

RESEARCH ARTICLE

ASSESSMENT

Trust, power and learning in workplace-based assessment: The trainee perspective

Damian J. Castanelli^{1,2,3}  | Jennifer M. Weller^{4,5} | Elizabeth Molloy⁶  | Margaret Bearman³ 

¹School of Clinical Sciences at Monash Health, Monash University, Clayton, Victoria, Australia

²Department of Anaesthesia and Perioperative Medicine, Monash Health, Clayton, Victoria, Australia

³Centre for Research and Assessment in Digital Learning (CRADLE), Deakin University, Geelong, Victoria, Australia

⁴Centre for Medical and Health Sciences Education, School of Medicine, University of Auckland, Auckland, New Zealand

⁵Department of Anaesthesia, Auckland, Auckland, New Zealand

⁶Department of Medical Education, Melbourne Medical School, University of Melbourne, Melbourne, Victoria, Australia

Correspondence

Damian J. Castanelli, Department of Anaesthesia and Perioperative Medicine, Monash Health, Clayton, Victoria, Australia.
Email: damian.castanelli@monash.edu

Funding information

Australian and New Zealand College of Anaesthetists, Grant/Award Number: 17/031

Abstract

For trainees to participate meaningfully in workplace-based assessment (WBA), they must have trust in their assessor. However, the trainee's dependent position complicates such trust. Understanding how power and trust influence WBAs may help us make them more effective learning opportunities. We conducted semi-structured interviews with 17 postgraduate anaesthesia trainees across Australia and New Zealand. Sensitised by notions of power, we used constructivist grounded theory methodology to examine trainees' experiences with trusting their supervisors in WBAs. In our trainee accounts, we found that supervisors held significant power to mediate access to learning opportunities and influence trainee progress in training. All episodes where supervisors could observe trainees, from simply working together to formal WBAs, were seen to generate assessment information with potential consequences. In response, trainees actively acquiesced to a deferential role, which helped them access desirable expertise and minimise the risk of reputational harm. Trainees granted trust based on how they anticipated a supervisor would use the power inherent in their role. Trainees learned to ration exposure of their authentic practice to supervisors in proportion to their trust in them. Trainees were more trusting and open to learning when supervisors used their power for the trainee's benefit and avoided WBAs with supervisors they perceived as less trustworthy. If assessment for learning is to flourish, then the trainee-supervisor power dynamic must evolve. Enhancing supervisor behaviour through reflection and professional development to better reward trainee trust would invite more trainee participation in assessment for learning. Modifying the assessment system design to nudge the power balance towards the trainee may also help. Modifications could include designated formative and summative assessments or empowering trainees to select which assessments count towards progress decisions. Attending to power and trust in WBA may stimulate progress towards the previously aspirational goal of assessment for learning in the workplace.

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2021 The Authors. *Medical Education* published by Association for the Study of Medical Education and John Wiley & Sons Ltd.

1 | INTRODUCTION

Trainees continue to see workplace-based assessment (WBA) as high stakes and participate in a tokenistic or performative way^{1–4} despite competency-based curricula that call for WBAs to be learning opportunities.⁵ Perhaps this reflects the collision of the underlying programmatic assessment⁶ theory with the intricacies of the real world of work. Learning from assessment necessitates being open to critique; this requires trust in the assessor. However, trust is complicated in clinical environments when trainees are dependent on their clinical supervisors as both bosses and assessors. Understanding how cross-currents of power and trust influence WBA may allow us to unlock its learning potential.

In assessment for learning, as proposed within programmatic assessment theory, trainees analyse the information from expert judgement in assessments, generate learning goals and then work to achieve them in practice.⁷ However, trainees often 'stage' performances of WBAs, rather than expose what they feel is their 'authentic' practice, that is, how they would practice if unobserved by the supervisor. The trainee's aim in these cases is to create a favourable impression.^{8,9} This potentially compromises learning; learners place less value on feedback from an observed but staged performance than on feedback from observation of their own authentic practice.^{9,10} Also, performance information that goes forward to inform assessment decisions, such as decisions made by competence committees, may no longer represent what the trainee would do if unobserved. Hence, if trainees do not engage with WBAs as learning opportunities, individual assessments will be less valuable, both for learning and subsequent assessment decisions.

