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## The ingredients of a rich entrustment decision

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### ABSTRACT

Entrustment decision-making has become a topic of interest in workplace-based assessment in the health professions and is germane to the use of entrustable professional activities. Entrustment decisions stem from judgments of a trainee's competence and include the permission to act with a higher level of responsibility or autonomy and a lower level of supervision. Making entrustment decisions differs from regular assessment of trainees, which usually has no consequences beyond marking trainee progress. Studies show that clinicians generally weigh more factors in making an entrustment decision than when merely assessing trainee competence or performance without direct consequences for patient care. To synthesize the varying factors reported in literature, the authors performed a thematic analysis of key qualitative studies that investigated trainee features clinical supervisors find important when making entrustment decisions. Five themes emerged from the 13 publications: Capability (specific knowledge, skills, experience, situational awareness), Integrity (truthful, benevolent, patient-centered), Reliability (conscientious, predictable, accountable, responsible), Humility (recognizes limits, asks for help, receptive to feedback), Agency (proactive toward work, team, safety, personal development). Thoughtful entrustment decisions, made either by individual clinical supervisors or by clinical competency committees, may be enriched by taking into account these five features.

### KEYWORDS

Clinical; general; professionalism; work-based

### Introduction



The assessment of medical trainees, learners employed in authentic health care contexts, has significantly developed within the past three decades. Sophisticated written assessments and skills testing in simulation environments were introduced in the 1970s and 1980s, followed by considerable attention in the medical education literature to the assessment of medical trainees in the clinical workplace. After Miller proposed that assessments focus on what trainees actually do in the clinical workplace rather than only on classroom knowledge and skill (Miller 1990), Norcini's mini-clinical evaluation exercise (Mini-CEX) revolutionized workplace-based assessment and introduced a new standard (Norcini et al. 1995, 2003). Regular documentation of real-life observations in the workplace became a norm (Holmboe et al. 2018).

Competency-based education, a dominant movement since the turn of the millennium, has further stressed the need for rigorous assessment of trainees in the workplace to better support the aim of graduating physicians who meet the standards of health care (Harris et al. 2017; Gruppen et al. 2018). Despite advances, many difficulties of workplace-based assessment remain (Albanese 2000; Govaerts et al. 2007). Not only does rigorous assessment of learners take time, competencies are not easily measured (Lurie et al. 2011). Attending clinicians often feel that what they are asked to report about the trainees does not correspond with what they prioritize or how they think about

### Practice points

- Based on the literature, entrustment decisions appear to be affected by five groups of trainee features, that can be summarized with the mnemonic 'A RICH':
- Agency (proactive toward work, team, safety, personal development)
- Reliability (conscientious, predictable, accountable, responsible)
- Integrity (truthful, benevolent, patient-centered)
- Capability (task-specific knowledge, skills, experience, situational awareness)
- Humility (recognizes limits, asks for help, receptive to feedback)

the trainees when interacting with them in patient care. Crossley has suggested that the quality of learner assessment may be significantly increased by asking clinician-raters the right questions, and he found that this does indeed improve the quality of assessment metrics (Crossley et al. 2011). Assessment framed with questions such as 'Can I entrust this trainee with this activity?', brings supervision to the forefront and increases its reliability (Weller et al. 2014, 2017). In other words, entrustment decisions align the assessment construct with patient care as

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recommended by Crossley and others (Crossley et al. 2011; Kogan et al. 2014; ten Cate 2016, 2017a).

Entrustment decision-making has gained significant attention among educators since the introduction of entrustable professional activities (EPAs), and its gradual acceptance as a major innovation in competency-based clinical training (ten Cate 2005; ten Cate et al. 2016; Powell and Carraccio 2018). EPAs are activities that may be entrusted to learners to complete, as they acquire sufficient competence to do so, under differing levels of supervision. Assessment with a focus on EPAs draws on entrustment decision-making (Chen and ten Cate 2018).

## Trust and entrustment

Trust has been defined as the ‘assured reliance on the character, ability, strength, or truth’ and ‘firm belief in the reliability, truth, or ability’ of someone or something. To entrust is ‘to confide the care or disposal of [a thing or person] or the execution of [a task] to or with a person’ (Merriam Webster and Oxford dictionaries). Mayer et al. define trust as ‘the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party’ (Mayer et al. 1995). Clearly, the assessment of ability is not sufficient to arrive at trust. Trusting a trainee to do something critical in patient care requires a consideration of risks and benefits (Damodaran et al. 2017b; Holzhausen et al. 2017; ten Cate 2017b). A clinical supervisor must accept risks to patient care when trusting a trainee to act while not fully under the control of the supervisor (Castelfranchi and Falcone 2010). Entrustment-focused assessment is critically different from assessing performance (ten Cate et al. 2020a, 2020b). It requires thinking ahead to what might happen in the (near) future, when there is no one to observe, help or intervene. Several variables determine such decisions. Besides trainee qualities, trust propensity of the supervisor, the activity to be completed, contextual variables (e.g. case complexity, time of the day, availability of other health professionals), and the acquaintance and relationship of the supervisor and the trainee come into play (Dijksterhuis et al. 2009; Sterkenburg et al. 2010; Hauer et al. 2014; Sheu et al. 2017).

