

Examining the Effect of Extracurricular Activities on Academic Achievements among the Public University Students in Malaysia

Syafiq Shamsudin¹, Siti Fatimah Ismail¹, Abdullah Al-Mamun¹ & Sayed Kushairi Bin Sayed Nordin²

¹ Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Pengkalan Chepa, Malaysia

² Department of Robotics & Automation, Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia, Malaysia

Correspondence: Abdullah Al-Mamun, Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Pengkalan Chepa, 16100 Kota Bharu, Kelantan, Malaysia. E-mail: abdullah.a@umk.edu.my

Received: January 11, 2014 Accepted: March 13, 2014 Online Published: April 29, 2014

doi:10.5539/ass.v10n9p171

URL: <http://dx.doi.org/10.5539/ass.v10n9p171>

Abstract

The objective of this study is to examine how physical, educational, and social extracurricular activities affect academic achievements of the participating students in Peninsular Malaysia. A cross-sectional design and quantitative method is applied, and complete data is collected from 150 students from three public universities in Peninsular Malaysia. Findings of this study indicate that there is no significant positive association between participation in extracurricular activities and student's academic achievements. These alarming findings suggest that, besides emphasizing on promoting extracurricular activities to improve students' knowledge and understanding, both universities and policy makers should be more aware of designing effective extracurricular activities and should establish a standard framework for continuous assessments of the outcome of these activities.

Keywords: academic achievement, extra-curriculum activities, public universities in Malaysia

1. Introduction

Extracurricular activities designed by universities commonly emphasize on the advancement of academic achievements as well as to provide social and emotional enrichment (Joseph, 2009). Extracurricular activities can involve sports, clubs, debate, drama, school publications, student council, and other social events. Normally, these activities are not included in the formal curriculum and students who participate in extracurricular activities do not commonly gain any grade for it. However, these activities eventually provide real-world experiences that are not included in the formal course of study. Through these programs, students learn how to employ the knowledge they have learned in the classroom to real world scenarios. As noted by Massoni (2011), the positive effects commonly include positive behavior, better grades, school completion, positive aspects to become successful adults, and a social aspect. These positive benefits therefore attract the interest of educators and policy makers who search for ways to enrich student's academic, social, and emotional enrichment development (Joseph, 2009).

Universities commonly design academic programs in line with national goals. As development studies have noted, quality education is one of the key determinants of economic development; therefore, educators and policy makers constantly search for a way to improve the overall quality of the programs offered by the universities. Extracurricular activities were introduced to enable students to explore and build their learning on their personal experiences. Universities offer a wide range of extracurricular activities; some of them are compulsory for students to participate in order to acquire their course degree while there are programs that are on a voluntary basis. Within the extracurricular framework, students can choose activities, which can be classified as physical activities, educational activities, and social activities. Physical activities include team activities (i.e., joining a sports team like football team) or individual activities (i.e., self-defense club like taekwondo or joining a charity marathon). Furthermore, the physical programs can be compulsory where every student has to join and engage in one physical activity. These compulsory programs are commonly included in the main curriculum of the subjects offered by the university, where students have to pass these activities in order to obtain the degree. The education related activities might include attending seminars, extra courses, debates, and other types of competitions. These educational activities can also be compulsory; for example, such as the 'Prime

Entrepreneurial Lecture Series' offered by Universiti Malaysia Kelantan. Meanwhile, the non-compulsory activities are openly voluntary for students to attend, such as workshops or seminars. Social activities are commonly designed to facilitate students in interacting with people aside from the university students, staff, or lecturers. These types of activities allow students to volunteer in development or awareness programs. Through these types of programs, the intrinsic value such as leadership, motivation, and self-satisfaction, can boost the student's morale.

