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The Factors Influencing Students' Performance at Universiti Teknologi MARA Kedah, Malaysia

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Abstract: Many studies are carried out to explore factors affecting students' performance (academic achievement). The purpose of this research is to identify and examine factors that affect students' performance at UiTM Kedah. A set of questionnaires was distributed to the respective respondents. Several factors that being discussed in this research are demographic, active learning, students' attendance, involvement in extracurricular activities, peer influence and course assessment. The data is analyzed using descriptive analysis, factor analysis, reliability testing and Pearson correlation of Statistical Package for Social Sciences (SPSS). After conducting factor analysis, all variables are grouped into five factors which exclude peer influence. The researchers found that four factors are positively related to students' performance that are demographic, active learning, students' attendance and involvement in extracurricular activities. However, course assessment was found to be negatively related to students' performance. Further research on students' performance can be conducted on a larger scale including all UiTM to obtain better result.

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1. INTRODUCTION

There are a large number of higher learning institutions in Malaysia that are governed by and under supervision of Ministry of Higher Education (MOHE), Malaysia. As to date, Malaysia has 20 public universities (http://www.mohe.gov.my) and Universiti Teknologi MARA (UiTM) is the largest university in Malaysia, with a student population of over 100,000 and branch campuses in 14 states throughout the country (http://www2.uitm.edu.my/).

Students are main assets of universities. The students' performance (academic achievement) plays an important role in producing the best quality graduates who will become great leader and manpower for the country thus responsible for the countries economic and social development. The performance of students in universities should be a concern not only to the administrators and educators, but also to corporations in the labour market. Academic achievement is one of the main factors considered by the employer in recruiting workers especially the fresh graduates. Thus, students have to place the greatest effort in their study to obtain a good grade in order to fulfill the employer's demand. Students' academic achievement is measured by the Cumulative Grade Point Average (CGPA). CGPA shows the overall students' academic performance where it considers the average of all examinations' grade for all semesters during the tenure in university. Many factors could act as barrier and catalyst to students achieving a high CGPA that reflects their overall academic performance.

There are several ways to determine student academic performance which are cumulative grade point average (CGPA), grade point average (GPA), tests and others. In Malaysia, researchers evaluate the student academic performance based on CGPA (Ervina and Othman, 2005; Manan and Mohamad, 2003 and Agus and Makhbul, 2002). In addition, a study in the United States by Nonis and Wright (2003) also evaluate student performance based on CGPA.

Most of the researches done in other countries used GPA as a measurement of academic performance (Galiher 2006; Darling 2005; Broh, 2002; Stephens and Schaben 2002 and Amy 2000). They used GPA because they are studying the student performance for that particular semester. Some other researcher used test results since they are studying performance for the specific subject (Syed Tahir Hijazi and S.M.M Raza Naqvi, 2006; Hake, 1998 and Tho, 1994).

2. LITERATURE REVIEW

Many studies have been developed concerning the factors influence students performance such as demographic, active learning, student attendance, extracurricular activities, peers influence and course assessment. Studies have shown that demographic characteristics can influence academic excellence. Among these characteristics are parents' income, parent's education and English result in *Sijil Pelajaran Malaysia* (SPM).

Nasri and Ahmed (2007) in their study on business students' (national students and non-national students) in United Arab Emirates indicate that non-national students had higher grade point average were more competent in English, which is reflected in higher average for high school English. Ervina and Md Nor (2005) had discovered that not every subject taken by the students before entering the university has a positive relationship with their final CGPA in the degree programme. In SPM level, five subjects that are found to have positive relationships with the students final CGPA are English, Modern Mathematics, Additional Mathematics, Physics and Principle of Accounts.

An investigation conducted by Agus and Makhbul (2002) indicated that students from families of higher income levels perform better in their academic assessment (CGPA) as compared to those who come from families of lower income brackets. Their studies found that most of students came from families in the income bracket of between RM1,000 to RM4,000. Checchi (2000) also concluded family income provides an incentive for better student performance; richer parents internalize this affect by investing more resources in the education of their children. Once the investment is undertaken, the student fulfill parents' expectations by perform better in their studies. Based on the research done by him, he demonstrated that children from richer families perform better than those from poorer families. On the other hand, Syed Tahir Hijazi and S.M.M Raza Naqvi (2006) found that there is negative relationship between student performance and student family income. Research done by Beblo and Lauer (2004) also found that parents' income and their labour market status have a weak impact on children's education.

