
Improved OR Teaching – Evaluation and Feedback

What the articles tell us

The Lyon (2004) article expands on previous work of the same author*, where a case study was conducted to investigate how medical students learn and are taught in the OR, specifically observing the challenges students face as learners in the OR. From the previous work, the author conceptualized three main domains:

1. The challenge posed by the physical environment
2. The challenge of the educational task
3. The challenge of managing and negotiating a role as a participant in the professional workplace of the OR

This paper further explores the third domain. Data were collected via observations in the OR, individual and group interviews with students, interviews with surgeons, and a student survey. The author presents an interpretive model of teaching and learning in the OR.


Key points from this article:

- Students need to be an active part of the interactive process in the OR.
  - Participation and involvement – keys to learning in the OR
- Involvement includes motivation from the student and the surgeon’s willingness to teach.
- Students receive feedback from how the surgeon behaves and from what they are told.
- Students are motivated in large part by the surgeon’s attitude.
- Surgeons and students are engaged in a continuous dynamic of observing each others’ behaviours.
  - Reflexive process
- Students learn to trust (or not trust) the surgeon early in the interaction. Trust, on both sides, creates a “safe” climate for learning in the OR.
- Potential for learning is limited if the student is not perceived as having a legitimate place in the OR.
- Communication and negotiation of teaching and learning at the beginning of OR sessions can help establish expectations and avoid conflict.

The Kenton (2006) paper offers a discussion of methods of teaching in the OR and ways to improve teaching in the OR. The author provides a narrative based on some of the current
literature, and continues on to describe some of the teaching techniques that are currently employed at one specific institution. However, **the author concludes with an excellent appraisal of evaluation and feedback in the OR, with several recommendations:**

- Evaluation and feedback should be given in several forms:
  - Formative: during and after the case
  - Summative: at the middle or end of the rotation
- Feedback should be given as close to the actual performance, and some should even be given during the case in an effort to aid the resident and protect the patient (but this should be limited so as to no overload the resident).
- Feedback during cases ought to be non-personalized and should be focused on the skill or action to be changed.
- Feedback may often depend on whether the resident is a visual or verbal learner.
- Feedback immediately following the case is equally as valuable to feedback provided during the case.
  - This is evaluative component is often neglected.
- Feedback during cases ought to be non-personalized and should be focused on the skill or action to be changed.

**Key points from this article:**

- Feedback is defined here as “information that a system uses to make adjustments in reaching a goal”.
- Often, feedback does not get back to where it can be most helpful—the trainees themselves.
- When a trainee receives feedback, it highlights the dissonance between the intended result and the actual result, thereby providing impetus for change.
- It is useful for the trainee’s future performance in that same activity.
- **Feedback and evaluation are often used interchangeably:**
  - Feedback presents information, not judgment; feedback is formative, and allows the student to remain on course in reaching a goal; neutral (verbs and nouns)
**Evaluation** is summative; it comes after the fact and presents a judgment, usually the teacher’s, about how well or poorly a student met their goal, and often in relation to the performance of the trainee’s peers; expressed as normative statements (using adverbs and adjectives).

Explanations for the **paucity of feedback in clinical education**:

- Failure to make first-hand observations of a trainee’s performance
- Concerns that feedback will have effects beyond its intent (i.e., negative emotional reactions, damage the student-teacher relationship, result in more harm than good); can inhibit giving or receiving feedback in the future
- “**Vanishing feedback**”: when the well-intentioned teacher talks around the problem or uses indirect statements to obfuscate the message, leading to the student fearing a negative evaluation, thereby supporting and reinforcing the teacher’s avoidance. Although well-intended from the start, this can lead to no feedback at all.
- **Without feedback**, mistakes go uncorrected, good performance is not reinforced, clinical competence is achieved empirically or not at all, and students’ sense of being adrift in a strange environment is amplified.

**Feedback is:** 1) necessary, 2) valuable; and 3) after a bit of practice and planning it is not as difficult as one might think.

The author outlines Guidelines for Giving Feedback:

- Feedback should be undertaken with the teacher and trainee working as allies, with common goals.
- Feedback should be well-timed and expected.
- Feedback should be based on first-hand data.
- Feedback should be regulated in quantity and limited to behaviours that are remediable.
- Feedback should be phrased in descriptive non-evaluative language.
- Feedback should deal with specific performances, not generalizations.
- Feedback should offer subjective data, labelled as such.
- Feedback should deal with decisions and actions, rather than assumed intentions or interpretations.

How this applies to teaching in the OR

- Evaluations and feedback from staff and residents provide opportunities for improvement in OR training, specifically when it comes to determining areas needing improvement and understanding the intraoperative training process.
- Evaluation and assessment of learners in the OR:
  - Critical to the success of the teaching program and the surgical learners’ advancement.
  - Have you incorporated an evaluation method/tool when training surgical learners? If not, might this be beneficial to your practice and the students you teach?
  - Do you use some standard way to give feedback or evaluation?
  - Do you provide corrective feedback to your students?
  - What type of feedback do you use most often? (i.e. negative, positive)
Do you give students the opportunity to give you feedback?

When feedback is given, is it at an appropriate time and location?

Do you separate feedback from evaluation?

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