Reflections

Assessing Tutorial-Based Assessment

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Abstract. Since the development of problem-based learning curricula, medical educators have viewed tutorials as an ideal context within which medical student competence can be assessed. Advantages of tutorial-based assessment include, (a) evaluation based on prolonged and intense interactions between students, peers, and tutors, (b) the opportunity to assess domains of competence that are not readily assessed by more traditional examinations (e.g., communication skills, scientific curiosity, and respect for peers), and (c) avoidance of the negative impact of more formal summative evaluations. However, in addition to psychometric weaknesses inherent in this form of evaluation, the interpersonal relationships that serve as one of the primary strengths of the tutorial have also proven to be one of the main defects in tutorial-based assessment. The current paper will review the evidence relevant to this assessment paradox, paying particular attention to the use of self-assessment.

Key words: competence, evaluation, peer-assessment, self-assessment, tutor-assessment, tutorial-based assessment

Introduction

As medical knowledge becomes more rapidly generated and disseminated, an increasing emphasis has been placed on the need for physicians to develop the skills necessary for life-long learning. These skills include the ability to (a) recognize where one’s own knowledge is inadequate, (b) gather information relevant to the recognized deficiency, (c) critically appraise newly acquired information, and (d) implement new understanding in a manner that improves practice. The emphasis on the development of these skills was, in part, the impetus for the creation of curricula that utilize problem-based learning (PBL) (Barrows, 1983). While any attempt to further promote these skills is laudable, evaluating student progress in these areas has proven difficult. To maintain an educational system that is student-centered, assessment protocols within PBL curricula have often emphasized self-and peer-evaluation, usually within the context of small group tutorials. The current paper will review the evidence relevant to tutorial-based evaluation by examining the use of tutor-, peer-, and self-assessment. Beforehand, however, a closer look at the need for this type of assessment will be undertaken.
The Need for Tutorial-Based Assessment

The evaluation strategy implemented by medical schools has long been known to influence students’ study habits (Newble and Jaeger, 1983). As a result, care must be taken to ensure a match between curricular ideology and assessment procedures. As Norman (1991) has noted, generating detailed behavioural objectives as a precursor to an assessment exercise is the antithesis of problem-based, self-directed learning. Similarly, evaluation systems that encourage cramming for a formal examination do not fulfil the primary objective of PBL – promoting learning within the context in which the material will need to be retrieved in practice (Norman, 1988). Since PBL units are designed to emphasize principles of analysis and the resolution of clinical problems (Barrows and Tamblyn, 1976) the emphasis of the assessment tools should focus, at least in part, on the evaluation of the skills, processes, and attitudes of each student within the context of clinical issues. Intuitively, the most appropriate setting for implementing these evaluation ideals is the tutorial itself. Herein lies the paradox.

On one hand, tutorial-based assessment is intended to allow for evaluation based on actual performance to take place within the learning environment (Hay, 1995). Students should be able to assess themselves, as it is believed that students who maintain a more active role in the learning process (as is stressed in PBL tutorials) should be better able to judge their own performance. Furthermore, the dynamic nature of these groups and the prolonged interactions are expected to allow tutors and peers to develop a better sense of the strengths and weaknesses of the members of the group, thereby allowing them to provide accurate and constructive feedback. As a result of these apparent advantages McMaster University’s medical programme initially relied solely on tutorial-based assessment (Norman, 1991).

However, there is a real concern that conducting evaluation in the tutorial setting may negatively impact on the process itself. So, paradoxically, while the tutorial is the best place to observe these behaviours, the act of observation and evaluation may inhibit their demonstration. Thus, the dual roles of mentor and judge are viewed as incompatible by many tutors (Blake et al., 1995). The University of Maastricht has avoided the use of tutor-based assessment for this very reason (Nendaz and Tekian, 1999).

Similarly, the use of self- and peer-based assessment has been argued against. The intimate nature of the relationships that has often been viewed as positive for its ability to provide peers with an accurate understanding of their colleagues’ competence also makes students hesitant to rate their peers for the purposes of evaluation (Van Rosendaal and Jennett, 1992). Students are, not surprisingly, even less likely to rate themselves as incompetent. As an anonymous educator once noted “even the church never asked parishioners to make their confession in public” (Blake et al., 1995, p. 899).

That being said, the tutorial remains a source of an abundance of information even if comfort in generating a formal assessment based on that information has