Multiple studies attribute reluctance to engage meaningfully with assessment for learning to confusion over the purpose of the assessments.^{2,3,11,12} However, there is risk for trainees when they are being assessed,¹³ as in order to generate valuable assessor feedback, they must put 'their fallibility, their weaknesses and their struggles on display.'⁹ To make themselves vulnerable in these risky situations, trainees must trust their assessors. Trust is a ubiquitous concept defined in many ways. However, for our purposes, trust takes place when one risks being vulnerable in order to benefit from the response of another, whose actions we cannot control or predict.^{14,15}

Trainee trust in supervisors is underexplored as most research has focused on supervisors' need to trust trainees.^{16–18} Trust is seen to be critical to the concept of entrustment, where a supervisor takes the risk of allowing a trainee responsibility to perform a task.^{19,20} There is also, from the feedback perspective, an understanding in the literature of a relational view of coaching that might be understood as a mutually trusting learning relationship.^{21,22} However, there is another significant piece of the puzzle in the context of a formal assessment process: this is the trust that the trainee has for their supervisor within WBAs. In these instances, the supervisor is more than a coach; they are the assessor. The trainee decision on whether to engage in assessment for learning in WBAs is where the tension inherent between assessment for learning and assessment of learning comes to a sharp focus. Sklar has asked, 'How can

assessment meet these conflicting goals when it seems to depend on a trust between faculty member and student that could be endangered by the power differential between them?'²³ This is the gap this study explores.

The feedback literature tells us that trust is a prerequisite for trainees to use performance information to enhance learning.^{21,24} One reason that trainees 'stage' their WBA performances may be that they are unable to trust their supervisors enough to take the risk inherent in engaging in assessment for learning. The trainee who does not trust their supervisor enough to request observation of a challenging case, for example, or disclose a lack of understanding in the subsequent performance discussion, reduces their opportunity to learn from the assessment. If lack of trust can limit the use of performance information for learning in feedback, how much more important might trust be in learning from assessment, where the stakes are higher and the power differential between trainee and supervisor more pronounced? Power relations between trainees and supervisors are acknowledged as influencing trainees' engagement with assessment²⁵ yet the intricacies of this power dynamic, and how it interacts with trust and learning appear relatively unexplored.

Power pervades everyday life and has generated many competing definitions and theories.²⁶ We conceptualise power based on Foucault's view that power resides between actors and is 'rooted in the system of social networks.'²⁷ In contrast to conceptions of power that focus on one actor gaining in an exchange with another, in this Foucauldian view, power does not necessarily lead to oppression but has the potential to be productive and for both parties to gain.²⁸ The roles that actors play within the social system empower or constrain them, but the power relation between them is then 'elaborated, transformed, (and) organized' by the individual actors responding to their specific situations.²⁷ Power is thus imparted by the hierarchies and social structures that make up the clinical environment; at the same time, supervisors and trainees impart power to the social practices, establishing those structures by enacting them.²⁹

According to Foucault, while power is inherent in the structure of the workplace and the relations between actors, power is only manifest in the actions of individuals.²⁷ Göhler considers how, from the individual perspective, there are two distinct aspects of power. Firstly, *power over* is exerted upon individuals, usually arising from disciplinary norms and social regulation.³⁰ Secondly, *power to* arises from individuals' actions and choices and can be characterised as agency.^{30,31} Following Foucault, we see the supervisor and trainee as actors in a mutually constitutive relationship of dominance and acquiescence.^{27,28} When viewed from the perspective of either actor within the relationship, *power over* most closely corresponds to everyday usage of the term power. *Power over* encompasses 'the ability of an actor or set of actors to constrain the choices available to another actor or set of actors in a nontrivial way'³² and includes both harmful and beneficial constraints. *Power to* can be defined as the 'capacity of an agent to act in spite of or in response to the power wielded over her by others.'³² In this study, our focus is the trainee perspective on how *power over* and *power to* become manifest in the actions of supervisors and trainees.

Research linking trust and power is rare,³³ and the interaction has been described as 'puzzling'.³⁴ Both concepts are recognised as relational and share a dependence upon the free will of subjects.^{15,27} Some research has found those with less power were likely to have less trust as trustee power increased as there was little reason for those with high power to act benevolently.^{34,35} Alternatively, other experiments suggest low-power trustors placed more trust in powerful others, based on a sense of hope and their own perceived need.³⁵ While there is a noticeable gap in the medical education literature with respect to the effects of power and trust on the use of assessment for learning in WBA, research in other fields lends little guidance.

