

Thesis Title: Statistical Model for Learning Outcome Development of Graduate in Science

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This research aims to: 1) study teaching-studying strategy; examine factors affecting the learning outcome of Science graduates; and 3) to construct statistical model for developing learning outcome of Science graduates. The population of the study is 1,700 students from the Faculty of Science and Technology. A questionnaire is used as a tool for collecting data regarding the model. The data is analyzed via statistical tools which are percentage, mean, standard deviation, Pearson's Correlation Coefficient, and Stepwise Multiple Regression Analysis.

The results of the research are as follows:

1. The opinions of students towards teaching-studying strategy overall is at a high level. When considering individual aspect, all are at high level; namely, interpersonal and disciplinary skills, moral and ethics skills, numerical analysis, communication and IT skills, and knowledge and cognitive skills. In addition, their opinion towards learning outcome overall is at a high level.

2. Factors affecting learning outcome are interpersonal and disciplinary skills, moral and ethics skills, knowledge skill, and numerical analysis, communication and IT skills, respectively.

3. The statistical model for developing learning outcome of Science graduates are that learning outcome = $.354 * \text{interpersonal and disciplinary skills} + .342 * \text{moral and ethics skills} + .252 * \text{knowledge skill} + .084 * \text{numerical analysis, communication and IT skills}$. The model can describe the result of learning outcome at 79.4 %, having standard error of estimate (SEE) at $\pm .2248$.

Keywords: learning outcome development / teaching-studying strategy/ Graduate in Science