Without denying the importance of other variables (ten Cate et al. 2016), this contribution focuses on the qualities trainees are expected to demonstrate to enable an entrustment decision. Expected qualities are not limited to skill behaviors that can be observed during brief encounters and easily translated onto scoring forms, but include other features that clinical supervisors find important, e.g. how a trainee will act in difficult moments, unexpected situations, or circumstances that cannot easily be controlled or planned.

## Toward a synthesis of trainee dependent factors that enable entrustment decisions

The topic of trust has been studied in various disciplines. In Mayer et al.’s integrative model the trustor, when making trust decisions, takes into account the *ability*,

*benevolence*, and *integrity* of the trustee (Mayer et al. 1995). Hurley, in another management literature source, lists ten factors affecting decisions to trust related to the trustee, the trustor, and the context. Trustee factors comprise of *benevolent concern*, *capability*, *predictability*, *integrity*, and *communication style* (Hurley 2012). While management organizations differ from health care education environments, several of these general features can be recognized as relevant for training in health care. Mayer’s model in particular has been cited in the medical education literature (Damodaran et al. 2017a; Holzhausen et al. 2017).

Within health professions education, Tara Kennedy and her colleagues published a seminal grounded theory study exploring the process by which supervisors assess trainee readiness to provide independent clinical care and the trainee features supervisors take into account (Kennedy et al. 2008). They observed clinical teams, briefly interviewed many supervising clinicians, and completed in-depth video-prompted interviews with a subset of clinicians (Kennedy et al. 2007, 2008). Kennedy et al. found that trustworthiness of trainees for unsupervised practice appeared to depend on four factors: *knowledge and skill*, *discernment of own limits*, *conscientiousness* and *truthfulness* (Kennedy et al. 2008). Subsequent models for entrustment decision-making in clinical training have incorporated these concepts (Brown et al. 2017). Since Kennedy et al.’s publication and after the introduction of EPAs, several additional studies using a breadth of methodologies have investigated what trainee qualities supervisors find important to weigh when making entrustment decisions.

With a focus on the question ‘What do clinicians value when they make the decision to trust a trainee with a critical activity in patient care?’, this current overview aims to combine the findings of these studies, analyze the overlap in constructs and interpret the findings from a synthetic perspective. Our goal is to gain a deeper theoretical understanding of the phenomenon and arrive at a limited number of categories that can be easily remembered and used to support teachers and committees in entrustment decision-making, and to guide learners in understanding what clinicians value in such decisions. These categories are elaborated to more fully describe and analyze in-depth their meaning. Finally, a section is devoted to the use of the framework in the practice of guiding, supervising and assessing learners in the clinical workplace.

## Method

To arrive at a state-of-the-art overview of factors affecting entrustment decisions, we took an interpretative, narrative synthesis approach in analyzing a set of key studies on entrustment decision-making (Popay et al. 2006). After identifying studies published in the past 15 years, we selected a subset that, from our experience, had contributed most meaningfully to the international dialogue on the topic and would be relevant to our purpose of understanding the phenomenon of trainee qualities enabling entrustment.

Charmaz contends that ‘interpretative theory aims to understand the studied phenomenon in abstract terms; to articulate claims pertaining scope, depth, power, and relevance; to acknowledge subjectivity in theorizing and hence

**Table 1.** Features that affect decisions to trust trainees with tasks in the clinical workplace.

| Reference                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------------------|---|---|---|---|---|---|---|---|---|----|
| Study methods                 |   |   |   |   |   |   |   |   |   |    |
| Observations                  | x |   |   |   |   |   |   |   |   |    |
| Interviews                    | x | x |   | x |   | x |   | x |   | x  |
| Focus groups                  |   |   | x |   |   |   |   |   | x |    |
| Delphi / questionnaire study  |   |   |   |   | x |   | x |   |   |    |
| Study participants            |   |   |   |   |   |   |   |   |   |    |
| Attendings / clinical faculty | x | x | x | x | x | x | x | x | x | x  |
| Residents                     | x | x | x |   |   | x |   | x |   |    |
| Medical students              | x |   |   |   |   |   |   |   |   |    |
| Study disciplines involved    |   |   |   |   |   |   |   |   |   |    |
| Internal Medicine             | x |   |   | x |   | x |   | x |   |    |
| Emergency medicine            | x |   |   |   |   |   |   |   |   |    |
| Anesthesiology                |   | x |   |   |   |   |   |   |   |    |
| ObGyn                         |   |   | x |   |   |   |   |   |   |    |
| Pediatrics                    |   |   |   |   |   |   |   |   |   | x  |
| Surgery                       |   |   |   |   |   |   | x |   |   |    |
| Various                       |   |   |   |   | x |   |   |   | x |    |