Exploring trust and power dynamics in WBAs may help make them more effective learning events. In this grounded theory study, we take a socio-cultural perspective to examine trainees' experiences with trusting their supervisors in workplace assessments, sensitised by notions of power. Our aim is to theorise the influence of trust and power on trainee engagement in learning through WBAs. Through this, we hope to enhance how assessment for learning is implemented in the workplace.

2 | METHODS

2.1 | Researcher positioning

In this study of trust and power in WBA in programmatic assessment, we have adopted a particular socio-cultural worldview. In line with Wenger, we see learning as arising from participation in social activity that is given meaning by the shared project of a community of practice and resulting in both knowledge transformation and in identity production.³⁶ Learners bring their own personal epistemologies, and their participation in practice not only reproduces existing practice but also generates new practice.³⁷ Equally, we hold that assessments themselves are a social practice³⁸ and learning to 'do assessments' is thus part of learning practice.³⁶

As researchers, we have a diverse mix of clinician and researcher expertise. DC and JW are specialist anaesthetists who have personal experience as supervisors using the WBAs in this study and, as clinician educators and medical education researchers, have also been involved in WBA development and implementation. DC has also been a Supervisor of Training, which is a similar role to Program Director. The geographic spread of participants across Australia and New Zealand and the use of a nonclinician research assistant allowed us to avoid any power differential between interviewer and participant. EM and MB are medical education researchers with expertise in feedback, workplace learning and qualitative methods.

2.2 | Methodology

This paper forms part of a wider investigation into trainee trust and WBAs.³⁹ Within the broader project, we were concerned to ensure our examination of practice emphasised the perspective of the trainee, recognising them as the person 'in the arena' who 'does

actually strive to do the deeds'.⁴⁰ We have taken an interpretivist approach, locating it within a sociocultural view of the clinical environment, aiming to deepen understanding and gain insights that might be used to improve practice.⁴¹

In accord with our interpretivist stance, we adopted a constructivist grounded theory methodology in this study to address the gap in our current knowledge as to how trust and power relate in assessment.⁴² Constructivist grounded theory 'aims to produce an inductively driven theory of social or psychological processes grounded in the material from which it was derived',⁴³ which aligned with our intent to supplement the existing theory of programmatic assessment with theory derived from an exploration of practice. We nevertheless recognise that examining power has an inherent political dimension²⁷ and that our work is also influenced by critical theorists and may have challenging implications for those of us invested in the current system.

2.3 | Data collection

As we report elsewhere,³⁹ participants were postgraduate anaesthesia trainees from across Australia and New Zealand who had indicated they were willing to be interviewed in a previous survey (27 potential interviewees). We purposively selected participants to ensure diversity in gender, year of training and geographic region. There were ten female and seven male participants, with five in their third year and three from each of the other four training years, two from New Zealand and one or more from each Australian state and territory.

We developed the guide for our semi-structured interviews following Charmaz⁴² based on our conception of trust and from previously published studies considering trust from the supervisor perspective.^{44,45} The initial probes used are provided in Appendix A. The interviews were conducted by the first author (DC) or an experienced nonclinician research assistant and lasted approximately 1 h. Using both clinician and nonclinician interviewers allowed both an insider and outsider perspective to inform the data collection.⁴⁶ After each interview, the interviewers discussed the process of the interview to refine their use of the schedule in subsequent interviews. We continued interviewing to the point of data saturation; we ceased interviewing after 17 interviews when we were no longer encountering new variations in our theoretical categories.

2.4 | Analysis

As recommended in constructivist grounded theory, we concurrently collected and analysed our data in an iterative process. The interviewers discussed and recorded reflective notes that were shared with the rest of the research team after each interview. While DC led the analysis, frequent meetings between the research team enabled all authors to contribute. We used initial open coding, focused coding, constant comparison and memo writing⁴² in our analysis. When issues of power arose in our data, we modified our analysis in keeping with our grounded theory approach⁴² to include codes relevant to the

described power relations. Memos and group meetings allowed us to capture the interim ideas arising from our analysis, facilitating reflexive discussion and helping us to reconcile our inductive analysis with our theoretical understandings of trust and power.

We also sampled theoretically, guided by our interim analysis, to capture a diversity of experiences and test out our interim theorising.⁴² For example, following team discussion on the emerging understanding of the relationship between trust and power after 10 interviews, we added additional probes to subsequent interviews. These probes allowed us to 'flesh out' the data and ensured the categories arising from our subsequent focused coding had greater depth of content to support them.

