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Students' Learning Skills, Learning Modes and Their Mental Types: Its Linkage to Academic Achievements of University Students

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ABSTRACT

Today's competitive world where academic achievement is important to secure at least a decent job means that most students in universities are struggling to succeed in their pursuit of paper qualifications that may assist them in embarking on their career path. What then are the factors contributing to academic excellence of students in universities? Nevertheless, the question of academic excellence and achievement is of crucial relevance because only those who excel in their academic achievements can survive and ultimately succeed in obtaining their degrees in their respective areas of study. This study sought to enhance understanding of factors influencing academic achievement of Malaysian university students.. The study was conducted utilizing a sample of students attending the 'Academic Enhancement Program' (AEP) organized by the Student Affairs Unit of University Technology MARA, Malaysia The results of the study poses some interesting findings relating to students learning attitude, the study skills that they perceived they possess, their modes of study and the students mental types.

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Introduction

Graduating from higher learning institutions, it appears, is not a passport in securing highly paid job. The main question that usually surfaced is what are the factors that contribute to academic excellence? The purpose of this study, then, is to enhance understanding of the contributory factors toward academic achievement of students in Malaysia. The 'Academic enhancement Program' (AEP) was implemented in University Technology MARA in the year 2001. The objective of the program was to introduce modules on learning skills to students that were not performing well academically and had achieved cumulative grade point averages (CGPAs) of less than 2.3 in their first and/or second semesters at the university. It is hope that this program offered in the early stage of their university stay will help them improve their academic performance and achieve academic excellence. The results of this study are intended to help researchers, practitioners and policy makers understand what factors impact on academic excellence and what can be done to make the learning process in universities more conducive towards achievement of academic excellence.

Literature Review

Zigareli, (1996) in an empirical study utilizing data from The National Educational Longitudinal Study for the years 1988, 1990 and 1992, found positive relationships between factors such as students' satisfaction with lecturers, students participation, and parents involvement in the process of learning and students' academic achievements. In another study it was found, interestingly that the reciprocal or interactive nature between attitude towards Mathematics and achievement in Mathematics can substantially modify their causal relationships (Xin M, 1997). Students'attitude towards their studies also play important roles in determining their academic success. A study by Pratton and Hales (1986) concluded that active students' participation and involvement exert positive influences on their academic achievements. In addition, a number of studies have been conducted focusing on the influences of environmental factors such as parents, peers and time utilization on students' academic achievements. A research carried out by Fehrmann et al. (1989) on high school seniors, found that the involvement of parents had increased students' learning achievements. A study by Griffith, J.

(1996) also showed positive relationship between parental involvement and students' test performances. These relationships are unaffected by school characteristics or socioeconomic, racial and ethnic composition of the student population.

According to Bloom (1976), several studies have been carried out in the past that stressed the importance of student's ability, past knowledge and personal background on academic results. Furthermore, several studies have also been conducted to investigate relationships between past academic achievements and factors relating to individual's environment as well as their attitudes (Anderson & Keith, 1977). A study by Block (1983), found that a lecturer plays an important role as teacher, educator, communicator and leader in learning and teaching environment. His or her involvement has positive impact on students' achievements. Benbow et al. (1991) had identified nine factors that showed positive correlations with academic achievement and two most important factors, namely, time and quality of lecturing. He concluded that there was high correlation between academic achievement and family background, while McCallum and Demie (2001) found significant correlation between family socio-economic status and academic achievement. Finally, a study by Wang et al. (1990) proved that peers have influences on academic achievements among students. Based on a review of the literature, this study investigates the importance of students learning skills, learning attitudes, mode of learning and students mental type and their academic achievement