According to Ermisch and Francesconi (2001), there is significant gradient between each parent's education level and their child's educational attainment. Relative to a parent with no qualifications, mother's education has a stronger association with her child's educational attainments than the education of the father. This result is supported by Agus and Makhbul (2002). They indicate that the level of education of mother has been found to exert the strongest influence on academic achievement as compared to level of education of father.

Active learning has received notably attention over the past several years. In the context of the college classroom, active learning involves students in doing things and thinking about the things they are doing (Bonwell and Eison, 1991). Active learning involves the students to solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during class (www4.ncsu.edu/unity/lockers/users/f/felder/public/Cooperative_Learning.hml). Bonwell & Eison (1991) concluded that active learning leads to better student attitudes and improvements in students' thinking and writing. A study by Wilke (2003) also indicated students in both the treatment and control groups demonstrated a positive attitude toward active learning, believed it helped (or would help) students to learn the material. Felder et. al. (2000) recommended that active learning is one of the teaching methods that work. Felder and Brent (2003), mentioned that as little as five minutes of that sort of thing (active learning) in a 50-minute class session can produce a major boost in learning. According to them, it (active learning) wakes students up: students who successfully complete a task own the knowledge in a way they never would from just watching a lecturer do it. However, DeLong's (2008) study did not support the hypothesis that active learning based teaching methods will affect positive change on student performance as measured by course final grade and non-intellectual learning factors as measured by the TRAC-R (Test of Reactions and Adaptations to College-Revised), an overall measure of college adjustment. He found that factors such as professor-student rapport and professor understanding of non-intellectual factors may have influenced the current results.

Many researchers recognized that class attendance is an important aspect in improving student's performance. A study conducted by Collett et. al., 2007; Stanca, 2006; Chow, 2003; Rodgers, 2001; Durden and Ellis, 1995; Romer 1993, found that attendance have small, but statistically significant, effect on student performance. Marburger (2001) concluded that students who missed class on a given date were significantly more likely to respond incorrectly to questions relating to material covered that day than were students who were present. Moore (2006) indicated that class attendance enhances learning; on average, students who came to the most classes made the highest grades, despite the fact that they received no points for coming to class. Arulampalam et. al. (2007) found that there is a causal effect of absence on performance for students: missing class leads to poorer performance. On the other hand, Martins and Walker (2006) mentioned that there are no significant effects from class attendance. This is also supported by Park and Kerr (1990) and Schmidt (1993) who found an inverse relationship between students' attendance and their course grades.

Many extracurricular activities have proven to be beneficial in building and strengthening academic achievement, even if the activities are not obviously related to academic subjects (Marsh & Kleitman, 2002; Guest and Schneider, 2003 and Lauren Sparkes, 2004). One study on adolescents and extracurricular activities found that adolescents who participated in extracurricular activities reported higher grades, more positive attitudes toward school, and higher academic aspirations (Darling,

Caldwell and Smith, 2005). Total extracurricular activity participation (TEAP), or participation in extracurricular activities in general, is associated with an improved grade point average, higher educational aspirations, increased college attendance, and reduced absenteeism (Broh, 2002). There are so many positive aspects on students can be seen from their involvement in extracurricular activities. Advocates of extracurricular activities (Fretwell, 1931; Fozzard, 1967; Miller, Moyer & Patrick, 1956; Sybouts & Krepel, 1984) claim that this informal aspect of education has a good deal to contribute to developing good citizens, enabling pupils to communicate adequately, preparing them for economic independence, developing healthy minds in healthy bodies, preparing them for family life, directing their use of leisure time, developing a set of moral and ethical values, developing social competency, discovering special interest and capacities and developing creative expression. Extracurricular participation was positively associated with the success indicators like consistent attendance, academic achievement, and aspirations for continuing education among public high school seniors in 1992 (NCES Education Policy Issues, June 1995).

