

Project Title : The Modified Eaasy Question for Testing
Problem Solving Skills

Name of the Investigator : Assisstant Professor Puangkaew
Poonyakanok

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Abstract

This research was aimed at constructing an MEQ test to measure problem solving skills. The qualities of test were then analyzed to find its objectivity, reliability and validity. All applicants for Innovative Medical Education Programme of the Faculty of Medicine, Chulalongkorn University in the academic year 1989 were subjects of this research.

There were 10 cases in the MEQ constructed by the researcher with 25 questions and 65 total scores. It was a written test which can be administered by computer.

The researh results showed the objectivity in marking by 3 raters. The intercorrelation among three raters were, $r_{12} = 0.8873$, $r_{13} = 0.8269$, and $r_{23} = 0.8074$ ($p < .001$). The reliability in marking by three raters was 0.9408. The internal consistency estimated by Cronbach's alpha coefficient was 0.4904. The reliability estimated by test and re-test method was 0.3792 ($p < .05$).

The criterion related validity of the MEQ when the MCQ, the Scholastic Aptitude Test and the Higher Skill in Problem Solving Test were used as the criterions were 0.4231 ($p < .01$), 0.2612 ($p < .05$), and 0.1348 ($p > .05$).

respectively. The predictive validity estimated by the correlations between MEQ and Achievement tests were 0.579, 0.494 and 0.460 ($p < .05$) when Clinical Skills, Critical Appraisal and Computer were criterions respectively, and when the MEQ Achievement Test and the total score of Block 2 trauma were used as criterions the correlations were 0.415 and 0.530 ($p < .05$) respectively.