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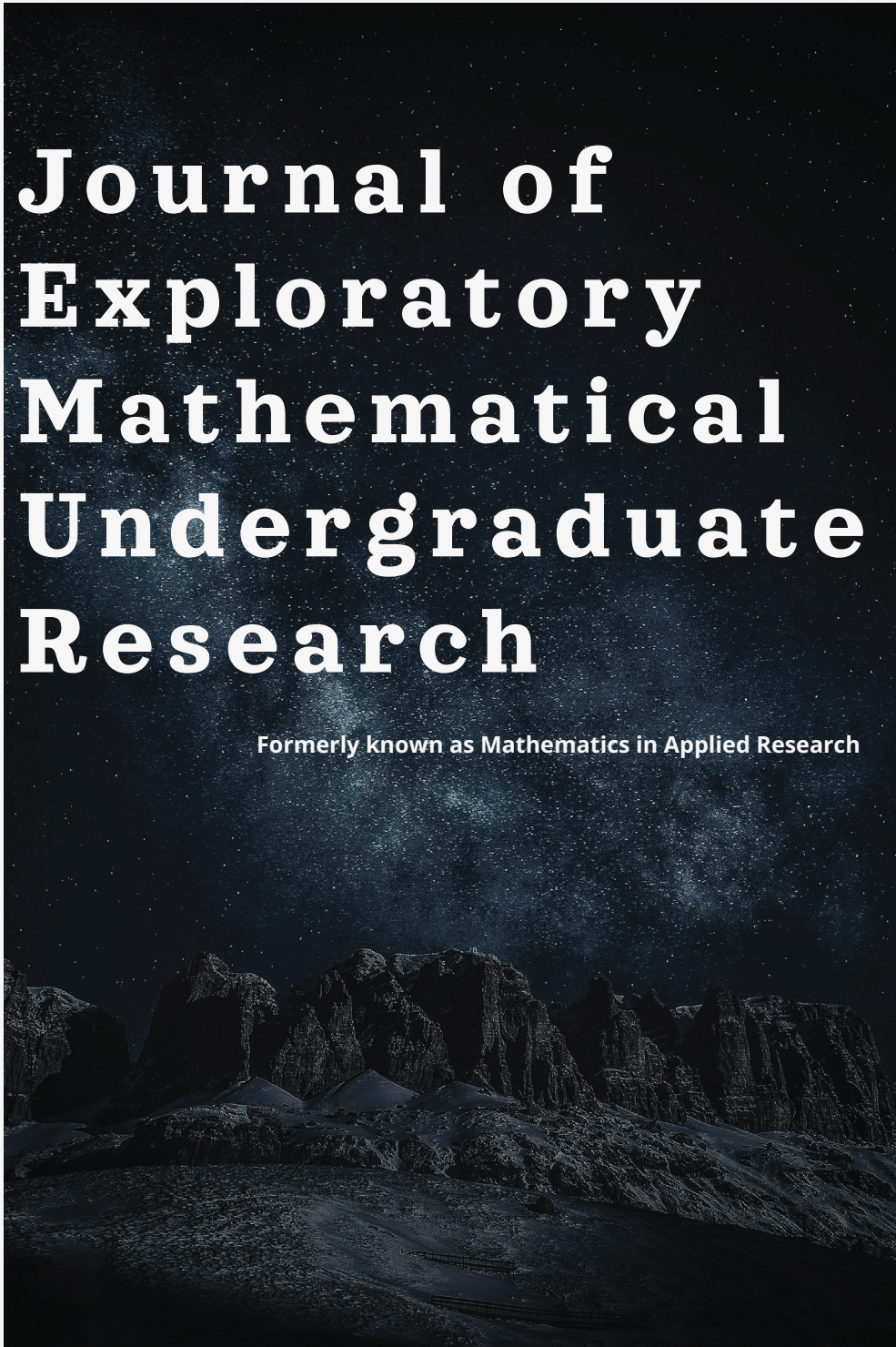
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EDISI MEI 2024

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THE EFFECT OF STUDENT LEARNING ENVIRONMENT TOWARDS ACADEMIC ACHIEVEMENT IN UiTM NEGERI SEMBILAN BRANCH SEREMBAN CAMPUS

