

# Behavioral Specification of the Entrustment Process

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Never trust anything that can think for itself if you can't see where it keeps its brain.

JK Rowling, *Harry Potter and the Chamber of Secrets*

The judicious entrustment of professional activities is a challenging process, fraught with uncertainty. Yet, it is the essence of clinical teaching and practice-based learning and improvement. Effective clinical teaching and supervision require an evidence-based approach to entrustment that should exemplify a broader, organizational approach to patient safety and quality improvement. Yet, relatively little is known about how supervisors use information gleaned from direct observations of trainee competence in entrustment decision making. A deeper understanding of the entrustment process will be useful in preparing clinical educators for their role in balancing the learning and clinical care objectives of the academic setting.

## Judging Competence

Consider the clinical educator in the following situation: *An attending emergency medicine physician is responsible for a 65-year-old man with abdominal pain. The physician is legally required to see the patient and has ultimate responsibility for all care provided, but must decide how much autonomy to grant a second-year resident in managing the patient's diagnosis and treatment.* What factors should the attending consider to make this entrustment decision?

The competence of the learner involved in patient care is the chief concern; however, research suggests that clinical educators do not make systematic use of formal assessment opportunities to judge learners' preparedness to provide care<sup>1</sup> and rarely base their feedback to trainees on direct observations of actual performance.<sup>2</sup> Instead, supervisors report using a variety of indirect methods to assess competence, including verbal case presentations,<sup>3,4</sup> input

from colleagues and staff,<sup>1</sup> trainees' self-assessments,<sup>1,3</sup> and general trainee characteristics, such as number of years of postgraduate training.<sup>1,3</sup> A wealth of literature on interpersonal trust in occupational settings confirms this strategy, indicating that (1) people seek evidence that others have the capability and willingness to perform according to expectations; and (2) when personal experience with the trainee in the entrustment decision is limited, individuals use proxies for direct observation to judge trustworthiness.<sup>5</sup>

## Managing Risk

In our example, the attending emergency medicine physician is supervising a second-year orthopedic resident with whom he has not worked before. He is unfamiliar with this "off-service" resident's experience in emergency medicine and asks his colleagues for their input. The colleagues report nothing unusual about the resident, who seems professional, but they express concern about her ability to handle undifferentiated patients. The attending physician has previously regretted granting autonomy to residents from other disciplines and prefers to avoid risks to patient safety. He therefore makes a conservative entrustment decision, opting to follow up with the patient much more quickly and thoroughly than he would if the resident had been familiar to him and/or had trained in emergency medicine.

This attending physician's approach exemplifies "increased oversight" as the general strategy supervisors use to manage entrustment concerns. Oversight may include double-checking or more closely monitoring the work of trainees, or, in extreme cases, assuming direct control over patient care.<sup>6</sup> In our (J.A.K.) observations of emergency medicine educators, we have observed 3 styles of managing trainee oversight: the loner, the director, and the teacher. The loner takes complete control of the situation, with the entrustment decision offering the trainee little to no independence, even in relatively safe settings. The director partially entrusts care to the trainee, but restricts the learner's autonomy to tasks with simple decision-making demands. The teacher views competency shortfalls as learning opportunities, responding to entrustment concerns by using questions or other prompts to draw the trainee's attention to a missed consideration or procedural step. Although these styles may characterize an educator's typical approach to supervision, a given supervisor likely

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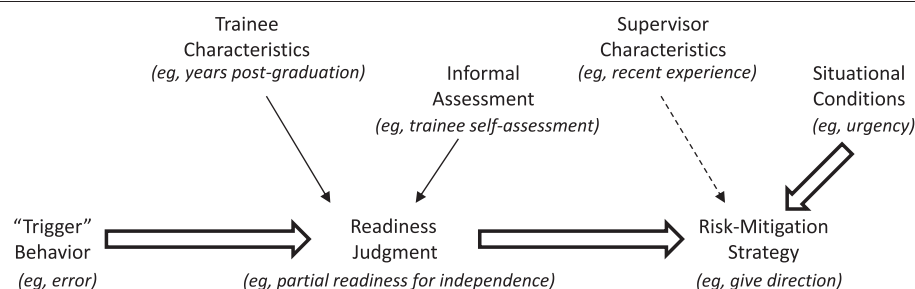