1. Kennedy et al. (2007, 2008); 2. Sterkenburg et al. (2010); 3. Dijksterhuis et al. (2009); 4. Ginsburg et al. (2010); 5. Wijnen-Meijer et al. (2013a, 2013b); 6. Choo et al. (2014); 7. Teman et al. (2014); 8. Sheu et al. (2016, 2017); 9. Duijn et al. (2018); 10. Tiyyagura et al. (2014).

recognize the role of experience, standpoints, and interactions, including one's own; and to offer an imaginative theoretical interpretation that makes sense of the studied phenomenon' (Charmaz 2014, p. 231). This requires a reflexive justification of the current authors' backgrounds. Both authors are medically trained and study the phenomenon in clinical training. OtC has many years of experience in the development, innovation and research of medical education and has published widely on EPAs and entrustment decision-making in medical education. As an expert in the field, he is well acquainted with and has an insider knowledge of both the literature and the international discourse on the topic. HCC is a certified pediatrician with clinical and supervisory experience; she has published on EPAs, but is less familiar with the breadth of literature on entrustment. She is not an author on any of the papers reviewed and some of the papers identified were new to her. She was thus able to position herself as somewhat of an outsider with a fresher perspective, while also having the contextual knowledge within which to situate this perspective. Of note, the authors have in prior publications suggested a related general framework for trainee qualities (ten Cate 2016, 2018; Chen and ten Cate 2018).

We began by performing independent content analyses of the key studies, each author separately compiling the trainee factors and definitions reported in the studies to determine main categories (Popay et al. 2006). However, this proved to be difficult as the various studies used different terminology to describe similar concepts. In addition, there were overlapping concepts. Finally, what appeared to be similar concepts sometimes turned out to refer to different phenomena in the textual descriptions within the reported results.

In order to represent more accurately the various study findings, we moved instead, to perform an inductive thematic analysis and conceptual triangulation of the reported findings, focusing primarily on the results section of each publication, including relevant data tables and charts (Popay et al. 2006; Braun and Clarke 2006; Kiger and Varpio 2020). Working within a constructivist epistemology, we searched for underlying patterns of meaning across the data set looking for both semantic and latent themes (Braun and Clarke 2006; Kiger and Varpio 2020). Because HCC was not involved in any of the studies or publications (OtC was involved in some), and therefore less likely to

introduce undue influence during the data analysis, she took the lead in conducting the thematic analysis. After familiarizing herself with the papers, she performed open and axial coding of the published findings. She further abstracted and organized the initial themes. HCC then reviewed the themes with OtC, and both worked to further synthesize, refine, and name the themes with a focus on triangulating the concepts around trainee qualities that enable entrustment. Initial data analysis was conducted without the use of sensitizing concepts (Braun and Clarke 2006; Kiger and Varpio 2020). However, the organization and reporting of final themes were influenced by Kennedy's 4 factor framework of *knowledge and skill, discernment of own limits, conscientiousness and truthfulness* (Kennedy et al. 2008). We used Dedoose Version 8.3.17, web application for our data management and analyses (Los Angeles, CA: SocioCultural Research Consultants, LLC [www.dedoose.com](http://www.dedoose.com), 2020).

## Results

We found ten relevant studies, three of which yielded two publications each, for a total of 13 publications. All were published between 2008 and 2018. The studies were conducted across multiple disciplines, including one in veterinary medicine, though most were in a single discipline. The largest number of studies (4) were conducted in internal medicine. All study populations included clinical faculty members. Half of the studies also included residents and one included medical students in addition to faculty and residents. The predominant methodology used was interviews (6). Other methodologies included in situ observations, focus groups and surveys, or Delphi procedures (Table 1).

The studies yielded lists of trainee qualities that varied in length from three (Tiyyagura et al. 2014) to 24 (Wijnen-Meijer et al. 2013a) factors. From the descriptions of trainees qualities we observed five main themes that provide a framework of general features that enable trust: capability, integrity, reliability, humility, and agency. Of note, supervisors relied on multiple information sources to determine the degree of presence or absence of these qualities. In addition to direct personal experience/observation of the trainee, supervisors depended on information from others,

the reputation of the trainee, and in the case of competence, proxy measures such as trainee experience on service or with task, confidence/comfort, or level of training (Kennedy et al. 2007; Dijksterhuis et al. 2009; Ginsburg et al. 2010; Sterkenburg et al. 2010; Choo et al. 2014; Teman et al. 2014; Tiyyagura et al. 2014; Sheu et al. 2016; Duijn et al. 2018).

### Capability

Task-specific capability emerged as the primary condition enabling entrustment. The greatest number of trainee qualities listed or described related to task-specific abilities consistent with Kennedy et al.'s description of 'relevant knowledge and skill' as the first dimension of trustworthiness (Kennedy et al. 2008). Some authors specifically included the demonstration of evidence-based knowledge, sound clinical judgment/decision-making, and appropriate management plans (Mayer et al. 1995; Kennedy et al. 2007, 2008; Ginsburg et al. 2010; Sterkenburg et al. 2010; Choo et al. 2014; Teman et al. 2014; Sheu et al. 2016; Duijn et al. 2018). Others added 'situational awareness', or the ability to see the big picture with insight into potential risks and complications, as well as the ability to adjust or respond to evolving circumstances or new variants of the same task (Sterkenburg et al. 2010; Sheu et al. 2016; Duijn et al. 2018). A few studies included the ability to organize, prioritize, and complete tasks efficiently within timeframes (28, 44–45, 47–48) as well as the ability to work within a system (e.g. managing and teaching others) (Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a, 2013b; Choo et al. 2014). In addition, most studies described the importance of more general abilities that support the completion of specific tasks such as interpersonal, collaboration, and oral and written communication skills (Sterkenburg et al. 2010; Sheu et al. 2016, 2017; Duijn et al. 2018).