When generating our conceptual categories from our focused coding, we emphasised actions and processes as Charmaz recommends.⁴² Our categories evolved to describe *how* supervisors and trainees used power within their interactions while accounting for the sociocultural milieu in which they occurred. Discussions among the whole team of the relationships between these categories then led to the development of theory, which is presented in our results.

2.5 | Ethics approval

The Deakin University Human Research Ethics Committee granted ethical approval for this study (2017-160).

3 | RESULTS

As participants discussed the hierarchical nature of the supervisor-trainee relationship and the significant power gradient involved in the context of WBA, it became evident that the interaction provides trainees with both opportunities and risks. Trainees needed supervisors' help to learn and progress; yet, as they could not control supervisor behaviour, there was an inherent risk in opening themselves to learning. Hence, they needed to trust. In the following sections, we outline how power and trust interacted to influence trainee willingness to engage in assessment for learning.

3.1 | Supervisor power over: The natural order of things

In the accounts of our participants, trainees and supervisors both accepted supervisor *power over* trainees as the natural order. The extent of the influence the supervisors held is evident in this account:

You psychologically and physically prepare for what the list will be like with that particular supervisor. You've

either written down or memorised what their preferences are ... As a trainee, we change our recipe for anaesthesia depending on which supervisor we are working with, how much independence they'll give us ... that's why we call them bosses (#10).

Participants repeatedly referred to supervisors as 'bosses,' which encapsulated the reciprocal dominance and subservience in the supervisor/trainee relationship. Our participants' general acquiescence to their supervisors' *power over* was indicative of the hierarchical nature of their environment, their limited influence on supervisor behaviour and their resulting need to trust. Although supervisor power was pervasive, the way supervisors used their power, how trainees responded and the subsequent outcomes for trainees could differ markedly.

3.2 | Opportunities and risks for trainees arising from supervisor power over

In our participants' accounts, we observed that trainees affirming supervisor *power over* could provide trainees with multiple benefits. In its simplest form, it was a mechanism to maintain social cohesion. Reinforcing the established power relations provided norms for both trainees and supervisors in how to behave and relate to one another. This aligns with the Foucauldian view of power being productive²⁷: Supervisors' *power over* the trainee clarified ultimate responsibility for patient care, avoided interpersonal conflict and facilitated a cordial and efficient working relationship that reflected established practices in the workplace.

From a learning perspective, affirming supervisors' *power over* served to facilitate trainee access to specialist expertise, which trainees desired to further their own development. This description from a trainee negotiating to perform an assessment with a supervisor illustrates this point:

I wanted to do an awake carotid (endarterectomy). So,

that involves a pretty good local anaesthetic block. And the particular supervisor that I had on that day, I knew, was the absolute guru on those sort of things. It was not something I would be confident doing myself but ... I had the plan but not necessarily the skills and I knew that with that supervisor in particular, that would be the ideal setting to do it in (#9).

Trainees also acquiesced to supervisors' power over them as a way to manage how others in the workplace perceived them, including how they appeared in their WBAs. Trainees believed supervisors could influence a trainee's reputation and, potentially, their progression in training and access to future employment. Supervisors' power over in this instance represented both opportunity and risk, as they could enhance a trainee's standing with positive assessments or penalise them with negative comments. One trainee gave an example of when a supervisor had unexpectedly used their power in this way:

It was on a night shift, and it was busy and there were multiple things going on. I'd called in the boss to help with one particularly difficult patient. When she was on her way in, several other events occurred that required immediate attention as well, and when she arrived, she

was upset with the lack of work-up of the patient. Rather than discussing it with me at the time, she sent an email the following day to my Supervisor of Training (Program Director) saying that it wasn't good enough. And then I was summoned to this meeting with the Supervisor of Training, and it was really shocking for me because I was completely blindsided by it ... I got called in to explain myself, I did not even know what I was being accused of doing (#14).

Through their acquiescence, trainees opened themselves up to reports such as this. From their viewpoint, these negative reports could arise unexpectedly from any learning encounter and act as informal assessments.

In a Foucauldian sense, the differentiation in expertise between supervisor and trainee forms the basis of the power gradient, and WBAs are one of the means supporting it.²⁷ The opportunities and risks inherent in how supervisors might use their power over in WBAs informed trainees' trust judgements. These trust judgements were instrumental in how trainees exercised their power to.

