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## ***Positive Effects of Residence Challenges: The Impact of being Successful on Academic Achievement***

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### ABSTRACT

The merit score included co-curricular activity at university. The merit score was determined based on the activity involved during their academic session by university students. The study was conducted to determine the influence of the merit score obtained by engaging in campus activities on the academic performance of students and to determine the relationship between academic performance, year, course, and gender. This study of undergraduate students was a cross-sectional study. Stratified random sampling and then accompanied by systematic random sampling were the methods of sampling used. In this study, 174 students participated, with an 85.3 percent response rate. The results of this analysis showed that the merit scores had an overall weak academic performance correlation. However, it is also found that according to the year of study, the merit scores were not statistically significant and that gender and courses was a significant predictor of the merit score. The merit score associated with gender was shown to be the result. Compared to female students, male students are more involved and this can impact their academic performance. In balancing life between co-curricular activities that are required for the creation of generic skills and academic achievement, students should be very thoughtful.

**Key words:** Students, Merit score, Academic performance, Residence, University

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### INTRODUCTION

Merit scores are a ranking scheme used to assess the level of achievement of students in extracurricular activities. For university students to get a residency at college, the merit score is primarily necessary. The benefits of merit scoring systems are that they can be helpful for students who deliberately seek the grades, such as helping students to discover outside academics' strengths and talents. According to Skipper & Keup (2017), compared to those who are only a committee in an organization, the student who is on the executive board has no apparent impact on their academic performance as the role does not influence the academic performance [1]. Students who are more dedicated to club events often have better academic results [2].

Indeed, the additional co-curriculum practices are part of the life of a university. Improving their critical thinking skills, time management, academic, and analytical maturity, is assumed that it has positive effects on students [3]. The participation in these activities, however, raises the question of its effect on academic performance using CGPA as the indicator. Based on the study of Bakoban and Aljarallah (2015), the extra co-curricular activities (ECA) do not deter students from earning good CGPA because they have a higher GPA than those who did not engage in ECA. They found that the time spent participating in ECA did not influence the time

spent on learning by students generally. Furthermore, the relationship between hours of co-curriculum participation and GPA showed a weak negative correlation, but there was no substantial correlation [4].

Oberle *et al.* (2020) research supports the hypothesis that ECA has higher academic achievement among high school athletics students than non-athletic ones [5]. Furthermore, academic success does not depend exclusively on extra co-curricular activities. Demographics factors, student engagement, and active learning have also been shown to be strongly linked to the CGPA of students [6].

The moment of participation may have either a positive or negative impact on students, according to Zacherman and Foubert (2014) [7]. Participation in co-curricular activities to some degree increases academic success in terms of CGPA, with the hours expended having the detrimental effect of more than 30 hours a week. In short, ECA participation can be a challenge to the academic success of students, but the main factor for successful academic achievement depends on the actions of students through good time management and self-discipline. Despite the benefits, students may also affect their academic results as students need to be persistent and take a lot of time to engage in the activities. But do merit scores impact students' academic performance? And what impact do merit scores have between courses and gender? The purpose of this research was, therefore, to study the impact of merit scores on academic performance among students from different years and courses.

## MATERIALS AND METHODS

This study involved undergraduates of a research university. The sampling method used is stratified random sampling between the program and randomly selected subjects within the program using systematic sampling. The merit scores of the respondents were calculated by counting the score for each position of the participant that has held for a club or society. Besides, the number of hours of activity was also measured and given marks according to the hours spent. For example, the president of the club is given 10 marks, the vice president is given 9 marks, the secretary and treasurer is given 8 marks, the exco club is given 6 marks, and a member is given 3 marks, respectively. This is associated according to the number of meetings and activities held based on the duration of the activity.

## RESULTS AND DISCUSSION

A total of 174 students participated in this study. Most of the respondents were female (85.06%). Respondents' age ranged from 18 to 35 and above, with most of them fall in the age range of 18-24 (98.28%, n=171) followed by the range of 25-34 (1.72%, n=3). 169 respondents stayed on campus (97.13%) while only 5 stayed off campus (2.87%). Most of the students from biomedical science (47.13%) followed by Optometry (22.99%), Nutrition (17.82%) and Dietetic (12.06%) based on **Table 1**.