### Integrity

Several studies described the importance of trainee integrity or honesty. Supervisors wanted to believe and trust what trainees reported, and perceived trainees as honest if trainees did not withhold information and admitted to errors or oversights (Kennedy et al. 2008; Ginsburg et al. 2010; Choo et al. 2014). Duijn et al. included attention to patient welfare in their definition of integrity (Duijn et al. 2018) and Choo et al. suggested that supervisors had more trust in trainees who prioritized patient needs over personal needs (Choo et al. 2014). Others expanded the attention to patient welfare in discussing elements of benevolence (being open and empathetic, attending to patient well-being), patient-centeredness (attending to patient's background and psychosocial needs, respecting patient choices), and professional and ethical treatment of patients (respecting patient privacy and autonomy) (Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a, 2013b; Teman et al. 2014; Sheu et al. 2016). For Wijnen-Meijer and colleagues, professional behaviors encompassed not just holding oneself but also others accountable for the patients' welfare – helping colleagues to follow guidelines and uphold rules and regulations.

### Reliability

All but two studies described trainee reliability as a significant quality for entrustment. They characterized reliable trainees as those who took responsibility and were accountable for their tasks, including doing their fair share of work on a team. These trainees were diligent in doing what they said they were going to do and followed through on assigned tasks. They were conscientious, thorough, attentive to detail, and not sloppy. Several studies also referenced the importance of being able to rely on the accuracy of the information gathered, shared, and recorded by trainees (Kennedy et al. 2007, 2008; Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a; Sheu et al. 2017; Duijn et al. 2018). One study added the expectation for consistent or stable performance and reproducible or predictable behavior (Duijn et al. 2018).

### Humility

Another trainee feature key for entrustment and highlighted by many studies is the ability to discern one's limits in knowledge and skill, know when to ask for help, and be willing to do so (Kennedy et al. 2008; Dijksterhuis et al. 2009; Ginsburg et al. 2010; Sterkenburg et al. 2010; Wijnen-Meijer et al. 2013a, 2013b; Choo et al. 2014; Sheu et al. 2016, 2017; Duijn et al. 2018). Kennedy et al. quote a clinician saying '... when he doesn't know, he comes and asks me for help, and if that's the case ... you know if the patient's in danger ... so I trust him' (Kennedy et al. 2008). Some studies described this discernment to be a form of reflection, self-assessment, and awareness of self and situation (Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a, 2013b; Sheu et al. 2017). In addition to asking for help in the moment, other studies included the solicitation of and receptivity to feedback as well as the ability to improve and learn from both feedback and mistakes as important longer-term responses to identified areas of personal weakness (Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a; Sheu et al. 2017; Duijn et al. 2018). Related to acknowledgement of personal limitations, Wijnen-Meijer and colleagues described the willingness to accept that uncertainty exists, that one is fallible, and that others including non-physician colleagues may have expertise to impart (Wijnen-Meijer et al. 2013a, 2013b).

### Agency

Trainee demonstration of agency or proactive behaviors was seen as a positive sign of readiness for entrustment. These trainees were actively engaged rather than passive; were highly invested in their patient's care and their own development; and brought curiosity, passion, energy, and enthusiasm to their work (Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a, 2013b; Teman et al. 2014). It mattered to supervisors if trainees offered management plans and anticipated problems rather than waiting for problems to occur (Ginsburg et al. 2010). They had more trust in trainees who were forthcoming with information rather than admitting omissions or errors only when asked (Kennedy et al. 2008). Trainees who took ownership of their roles, were responsive to patient and team needs without prompting and who proactively



checked on patients also appeared more ready for entrustment (Ginsburg et al. 2010; Teman et al., 2014). Several studies noted the importance of spontaneous communication with supervisors and reemphatic requests for supervision in appropriate situations versus waiting too long or until difficulties were encountered to call for urgent help (Kennedy et al. 2008; Ginsburg et al. 2010; Sterkenburg et al. 2010; Wijnen-Meijer et al. 2013a; Choo et al. 2014; Sheu et al. 2016). Finally, some studies also emphasized the behaviors of actively seeking and embracing learning/growth opportunities (Ginsburg et al. 2010; Wijnen-Meijer et al. 2013a, 2013b; Duijn et al. 2018).