All of these activities can lead to a positive impact on participating students' academic achievements. The effect that extracurricular activities have on students is multifaceted in their benefits even beyond the classroom. A study conducted by Hattie (2008) noted that higher engagement rates lead to a significant positive effect on student achievement. Manaf & Fauzee (2002) noted that these extracurricular activities help students to advance new knowledge and skills as well as to educate them against developing unhealthy activities during their leisure time. Arip & Yusof (2002) noted that extracurricular activities lead to a decrease in academic stress and tension, which ultimately leads to an increase in productivity in their learning. White & Gager (2007) reported that extracurricular activities are associated with academic achievement, which also lowers rates of delinquent behavior and dropouts. However, studies also reported that the magnitude of the relationship is often small and inconsistent, depending on the types of activities. Schneider (2003) noted diminishing returns of participation in extracurricular activities when students become involved in several at one time. Because of the importance of the issue, differences in outcomes and lack of empirical studies to measure the effect of extracurricular activities offered by public universities in Malaysia, this study aims to identify how physical, educational, and social extracurricular activities affect academic achievements of the participating students in Peninsular Malaysia.

2. Literature Review

The extracurricular activities designed by the universities facilitate students to experience authentic learning by constructing their own thoughts and applying their ideas. However, like other development initiatives, outcomes of extracurricular activities depend on student's ability to explore and make use of the concepts they have learned. Therefore, the involvement in a program can be emphasized in two elements, what the student does, and what the institution does, pointing to activities on the part of the individual student and the institution which are related to the desired outcomes of universities (Wolf-Wendel, Ward & Kinzie, 2009). Studies have reported that extracurricular activities could benefit students where they can learn something beyond what they have learned in the classroom. In addition, students with more involvement with the programs have shown a decrease in behavioral issues, and a significant positive effect on student's academic achievement (Hattie, 2008). These factors can relate to their study; for example, when the behavioral issues decrease, the disciplinary issues also decrease and good discipline can lead to a better academic learning process. Furthermore, another benefit for students that was noted in a study conducted by Eccles and Templeton (2002) is that participation in extracurricular activities, such as physical activities, leads to a reduction in the dropout rates. Student's involvement in extracurricular activities can increase the integration of the learning process and eventually lead to academic achievement (Ahren, 2010). The effects of extracurricular activities by categories are presented next.

2.1 Physical Programs and Its Effects

Physical programs are programs related to the physical movement of a person. Physical programs or activities regulate the level of cortisol produced in the body, which in turn increases brain function (Hall, 2007). Physical programs therefore can have a positive effect on academic achievements as it facilitates the learning process. A study conducted by Lynott (2008) noted that learning experience that involves movement improves student learning and motivation, enhances brain function, improves recall, and engages students in the learning process. Earlier studies also noted that students who actively participate in physical activities for more hours significantly score higher in several subjects. Moreover, the physical program can enhance the learning process for students where the content of this extra curriculum is integrated rather than the traditional way of the learning process (Martin & Chalmers, 2007; Wittberg, Northrup & Cottrel 2009). Besides that, it is a way for students to get some sort of getaway from in-class learning.

In addition to improving the academic achievement, physical education can improve student's self-confidence, increase self-esteem, enhance social and cognitive development, and provide the opportunity to experience the emotions that the students would not normally encounter in traditional curriculum settings (Bailey, 2006). Holt, Tink, Mandigo, and Fox (2008) go further and note that physical activities lead to an increase in attendance, emotional regulation, problem solving, goal setting, teamwork, and skills development.

2.2 Educational Programs and Its Effects

Educational programs are most likely extra classes or industrial training. The programs are designed to increase students' knowledge and maintain their academic progress. These programs are also introduced to fill out the student's time after regular classes or during the holidays. It is also for the students who really need the programs due to their poor academic achievements.

Studies suggest that educational programs held during the holidays are a good way to improve student's academic achievement. According to Boss and Railsback (2002), it can boost student's learning in specialized and/or specific areas, offer the benefit for a longer time, and provide the opportunity to explore in depth something educational in addition to the regular contents. Educational programs can also be an extra class for the subjects needed. Besides that, educational programs during holidays can improve students' academic achievement by maintaining their learning process momentum as studies have noted that a long holiday can break the rhythm of instruction, which requires a significant amount of review of material when they return to start the semester again (Cooper, 2001). Moreover, the educational programs can also be, for example, lectures from non-academic people like industry experts giving their knowledge to the students. These types of programs can motivate students to study hard. Nevertheless, academic achievements, therefore, can be closely related to student engagement in educational activities (Gardner, 2009).