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Abstract

The aim of the study was to examine the effect of students learning environment towards academic achievement in UiTM Negeri Sembilan Branch Seremban Campus. In this study, online questionnaires were used to gather data and were validated using SPSS tools. A multiple linear regression model was used to evaluate the relationship between the independent variables such as Institution Environment, Psychological Environment and Home Environment with dependent variable (Academic Achievement). The results show that Institution Environment and Home Environment have an effect towards students' academic achievement while Psychological Environment does not have affect towards students' academic achievement. The core findings of the study have a variety of implications for higher education and practice, measurement and theory development, and future research.

Keywords: Environment, Achievement, Psychological, Institution, Multiple Linear Regression

1. Introduction

The academic achievement of a student does not be determined only by the level of understanding, but also the components of the learning environment (Kamaruddin, Zainal, Aminuddin, & Jusoff, 2009). Learning environment comprises of components such as the learner's characteristics, teaching and learning goals, learning support activities, assessment strategies that can measure learning and culture cultivated within the learner lifestyle that will overall have a positive impact on their learning environment in the future. Throughout the years, factors affecting students' academic achievement has been the main concern to many. Among environmental element that acts as the parameter that can directly affects students' academic achievement is the educational environment that they attend. This study focuses on students' academic achievement based on the learning environmental aspects: home, psychological and institutions environment.

The aim of tertiary education is to produce students that not only academically excellent but also on excel in their curriculum activities. Based on an article from MyMetro on July 2020, Dr. Mohd Radzi Md Jidin, the Minister of Education from the Malaysia Education Ministry stated that most of the students have shown a decline in their academic achievement due to the change of learning environments especially towards tertiary education during COVID-19. Nowadays, students need to adapt to a new learning environment where there are limited facilities at home compared to their learning institution. The changes in their learning environments has also limited their learning strategies, group discussion for examples, is no longer viable, leading to difficulties interact between students and lecturers in order to share roles and delegate tasks since they are cannot directly communication during COVID-19 phase.

Based on an article from The Star on July 2020, Prof Loh Sau Cheong as Educational Psychology and Counseling Department Head from University Malaya (UM) said that based

on research, it had been shown that the learning environment is one of the precursors on a learner’s behavior. In other words, a favourable learning environment can promote positive behavior towards learning whereas an unfavourable one tends to push learner against having interest in learning and exhibit negative traits such as inattentiveness and lack of motivation to learn. With the changes of the environment in both of individual and institutions, it is important to discern any effect towards their academic achievement. Therefore, the purpose of this study is to examine the relationship between institution environment, psychological environment and home environment and how they all influence the students’ academic achievement.

2. Methodology

2.1 Descriptive Data

The target population for this study are all students from UiTM Negeri Sembilan Branch Seremban Campus that had experienced learning in institution environment and home learning environment. The finding of this study then cannot be applied to newer students that do not experience learning in an institution environment. The sample was selected using a simple random sampling where all the respondents were equally selected from the population to be a part of this study. It also represented similar characteristics of the selected group. Then, the sample of 372 students was chosen using a simple random sampling method. The data collection method used in this study is a self-administered questionnaire using an online medium. The questionnaires were passed to the respondent online through WhatsApp, email and Telegram that selected using random number table. It is the most convenient method since the questionnaire is self-explained and can simultaneously be distributed to many respondents. Hence, the respondent can complete the questionnaire in their own free time without having pressure from the researcher. Moreover, the response rate is relatively high using this method since everybody who has the link can easily access the questionnaire.