## Discussion

Our thematic analysis of a select set of studies on entrustment decision-making revealed five major themes of trainee qualities that enable entrustment: *capability*, *integrity*, *reliability*, *humility*, and *agency*. We offer these five themes as a classification framework for considering trainee qualities, and further interpret the grouped features within a wider literature to provide depth of understanding and justifications for the chosen labels. The first four themes map closely to, while also expanding upon Kennedy et al.'s respective categories of knowledge and skill, truthfulness, conscientiousness, and discernment. For instance, capability is not just the knowledge and skills required to perform a specific task, but the ability to accomplish efficiently, variations of the task in different circumstances and contexts, due to an ability to work with others and an understanding of the situation and the system.

We classified integrity as including not just truthfulness, but also benevolence and patient-centeredness, where expertise is used to benefit patients and decisions are motivated by concern for and made in the best interest of the patient. While we subsume benevolence under integrity, Mayer presents these as two of three separate factors that determine trustworthiness (ability, benevolence, integrity) (Mayer et al. 1995). He defines integrity in his management-focused work as a congruence of the trustee's and trustor's values and benevolence as the trustee's wish to do good and help the trustor (Mayer et al. 1995). However, in health care, the trustor is not only a supervisor, but also the patient and public, such that benevolence would include having good intentions toward patients. Integrity is defined in dictionaries as the quality of being honest and having strong moral principles and benevolence as the willingness to do good. Danielsen and Cawley explain that critical components of integrity in health professions education are discerning right from wrong, acting based on this discernment even at personal cost, and being open about how your understanding of right and wrong guides your actions (Danielsen and Cawley 2007). Therefore, in accordance with dictionary use, and Danielson and Cawley, we prefer to regard benevolence as a component of integrity.

In common language, when a person is described as reliable, it usually means that the person is dependable or trustworthy (Bandalos 2018). In the measurement literature, reliability has been used to refer to the consistency of scores across replications (different items, forms, occasions, raters) and as an adjective of accuracy or precision. Minimizing errors increases reliability (AERA/APA/NCME

2014). Translated to human behavior, this concept aligns well with the features we grouped under the theme of reliability. We therefore define reliability as not just conscientious behavior but behavior that is also consistent and predictable supported by a sense of accountability and responsibility.

While discernment is often cited, it is not only the discernment of limitations but also the willingness to admit these limitations and to take the next step to ask for help that is important. Trainees may feel encouraged to solve novel problems by themselves and hope to be rewarded for their abilities to do so. Many are inclined to act to avoid burdening their supervisor with requests or feeling shame over being unable to manage issues themselves (Bynum and Goodie 2014). Deciding whether or when to ask for help may be a difficult consideration and requires humility. As Gruppen has contended, humility is a willingness to acknowledge the possibility that one is fallible and may be wrong, needs guidance or help from others on occasion, can benefit from feedback, and needs to make changes in one's performance (Gruppen 2015). Intellectual humility also has a relational connotation, i.e. an attitude of listening and the ability to admit that someone else is right when you are wrong, and a willingness to change in the face of evidence and compelling arguments (Gruppen 2014; Khullar 2019). Thus, we define humility as discernment of one's own limitations; willingness and ability to ask for help and feedback; respect for and receptivity to insights from patients and co-workers; and ability to learn and develop from mistakes, feedback, and the expertise of others.

Finally, we propose agency as a proactive attitude toward work, team safety and personal development that can also manifest in one or more of the trainee qualities of capability, integrity, reliability, and humility. Agency has not been labelled previously as a distinct trainee quality that influences entrustment decisions. However, it was present in multiple studies as a latent theme where it was often described within the context of other qualities. Although not specifically addressed in the studies reviewed, agency may include awareness of the need for action and acting even outside of the strict definition of one's responsibilities. The compartmentalization of health care across specialties and professions may hinder a more comprehensive view of patients as a whole. Patients may get lost if providers continually refer them to others, resulting in the *not-my-problem* problem in health care (Rosenbaum 2019). Agency could thus include acting upon a sense of collective responsibility to counter this problem, not necessarily by solving all problems themselves, but in recognizing the problem and taking appropriate action. Finally, a workplace curriculum can only drive learning to a limited extent. Billett has stressed the need for learner agency as well as workplace affordances for effective workplace learning. Trainees not only need to seize opportunities for learning, but as individuals 'adapt that knowledge in new ways and to novel circumstances in workplaces, thereby remaking and transforming those practices as they learn themselves' (Billett 2010, p. 64). Agency in learning thus includes adaptive expertise or the ability to balance the efficient use of previously acquired knowledge with the

**Table 2.** A RICH entrustment decision framework for classification of trainee qualities enabling entrustment: summary.

| A<br>Agency   | R<br>Reliability   | I<br>Integrity   | C<br>Capability  | H<br>Humility  |
|---|--|--|--|--|
| Proactive attitude towards work, team, safety and personal development that includes awareness of and acting upon the need for action even when outside of the strict definition of one's responsibilities and practice of adaptive expertise. Agency can manifest within the context of one or more of the other four factors. | Consistent, predictable, and conscientious behavior driven by a sense of accountability and responsibility | Truthfulness, benevolence, and patient-centeredness, where expertise is employed to benefit patients and decisions are motivated by concern for and made in the best interest of patients. | The ability to perform a specific task in a variety of contexts and within an appropriate time frame, requiring a reasonable understanding and overall view of the clinical situation and ability to communicate and work effectively with others within a system. | Discernment of one's limitations; willingness and ability to ask for help and feedback; receptivity to insights of patients and co-workers; and ability to learn and develop from mistakes, feedback, and the expertise of others. |

creation of new knowledge in response to novelty and complexity (Mylopoulos et al. 2018).