Methodology

Though recognizing the complex issue that must be resolved and managed if learning process is to be effective, this paper focuses on identifying factors that can influence academic excellence. This research adopted ex post facto design using quantitative survey method. It was carried out on 89 students who attended the 'Academic Enhancement Program' organized by the Student Affairs Department of University Technology MARA. Data for this study was obtained from two groups of first and second semester students with grade point averages of 2.3 and below, from the Faculty of Business Management and the Faculty of Accountancy who were selected to attend the AEP program. The primary objective of the research was to measure students' perceptions on several factors that were believed to have great influences on their learning

experience and academic achievements. Preliminary questions consisted of ratio measurement scales on personal backgrounds In addition, the respondents were also asked to indicate their answers to questions regarding their perceptions on the different types of learning skills that they possess, what learning means to them, the learning methods that best suits them and descriptions of their mental type. The purpose of this paper is to enhance our understandings of these factors related to students' learning experience and the academic achievements among these students. Therefore, the main objectives of this paper are twofold:

1. identify the types of learning skills that students lack and need to develop
2. To highlight correlations between positive learning attitudes, the learning skills that they possess, the learning modes that they utilize and their mental types.

Findings

a. Descriptives Statistics

Table 1: Profile of Respondents

	Categories	Frequency	Percent
Age	Below 20 years	9	10.1
	20-24 years	74	83.1
	25-29 years	6	6.7
Sex/Gender	Male	29	32.6
	Female	60	67.4
Level of Education	Degree	72	80.9
	Diploma	17	19.1

The above table indicates that the majority respondents are from the age group of 20 to 24 years old, are females and are enrolled in the degree level programs.

b. Learning Skills

Table 2: Student Perceptions of Different Learning Skills

Learning skills	Mean	Std Dev	Good at this skill	Have some skill in this	Have very little skill in this	Need to develop this skill
			%	%	%	%
Writing essays	2.66	0.85	4.6	44.8	31.0	19.5
Reading Critically	2.41	0.79	8.2	52.9	28.2	10.6
Taking notes	2.27	0.75	10.2	60.2	21.6	8
Speed reading	2.51	0.76	4.5	51.1	33.0	11.4
Computer assisted learning	2.37	0.84	12.6	48.3	28.7	10.3
Practical work	2.47	0.94	14.9	39.1	29.9	16.1
Giving seminar papers	3.11	0.90	3.6	24.1	30.1	42.2
Defending my opinions	2.24	0.94	25.3	34.5	31.0	9.2
Discussion	2.06	0.82	25.0	50.0	19.3	5.7
Seeing all angles of an issue	2.55	0,93	13.3	34.9	34.9	16.9
Finding relevant source	2.35	0.83	14.8	43.2	34.1	8.0
Asking questions	2.59	0.88	9.1	42.0	31.8	17
Tackling problems	2.48	0.82	10.3	41.4	37.9	10.3
Group work	1.99	0.80	27.3	51.1	17.0	4.5
Managing a Team	2.22	0.94	23.9	42.0	22.7	11.4
Managing a Project	2.43	0.92	14.8	42.0	28.4	14.8
Planning my time	2.33	0.87	14.8	48.9	25.0	11.4
Making decisions	2.15	0.84	19.3	55.7	15.9	9.1

Table 2 indicates that the respondent students perceived that they are good at group work (27.3%), defending their opinions (25.3%), discussion (25.0%), and managing a team (23.0%). They also perceived that they have some skills in mainly taking notes (60.2%), making decisions (55.7%) and reading critically (52.9%). This study also indicates that these students have very little skill in tackling problems (37.9%), seeing all angles of an issue (34.9%), finding relevant sources (34.1%), speed reading (33.0%) and asking questions (31.8%). Interestingly, even though the students perceived that they are lacking in several skills, the majority expressed that they need to develop mainly skills in giving seminar papers (42.2 %) and writing essays (19.5%).

c. Learning Modes

Table 3: Learning Modes

Learning Modes	Best at	Most useful in your course
	%	%
Listening to lectures	55.1	60.7
Reading	57.3	39.3
Using audio-visual materials	28.1	37.1
Using Computer-assisted learning (CAL) materials	12.4	22.5
Discussing a topic with others	57.3	46.1
Working on problems	27.0	46.1
Trial and error, or trying out different approaches	16.9	37.1
Following instinct	12.4	13.5
Learning by notes	13.5	16.9

