percentage)	Specialty in High School	Type of High School	High School Grad. Year
GPAs	-0.043	-0.034	0.021	-.100*	0.004	.178**	-.184**	-0.045	-0.048	-.102*	.156**	0.036	0.029	.087*

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

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

7. Conclusions and recommendations

In accordance with respondents, it can be concluded that:

1. Students' low GPAs can be due to their inability to absorb some academic courses (More than 84% of students), lack of awareness of the university studies, lack of interest in organizing their time, their dependence on their tutors and their weakness in English level (60% of students.)
2. Difficult tests/exams for some courses, using open-ended questions and inadequate time allocated for the

tests/exams and tutors' lack of accuracy and objectivity in marking students' answers leads to low GPAs.

3. Students enrollment in majors, which they are not interested in, and students' enrolments in family issues and without having places at home for studying affect negatively their GPAs.

The following are recommendations based on the conclusions provided earlier:

1. Reconsidering English language courses contents, methods of teaching, evaluation process to cope with course syllabus.
2. Explaining and clarifying on orientation day/s the importance of university studies in order to familiarize students with the nature of each programme/ track with the improvements of academic guidance, information about courses and study plans.
3. Varying the types of questions to include both objective (e.g. MCQ) and subjective (e.g. essay).
4. Having meeting with students' guardians or parents to familiarize them with the importance of following up their daughters and sons and facilitating their studies by providing appropriate learning environment at home.
5. Increasing students' motivation towards studying by having activities and meeting with alumni students (previous AOU graduates) who have been successful in their careers.
6. It is recommended to conduct a detailed study about reasons of anxiety among students during exams.

At the end, we thank the research fund of Arab Open University, Saudi Arabia, for supporting this project.

References

- Alabdulkarem, A., Alhojailan, M. & Alabdulkarim, S. (2021). Comprehensive Investigation of Factors Influencing University Students' Academic Performance in Saudi Arabia. *Education Sciences*, 11(8),1-17. <https://doi.org/10.3390/educsci11080375>
- AL-Mutairi, A. M. (2011). Factors affecting business students' performance in Arab Open University: The case of

- Kuwait. *International Journal of Business and Management*, 6(5): 146-155.
- Andrea, C., Angela, T. R. and Heather, C. (2012). Cross-discipline investigation of the relationship between academic performance and online resource access by distance education students. *The Journal of the Association for Learning and Technology*, 20: 1-14.
- Astin, A.W. (1984). Student Involvement: A Developmental Theory for Higher Education. *Journal of College Student Involvement*, 40(5): 518-529.
- Atieh, S. (1997). Student perceptions of the causes of low performance in Principles of Accounting: a case study in Saudi Arabia. *JKAU: Econ. & Adm.*, 10: 35-50.
- Banahene, S. , Jay Kraa, J. and Aseye Kasu, P. (2018) Impact of HEDPERF on Students' Satisfaction and Academic Performance in Ghanaian Universities; Mediating Role of Attitude towards Learning. *Open Journal of Social Sciences*, 6: 96-119.
doi: [10.4236/jss.2018.65009](https://doi.org/10.4236/jss.2018.65009).
- Baothman, A., Aljefri, H., Agha, S., Khan, M. A. (2018). Study habits of health science students at King Saud bin Abdulaziz University for Health Sciences, Jeddah, Saudi Arabia. *SAGE Open*, 8(2). 1-6.
doi:[10.1177/2158244018778092](https://doi.org/10.1177/2158244018778092)
- Battle, J., & Lewis, M. (2002). The increasing significance of class: The relative effects of race and socioeconomic status on academic achievement. *Journal of Poverty*, 6(2): 21-35.
- Billups, F. D. (2008). Measuring College Student Satisfaction: A Multi-Year Study of the actors Leading to Persistence. Paper presented at the 39th annual meeting of the Northeastern Educational Research Association, October 23, 2008, Rocky Hill, CT.
- Birch, E.R.; Miller, P.W. (2007). The influence of type of high school attended on university performance. *Aust. Econ.*, 46, 1–17.
- Blazar, D. (2015). Effective teaching in elementary mathematics: Identifying classroom practices that support student achievement. *Economics of Education Review*, 48, 16-29
- Blomfield. C. & Barber, B. (2010). Australian Adolescents' Extracurricular Activity Participation and Positive Development: Is the Relationship Mediated by Peer Attributes? *Australian Journal of Educational & Developmental Psychology*, 10: 114-128
- Bozic, R. (2007). Making It through the First Year of College: The Role of Students' Economic Resources, Employment, and Living Arrangements. *Sociology of Education* 80 (3): 261-285.