We did not choose the theme titles with an existing acronym in mind. However, after a preliminary presentation (ten Cate 2016), a colleague recommended that we juggle the first letters of the first four themes to arrive at the word RICH. When we added the fifth theme of agency, we reflected that 'making A RICH entrustment decision' may serve as a both a simple mnemonic and useful message for faculty and trainee development (Table 2).

Why did we create this framework? First, to support clinical supervisors in making ad hoc entrustment decisions, i.e. to make more explicit what they might weigh in the spur of the moment decisions, when the patient's safety is at stake. Second, to provide trainees with clarity of expectations for behaviors that they may not realize supervisors find important. The framework may support conversations with clinical trainees as they progress through stages of increased autonomy and responsibility in health care. Third, to enhance the validity of summative entrustment decisions that serve to certify trainees for more permanent decrease in supervision. Summative entrustment decisions must be grounded in sufficient quality of information about trainees and as valid as possible to support the consequences both for the trainees and for the patients receiving care (Kane 2016). This framework can help ensure trainee features beyond knowledge and skill are taken into consideration, avoiding reliance on limited information when making entrustment decisions (van Loon et al. 2016).

Our exercise certainly has limitations. We used studies that explored features affecting entrustment decision to date and it may well be that this current state of the art will change with more research. Newly described features might align with the five themes or lead to changes. In addition, the framework may invite education researchers and developers to create assessment forms that include features of each factor. While there is merit to supporting the validity of the framework with future studies, there are also caveats to creating assessment forms for these groups of features. The richness of considerations when entrusting learners with clinical tasks or when awarding certification may not be captured easily by assessment forms. Our descriptions are approximations of a gestalt that will and should develop in the minds of supervisors and trainees, but which may not be expressed using the same words that we have used (van Enk and ten Cate 2020). Rating forms inherently reduce such

richness and raters encountering these forms without a thorough understanding may not use them as intended. We recommend making holistic judgments, but with the described features in mind. Lastly, we may have missed publications. However, a recent study that appeared after initial submission of the current article (Fincke et al. 2020) would have also aligned well with our framework.

We have presented a literature-informed framework for 'making A RICH entrustment decision'. It summarizes and builds upon the reported features that clinicians find relevant when making decisions to entrust learners with critical tasks in health care. It is our hope that the framework will be helpful in improving assessments in clinical training by supporting the work of clinical supervisors, trainees, and competency committees.

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## Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

## Glossary

**A RICH Entrustment decision:** A decision regarding the increase of autonomy of a trainee in medical education that takes into account his or her: Agency (proactive toward work, team, safety, personal development), Reliability (conscientious, predictable, accountable, responsible), Integrity (truthful, benevolent, patient-centered), Capability (specific knowledge, skills, experience, situational awareness), and Humility (recognizes limits, asks for help, receptive to feedback).