2.3 Social Programs and Its Effects

Social programs can be related to the community or just the university; students volunteer for their own satisfaction or as a hobby to serve the community. Earlier studies have noted that academic gains are greatly influenced by students' involvement in the academic and social activities of their institutions (Zhao, 2005). The social programs organized by the university provide the benefit of acquiring extra credits but it is not compulsory and it is optional to the student.

3. Methodology

As presented above, most of the studies that have examined the effect of extracurricular activities on academic achievement have noted a significant positive effect. These studies showed that each selected variable such as physical, educational, and social programs had a significant effect on academic achievement (Martin & Chalmers, 2007; Wittberg, Northrup & Cottrel, 2009). Methodology for this study was designed to examine the effects of physical, educational, and social extracurricular programs on public university students in Peninsular Malaysia. This study used a cross-sectional design. This study also employed a quantitative method and designed a survey questionnaire to collect data from the students of three randomly selected public universities in Peninsular Malaysia. These universities are: (1) Universiti Malaysia Kelantan (UMK), (2) Universiti Malaya (UM), and (3) Universiti Kebangsaan Malaysia (UKM).

The survey questionnaire comprises of three parts. Part 'A' is about basic questions such as demographic questions. Part 'B' includes three sections to identify students' engagement with extracurricular activities categorized as physical, educational, and social extracurricular programs. Part 'C' measures the academic achievements of the selected students. A total of 150 students are conveniently selected from the three selected public universities in Peninsular Malaysia. The purpose of convenient sampling is to choose an individual sample as the representative of the population. A total of 50 students from each university are selected for this study. The questionnaire was distributed randomly to the students. As for the UMK's respondents, it was given at the place where the respondents relax so that they would have time to answer the questionnaire. The respondents who answered the questionnaires are the ones who were already there or had just arrived. As for the UM's respondents, it was distributed at the library of the university. That place was chosen because there are a variety of students there from different courses, length of studies and gender. While for the UKM's respondents, it was also distributed in the university's library.

4. Research Findings

4.1 Reliability Analysis

Reliability test has been conducted to examine the internal consistency of the data. Each of the independent variable's reliability is presented in Table 1 below. First is the physical program that has an alpha value of 0.810, which is acceptable, followed by, educational program with the alpha value of 0.872, and social program with the alpha value of 0.876.

Table 1. Reliability analysis

Indicators/ Independent Variables	Number of Items	Cronbach's Alpha
Physical Program	10	.810
Educational Program	10	.872
Social Program	10	.876

4.2 Descriptive Statistic

Complete data was collected from 150 respondents from selected local universities in Malaysia. Among them, 61.3% respondents are female while 38.7% are male. The highest percentage (59.33%) of total respondents are aged from 22 to 24 years, followed by 32% of the total respondents aged between 19 to 21 years; only 6% of the respondents are aged more than 25 years and 2.67% are aged less than 19 years. As per races, 77.3% are Malay, 13.3% are Chinese, 5.3 % are Indian, and 4% are from other races. The education levels refer to the level that they are now. The highest percentage of students who took part in this study are degree students at 89.3%, followed by the Master, Diploma, and PhD students at 6%, 2.7%, and 1.3%, respectively. However, 0.7% of the respondents are from other educational levels. In this study, year one students are not the respondents due to unavailable data about their academic achievement. The highest percentage is respondents from year 4 at 45.33%, followed by second year respondents at 35.33%, third year respondents at 16%, and the lowest percentage is from more than fifth year respondents at 3.333%. The highest percentage of course taken by the respondents are from business related subjects (48%), followed by engineering, social art, and other courses at 8.667%, 4.667%, and 36.67%, respectively. The lowest is from the medical sciences related courses at 2%.