**Table 2** showed the comparison between the year of study with merit score. The comparison was determined using the independent t-test. There were 100 first-year students and 74 second-year students participating in this study. The mean merit score of first-year students was  $(17.19 \pm 11.16)$  and second-year students was  $(17.04 \pm 10.40)$ . There was no significant mean difference in merit score between the year of study ( $t=0.091$ ,  $p>0.05$ ). Based on the result, the male showed a higher mean of merit score  $(23.69 \pm 16.51)$  while the female indicated that the mean of merit score for the female students was  $(15.97 \pm 9.07)$ . The statistical analysis showed that the mean difference of merit score between gender was significant ( $t=2.166$ ,  $p<0.05$ ).

The mean score of merit score was  $(16.02 \pm 10.68)$  and  $(17.40 \pm 12.51)$  for the program of biomedical science and optometry, respectively. Besides, the mean score of merit score was  $(18.97 \pm 10.53)$  and  $(18.19 \pm 8.11)$  for the program of nutrition and dietetic. However, there was no significant mean difference between program and merit score as ( $F=0.647$ ,  $p>0.05$ ). According to correlation analysis, it was indicated that there was a weak correlation between merit score and academic performance ( $r=-0.038$ ,  $p>0.05$ ).

In **Table 3**, multiple linear regression was done to determine the significant predictor for merit score. Gender was a significant predictor for merit score and there was a negative relationship between merit score and academic performance and a positive relationship between merit score and year of study.

According to **Table 4**, based on two-way ANOVA, gender and courses are the main effect factors. The interaction factor was gender and courses. The results showed that gender was significant ( $F=9.081$ ,  $p<0.05$ ). The interaction factor was significant with  $F=3.586$ ,  $p<0.05$ . This showed that the influence of the gender factor depends on the impact of the types of courses taken by the student.

**Table 1.** Demographic Profile

Demographic Profile	Frequency (N)	Percentage (%)
Gender		
Male	26	14.94
Female	148	85.06
Age		
18-24	171	98.28
25-34	3	1.72
35 and above	0	0
Program		
Biomedical Science	82	47.13
Optometry	40	22.99
Nutrition	31	17.82
Dietetic	21	12.06
Year of Study		
First year	100	57.47
Second year	74	42.53
Residency		
In campus	169	97.13
Off campus	5	2.87

**Table 2.** Comparison of Mean Merit Score between Year of Study, Gender and Program

	Mean	SEM	t	p
Year of study				
Year 1	17.19	11.16	0.90	0.928
Year 2	17.04	10.39		
<b>Gender</b>				
Male	23.69	16.51	2.191	0.028*
Female	15.97	9.07		
<b>Program</b>				
Biomedical	16.02	10.68	1.031	0.359
Optometry	17.40	12.51		
Nutrition & Dietetic	18.65	9.55		

\*p&lt;0.05

**Table 3.** Multiple Linear Regression of Merit Score based on Predictor Gender, Year and Academic Performance

	B	Std Error	t
Constant	32.606	6.338	5.144
Gender	-7.538	2.289	-3.294*
Year	.193	1.628	.119
Academic performance	-.569	1.451	-.392

\*p&lt;0.05

**Table 4.** The Interaction Effect of Merit Score between Courses and Gender

	Mean Square	F	p
Courses	95.682	.890	.412
Gender	975.929	9.081	.003*
Gender x Courses	385.399	3.586	.030*

\*p&lt;0.05

Students in the first and second years are similarly involved due to their academic schedule, which is equally versatile and open. Based on the data obtained from the questionnaire, the average credit hour for first-year students of the four programs selected is 19, whereas the average credit hour for second-year students of the four programs selected is 19.25, suggesting that both first-year and second-year students, irrespective of the year of study, have the same academic burden.

Besides, in every program, generic skills and soft skills are stressed and applied in the curriculum, as the infusion of soft skills into the higher education curriculum is the most realistic and successful way to holistically improve all aspects of generic skills [8]. Only excellent academic performance is not adequate to meet this rapidly changing age that needs more professional and outstanding soft skills and generic skills in graduate students [9].