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## References

- AERA/APA/NCME. 2014. Standards for educational and psychological testing. Edited by B. Plake, L. Wise. Washington (DC): American Educational Research Association.
- Albanese MA. 2000. Challenges in using rater judgements in medical education. *J Eval Clin Pract.* 6(3):305–319.
- Bandalos D. 2018. Measurement theory and applications for the social sciences. New York: The Guilford Press.
- Billett S. 2010. Subjectivity, self and personal agency in learning through and for work. In Malloch M, editor. *The SAGE handbook of workplace learning*. London: SAGE Publications Ltd; p. 60–72.
- Braun V, Clarke V. 2006. Using thematic analysis in psychology. *Qual Res Psychol.* 3(2):77–101.
- Brown DR, Warren JB, Hyderi A, Drusin RE, Moeller J, Rosenfeld M, Orlander PR, Yingling S, Call S, Terhune K, et al. 2017. Finding a path to entrustment in undergraduate medical education: a progress report from the AAMC Core Entrustable Professional Activities for Entering Residency Entrustment Concept Group. *Acad Med.* 92(6):774–779.
- Bynum WE, Goodie JL. 2014. Shame, guilt, and the medical learner: Ignored connections and why we should care. *Med Educ.* 48(11):1045–1054.
- Castelfranchi C, Falcone R. 2010. Trust theory. Chichester (UK): John Wiley & Sons, Ltd.
- Charmaz K. 2014. *Constructing grounded theory*. 2nd ed. Los Angeles: Sage.
- Chen HC, ten Cate O. 2018. Assessment through entrustable professional activities. In Delany C, Molloy E, editors. *Learning & teaching in clinical contexts: a practical guide*. Chatswood: Elsevier Australia; p. 286–304.
- Choo KJ, Arora VM, Barach P, Johnson JK, Farnan JM. 2014. How do supervising physicians decide to entrust residents with unsupervised tasks? A qualitative analysis. *J Hosp Med.* 9(3):169–175.
- Crossley J, Johnson G, Booth J, Wade W. 2011. Good questions, good answers: construct alignment improves the performance of workplace-based assessment scales. *Med Educ.* 45(6):560–569.
- Damodaran A, Shulruf B, Jones P. 2017a. Trust and risk: a model for medical education. *Med Educ.* 51(9):892–902.
- Damodaran A, Shulruf B, Jones P. 2017b. 'Trust' versus 'competency' in the workplace. *Med Educ.* 51(3):338.
- Danielsen RD, Cawley JF. 2007. Compassion and integrity in health professions education. *Int J Allied Health Sci Practice.* 5(2):1–9.
- Dijksterhuis MGK, Voorhuis M, Teunissen PW, Schuwirth LWT, ten Cate OTJ, Braat DDM, Scheele F. 2009. Assessment of competence and progressive independence in postgraduate clinical training. *Med Educ.* 43(12):1156–1165.
- Duijn CCMA, Welink LS, Bok HGJ, Ten Cate OTJ. 2018. When to trust our learners? Clinical teachers' perceptions of decision variables in the entrustment process. *Perspect Med Educ.* 7(3):192–199.
- Fincke F, Prediger S, Schick K, Fürstenberg S, Spsychala N, Berberat PO, Harendza S, Kadmon M. 2020. Entrustable professional activities and facets of competence in a simulated workplace-based assessment for advanced medical students. *Med Teach.* DOI:10.1080/0142159X.2020.1779204.
- Ginsburg S, McIlroy J, Oulanova O, Eva K, Regehr G. 2010. Toward authentic clinical evaluation: pitfalls in the pursuit of competency. *Acad Med.* 85(5):780–786.
- Govaerts MJB, van der Vleuten CPM, Schuwirth LWT, Muijtjens AMM. 2007. Broadening perspectives on clinical performance assessment: rethinking the nature of in-training assessment. *Adv Health Sci Educ Theory Pract.* 12(2):239–260.
- Gruppen LD. 2014. Humility and respect: core values in medical education. *Med Educ.* 48(1):53–58.
- Gruppen LD. 2015. Competency-based education, feedback, and humility. *Gastroenterology.* 148(1):4–7.
- Gruppen LD, Ten Cate O, Lingard LA, Teunissen PW, Kogan JR. 2018. Enhanced requirements for assessment in a competency-based, time-variable medical education system. *Acad Med.* 93:S17–S21.
- Harris P, Bhanji F, Topps M, Ross S, Lieberman S, Frank JR, Snell L, Sherbino J. 2017. Evolving concepts of assessment in a competency-based world. *Med Teach.* 39(6):603–608.
- Hauer KE, ten Cate O, Boscardin C, Irby DM, Iobst W, O'Sullivan PS. 2014. Understanding trust as an essential element of trainee supervision and learning in the workplace. *Adv Health Sci Educ.* 19(3):435–456.
- Holmboe ES, Durning SJ, Hawkins RE. (editors). 2018. *A practical guide to the evaluation of clinical competence*. Philadelphia (PA): Elsevier.
- Holzhausen Y, Maaz A, Cianciolo AT, Ten Cate O, Peters H. 2017. Applying occupational and organizational psychology theory to entrustment decision-making about trainees in health care: a conceptual model. *Perspect Med Educ.* 6(2):119–126.
- Hurley RF. 2012. *The decision to trust: how leaders create high-trust organizations*. San Francisco: Jossey-Bass.
- Kane MT. 2016. Explicating validity. *Assess Educ.* 23(2):198–211.
- Kennedy TJT, Lingard L, Baker GR, Kitchen L, Regehr G. 2007. Clinical oversight: conceptualizing the relationship between supervision and safety. *J Gen Intern Med.* 22(8):1080–1085.
- Kennedy TJT, Regehr G, Baker GR, Lingard L. 2008. Point-of-care assessment of medical trainee competence for independent clinical work. *Acad Med.* 83(10 Suppl):S89–S92.
- Khullar D. 2019. Building trust in health care—why, where, and how. *JAMA.* 322(6):507–510.
- Kiger ME, Varpio L. 2020. Thematic analysis of qualitative data: AMEE Guide No. 131. *Med Teach.* 42(8):846–849.
- Kogan JR, Conforti LN, Iobst WF, Holmboe ES. 2014. Reconceptualizing variable rater assessments as both an educational and clinical care problem. *Acad Med.* 89(5):721–727.
- Lurie SJ, Mooney CJ, Lyness JM. 2011. Commentary: pitfalls in assessment of competency-based educational objectives. *Acad Med.* 86(4):412–414.
- Mayer RC, Davis JH, Schoorman FD. 1995. An integrative model of organizational trust. *AMR.* 20(3):709–734.
- Miller GE. 1990. The assessment of clinical skills/competence/performance. *Acad Med.* 65:S63–S67.
- Mylopoulos M, Kulasegaram K, Woods NN. 2018. Developing the experts we need: fostering adaptive expertise through education. *J Eval Clin Pract.* 24(3):674–677.
- Norcini JJ, Blank LL, Arnold GK, Kimball HR. 1995. The Mini-CEX (clinical evaluation exercise): a preliminary investigation. *Ann Intern Med.* 123(10):795–799.
- Norcini JJ, Blank LL, Duffy FD, Fortna GS. 2003. The Mini-CEX: a method for assessing clinical skills. *Ann Intern Med.* 138(6):476–481.
- Popay J, Roberts H, Sowden A, Petticrew M, Arai L, Rodgers M, Britten N, Roen K, Duffy S. 2006. *Guidance on the conduct of narrative synthesis in systematic reviews: final report*. ESRC Methods Programme. Swindon, England.
- Powell DE, Carraccio C. 2018. Toward competency-based medical education. *N Engl J Med.* 378(1):3–5.
- Rosenbaum L. 2019. The not-my-problem problem. *N Engl J Med.* 380(9):881–885.
- Sheu L, Kogan JR, Hauer KE. 2017. How supervisor experience influences trust, supervision, and trainee learning: a qualitative study. *Acad Med.* 92(9):1320–1327.
- Sheu L, O'Sullivan PS, Aagaard EM, Tad-Y D, Harrell HE, Kogan JR, Nixon J, Hollander H, Hauer KE. 2016. How residents develop trust in interns: a multi-institutional mixed-methods study. *Acad Med.* 91(10):1406–1415.
- Sterkenburg A, Barach P, Kalkman C, Gielen M, ten Cate O. 2010. When do supervising physicians decide to entrust residents with unsupervised tasks? *Acad Med.* 85(9):1408–1417.
- Teman NR, Gauger PG, Mullan PB, Tarpley JL, Minter RM. 2014. Entrustment of general surgery residents in the operating room: factors contributing to provision of resident autonomy. *J Am Coll Surg.* 219(4):778–787.
- ten Cate O. 2005. Entrustability of professional activities and competency-based training. *Med Educ.* 39(12):1176–1177.
- ten Cate O. 2016. Entrustment as assessment: recognizing the ability, the right, and the duty to act. *J Grad Med Educ.* 8(2):261–262.
- ten Cate O. 2017a. Entrustment decisions: bringing the patient into the assessment equation. *Acad Med.* 92(6):736–738.
- ten Cate O. 2017b. Managing risks and benefits: key issues in entrustment decisions. *Med Educ.* 51(9):879–881.