3.3 | Trainee trust in supervisors and power to

While each dyad of supervisor and trainee negotiated the power dynamic anew in each reported encounter, we found the nature of the trust the trainee placed in the supervisor was best understood as a response to how the trainee perceived the supervisor overtly exerted the power inherent in their role.

Some trainees reported instances where they were comfortable to have supervisors observe their practice in WBAs. This occurred

where they perceived supervisors controlled the learning encounter for the trainee's benefit:

She was definitely one of those people who said, 'This is your case, you see the patients, you make the plans and you carry it out.' And then she would allow me to do that, and then in a non-threatening way she would give me pointers or say, 'Have you thought about this?' and prompt me to then make a decision about small things that I might not have mentioned yet (#1).

Participants interpreted this benevolent use of supervisor power over as a commitment to them and their learning. This commitment minimised the perceived risk in trusting the supervisor and created space for frank discussion and authentic practice:

You feel like these guys teach you, and they give a toss. They care enough about trying to help you out, and to teach you more stuff, or make sure that you are coping with life ... I feel like, if I need help with something, I know I can ask them ... the confidence that they are not

going to say anything negative about you to other people is a big part of it for me. The other thing would be trusting them, that it's not going to change how they interact with me, in the future, no matter how badly I might do ... the thing that's really important is that, in fact, I've done something stupid in front of them, and we have dealt with that, and we have moved on (#7).

As trainees became more senior, some, but not all, reported that trusting supervisors became easier. While not forfeiting their position of power, supervisors in these instances appeared to use shared vulnerability, acknowledge the complexity of expert practice and model that they too were still learning:

I think the more senior you become the more free you are to try things your own way, and then it almost goes in reverse. Supervisors want to learn from you because they know you have been around a whole lot of other supervisors ... the more you know them, the more comfortable you are, the more

you are happy sharing your own ignorance ... I think they are more willing to admit their lack of knowledge as well. The more senior you become the more open they become (#16).

Although participants perceived the intent of most supervisors as benevolent or at least neutral, there were exceptions. For example, some participants reported their reluctance to expose their own practice to supervisor scrutiny (*power to*) when they felt that supervisors demanded close control over patient care. In these situations, trainees were careful to comply with their supervisor's wishes and to adapt their practice accordingly:

I find a lot of the time, you are making a decision and thinking, 'what does the boss want me to do?' Not necessarily, 'what should I do in this case?' That's where I think it becomes, not dangerous, but more challenging (#8).

Trainees sought to minimise their vulnerability in these situations by withdrawing trust and attending closely to the supervisor's preferences, to match their practice to the supervisor to avoid censure and gain access to as much of the work as possible:

I send (the supervisor) a text the day before with regards to the patients that we are doing tomorrow and my

proposed plans, and ... they'll say 'yay,' 'nay,' or, 'This is what I would do,' and change it up as they like ... they get the final say (#15).

While this was prudent in everyday work to avoid negative informal assessment, participants experienced even greater pressure to practice as their supervisor would want during WBAs with these supervisors. They reported an increased cognitive load in their decision-making and were acutely aware that failing to account for a supervisor's preferences could adversely impact their assessment:

I would make a lot of my decisions based on who my supervisor was. So, when there's different ways of doing a case, even though I think that one way works better ... I would change my preference to suit them ... there's a significant proportion whose preferences are so strong that you have to take those into account ... (However) with a supervisor whose preferences largely aligned with my own I felt that I wasn't going to be penalised based on preferences; that I would receive their feedback based on genuine

things that I ought to improve (#5).

Although the supervisor's expression of their *power over* them ultimately constrained the trainee's opportunity to direct the patient's care, trainees were far from powerless. Strategies such as matching their practice to their supervisor's might represent 'gaming' or 'staging' a performance from one point of view. However, they were also expressions of trainees' *power to* that served to minimise their vulnerability.

On occasion, participants provided examples where supervisor power had a decidedly negative impact. We consistently found that trainees sought to avoid initiating formal assessments with supervisors whom they knew to be unhelpfully critical.

There's the odd supervisor who's obsessive, especially hard to work with, what you do is not what they wanted or what they were thinking ... those are the sort of people that you never feel like you are doing things right, even though nothing you have

done really is wrong. They're the kind of people that you would not do a WBA with because you just do not know what you are going to get from them (#17).