Students in the first and second years will also choose to engage in extracurricular activities until they enter the third year, as some programs may concentrate on university studies during the third and fourth years. Co-curricular activities can strengthen their soft skills, leadership skills, technical abilities, and attitude [9]. Therefore, being actively involved would offer students the advantages of growing their merit score and this will guarantee that they will stay on campus since there is a high rent outside the campus. Besides, successful participation in co-curricular activities will strengthen their soft skills and this is one of the areas to be used after graduation [10]. Students who live on campus and off-campus are similarly involved in extracurricular activities with on-campus hostels in general, students get a high merit score because they are also vying to enter campus residency because the rental cost for off-campus is higher than on-campus due to facilities.

It reveals that male students are more involved than female students because male students are more drawn to outdoor activities rather than just sitting in the room based on the results obtained. Males are more engaged than females in sports-related events because, unlike women, males enjoy sports. Earlier research revealed that in leisure time, males are more active than females, but not all were clear. Men are more likely to participate in activities that require their expertise or even physical strength than women [11].

Other than attracted to outdoor, according to the number of students, the other factor in males is lower in number compared to females, so the likelihood of a course allowing a male into the courses is higher because the competition is lower compared to females. Some courses require endurance, considering physical strength, and physical work tends to embrace men because they are better at technical work [12].

Males tend to be perceived and wider social networks in terms of position, so they tend to get a higher position in an organization [13]. Besides, men are said to be able to decide without contemplating personal affairs and feelings alone [14]. As a result, as they are more successful, the merit score obtained by males was higher than females and tends to get higher positions such as director.

There was no substantial mean difference in merit scores between programs in this sample. Students may engage openly in extra-curricular activities that they are involved in without their curriculum being limited. Research university students are equally interested in joining events that will provide them with merits since they need to gather as many merits as possible to ensure that they can remain at the residence college until the next study session [15].

Based on the data obtained in the questionnaire, the average credit hours per program for the first and second years were 19.5 (dietetic), 20 (optometry), 18.5 (nutrition), and 18.5 (biomedical science) respectively. The credit hours of each program do not vary much, indicating that students have about the same workload or tasks in their studies. In reality, every undergraduate student must participate in extracurricular activities as an indication of the development of soft skills before graduating to enable them to participate in extracurricular activities regardless of their program and to increase their marketability jobs in the future [16].

The outcome indicates that there was a poor and negative association between academic performance and merit score, indicating that the merit score declines as the CGPA increases. According to previous study, the student who is only a committee in an organization on the executive board with them has no apparent impact on their academic performance as the role does not affect the academic performance. Students who are more dedicated to club events often have better academic results [1].

Playing sports, watching television, and engaging in community service can somehow boost the student's academic performance [17]. The statement was also mentioned in the study among students in terms of cognitive and affective growth that can be maximized by participating as much as possible in both academic and co-curricular activities [18]. The additional functions of the co-curriculum are simply part of university life. Improving their critical thinking skills, time management, academic and analytical maturity, is thought to have beneficial effects on students [3]. Thus, it is assumed that students who regularly engage in extracurricular with

high merit scores are better able to balance their study and activities in time management and therefore can sustain or even boost their academic results.

It is clear from the study that there was no substantial correlation between CGPA and the program. In reality, several factors, such as student motivation and self-efficacy, can influence academic performance. In their studies, students with greater self-efficacy and motivation appeared to obtain higher CGPA [19]. It is because learners with greater self-efficacy trust in their ability to accomplish what they want [20, 21]. Besides, academic success depends largely on the efforts of the students themselves. Students with a higher objective of achievement would attempt to be knowledgeable and gain a clear understanding to improve their knowledge [22]. By engaging in more strategic use, especially deep strategy processing, they believe that effort is the cause of success or failure [23]. Academic success in the curriculum sense depends not only on the assessment but also on the community work, task, and continuous evaluation regardless of the program. Finally, time management plays an important role in the academic achievement of students. Bad practices in time management are also cited as a significant cause of stress and poor academic performance [24, 25].

## CONCLUSION

This research shows that merit ratings have an overall poor correlation with academic success. Therefore, students can handle their schedules carefully so that they can effectively engage in co-curricular activities and receive outstanding academic grades as well.

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