- ten Cate O. 2018. A primer on entrustable professional activities. *Korean J Med Educ.* 30(1):1–10.
- ten Cate O, Hart D, Ankel F, Busari J, Englander R, Glasgow N, Holmboe E, Iobst W, Lovell E, Snell LS, et al. 2016. Entrustment decision making in clinical training. *Acad Med.* 91(2):191–198.
- ten Cate O, Schwartz A, Chen HC. 2020a. Assessing trainees and making entrustment decisions: on the nature and use of entrustment-supervision scales. *Acad Med.* DOI:[10.1097/ACM.0000000000003427](https://doi.org/10.1097/ACM.0000000000003427).
- ten Cate O, Schwartz A, Chen HC. 2020b. Entrustment decision making: extending Miller's pyramid. *Acad Med.* (In press.)
- Tiyyagura G, Balmer D, Chaudoin L, Kessler D, Khanna K, Srivastava G, Chang TP, Auerbach M. 2014. The greater good: How supervising physicians make entrustment decisions in the pediatric emergency department. *Acad Pediatr.* 14(6):597–602.
- van Enk A, ten Cate O. 2020. Languaging' tacit judgment in formal postgraduate assessment: the documentation of ad hoc and summative entrustment decisions. *Persp Med Educ.* DOI:[10.1007/s40037-020-00616-x](https://doi.org/10.1007/s40037-020-00616-x).
- van Loon KA, Teunissen PW, Driessen EW, Scheele F. 2016. The role of generic competencies in the entrustment of professional activities: a nationwide competency-based curriculum assessed. *J Grad Med Educ.* 8(4):546–552.
- Weller JM, Misur M, Nicolson S, Morris J, Ure S, Crossley J, Jolly B. 2014. Can I leave the theatre? A key to more reliable workplace-based assessment. *Br J Anaesth.* 112(6):1083–1091.
- Weller JM, Castanelli DJ, Chen Y, Jolly B. 2017. Making robust assessments of specialist trainees' workplace performance. *Br J Anaesth.* 118(2):207–214.
- Wijnen-Meijer M, van der Schaaf M, Nillesen K, Harendza S, ten Cate O. 2013a. Essential facets of competence that enable trust in graduates: a Delphi study among physician educators in the Netherlands. *J Grad Med Educ.* 5(1):46–53.
- Wijnen-Meijer M, van der Schaaf M, Nillesen K, Harendza S, ten Cate O. 2013b. Essential facets of competence that enable trust in medical graduates: a ranking study among physician educators in two countries. *Perspect Med Educ.* 2(5–6):290–297.