

Abstract

Title : **Factors Affecting Achievement on First Year Medical Students of Suranaree University of Technology**

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The objectives of this institutional research are: (1) to study the correlation of GPAX at secondary level during years 4-6 of the first semester and O-NET, A-NET scores; (2) to study the correlation of written examination scores on Suranaree Admission Test related to Learning Subject Group (Mathematics, Physics, Chemistry and Biology) among [2.1] the GPAX of all subjects during secondary levels 4-6 of the first semester [2.2] GPAX in Learning Subject Group : Mathematics and Sciences [2.3] O-NET and A-NET scores [2.4] interview scores [2.5] Objective Structured Behavior Examination (OSBE) scores (3) to study the correlation among interview scores and GPAX in Learning Subject Group on Mathematics and Sciences of secondary level on years 4-6 of the first semester (4) to study the correlation among GPAX in Mathematics, Physics, Chemistry, Biology and English of medical students at the end of their first year among [4.1] GPAX of Learning Subject Group in Mathematics and sciences during secondary level of years 1-6 of the first semester [4.2] O-NET, A-NET scores and scores of Learning Subject Group in Mathematics, Sciences and English [4.3] Written exam scores on Suranaree Admission Test and Learning Subject Group (Mathematics, Physics, Chemistry, Biology) (5) to study factors affecting achievement at the end of the first year.

The data were gathered from history in application forms, written scores, interview scores, OSBE scores and first year achievement scores. The studied factors consisted of 3 periods (1) high school or grade 4 to first semester of grade 6 : GPAX of mathematics, physics, chemistry, biology; O-Net, A-Net scores (2) SUT admission written exam scores: mathematics, physics, chemistry, biology; interview scores; OSBE scores (3) first year achievement scores: GPAX of mathematics, physics, chemistry, biology, English. The subjects were 48 medical students who were enrolled in 2006. Data analysis used Pearson Correlation and Multiple Regression Analysis.

It was found that

(1) scores of O-NET, A-NET correlated with SUT written exam scores ($p < .01$)

(2) scores in mathematics of SUT written exam correlated with OSBE in stations of critical thinking, team working, and total scores (p-value <.05,.01,.05)

(3) SUT written exam scores correlated with first year achievement scores in mathematics, physics, chemistry, biology (p-value .05)

(4) O-NET and A-NET scores in mathematics, sciences; SUT written exam scores in physics, chemistry, biology; and first year achievement scores in physics, chemistry, biology correlated at statistical significance .05

(5) GPA in mathematics from high school, O-NET, A-NET, SUT written exam, and interview scores in item 3 related to proper character for physician can predict 80.90% academic success of medical students at the first year.

Conclusion: SUT written exam scores were found to be significant correlated with scores of O-NET, A-NET. If good scores in O-NET, A-NET or mathematics in secondary school will affect high achievement in the first year.