- Bozic, R. (2008). Student Employment during the Transition College in the United States. Research Report: RTI Press Publication RR-0001-0802.
- Bryant, J. L. (2009). Linking Student Satisfaction and Retention. Retrieved on March 4, 2011 from <https://www.noellevitz.com/NR/rdonlyres/A22786EF-65FF-4053-A15A CBE145B0C708/0/LinkingStudentSatis0809.pdf>
- Carlson, S. (2005). The net generation goes to college. *The Chronicle of Higher Education*, 52(7), 34.
- Chambers, E. A., & Schreiber, J. B. (2004). Girls' academic achievement: Varying associations of extracurricular activities. *Gender and Education*, 16(3), 327-346
- Ciobanu, A., and Ostafe, L. (2014). Student Satisfaction and its Implications in the Process of Teaching. *Acta Didactica Napocensia*, 7, (4), 31-36.
- Cohn, E., S. Cohn, D. C. Balch and Bradley, J. (2004). Determinants of Undergraduate GPAs: SAT Scores, High-School GPA and High-School Rank, *Economics of Education Review*, 23:577-586.
- Considine, G.; Zappalà, G. (2002). The influence of social and economic disadvantage in the academic performance of school students in Australia. *Journal of Sociology* 38(2):129-148
- Cooper, H., Valentine, J. C., Nye, B., and Lindsay, J. J. (1999). Relationships between five after-school activities and academic achievement. *J. Educ. Psychol.* 91: 369–378.
- Corts, D. P., Lounsbury, J. W. Saudargas, R. A., Tatum, H. E. (2000). Assessing Undergraduate Satisfaction With An Academic Department: A Method And Case Study. *College Student Journal*, 34 (3): 399-410.
- Dao, Ngoc Tien & Doan, Quang Hung & Nguyen, Son Tung (2016). [The relation between university GPA and family background: Evidence from a university in Vietnam, MPRA Paper 71892](#), University Library of Munich, Germany.
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of statepolicy evidence. *Education Policy Analysis Archives* 8 (1). 1-44.
- Darling, N. (2004). Participation in Extracurricular Activities and Adolescent Adjustment: Cross-Sectional and Longitudinal Findings, *Journal of Youth and Adolescence*, 34 (5): 493–505. DOI: 10.1007/s10964-005-7266-8

- Darling, N. Caldwell, L. and Smith, R. (2005). Participation in School-Based Extracurricular Activities and Adolescent Adjustment. *Journal of Ljnsure Research*, 37(I): 51-76.
- Dayioğlu, M. and S. Türüt-Aşık, 2007, Gender Differences in Academic Performance in a Large Public University in Turkey, *Higher Education*, 53, 255–277.
- Dornyei, Z. (2003). Questionnaires in second language research: Construction, administration, and processing. Mahwah, New Jersey: Lawrence Erlbaum.
- Eamon, M.K (2005). Social demographic, school, neighborhood, and parenting influences on academic achievement of Latino young adolescents. *Journal of Youth and Adolescence*, 34(2):163-175.
- Ekundayo,H.T. and Alonge,H.O. (2012). Human and material resources as correlates of academic performance of private and public secondary school students in Ondo state, NIGERIA. *European Scientific Journal*, 8(10): 170-180
- Elliott, K. M. (2003). Key determinants of student satisfaction. *Journal of College Student Retention*, 4(3): 271-279
- Elliott, K. M., & Healy, M. A. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of Marketing for Higher Education*, 10: 1-11.
http://dx.doi.org/10.1300/J050v10n04_01
- Eom, S. B., Wen, J., & Ashill, N. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Decision Sciences Journal of Innovative Education*, 4(2): 215-235.
- Erdem, C., Şentürk, I. and Arslana, C. (2007). Factors Affecting Grade Point Average of University Students. *The Empirical Economics Letters*, 6(5): 359-368.
- Gershenson, S. (2016). Linking teacher quality, student attendance, and student achievement. *Education Finance and Policy*, 11(2).
- Graetz, B. (1995). Socio-economic status in education research and policy'in John Ainley et al. Socio-economic status and school education DEET/ACER Canberra. *J. Pediatric Psychol.* , 20: 205–216.
- Halabi. M. S. (2017). The Role of the Tutors in supporting Learners in a Higher Education Distance Language Learning Programme

