
Background: No research to date has quantitatively evaluated the perceived effectiveness of learning and teaching that occurs on a clinical rotation, nor has it considered the different ways in which teaching and learning occur across multiple settings and contexts in clinical rotations. The authors aimed to evaluate the perceived educational value of learning opportunities, and the congruence between student and clinician perceptions of learning opportunities, as well as the factors that were perceived to enhance or constrain teaching and learning.

Methods: Forty students in two successive clinical rotations were followed for 8-week periods. They were in their final year of a graduate-entry program at the University of Queensland. Ten clinicians who provided education to these students also participated. Using a multiple methods approach, the authors evaluated the experiences of students and teachers in three phases. Phase 1 used questionnaires that were developed from a previous validated instrument. This instrument asked students and clinicians about their perceptions of teaching, and items representing each of the learning opportunities available to students. Unstructured observations of teaching, learning and student-clinical interactions were then conducted. Observations were conducted in 12 sessions and a thematic analysis was performed to elicit themes which were used to inform Phase 3. Phase 2 involved separate focus groups of 4 to 12 participants, discussing with students and teacher themes that emerged in Phase 1. Phase 3. Results from Phase 1 and 2 enabled the development of a structured learning observation tool (SLOT) which was piloted in Phase 3. It was developed from the themes: student engagement in higher-order cognitive processes; student-student information sharing, and the learning and teaching environment. Students and clinicians in a range of large- and small-group settings were observed, and the SLOT was used to record the quantity and type of learning and teaching actions.

Results: Perceptions of what constitutes good clinical teaching did not differ between clinicians and students. Both groups highlighted the value of hands-on experience, a broad knowledge base and working in small groups with clinicians; however, ward rounds were valued more by clinicians than by students. Observations reveal a dominance of passive and low-level cognitive actions across learning sessions, particularly during beside teaching. Low-level cognitive functions involve students asking rhetorical or closed questions (recalling descriptive information or sharing knowledge in a didactic manner) whereas higher-level cognitive functions include asking students open-ended questions and asking to apply critical reasoning skills. Clearly, some learning opportunities, such as more interactive clinical sessions and pre-reading, are better than others at producing higher-level cognitive actions. Interruptions by phones and pagers also detract from the learning experience. Incorporating blended learning in clinical rotations (e.g., providing on-line course materials, pre-reading, study guides, mentorship and discussion groups) may be one way to promote student learning.

Conclusions: This study highlighted congruency between student and teaching perceptions of good teaching and learning. At the same time, it flagged a potential disjunct between student and teacher expectations (or understanding) of various learning opportunities, and revealed a much broader disconnection between what is most valued – uninterrupted, interactive clinical – and what is easiest to deliver in the clinical context.

Implications for TUSM: These findings may be used to inform opportunities to maximize student learning within clinical rotations through focusing on higher-level cognitive processing, the refinement of clinical reasoning skills, and the use of clinician time for teaching with feedback.

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