4.3 Correlation Analysis

Spearman correlation was used to measure the relationship between the independent variables and dependent variables. The objective of this test is to measure the strength and direction of the association. The correlation of physical program shows that there is a significant relationship between physical program and academic achievement (p value = 0.009, which is less than the chosen 5% level of significance). However, the associations among the three types of extracurricular activities and academic achievements of the students are negative. Data do not provide enough evidence to conclude that there is a significant positive association between extracurricular activities and academic achievements.

Table 2. Correlation analysis

		Academic Achievements	Physical Programs	Educational Programs	Social Programs
Academic Achievements	Coefficient	1.000	-.213**	-.002	-.038
	Sig. (2-tailed)	.	.009	.983	.646
	N	150	150	150	150
Physical Programs	Coefficient	-.213**	1.000	.468**	.409**
	Sig. (2-tailed)	.009	.	.000	.000
	N	150	150	150	150
Educational Programs	Coefficient	-.002	.468**	1.000	.578**
	Sig. (2-tailed)	.983	.000	.	.000
	N	150	150	150	150
Social Programs	Coefficient	-.038	.409**	.578**	1.000
	Sig. (2-tailed)	.646	.000	.000	.
	N	150	150	150	150

4.4 One-way between Group ANOVA with Post-hoc Comparison

This study uses the ANOVA test to examine if there is any difference between groups on some variance.

Moreover, the purpose of this test is to identify the differences in physical programs, educational programs and social programs among the three selected local universities. Levene's test was conducted to examine the homogeneity of variance.

Table 3. Test of homogeneity of variances

	Levene's Statistic	df1	df2	Sig.
Physical Programs	3.280	2	147	.040
Educational Programs	6.945	2	147	.001
Social Programs	2.676	2	147	.072

Table 4. Multiple comparisons (Tukey HSD)

(I) University	(J) University	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UMK	UM	.23600	.11413	.100	-.0342	.5062
	UKM	.25000	.11413	.076	-.0202	.5202
UM	UMK	-.23600	.11413	.100	-.5062	.0342
	UKM	.01400	.11413	.992	-.2562	.2842
UKM	UMK	-.25000	.11413	.076	-.5202	.0202
	UM	-.01400	.11413	.992	-.2842	.2562

Table 3 shows the homogeneity test of variances of the physical, educational, and social programs. The table above shows that social program is not significant at the chosen 5% level of significance. It means that the population variance is assumed as equal. Therefore, this study proceeds to the post-hoc test to determine the difference. However, physical and educational programs are heterogeneous in variances where the significant value is less than 0.05. Therefore, only social program can be tested through the post hoc test.

Table 5. Multiple comparisons between UMK and other universities

	Mean	Sig.
UMK vs UM	0.236	0.100
UMK vs UKM	0.250	0.076

The table above shows the multiple comparisons of 3 different universities using the Tukey's HSD test. The data show that UMK and UKM have the closest significant difference where the mean difference is 0.236, while the mean difference for UMK and UM is 0.250. However, neither of the paired universities have a significant difference as the significant value is more than the p value of 0.05.

5. Discussion and Recommendation

This study examined the effect of physical, educational, and social extracurricular activities offered by the three selected public universities on students' academic achievements in Peninsular Malaysia. Findings of this study indicated that there is no significant positive association between participation in extracurricular activities and student's academic achievements. These findings are in line with studies conducted by Eccles and Templeton (2002) and Schneider (2003). Although universities and Ministry of Education in Malaysia are emphasizing more and more on incorporating extracurricular activities into the core curriculum to improve students' knowledge and understanding, they should be highly aware of the ineffectiveness of the program or even possible negative consequences on academic achievements of the students. Moreover, this study recommends an in-depth exploratory study to examine how extracurricular activities affect student's academic achievements. Future studies should include specific activities and examine how it affects the program outcomes. Studies should also include more universities and bigger sample size in order to examine the full extent of the

relationship between extracurricular activities and academic achievements.

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