ABSTRACT

Thesis Title : Appropriate Equation for Predicting Academic Achievement of Freshmen Boromarajonani College of Nursing, Bangkok

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The purpose of this study was to find an appropriate equation for predicting academic achievement of freshmen Boromarajonani college of nursing, Bangkok, in the 1995 - academic year. This research employed both linear and curvilinear equations for forming the predicting equations The subject were 220 freshmen. The data and information were collected through 8 factors : Simple student data, Achievement Motivation, Study Attitude, Study Habits, Teaching Efficiency, Classroom Climate, Relationship and Home Environment and Domestic Environment. Stepwise Multiple Regression Analysis were used to analyse the obtained data. The results were as follows ;

1. The variables which significantly correlated with academic achievement of freshmen were G.P.A. in mathayom suksa six, Mother's

occupation, Mother's ages, Father's ages, Teaching Efficiency and Relationship and Home Environment.

2. The linear and curvilinear regression equations for predicting academic achievement in this set of data were compared for their multiple correlations. It was found that the multiple correlations obtained from the curvilinear regression equations were mainly higher than those obtained from the linear regression equations which significantly correlated at .05. The following are the conclusions for each situation :

2.1 When the whole variables having linear relation with academic achievement were used as predictors, the variables which significantly correlated at .05, G.P.A. in mathayom suksa six, Father's incomes, and Teaching Efficiency.

2.2 When the whole variables having curvilinear relation with academic achievement were used as predictors, the variables which significantly correlated at .05, quadratic of G.P.A. in mathayom suksa six, quadratic of Relationship and Home Environment and quadratic of Mother's occupation

3. The best of the appropriate equations for predicting academic achievement of freshmen was the curvilinear regression equations that

The curvilinear regression equation :

in the standard form

$$Z = .344 \ V_3^2 - .159 \ -SA_6^2 + .130 \ V_{10}^2$$

in the raw scores form

$$Y = 2.219 + .055 \ V_3^2 - .014 \ SA_6^2 + .005 \ V_{10}^2$$

(7)