

Motivation, Learning Facility, Family Background and Achievement: Direct and Indirect Effects

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Abstract. Many studies on learning variables have been doing for numbers of years. However the discussion on the family background, motivation, and facilities variables are assumed as key factors are rarely discussed. In this study, we tried to look through direct and indirect effects of family background, facility, motivation on achievement. The questionnaires were spread out to 100 samples of students. The students were asked to fill out 20 items related to facility and motivation. While the rest of 10 items related to their family background were completed their parents at home. The result showed that motivation and family background had significant effect, either direct or indirect on achievement. However, we found different result on learning facilities. They did not predict achievement either direct or indirect effects.

Keywords: Motivation, Facilities, Family Background, Achievement.

1 INTRODUCTION

Education is needed to maintain human life. It takes important role in human life. In broad sense, it covers the entire process of life include the interaction with the environment, both formal and informal situation. While in the narrow sense, education is defined as the learning process carried out at schools involving students, teachers, and learning facilities.

We may blame the lecturer has an essential role in increasing learning achievement. However, it is not logic since the result of achievement depends on the four essential elements mainly lecturer, student, facility, and curriculum. It also prove that the professional teachers cannot change the students' behaviour and proficiency if there is no effort from the students make it change. Besides, students have a heterogeneous character make the lecturer difficult to detect or to provide equal treatment [1].

Complaints of low achievement is a ordinarily or normally discussed by all individuals either lecturers, students and researchers. The emerging matters appear since many variables of learning for each individual are vary. Some students find it difficult to overcome them [2]. Teaching process is complex. Student is the main subject to play the important role in determining the occurrence of learning itself. this problem is an inherent variable and always affects the learning outcomes [3]. They were categorized into two part either it came from inside or environment. Inside variables were namely learning attitudes, concentration,

confidence and motivation, learning strategies while outside variables are facility, family, environments, curriculum and teaching method. It may be impossible to change something come from the outside but it can be possible to change and to control something come from inside of the student. [4]. However, we tried to drag 3 independent variables in this study namely family background, learning facility, and family background. We believed that they would be interesting topics to be discussed since they were still scarcity in journals.

Family background variables was assumed had a great impact on learning achievement. The major points of family background are parents' income, education, marital status, physical health, numbers of children in the family and the opportunities of the parents to study[5][6].

Students come from a harmonious family had better achievement than students who come from the less harmonious family. This is because of spending a large amount of their time with the family members. Less harmonious family circumstances, lack of parent attention and economic conditions could cause a decline in student achievement. Therefore, the favourable family background will enable students to learn and gain optimal learning results. They will learn best when the family and community provide adequate support and motivation.

Learning facility was assumed an important role to encourage learning. Those who have well qualified learning facilities will obtain his goal faster compared to those who have shortage learning facilities. The a good study room, proper furniture, efficient learning equipment will be helpful and easier the student to learn. Learning tool that supports student to do learning activities will lead the learning process fun and obtain the expected learning outcomes. Therefore, all learning equipments are important for achieving satisfactory of learning [7]. Unwell organized materials provided which are not in accordance with the needs of the students, inadequate supported facilities and infrastructure. It also assumed that family background would take a role in producing a skillful graduate.

Motivation is the spirit that arises when studying. Motivation is commonly related to encouragement to achieve the goal. It make persistent behaviour to gain its goal [8]. It is a willingness that someone has to perform in a specific way. Motivation was one of the more complex issues of the teaching. the lecturer for instance found it difficult to overcome the problem. it is still big problem or stone in the shoe for all level of educations (Pintrich and Zusho 2007). It will be a mental strength that encourages the students to learn something. It may be weak or declining. This weakness would produce a weak achievement anyway or the students become bored. They will refuse to perform or introvert.

Psychologists categorized two types of motivations: intrinsic and extrinsic. The first type is defined as doing something for his or herself or he does for his own sake. While the second type refers to doing something for drawing people attention or getting reward or victory [9]. Thus, if the learners have a good motivation, they will have willingness to achieve a good performance.

2 METHOD

Based on the research objectives, the general approach was collecting data from students of Lhokseumawe State Polytechnic. The population was all of the third semester students of Lhokseumawe State Polytechnic. The samples were 100 students suggested by Solvin. The data were taken directly from spreading questioners to the respondents. The questionnaire consisted of 30 questions and divided into 2 parts. The first part was the characteristics of the

respondents included the name and sex. The second part was the items related to family background, learning facilities, and motivation. the data were presented and quantitative by using Linkert scale as follows: strongly agree (5), agree (4) not sure (3) disagree (2) strongly disagree (1). However, the family background items were filled out by the students' parents at home.

Reliability and validity test were conducted to prove the questioner items were valid and reliable. The result found the validity test of this study was bigger than 0.3 or at $r > 0.3$ and reliability or the cronbach alpha test were upper 0.9. Thus, the questionnaire of this research were valid and reliable.