Darling et al (2005) conducted a longitudinal study concerning extracurricular activities and their results showed that the students who participated in school-based extracurricular activities had higher grades, higher academic aspirations, and better academic attitudes. Students involved in athletics are said to build character, instill a respect for the rules, encourage team-work and sportsmanship, promote healthy competition and perseverance, and provide a sense of achievement. (Smoll and Smith, 2002). Organized sports also provide an opportunity for initiative, emotional regulation, goal setting, persistence, problem solving and time management (Larson, Hansen and Moneta. 2006), which may help to explain association found between sports participation and academic achievement (Mahoney and Cairns, 1997 ; Marsh and Kleitman, 2002). Although researchers agree that extracurricular activities do, in fact, influence academic performance, Borde (1998) shows that engagements in extracurricular activities are unrelated to students' performance. One study, conducted by the National Educational Longitudinal Study, found that "participation in some activities improves achievement, while participation in others diminishes achievement" (Broh, 2002). This is supported by Kimiko (2005), who found that participation in athletics, television viewing and community service has a positive effect on academic performance while participation in musical performance does not improve academic performance. Involvement in sport activities also have been proven adversely affecting students performance. Cited in Shernoff and Vandell (2007), some findings on sports participation and its relationship to development and emotional adjustment have been negative or mixed. Sports have been linked to developmental hazards such as delayed identity development (Larson and Kleiber, 1993), increased level of school deviance (Lamborn et. al. 1992), higher rate of alcohol consumption (Eccles and Barber, 1999), competition anxiety and self-centeredness (Smoll and Smith, 2002) and bodily injury (Dane et. al. 2004).

Various studies had been done and found that peers influence does have impact on student performance (Hanushek et. al, 2002; Goethals, 2001; Gonzales et. al., 1996; shown that peer influence has more powerful effects than immediate family. Peer support was positively related to students' cumulative grade point average. Wilkinson and Fung, (2002) concluded that; by grouping students in heterogeneous learning ability (low ability students grouped with high ability students) will show an improvement in learning process and outcomes. Top students can positively affect less able students. Schindler (2003) who found that mixing abilities will affect weak students positively however the effect for good students is negative. This is contradicting with Goethals (2001) who found that students in homogeneous group (regardless of high ability or low ability) perform better than students in heterogeneous group. Giuliodori, Lujan and DiCarlo (2006), covered that with peer interaction, students could increase their ability on solving qualitative problem-solving questions. Peer instruction will also promotes student's participation and improve student's performance. (Rao and Di Carlo 2000), Torke, Abraham & Upadhya (2007).

3. DATA ANALYSIS AND INTERPRETATION

In this section, the results and interpretation of information collected are presented. The data analysis is divided into two sections, which are:-

Section 1- Analysis on respondents' profiles and demographic variables. There are gender, age, English result in SPM, parent's income, father's education and mother's education level.

Section 2- Analysis on relationship of students' performance and active learning, involvement in extracurricular activities, peer influence and course assessment.

The questionnaires were distributed at random to the diploma students from Part II to Part VI (Semester July – November 2008). Of the 500 questionnaires, 418 questionnaires are completed while 82 questionnaires were rejected. Of the 418 respondents, 62.2% are female and 37.8% are male. Respondents are categorized to four groups. The result shows that 64.8% students age between 20 – 21 years old; 28.5% age between 18-19 years old; 6% age between 22-23 years old while only 0.7% are 24 years and above.

English grade in SPM level is categorized into eights grades. There are A1, A2, B3, B4, C5, C6, D7 and E8. Result shows that 23.4% scored C5 in English grade in SPM level; 20.6% scored B3; 18.7% scored B4; 12.2% scored C6; 11.5% scored A2; 9.6% scored A1; 3.8% scored D7 and 2% student scored E8.

It was found that 42.8% of the students' monthly parents' income was below RM1000; 29.9% of it was RM1000-RM2500; 12.4% was between RM2501 – RM4000; 8.9% of it was between RM4001-RM5500 and only 6% was above RM5500.

We had found that 11.2% of the students' fathers' highest educational level was at primary level; 61% at secondary level (STPM, SPM and SRP holder); while 27.8% was at tertiary level (diploma, degree and above and other certificates)

For mothers' highest educational level 12% was at primary level; 68.7% at secondary level (STPM, SPM and SRP holder); while 19.3% was at tertiary level (diploma, degree and above and other certificates)

Pearson Correlation Coefficient: Hypothesis Testing

There are five hypotheses that are being tested:

H_1: There is relationship between demographic variables and students' performance

H_2: There is relationship between active learning and students' performance

H_3: There is relationship between student attendance and students' performance.

H_4: There is relationship between involvement in extracurricular activities and students' performance.

H_5: There is relationship between course assessment and students' performance

The table below is a summary of our hypothesis testing which indicates the relations of student performance and the five independent variables.

