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## Running Targeted Question Development Workshops to Improve the Competency of Clinicians and Quality of Written Assessment Questions for Clinical Year Medical Students

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## **RUNNING TARGETED QUESTION DEVELOPMENT WORKSHOPS TO IMPROVE THE COMPETENCY OF CLINICIANS AND QUALITY OF WRITTEN ASSESSMENT QUESTIONS FOR CLINICAL YEAR MEDICAL STUDENTS.**

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**Objective:** Medical schools have always strived to develop high quality assessment questions that have the capacity to test the high order thinking of clinical year medical students. While clinicians are enthusiastic in their contribution to writing these questions, they often lack confidence in their ability to write good quality items. The benefits of running targeted question development workshops have not been adequately investigated.

The aim of the study was to evaluate whether targeted workshops will improve the confidence and competency of clinicians in writing assessment questions and therefore improve the overall quality of assessment items.

**Methods:** The School of Medicine, Sydney, University of Notre Dame is a new medical school having the first graduating cohort in 2011. Clinical year written assessment items are written by affiliate or adjunct clinicians of the School. Targeted question development workshops were conducted in one subschool site (Melbourne) to facilitate and train the clinicians in written question development. At the beginning of each workshop, a pre-workshop questionnaire was distributed to each participant collecting anonymous data on their self-perceived level of competency in developing quality MCQ and short answer questions (SAQ) on a 1-5 Likert scale. A 3-hour workshop then followed consisting of the 1<sup>st</sup> part: training session on format and characteristics of high quality assessment items, pitfalls in writing questions, ways to improve an item to test higher order thinking and methods to avoid test-wise student's strategies. 2<sup>nd</sup> part: draft items from participants were shown to the multi-disciplinary panel for the purpose of further discussion and critique with respect to question quality. This provided the added advantage that each item was able to be modified and improved on at the time, thus providing immediate and ongoing feedback to the question writers. At the conclusion of the workshop, the same questionnaire was re-administered and participants rated their perceived competencies after the exercise. The Wilcoxon rank sum test with paired data was used to determine if there was any improvement in the post workshop competencies. The quality improvement of assessment items was analysed by determining the percentage of questions which needed further modifications at the subsequent review committee.

**Results:** There were a total of 11 clinicians participating in the workshop and a 100% response rate for the questionnaires. There was a highly significant ( $p=0.005$ ) improvement in the perceived competency in writing both MCQ and SAQ items after the workshop (Table 1). The items developed post workshop also required significantly less modifications when compared to question items developed by non-workshop participants.

**Conclusions:** By delivering training and facilitating multi-disciplinary review and feedback on draft assessment items, the targeted question development workshops could improve the quality of assessment items as well as increasing the level of competency of the clinicians as part of the faculty development program.

Table 1: Wilcoxon rank sum test

Questions	Pre workshop	Post workshop
What do you think the level of competency you are at (for MCQ development) before this workshop? (Scale 1-5)	2	4*
What do you think the level of competency you are at (for SAQ development) before this workshop? (Scale 1-5)	2	4*

\*  $p= 0.005$