FIGURE | **CONCEPTUAL MODEL OF EFFECTIVE ENTRUSTMENT DECISION MAKING**

adopts more than 1 style, depending on the level of the learner and the situation.<sup>7</sup> Investigations of trust in other occupational settings suggest that entrustment is not necessarily an all-or-none act but a combination of approaches that dynamically alter the social distance between people.<sup>5</sup>

### Linking Competency Judgments to Oversight Strategies

Let us return to our example. Over the course of her rotation, the orthopedics resident in our story has gained competence in her approach to and management of patients. Despite her improvement, her attending physician in this vignette continues to supervise her closely, limiting her opportunities to make decisions and receive feedback on these decisions. The resident begins to feel that regardless of what she does, she will not be able to convince the attending physician that she is capable of learning and caring for patients in the emergency department. As a consequence of this she performs well enough to complete the rotation, but no longer strives to use that experience to maximize her professional growth. As the resident adds her experiences to others, the attending physician acquires a reputation as someone who sees teaching as a burden or who, at least, is biased against residents from specialties other than emergency medicine.

In an effective approach to clinical teaching, a supervisor's entrustment decisions follow from his or her independently verifiable judgment of trainee competence. In contrast, research on actual practice suggests that supervisors' entrustment decisions are highly idiosyncratic. For example, supervisors vary widely in their estimate of how many years of training are required to perform relatively simple entrusted professional activities.<sup>1</sup> Moreover, assessment of clinical teaching skill does not promote evidence-based entrustment decision making. A recent review of clinical teaching evaluation<sup>8</sup> indicates that supervisors more often are assessed on their characteristics than on their actions and that there is a general lack of concrete performance indicators for clinical teaching.

Assessing supervisors' ability to factor direct evidence of trainee competence into their entrustment decision making should be a high priority for clinical faculty development.<sup>6</sup>

### Understanding and Assessing Entrustment Decision Making

The FIGURE presents a theory-based conceptual model of the factors that influence judgments of trainee readiness and associated risk-mitigation strategy. As shown in the model, supervisors judge trainees' readiness for autonomy by using a combination of direct and indirect evidence of competence. Risk-mitigation strategy, in turn, is influenced by the supervisor's assessment of the trainee, along with the supervisor's personal characteristics and the demands of the clinical situation. According to this model, more effective entrustment decision making is characterized by greater involvement (represented by larger arrows) of observation of actual trainee behavior in supervisors' readiness judgments and reduced involvement (shown by a dashed arrow) of supervisor characteristics in risk-mitigation strategy.

Specifying entrustment as a behavioral process enables the use of assessment methodologies for clinical teaching evaluation that have been extensively investigated in other domains of occupational research, including aviation and the military<sup>9</sup> and business management<sup>10</sup> and in medical school admissions.<sup>11</sup> A central feature of these methodologies is the use of simulation to present realistic, challenging scenarios designed to test interpersonal skill, as well as including specific behavioral targets for assessment and feedback.<sup>10,12</sup> The fidelity of the simulation does not need to be high to achieve the intended assessment goals. Low-fidelity simulation, also known as situational judgment testing,<sup>13</sup> can feature a variety of medical scenarios (eg, cognitive and procedural professional activities), is feasible to develop, and is easy to scale. For medical centers that already use simulation, there is no requirement for additional resources or space to develop rigorous scenarios for assessing entrustment decision making.