Summary of Pearson Correlation

Hypothesis	Variables	Pearson Correlation	Relationship
H_1	Demographic	0.094	Positive
H_2	Active Learning	0.139 **	Positive
H_3	Student Attendance	0.108 *	Positive
H_4	Extracurricular Actv.	0.007	Positive
H_5	Course Assessment	-0.027	Negative

As per relationship between the independent variables, based on Pearson Correlation, the values of relation between independent variables in our study are less than 0.7 indicating that correlations between each of independent variables are not too high. Active learning and student attendance were significant at 0.01 and 0.05 level respectively.

4. CONCLUSION AND RECOMMENDATIONS

This study is conducted to identify factors influencing performance of students at Diploma level in UiTM Kedah. The researchers found that there are five factors influencing students performance that are demographic, student attendance, active learning, involvement in extracurricular activities and course assessment. The relationship of independent variables with dependent variables was also examined. The CGPA is used as measurement for student performance. Of all factors, four factors found to be positively related with students CGPA that are demographic, student attendance, active learning and involvement in extracurricular activities whereas course assessment has shown a negative relationship. The findings of the study were summarized and discussed in the following paragraphs.

The results indicate that demographic variables are observed to have the positive correlation with the CGPA; that is 0.094. It means that those students whose parents are highly educated and have high income have greater CGPA. This finding is supported by Checchi (2000) in his study on university education in Italy. Checchi concluded that richer parents invest more resources in the education of their children. Agus and Makhbul (2002) found that students from families of higher income levels perform better in their academic assessment (CGPA) as compared to those who come from families of lower income.

The results show that students who are actively engage in the learning process are observed to have a positive correlation with the CGPA; that is 0.139, significant at 0.01 level. It means that students who are actively engage in the learning process have greater CGPA. This finding is also supported by several researchers such as Felder and Brent (2003), Wilke (2002), Laws et. al. (1999), Hake (1998) and Bonwell & Eison (1991).

The researchers found that students who attend classes regularly obtained greater CGPA compared to those who absent from class. This is proved by the result that student's attendance has positive relationship with CGPA; that is 0.108, significant at 0.05 level. Previous researches by Stanca (2006), Rodger (2001), Marburger (2001), Romer (1993), Durden and Ellis (1995) also concluded with the same finding.

The researchers found that students who were actively engage in extracurricular activities obtained greater CGPA. This is proved by the result that involvement in extracurricular activities has positive relationship with CGPA; that is 0.07. Even though the correlations of involvement in extracurricular activities with academic performance have not been found to be statistically significant, there is strong evidence showing that positive relationship does exist between the two variables; as in previous researches by Galiher (2006), Kimiko (2005), Lauren Sparkes (2004), Marsh & Kleitman, (2002).

The researchers discovered that course assessment has negative relationships with the students' CGPA; that is -0.027. This result is contradicted with the previous researchers such as Hanna (1993), Blair (2000) and Rohm, Sparzo, & Bennett (1986), Dempster (1991) and Cotton (2001). This means that the respondents of our study perceived that frequent course assessment do not help them to improve the CGPA, the more frequent course assessment the lower the students' CGPA.

Based on the findings and the discussion of this study, researchers have come out with several recommendations in order to overcome the limitations and obtain a better result for further research. These recommendations would also be useful to the administrators and lecturers. This research has been done based on students from UiTM Kedah only. Generalization of the results to other universities should be viewed with some caution. For future research, researchers suggest that the research should be

extended to all UiTM students for better generalization of factors affecting students' performance. Studies in the whole UiTM or other Malaysians' universities could also examine other factors such as student effort and personality.

The researchers suggest that an "actual test" should be conducted so that the finding is not only based on students' perception but on real situation. For example, to see the relationship between student's attendance and performance, researcher should select sample size from students who have full attendance and students with most absence and make comparison of their CGPA. The same observation can be done on other factors as well.

This study provides some information regarding the issue of students' involvement in extracurricular activities and whether it benefit or hinder the academic performance of students. Further investigations can be done on different extracurricular activities such as uniform bodies, sports, art and drama since each activity may have different impact on students' achievement. Active learning, students' attendance and involvement in extracurricular activities were found positively contributed to student's performance thus researchers suggest few actions to be taken by lecturers and administrators to help the improvement of students' CGPA. Lecturers are advised to improve their teaching method and encourage students to be actively participating in class so that learning will be more effective. Students with high absenteeism rate should be monitored and necessary actions should be taken against them to prevent any problems that will detriment their CGPA. Lecturers and administrators should always remind the students that extracurricular activities will indirectly contributed to their academic performance for instance through developing healthy minds in healthy bodies, developing a set of moral and ethical values, developing social competency and consistent attendance.

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