

**Title:** Enhancing objectivity in orthopaedic surgical skills assessment

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**What problem was addressed:** Are surgical skills of surgery residents up to the mark at completion of training? Do all trainees acquire sufficient surgical skills through the residency training and experience? Do all trainers “teach” surgery equally well? The answers to these questions are probably not emphatic affirmatives in many training institutes across the world. Thus, at the completion of residency training, trainees are generally certified as competent surgeons based on a plethora of attributes, surgical skills being one of them. Judgement about surgical skills is largely based on multiple subjective assessments during the actual training; by and large there is no “exit exam” for surgical skills assessment. This subjectivity of assessment raises several concerns from the educational perspective: A) is it valid, B) is it fair, C) does it improve teaching, and D) does it improve individual learning?

**What was tried:** We searched the literature for methods of objective assessment of surgical skills to be incorporated in orthopaedic surgery residency at our institute, with a vision to propose its adoption in the Orthopaedic Residency Programme guidelines by our national examination and accreditation body. The Objective Structured Assessment of Technical Skills (OSATS) stood out as a tool which can be used for formative feedback and summative assessment, and has been shown to improve teaching and learning. We introduced OSATS as a pilot project in May 2015. Residents required motivation to adopt a new and extra method. Faculty members, however, were already convinced of the need to improve surgical skills; hence, buy-in was not difficult. After a quarter, feedback from the learners showed that 100% of residents agreed that OSATS are a useful tool for providing feedback, and both formative and summative assessments after an operation. Notably, 60% thought that the usefulness depended on the person giving the feedback. Half agreed that the feedback was given confidentially. As for the trainers, 78% agreed that OSATS are a useful tool for providing feedback after an operation/procedure, 67% agreed that OSATS are a valuable aid to learning, and 57% agreed that OSATS are a valuable method to assess achievement of a satisfactory level of surgical competence. Faculty suggested that it would be useful if residents inform faculty before surgery. Both residents and faculty expressed a need for more training in the use of this tool.

**What lessons were learned:** Being more objective about surgical skills requires commitment on part of the teaching surgeons to spend a few minutes giving face-to-face debriefing regarding performance in specified aspects of surgery in a comfortable atmosphere. From the learners, it requires commitment to proactively obtain such feedback. Getting the

stakeholders to implement a radical change of assessment in their program is generally a challenge; convincing them of the need for a change and ultimate benefits reduced the difficulty. Such individualized, specific feedback appears to be an appropriate, feasible, and objective method for teaching, learning, and assessment within the psychomotor domain in surgical specialties.

**Reference:**

1. Sullivan ME, Baker CJ Employ a structured approach to teaching psychomotor skills to enhance learner performance. American College of Surgeons online article. Available from [www.facs.org/education/rap/sullivan1210.html](http://www.facs.org/education/rap/sullivan1210.html) accessed 31 Aug 2015.