Table 1. Reability and Validity tests

Family backgr ound (X1)	Corrected Item- Total Correlatio n	Cronbach' s Alpha if Item Deleted	Facilit y (X2)	Corrected Item- Total Correlatio n	Cronbach' s Alpha if Item Deleted	Moti vati on (Y)	Corrected Item- Total Correlatio n	Cronbach' s Alpha if Item Deleted
X1.1	0.601	0,925	X2.1	0.320	0.928	Y	0.601	0.925
X1.2	0.721	0.923	X2.2	0.293	0.929	Y	0.721	0.923
X1.3	0.556	0.926	X2.3	0.280	0.929	Y	0.556	0.926
X1.4	0.781	0.922	X2.4	0.402	0.927	Y	0.574	0.925
X1.5	0.663	0.924	X2.5	0.487	0.926	Y	0.663	0.924
X1.6	0.448	0.927	X2.6	0.387	0.927	Y	0.667	0.924
X1.7	0.442	0.927	X2.7	0.490	0.926	Y	0.448	0.927
X1.8	0.442	0.927	X2.8	0.528	0.926	Y	0.322	0.928
X1.9	0.697	0.923	X2.9	0.597	0.925	Y	0.306	0.930
X1.10	0.651	0.924	X2.10	0.539	0.925	Y	0.651	0.924

In this study, the data collected were analyzed in two models. The first model showed the relationship between family background and facility. The coefficients model at table 2 showed that there were a correlation between each variable of family background and facility since the

significance value of both variables were at X1 equal to 0.000 and X2 equal to 0.012. They were smaller than 0.05.

Table 2. Coefficients model 1

variables	Beta	sig
Family background (X1)	0.78	0.000
Facility (X2)	-0.75	0.012

a. dependent variabel : Motivation

Model regression 2 at the coefficients at tabel 3 Showed that the significance value of the independent variables: family background = 0.004, facility = 0.374, and motivation = 0.035. These results indicate that the variables of family background and motivation variables have significant effect on achievement.

Table 3. Coefficients model 2

Variabels	Beta	Sig
Family background	-1.029	0.000
Facility	0.091	0.004
Motivation	0.740	0.035

a. dependent variabel: Achievement

The R square result at the table summary 1 for both family background and facility variabels were 0.924. it indicated that the contribution of both variabels were 92.4 % while the the remaining 7.6% was the contribution of unobserved variabels. The R square at the the table summary 2 all independent variabels family background, facility, and motivation got 0.13. It meant that the contribution of all independen variabels were 10.3%.

2.1 Direct and Indirect Effects

The direct and indirect effects were futher explored using path diagram

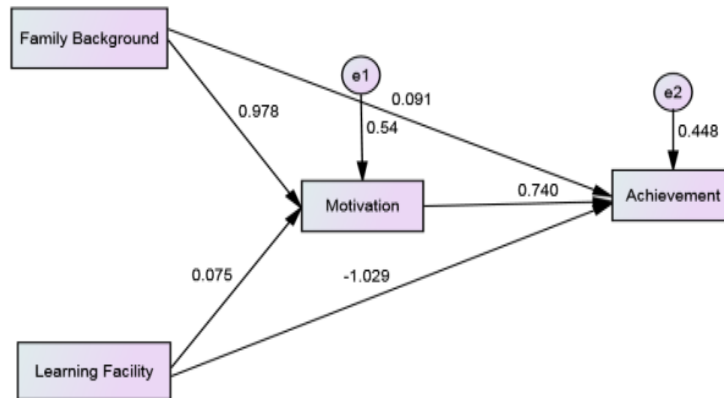


Fig. 1 direct and indirect effect of family background, learning facility and motivation on the achievement

As described in the path diagram in the figure1, the direct effect of family background on the achievement was 0.091 while the indirect effect of the family background through the motivation to the achievement were the multiplication of Beta of both the family background and the motivation variables as shown in the Figure 1 above was $0.978 \times 0.740 = 0.724$ thus the total effect given by both variables were the addition of the direct effects with its indirect variables as in $0.091 + 0.724 = 0.815$. it was clear enough that based on the results of the above calculation showed that the direct effects were smaller than indirect effects. It meant that the effect of family background through motivation on achievement variables were significant. This finding was assemble with the funding reserach done in china [6]

The direct effects of facility from side of the motivation to side of achievement were -1.029. While the indirect effects of family background through motivation to achievement was also the multiplication of both Beta as in $0.075 \times 0.740 = 0.055$ then the total effects given by both variabels were the addition of $-1.029 + 0.724 = -0.973$. thus, there was no effects of facility either directly or indirectly effects on the achievement.

3 CONCLUSION

Learning process is influenced by many factors. It may come from inside or environment of the student. Therefore, the elements of education in polytechnic or university lectureres, managements, and stakeholders must take into account on the students'problem.. The success of the University's output is based on the student's existence in the workplace. The results above show that the student's learning progress is not located on the learning facilities but in the family background and motivation. Student motivation would be better if family support to them is good. Conducive family, parental closeness include economic, health, and social interactions are the important role to increase the student's achievement.

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