

Modified Essay Question (MEQs) as Tracers for Integrated Cognitive Competencies of Sixth-year Medical Students

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Objectives : To analyse using MEQs as tracers for integrated cognitive competencies of sixth-year medical students

Designs : A cross-sectional descriptive study

Setting : Faculty of Medicine, Prince of Songkla University

Subjects : 109 sixth-year medical students of academic year 1999

Measurement : MEQs were constructed from 5 common medical problems containing of total items 47. The items were then categorized into 9 cognitive competencies : problem identification, data gathering, data interpretation and hypothesis generation, patient management, clinical reasoning, ethical analysis, patient education, evidence-based medicine, and basic factual knowledge.

Results : The overall Cronbach's reliability coefficient was 0.743 whereas each MEQ reliability coefficient ranged from 0.415-0.632. The proportions and mean scores' SD of each competency were shown below :

	Proportions (% of total score)	Mean scores \pm SD
Problem identification	3.2	72.5 \pm 11.4
Data gathering	12.4	59.0 \pm 7.9
Data interpretation & hypothesis generation	6.4	46.5 \pm 12.9
Patient management	33.7	60.6 \pm 7.0
Clinical reasoning	8.2	41.5 \pm 10.3
Ethical analysis	3.2	44.3 \pm 18.9
Patient education	4.2	37.9 \pm 11.0
Evidence-based medicine	9.9	41.0 \pm 14.9
Basic factual knowledge	18.8	52.4 \pm 9.0

Conclusions : MEQs can be used as reliable tracers for integrated cognitive competencies. Identification of student's weaknesses would help the faculty to improve the quality of teaching and learning activities for better medical graduates.