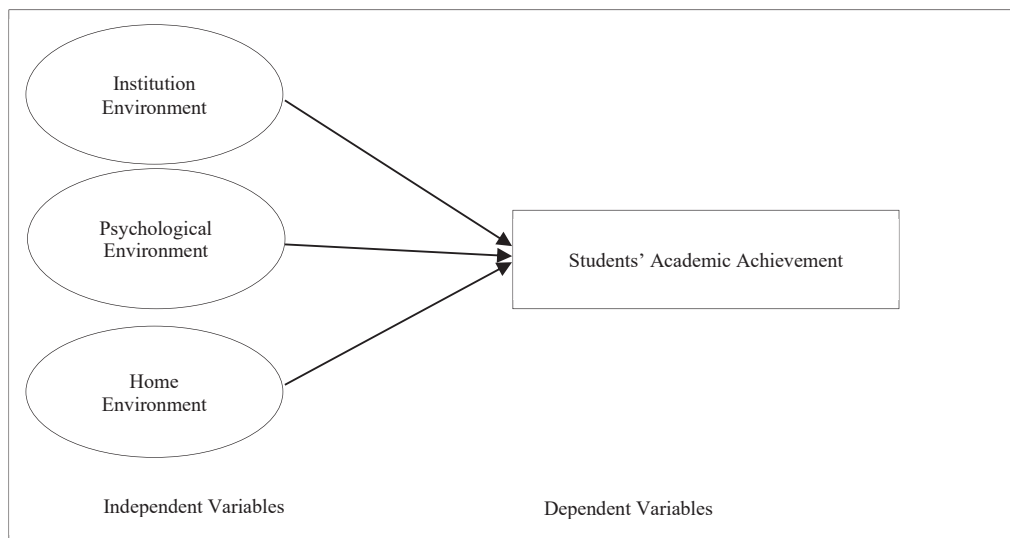


Figure 1: Theoretical Framework

Theoretical Framework in Figure 1 consisted of several independent variables and a dependent variable. Looking at Figure 1, the dependent variable is Students' Academic Achievement while the independent variables are Institution Environment, Psychological Environment and Home Environment.

2.1 Multiple Linear Regression Analysis

Multiple Linear Regression (MLR) is a statistical technique that uses several explanatory variables to predict the outcome of a response variable (Kutner, Nachtsheim, & Neter, 2004). It is a regression model with a single dependent variable and more than one independent variable. The general multiple regression model can be denoted as:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + \varepsilon_i \tag{1}$$

Where:

Y_i = Dependent variable

$\beta_1, \beta_2, \dots, \beta_k$ = Coefficient of variable X_k where $k = 1, 2, \dots, p - 1$

$X_{1i}, X_{2i}, \dots, X_{ki}$ = independent variables where $k = 1, 2, \dots, p - 1$

ε_i = Error Term

Model adequacy checking is the significant assumption that is made in regression analysis. According to Kutner, Nachtsheim, and Neter (2004), there were few assumptions that should be fulfilled in regression analysis. The first assumption is the relationship between the response, Y and the regressors is linear by checking of linearity between independent variables and dependent variable. A linear relationship between independent and dependent variables can be observed based on a correlation matrix. If there is a significant relationship, this means that linearity exists between the independent and dependent variables. Otherwise, the assumption on linearity is violated and transformation of variables must be conducted to fulfill the assumptions. Second assumptions, the error term should have a constant variance by observe Plot of Residuals against the Predicted (fitted) Values. To check whether the error variance is constant and to show whether points are equally distributed across all values of the independent variables, the plot should shows no observations beyond two standard errors from mean zero then, homoscedasticity exists.

Third assumptions, the errors terms are normally distributed which the normality of the error term can be check by plot the Q-Q plot. The points must lie on or close to the 45-degree line for the error terms to be normally distributed. Last assumptions, the error terms are uncorrelated where no multicollinearity problems exist when the independent variables are highly correlated to each other. To examine whether the independent variable highly correlated, the value of Variance Inflation Factor (VIF) is below 10 and tolerance scores must be larger than 0.2, then there is no multicollinearity exist.

3. Results

The results are presented in Table 1, Table 2, Figure 2 and Figure 3. The correlation matrix in Table 1 shows that the correlation is statistically significant between Students' Academic

Achievement and independent variables: Institution Environment, Psychological Environment and Home Environment since the p-value is less than 0.05 (Poole & O’Farrell, 1971). Since, all the independent variables have significant p-value less than 0.05, the coefficient is significant. Thus, it can be concluded that there is an evidence that each of learning environment (institution, psychological and home) is related to students’ academic achievement.

