Relationship between Co-Curriculum Activity, Stress and Academic Performance among University Student


Abstract—Co-curriculum is a compulsory activity that must be participated for every students. However, without a well-planned involvement in co-curricular activities can cause negative impact towards Grade Point Average (GPA) and will increase the stress level among students. Therefore, the aim of this study is to evaluate the relationship between stress levels, co-curriculum and GPA results among first year undergraduate students in university. This cross sectional study involved about 160 first year undergraduate students. The results showed that about 55.7% students were having higher stress level than the normal average. Furthermore the mean hours of involvement (93.34±25.18) was significantly (p<0.05) higher compared to 80 hours that has been fixed. There was a weak negative correlation (r=-0.147) between hours involvement in co-curriculum and GPA. In conclusion, motivational program should be developed and implemented so that the students can learn how to manage their time wisely between co-curricular activities and academics.

Keywords—Co-curricular, GPA, stress, student.

I. INTRODUCTION

Co-curricular activities are any activities that aid in the academic curriculum through activities focusing on hobbies, sports, community services and entrepreneur businesses (Feldman & Matjasko 2007; Shulruf et al. 2008; Stearns & Glennie 2010). These activities have great influence on the academic performance of students. For instance, Bakers (2008) suggested involvement in politic and academic related activities positively affect academic performance.

To date, the positive relationship between co-curricular activities and academic performance among high school students and undergraduates in universities were widely reported (Okamoto et al. 2013; Balyer 2012; Shulruf et al. 2008). In addition, Dworkin et al. (2003) found co-curricular activities improve social and emotional skills of students such as teamwork, co-operation and be open-minded (Pfeifer & Corneliben 2010; Trudeau & Shephard 2008). A healthy, fit physical body and mind will also help to increase students’ concentration and energy level in class for better learning experience (Coe et al. 2006; Pfeifer & Corneliben 2010). Students who participate in physical activities are likely to have better behavioral performance and enhanced attitude towards study. However, the long term influence of co-curricular activities on academic success is yet to be studied (Darling et al. 2005). Few studies have reported that excessive involvement in sports might distract students’ attention in school especially during competition seasons; possibly have negative influence on their academic performance (Hawkins 2010; Pfeifer & Corneliben 2010).

Contrarily, other studies found no association between co-curricular activities and examination grade among students (Bakers 2008; Rees & Sabia 2010; Zeiser 2011). Potential positive effect of co-curricular activities on might have been overestimated. Its potential to cause distress among students also should be highlighted (Fredricks et al. 2002; Luthar & Becker 2002). In their studies, Balyer & Gunduz (2012) reported inappropriate extracurricular activities are risk factors for psychological disorders such as depression and anxiety.

II. MATERIALS AND METHOD

The population of this study involves the first year undergraduate students in university in Kuala Lumpur. The sample size of this study was 160 students. Systematic random sampling was used for this study. However, only 140 questionnaires were collected back.

The questionnaire is consist of four sections which include Section A; respondents information, Section B; co-curricular subject information, Section C; respondents perception towards involvement in activity/co-curriculum projects & Section D is about the perceived stress scale of the respondents. The questions in Section D was adapted from Perceived Stress Scale-10, (Cohen 1994) that is used to evaluate the stressfulness of the situations in the past month of their lives (Anon. 1986). The score was obtained by reversing on 4 positive items (question 4, 5, 7 & 8) & sum all 10 items. Score range from 0-40, with higher scores means higher stress (Anon. 1986). A pilot study for this questionnaire have been done & the Cronbach’s alpha for this questionnaire was 0.784. This results can be considered adequate for research purposes.

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A total of 140 respondents were included in this study. There were 83.6 % (n=117) female and 16.4 % (n=23) male. Majority of them were 67.9 % (n=95) Malays, followed by 23.6 % (n=33) Chinese, 4.3 % (6) Indians and 4.3 % (6) others. In term of respondent’s position in co-curriculum activity, 29.3 % (41) of them were supreme council, 55.7 % (78) were committee and 15 % (21) were participant. The percentage of perceived stress level among the respondents showed that 55.7 % (n=78) of them were much higher than average stress and 33.6 % (n=47) of respondents were slightly higher than average stress. Among the respondents, 9.3 % (n=13) were at the average stress and the rest of 1.4 % (n=2) were slightly lower than average. None of the respondents were much lower than average stress. Table 1 showed the descriptive analysis on demographic factors, position and stress level.