The power of trainees to decide when to initiate a formal assessment (*power to*) was the principal mechanism participants used to manage the impact supervisors such as this might have on their reputation and progression.

3.4 | Theorising the role of trust

Supervisor *power over* in WBA provides trainees opportunities for access to expertise and support in their learning while risking adverse impact on their image and progression. When trainees choose to trust in response to benevolent use of supervisor power, they are more willing to practice authentically and expose their ignorance for the purposes of learning. When trainees choose to trust less, they forgo learning opportunities to minimise their exposure to potential future harm. With what were classified as 'controlling supervisors,' trainees are more likely to 'game' their WBA and match their practice to how they think they are expected to perform. With unsupportive and overly critical supervisors, they trust even less and seek to avoid

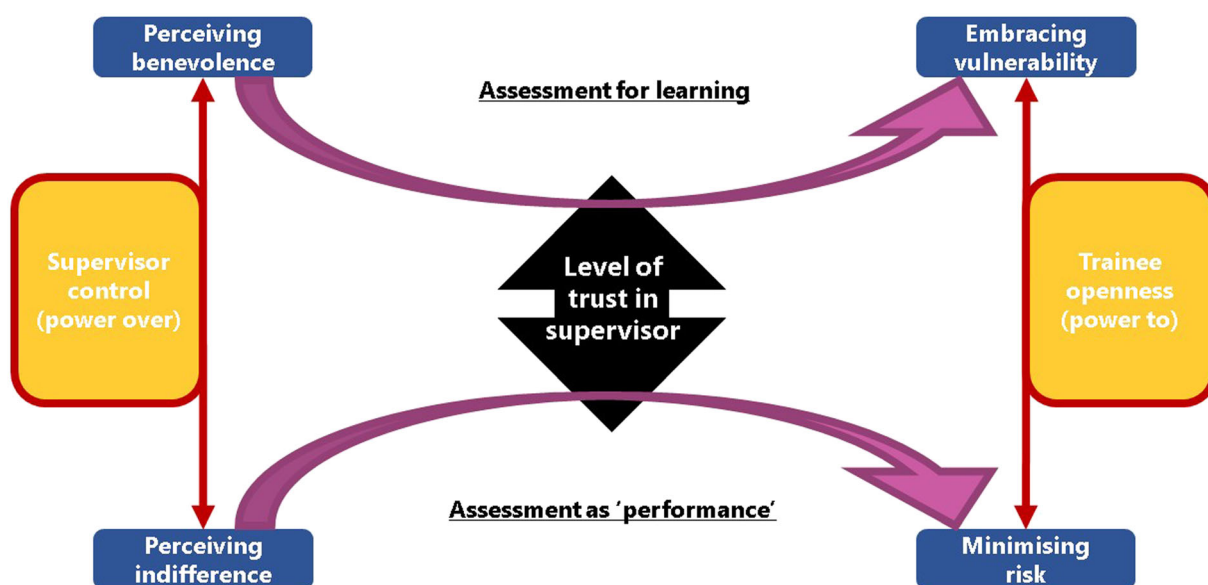


FIGURE 1 A conceptual model of how trust and power influence trainee engagement in assessment for learning [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/medu.14631)]

WBAs altogether. Ultimately, we found trainee trust in their supervisors was expressed in their use of their *power to*, as they negotiated the vulnerabilities and opportunities inherent in how they perceived supervisors used their *power over* in WBAs (Figure 1).

4 | DISCUSSION

In this study, we have theorised how the trainee-supervisor power dynamic intersects with trainee trust in their supervisors to promote or inhibit assessment for learning in WBA. Trainees learn to expose their authentic practice in assessments as an expression of trust. The trainee expresses their agency, or *power to* by granting trust to their supervisor based on how the supervisor enacts, or is anticipated to enact their *power over* them. Limited trust in their supervisor leads to reduced authenticity in their performance, which restricts the trainee's opportunities to learn from formal WBAs. By taking the trainee perspective and examining trust and power, this study advances our understanding of why trainees may be reluctant to engage in an assessment with the primary purpose of learning.^{2,11,12} The data also shed light on how trainees proactively manage (*power to*) access to the experiences they need to learn through assessment and work and just how entwined these formal and informal occasions of assessment can be.