Table 1. Correlation Analysis

		Academic Achievement	Institution Environment	Psychological Environment	Home Environment
Academic Achievement	Pearson	1	0.372	0.215	0.145
	Correlation Sig.(2-tailed)		0.000	0.000	0.005
Institution Environment	Pearson	0.317	1	0.439	0.096
	Correlation Sig.(2-tailed)	0.000		0.000	0.000
Psychological Environment	Pearson	0.215	0.439	1	0.505
	Correlation Sig.(2-tailed)	0.000	0.000		0.000
Home Environment	Pearson	0.145	0.096	.505	1
	Correlation Sig.(2-tailed)	0.005	0.065	0.000	

The scatter plot of Regression Standardized Residual and regression Standardized Predicted Value shows in Figure 2 indicate that the error variance is constant and randomly scattered. Based on Figure 3, the normal probability plot of Regression Standardized Residuals shows that the plot almost lies along the straight line. Therefore, it can be concluded that the error terms are almost normally distributed.

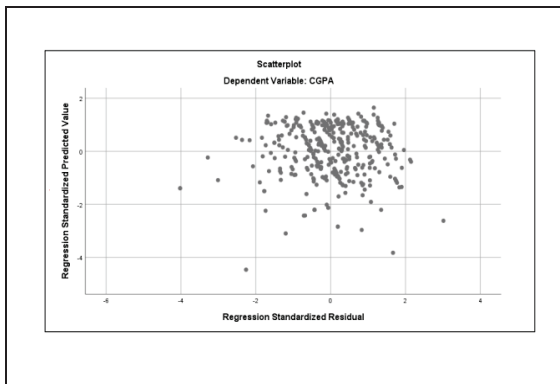


Figure 2: Plot of Residuals against the Predicted

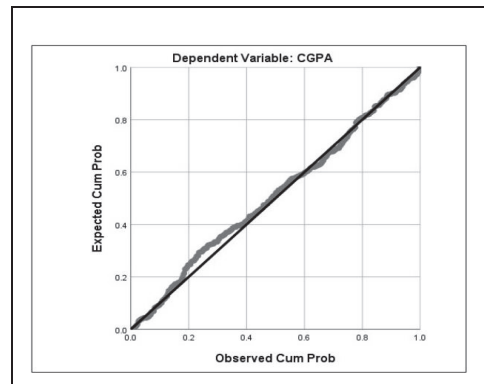


Figure 3: Q-Q Plot of Normality

The Institution Environment coefficient is statistically significant because the p-value is 0.000, which is less than 0.05 as referred to Table 2. This measure suggests that Institution Environment is the most important independent variable in the regression model. This means that the better Institution Environment, the higher Students’ Academic Achievement. This

suggests that if students feel comfortable with their Institution Environment, their Academic Achievement will improve. It also may suggest that the Institution Environment allows communication between lecturers or groupmates to become more effective since they can discuss and give opinions face-to-face. Thus, if the institution possesses better facilities, it helps students to concentrate towards their study.

Table 2. Final Multiple Linear Regression Model Results

Variable	B	Std.Coeff	t	Sig	TOL	VIF	R ²	Sig.F
Psychological Environment	0.002	0.003	0.594	0.553	0.591	1.693	0.115	0.000
Institution Environment	0.010	0.002	5.267	0.000	0.786	1.272		
Home Environment	0.008	0.005	1.702	0.090	0.725	1.380		
Constant	2.493	1.527	12.647	0.000				

This finding is also aligned with a study by Kamaruddin et al. (2009) where he states that the institution environment which offered extra-curriculum or motivational activities can help in improving students’ academic achievement. Tope (2012) further explained that, that the R square value of 63% suggested that institutional environment affect college students’ academic achievement in Colleges of Education in Southwestern Nigeria. The teaching methods provide by lecturers also plays a big role in helping students to fully absorbed and understand the subjects and hence, will leads to a better academic achievement (Tope, 2012).

4. Conclusions

In conclusion, the highest contributing predictor is Institution Environment to explain Students’ Academic Achievement. This means that the better the Institution Environment, the higher their Student Academic Achievement. Thus, Institution Environment is an important factor in contributing Students’ Academic Achievement in terms of providing good facilities for students.

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