Environment in Saudi Arabia, An published PhD thesis , The University of Sheffield.

Harb, N. and El-Shaarawi, A. (2006): Factors Affecting Students' Performance. *Journal of Business Education*, 82(5): 282-290.

Hijazi, S.T. and Naqvi, S. (2006) Factors Affecting Students' Performance: A Case of Private Colleges. *Bangladesh e-Journal of Sociology*, 3: 1-10.

Irfan Mushtaq Shabana Nawaz Khan (2012). Factors Affecting Students' Academic Performance.

Global Journal of Management and Business Research, 12 (9), 17-22.

Jordan, W. J., and Nettles, S. M. (1999). How students invest their time outside of school: Effects on school-related outcomes. *Social Psychol. Educ.* 3: 217–243.

Kelepolo, E., N. (2011). The relationship between participation in extracurricular activities and Utah's proficiency assessments of students in a suburban school district. UNLV Theses, Dissertations, Professional Papers, and Capstones. 1314.
<http://dx.doi.org/10.34917/3039381>

Kerz̃iĉ D, Alex JK, Pamela Balbontín Alvarado R, Bezerra DdS, Cheraghi M, Dobrowolska B, et al. (2021) Academic student satisfaction and perceived performance in the elearning environment during the COVID-19 pandemic: Evidence across ten countries. *Plos One* 16(10): e0258807. <https://doi.org/10.1371/journal.pone.0258807>

Kidane A. G. (2022). A Bayesian Approach to Investigating Factors Influencing Polytechnic College Students' Academic Achievement. *Education Research International*, 1(1): 1-10.
<https://doi.org/10.1155/2022/6181800>

Lotsi, A. (2019). Statistical analysis of factors affecting grade point average of level 100 students: A case study of University of Ghana Legon Campus. *Journal of Mathematics Education*, 4(2): 87-96.
<http://doi.org/10.31327/jomedu.v4i2.1013>

Massoni, E. (2011) "Positive Effects of Extracurricular Activities on Students," *ESSAI*: Vol. 9, Article 27.
<http://dc.cod.edu/essai/vol9/iss1/27>

Muleta Akessa, G. & Gurmessa Dhufera, A. (2015). Factors that Influences Students Academic Performance: A Case of Rift Valley University, Jimma, Ethiopia, *Journal of Education and Practice*, 6(22), 55-63.