Although the *power over* in the relationship sits with supervisors, trainees were not passive observers. In our participants' recollections, trainee *power to* enabled them to purposefully acquiesce to the supervisor and actively support the supervisor's *power over*. We think there are two principal ways we can interpret their willingness to assume this subservient role. Firstly, it reflects the temporary nature of the trainee role; it is part of the 'chain of progression'⁴⁷ that constitutes their learning trajectory, which ultimately leads to becoming full members of the community of practice in their own right.³⁶ Secondly, subjecting oneself to the discipline of a practice in order to learn the practice of a discipline is a well-recognised aspect of socio-cultural learning.²⁹ Our participants reported immediate and near-term benefits of this acquiescence, both in positive impression-management reflecting progress in acceptance into the community of practice and in accessing expertise and learning opportunities.³⁶ The mutually beneficial outcomes exemplify the productive nature of power in Foucauldian terms.²⁷

Our ultimate hope in performing this study was that the insights gained might help educators encourage trainees' uptake of assessment for learning in WBA. The difficulty arises from the tension between trainees' need to learn and their need to present as competent, reflecting the inherent tension between assessment for learning and assessment of learning. These tensions are likely irresolvable, or a 'wicked' problem, and hence not amenable to simple solutions.^{48,49} Rather than simple solutions, wicked problems require an exercise of judgement identifying the next best steps to take that might improve the situation. We think the theory we have developed from taking the trainee perspective on trust and power in WBA might better inform what those next steps should be.

In our study, trainee perception of how supervisors used their *power* was the key influence on trainee trust in supervisors and subsequent engagement in assessment for learning. The repercussions of supervisor power within assessment practice are seldom discussed or accommodated in assessment design.²⁵ Our results provide information on how trainees perceive and experience supervisor *power over* them and indicate how supervisors might act if they wish to encourage trainee learning in WBA. Participants in our study trusted supervisors whom they perceived were invested in their learning and committed to their progression in training. We think our results indicate establishing trusting supervisory relationships minimised trainee investment in impression-management and promoted trainee engagement in assessment for learning. This is consistent with other research highlighting the influence of teacher use of power on trainee learning⁵⁰ and supervisor investment in encouraging trainee authenticity.¹⁰ In considering how this insight might be applied in the varied contexts across postgraduate medical training, we are aware that in many systems, as in our study, every practitioner may act as a supervisor regardless of training or expertise. Faculty development that encouraged supervisors to reflect on their structural power and the effects of their actions on trainee trust and engagement in learning might improve how supervisors use their *power over* trainees. Another possibility is that supervisors could be required to earn or maintain the right to supervise trainees by demonstrating they can establish trusting relationships that enhance trainee learning.

Trainee initiation of WBAs and selection of assessors mitigated the power disparity in the supervisor-trainee relationship in our study. This convention is a powerful norm within the assessment culture that constrains both actors.²⁷ Although it generally ensures the selection of cases for assessment that provide an appropriate challenge for the trainee, supervisors worry that trainees may select easy cases or lenient assessors.² The fear is that 'gaming' may compromise the integrity of the assessments.^{2,3} Such 'gaming' might be hard to accept in programmes where graduates will be entrusted with patient's lives. However, we found that trainee initiation of assessments allowed them to select assessors they trust. This study frames trainee selection of case and assessor as an expression of trainee *power to*, which afforded trainees a measure of control over their projected image and the information generated for assessment decisions. From a learning perspective, this study therefore supports the practice of trainee selection of the assessor. The consequent engagement of trainees with WBAs as learning opportunities with trusted supervisors might be favourably weighed against the risk of 'gaming' clouding progression decisions. We would hope that an increase in trainee trust that results in more learning might also decrease the times when trainees feel such gaming is necessary. Whether this particular convention is suitable in other contexts will be a matter of judgement. However, we think it illustrates an important principle that could be applied more broadly, the Foucauldian notion that the power inherent in structures can productively constrain the actors in a relationship. It follows that to encourage assessment for learning, we should design the rules and conventions

of the assessment system to carefully balance trainee *power to* and supervisor *power over* to encourage trainee trust.