Amongst the learning most listed in Table 3, the majority of the students indicated that they are best at reading (57.3%) and discussing a topic with others. However, they indicated that they are not good at using CAL materials, following instinct and learning by notes. The modes of learning that they find useful for the course that they enroll in was listening to lectures (60.7%), discussing with others and working on problems (both at 46.1% respectively)

d. Mental Types

Table 4: Students' Different Mental Types

Mental Types	Perceent
Analytical, practical & systematic	47.2
Inquisitive, independent, reflective, curious	38.2
Highly practical and easy-going	43.8
I adapt easily	27.0
Painstaking & systematic, stable	31.5
Reflective, imaginative & patient with detail	47.2
Orderly and conscientious	55.1
Serious, determined, persevering, logical and critical	42.7
Enthusiastic, imaginative & impulsive	48.3

The majority of the students in this study seem to be orderly and conscientious (555.1%). They are also enthusiastic, imaginative, and impulsive (48.3%). They are analytical, practical and systematic (47.2%) and reflective, imaginative and patient with detail (47.2%). This is not surprising, given the fact that the students are enrolled in either the accounting or business programs respectively.

e. Learning attitude

Table 5: Attitude Towards Learning

What Learning Means To You	Percent
Learning is about increasing your knowledge and Skills	52.8
Learning is developing your understanding	55.1
Learning is gaining knowledge and applying it	68.5
Learning is about discovering and finding things out	37.1
Learning enables you to make things hang together	16.9
Learning makes you examine your own views	32.6
What you learn has to be useful	21.3
Learning is exciting	22.5
I enjoy the challenge of learning something new	30.3
Once I've learned something, I can't imagine not knowing it	11.2

The results also indicate that to most of the students in the study, they are of the opinion that learning is gaining knowledge and applying it (68.5%), and that learning is developing your understanding (55.1%) and learning is about increasing their knowledge and skills (52.8%).

f. Correlations

Table 6: Pearson Correlations Between Variables

		LSKILLS	LATT	LMODE	MENTYPE
LSKILLS	Pearson correlation	1.00	.142	-.147	.266*
	Sig. (2-tailed)	.	.219	.201	.020
ATTL	Pearson correlation	.142	1.00	.202	.339**
	Sig. (2-tailed)	.219	.	.057	.001
LMODE	Pearson correlation	-.147	.202	1.00	.101
	Sig. (2-tailed)	.201	.057	.	.345
MENTYPE	Pearson correlation	.266*	.339**	.101	1.00
	Sig. (2-tailed)	.020	.001	.345	.

. *P£0.05, **P£0.01 2. All t -tests are two-tailed

Table 6 highlights correlations between students' learning skills, learning attitude, learning modes and their mental type. More importantly, these correlation analyses also suggest that to enhance academic achievement (improve CGPA), a student should have positive attitude towards learning that suits their mental type(r = 0.339**). Learning skills that suit their mental type (r = 0.266*) are also seen as significant contributory factors and very crucial in the learning process. However, this study indicates that learning modes of student are not significant factors influencing their learning.

Summary and Conclusion

This study tries to highlight important factors contributing to academic achievements and learning attitude of students. This study provides useful findings for researchers, teachers and policy makers in Malaysia in understanding the factors that have significant influences on academic achievements of students in universities. The results may point to areas where further actions could enhance the learning process. In order to make subjects more interesting for students in universities, lecturers or teachers should be teaching in their trained areas to maximized their teaching skills and they should convey their lectures in ways that can be easily understood by their students. They should also try to match the students' mental type with their attitude towards learning and the learning skills that these students possessed. Although this research is focused on students in University Technology MARA, other types of institutions of higher learning or schools can benefit from the findings. The benefits that could be derived from improvement efforts in certain areas or policies would be beneficial to students especially in universities. In particular, the different faculties and Student Affairs Department or Unit of universities should consider the relevance of these findings in developing their 'Academic Enhancement Programs' for students.

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