- Mushtaq, I., & Khan, S. N. (2012). Factors Affecting Students' Academic Performance. *Global Journal of Management and Business Research*, 12(9): 16-22.
- Mussie T. Tessema , Kathryn J. Ready & Marzie Astani (2014) Does Part-Time Job Affect College Students' Satisfaction and Academic Performance (GPA)? The Case of a Mid-Sized Public University. *International Journal of Business Administration*, 5(2): 1-10. doi:10.5430/ijba.v5n2p.
- Naylor, R & Smith, J. (2004). Determents of educational success in higher education, In Geraint Jones & Jill Jones (edits) *International handbook on the Economics of Education*, USA, Edward Elgar. pp. 415-461.
- Okello-Obura, C. and Magara, E. (2008). Electronic information access and utilization by Makerere University in Uganda [online]. <http://creativecommons.org/licenses/by/2-0>
- Özgüngör, S. (2010). Identifying Dimensions of students' ratings that best predict students' self efficacy, course value and satisfaction. *Eurasian Journal of Educational Research*, 38: 146-163.
- Peters, O. (2001). *Learning and teaching in distance education*. New York: Routledge.
- Reeves, D. B. (2008). The extracurricular advantage. *Education Leadership*, 86-87.
- [Richelle V. A.](#) & Erik, B. (2019). Impact of Time Management Behaviors on Undergraduate Engineering Students' Performance. *SAGE Open*, 9 (1). 1-11. doi.org/10.1177/2158244018824506
- Roach, V. and Lemasters, L., 2006. Satisfaction with online learning: A comparative descriptivestudy. *Journal of Interactive Online Learning*, 5(3), 317-332
(20) (PDF) LEARNER'S SATISFACTION ON ONLINE EDUCATION DURING COVID -19 LOCKDOWNPERIOD. Available from: https://www.researchgate.net/publication/348150688_LEARNER'S_SATISFACTION_ON_ONLINE_EDUCATION_DURING_COVID_-19_LOCKDOWNPERIOD [accessed May 23 2022].
- Salem, Al-Mously, Nabil, Al-Zalabani, Al-Dhawi, Al-Hamdan (2013) Academic and socio-demographic factors influencing students' performance in a new Saudi medical school. *Med Teach.*, 35(Suppl 1) :S83–S89.

- Shea, P. J., Pickett, A. M., & Pelz, W. E. (2003). A follow-up investigation of "teaching presence" in the SUNY Learning Network. *Journal of Asynchronous Learning Networks*, 7(2): 61-80.
- Shoukat Ali, Zubair Haider, Fahad Munir, Hamid Khan, Awais Ahmed (2013). Factors Contributing to the Students Academic Performance: A Case Study of Islamia University Sub-Campus. *American Journal of Educational Research*. 1(8): 283-289. doi: 10.12691/education-1-8-3.
- Singh, S. P., Malik, S. & Singh, P. (2016). Factors Affecting Academic Performance of Students, *Indian Journal of Research*, 5 (4): 176-178.
- Miller, R. & Win, R. (2005). The Effects of Individual and School Factors on University Students' Academic Performance. [*Australian Economic Review*](#), 38(1):1-18.
- Stein, D. S., Wanstreet, C. E., Calvin, J., Overtom, C., & Wheaton, J. E. (2005). Bridging the transactional distance gap in online learning environments. *The American Journal of Distance Education*, 19(2): 105-118.
- Ten Eyck R.P. Tews M. & Ballester J.M. (2009). Improved medical student satisfaction and test performance with a simulation-based emergency medicine curriculum: a randomized controlled trial. *Annals of Emergency Medicine An International Journal*, 4(5):684-691.
- Tessema, M., Ready, K. & Yu, W. (2012). Factors Affecting College Students' Satisfaction with Major Curriculum: Evidence from Nine Years of Data. *International Journal of Humanities and Social Science*, 2(2), 34-44.
- Tinto, V. (1999). Taking Student Success Seriously: Rethinking the First Year of College. *NACADA Journal* 19 no. 5: 5-9
- Urien, A. S. (2003). Determinants of Academic Performance of HEC-Lausanne Graduates, a published paper on the internet, Retrieved 30 May, 2021, from: <http://www.hec.unil.ch/modmacro/recueil/Sakho.pdf>.
- Watkins, A. B. (2004). The Effects of Participation in Extracurricular Activities on the Mean Grade Point Average of High School Students in a Rural Setting, PhD diss., University of Tennessee. https://trace.tennessee.edu/utk_graddiss/4580
- Watkins, A. B. (2004). The effects of participation in extracurricular activities on the mean grade point average of high school students

in a rural setting (Doctoral dissertation). ProQuest Dissertations and Theses Database. (UMI 3148314).

Witowski, L.L.(2008) The relationship between instructional delivery methods and student learning preferences: what contributes to student satisfaction in an online learning environment? A Ph.D Dissertation. Retrieved on December 18, 2021
<https://www.proquest.com/openview/fcd530e4f4/1?pq-origsite=gscholar&cbl=18750>.

Young, JW. and JL. Fisler, (2000). Sex Differences on The SAT: An Analysis of Demographic and Educational Variables, Research in Higher Education, 41(3), 401-416.