A return to our national emergency medicine scenario illustrates how low-fidelity simulation may be used to assess and improve entrustment decision making. As part of regularly scheduled faculty development, the attending physician is asked to spend a half hour in front of a computer where he watches a series of brief videos. The videos present standardized residents demonstrating varying levels of competence in performing high-priority professional activities in emergency medicine. Accompanying each video is background information about the resident shown. Before watching each video, the faculty physician reviews the background information and provides a readiness assessment. After watching the video he provides a second assessment of the residents' readiness for entrustment and the oversight strategy he would use if he was working with the resident. After completing all of the videos, the attending physician receives feedback on how effectively he used direct and indirect evidence of trainee competence to judge readiness and mitigate risk. He also is provided with information on critical trigger behaviors to watch out for and the range of options available to increase oversight while maintaining opportunities to learn.

## Conclusion

To advance the development of clinical educators, a deeper understanding of the entrustment process is needed—one that specifies behaviorally what the link between trainee competence and supervisor oversight is and should be. Enhanced understanding of the entrustment process would meet this need and enable the design of rigorous, simulation-based assessments of entrustment decision making. Ideally, such effort would enhance clinical teaching skill by weakening the influence of supervisor and trainee characteristics on entrustment decisions and

strengthening the influence of trainees' actual behavior and relevant situational conditions. As illustrated in our example of the off-service resident, an evidence-based approach to entrustment decision making may enhance teaching and quality improvement in the interspecialty context as well.

## References

- 1 Dijksterhuis MGK, Voorhuis M, Teunissen PW, Schuwirth LWT, ten Cate OTJ, Braat DDM, et al. Assessment of competence and progressive independence in postgraduate clinical training. *Med Educ*. 2009;43(12):1156–1165.
- 2 Hauer KE, Kogan JR. Realising the potential value of feedback. *Med Educ*. 2012;46:132–142.
- 3 Sterkenburg A, Barach P, Kalkman C, Gielen M, ten Cate O. When do supervising physicians decide to entrust residents with unsupervised tasks? *Acad Med*. 2010;85(9):1408–1417.
- 4 Kennedy TJT, Regehr G, Baker GR, Lingard L. Point-of-care assessment of medical trainee competence for independent clinical work. *Acad Med*. 2008;83(10):S89–S92.
- 5 Dietz G, Den Hartog DN. Measuring trust inside organisations. *Personnel Rev*. 2006;35(5):557–588.
- 6 Kennedy TJ, Lingard L, Baker GR, Kitchen L, Regehr G. Conceptualizing the relationship between supervision and safety. *J Gen Intern Med*. 2007;22(8):1080–1085.
- 7 Xiao Y, Seagull FJ, Mackenzie C, Ziegert J, Klein K. Team communication patterns as measures of team processes: exploring the effects of task urgency and shared team experience. In: Proceedings from the 47th Annual Meeting of the Human Factors and Ergonomics Society; Denver, CO; 2003:1502–1506.
- 8 Conigliaro RL, Stratton TD. Assessing the quality of clinical teaching: a preliminary study. *Med Educ*. 2010;44(4):379–386.
- 9 Fernandez R, Vozenilek JA, Hegarty CB, Motola I, Reznick M, Phrampus PE, et al. Developing expert medical teams: toward an evidence-based approach. *Acad Emerg Med*. 2008;15(11):1025–1036.
- 10 McDaniel MA, Nguyen NT. Situational judgment tests: a review of practice and constructs assessed. *Int J Select Assess*. 2001;9(1/2):103–113.
- 11 Lievens F, Buyse T, Sackett PR. The operational validity of a video-based situational judgment test for medical college admissions: illustrating the importance of matching predictor and criterion construct domains. *J Appl Psychol*. 2005;90(3):442–452.
- 12 Rosen MA, Salas E, Wu TS, Silvestri S, Lazzara EH, Lyons R, et al. Promoting teamwork: an event-based approach to simulation-based teamwork training for emergency medicine residents. *Acad Emerg Med*. 2008;15(11):1190–1198.
- 13 Motowidlo SJ, Dunnette MD, Carter GW. An alternative selection procedure: the low-fidelity simulation. *J Appl Psychol*. 1990;75(6):640–647.