One way independent ANOVA test was used to compare hours of involvement in co-curriculum between supreme council, committee and participant. The mean hours of involvement was highest among supreme council (96.27±27.07) compared to committee (94.27±26.42) and participant (84.19±11.97) as shown in Table 3. However, there was no significant difference hours of involvement between positions (F=1.735, p>0.05).

The Pearson correlation was used to correlate the relationship between hours of involvement in co-curriculum and GPA. Table 4 showed that there was weak negative correlation between hours of involvement in co-curriculum and GPA but the correlation was not significant (r=–0.147, p>0.05). This indicated that as hours of involvement increased the GPA decreased.

Multiple linear regression was performed to estimate stress score that can be accounted by hours of involvement in co-curriculum and GPA as shown in Table 2. Mahalanobis distance was used to identify the presence of outliers. The Mahalanobis distance did not exceed the critical c2 for df = 2 (at α = 0.001) of 13.82 for any cases in the data file where in this study the maximum Mahalanobis distance is 8.432. The hours of involvement in co-curriculum and GPA accounted for a non-significant 2.2 % of the stress score, R2 = 0.022, adjusted R2 = 0.008, F (2,137) = 1.56, p = 0.214. The equation for the model is: stress score = 20.28 + 0.006 (total hours) + 1.59 (GPA). However, the hours of involvement in co-curriculum and GPA were not significant predictors of the stress score.

### III. RESULTS

A multiple linear regression was performed to estimate the relationship between stress level, co-curriculum activity and grade point average among first year undergraduate students. The early year in university is a time of valuable transition for students. Adjusting life to university can comprise responsibilities that are routine as managing one’s own time, or as complicated as making a big decision for their future. Particularly, students ability varies to manage with campus life and alter to these new challenges, and some students confront more obstacles than others (Tinto 1993). All first year students of Universiti Kebangsaan Malaysia (UKM) Kuala Lumpur are provided with. However, they need to compete with each other to stay in residential college for the following years. Those who gained more merit through co-curricular activity stays.

According to LaNasa et al. (2007), students that stay in residential college were significantly more possible to involve in co-curricular activity and the involvement in co-curricular activity can effect to either academic performance or to a student’s overall evaluation of the early experience in university. Hence, this study aimed to identify the relationship between stress level, co-curriculum and grade point average (GPA) results among first year undergraduate students. The early year in university is a time of valuable transition for students.

### IV. DISCUSSION

The early year in university is a time of valuable transition for students. Adjusting life to university can comprise responsibilities that are routine as managing one’s own time, or as complicated as making a big decision for their future. Particularly, students ability varies to manage with campus life and alter to these new challenges, and some students confront more obstacles than others (Tinto 1993). All first year students of Universiti Kebangsaan Malaysia (UKM) Kuala Lumpur are provided with. However, they need to compete with each other to stay in residential college for the following years. Those who gained more merit through co-curricular activity stays.

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Majority of subjects were female (84%) and Malays (68%), which also reflects the distribution of student in the Faculty of Health Science where most of the students are female and more than half are Malay. Many students hold position as a committee because the position of supreme council is limited.
for most event or organization. The number of students who engaged in an activity as a participant is the least as co-curriculum encourage students to be active in an organization or activity, and most students are not interested in participating in a program that contributes less merit.

The study clearly showed that most of the students are highly in stress. Habeeb (2010) mentioned that earlier years in university or college is highly stressful to student. However, according to the previous study among first year undergraduate students of the Faculty of Allied Health Sciences (FSKB) of session 2009/2010 using modified Inventory of College Students’ Recent Life Experience (ICSRLE) by Saat et al. (2011), the average stress score was moderate (44.42 ±11.61).

Majority of the subjects meet the requirement of at least 80 hours regardless of their position in certain organization or program. There is also no relationship between hours of involvement in co-curriculum and total score of stress; r (138)= 0.057, p<0.05. Ross et al. (1999) and Marwan (2013) examine the pressure experienced by the students at college and university and yet, none of the stressor are hours of involvement in co-curriculum.

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REFERENCES