How might we further modify assessment system design to rebalance the power dynamic between trainees and supervisors to systematically enhance trainee trust? The literature provides potential ways to deal with the lack of transparency over what information may contribute to assessment decision-making that flowed from the entanglement of assessment and observed practice in our study. A first step might be ensuring visibility in the official training portfolio of all performance information to be considered in decision-making.⁵⁰ Separation of assessment of learning and assessment for learning by prospectively designating WBAs as either evidence for decision-making or learning events might also help.⁵² A further step would be granting trainees some control over the selection of performance information presented to inform progress decisions, which has been associated with the successful implementation of assessment for learning in an undergraduate setting.^{1,13} We anticipate this last measure will be contentious in postgraduate contexts such as ours, where supervisors feel an obligation to their community to ensure the quality of graduating specialists.⁵³ However, these options we have presented are not prescriptions but serve to highlight the role assessment design decisions may have in how assessments are used in practice; we would encourage designers of assessment systems to consider these or other features tailored to their individual contexts, which may enhance trainee trust and hence encourage assessment for learning in WBA.

4.1 | Strengths, limitations and future directions

Although there has been commentary on how trainees engage in assessment for learning in the workplace, this paper provides an in-depth exploration of the influence of trust and power on assessment for learning and inductively derives theory from actual data; hence, we believe our findings have implications for practice across postgraduate training. We have purposefully focused on the trainee perspective as, although it is supervisors and assessment designers championing assessment for learning, it is trainees we need to convince to participate. We hope insights derived from this perspective can help medical educators collectively to encourage their trainees to join in. We have used the comprehensive knowledge of anaesthesia training of our two clinical authors to help us delve deeply into our context. We recognise that contexts in medical education are particular and that research is therefore unlikely to provide simple solutions that would immediately generalise to other contexts.⁵⁴ We do think this study has provided new ways of thinking about this dilemma we and others have encountered in implementing assessment for learning that readers may then adapt to their own settings.

We have involved participants from across both Australia and New Zealand, which we think is a strength of our study. However, investigations focused more narrowly into differences between individual hospitals, or more broadly in other countries and specialties, are possible avenues for future research. Interviews with supervisors

and assessment designers would provide supplementary perspectives. Also, in our research design, we have made choices in our approach and our theoretical framework; other researchers could further enhance our understanding of learning in WBA by applying other social theories. For example, looking at assessment interactions as the flow of social capital⁵⁵ or as an activity system⁵⁶ might provide other insights.

5 | CONCLUSIONS

Assessment for learning is a significant justification for implementing WBA in competency-based medical education. With supervisors they trusted, trainees in our study could expose their authentic practice and actively engage in assessment for learning. However, these instances where assessment for learning worked as intended were an exception. Using the lens of trust and power to examine the use of WBA for learning from the trainee perspective has yielded a deeper understanding that we think may help medical educators improve the invitational qualities of WBAs as learning opportunities.

How trainees perceive supervisors use their *power over* influences their trust and the extent to which they partake in the learning opportunity that WBAs provide. This insight suggests looking to ways to systematically improve supervisors' ability to invite trainee trust. Professional development focused on supervisor investment in the trainee's attainment of mutually defined goals aligned with their learning needs may enhance trainee trust and encourage participation in assessment for learning. The impact of power inherent in the structures of the assessment system on the supervisor–trainee power relationship, evident in our study in the role of trainee initiation of WBA, implies the need to refine assessment systems to foster trainee trust and mitigate trainee vulnerability. Modifying the assessment system design to nudge the power balance towards the trainee may be required. Changes could include designated formative and summative assessments or empowering trainees to select which assessments count towards progress decisions. In these ways, understanding how power and trust intersect with assessment for learning could provide a pathway to improve programmatic assessment.

ACKNOWLEDGEMENTS

We would like to thank the trainees who participated in this study. This study was supported by an untied grant from the ANZCA Research Foundation, Australian and New Zealand College of Anaesthetists, reference: 17/031.

CONFLICT OF INTEREST

DC and JW hold or have held voluntary unpaid positions on ANZCA Education Committees. Otherwise, all authors report no declarations of interest in this work.

AUTHOR CONTRIBUTIONS

DC led the conception and design of the work, oversaw recruitment and data collection, led the analysis, drafted and led the revision of

the manuscript. JW, EM and MB made substantial contributions to the conception and design of the work, the analysis and interpretation of the data and critically revised the manuscript. All authors approved the final version and agree to be accountable for all aspects of the work.

ETHICAL APPROVAL

The Deakin University Human Research Ethics Committee granted ethical approval for this study (2017-160).

ORCID

Damian J. Castanelli  <https://orcid.org/0000-0002-5377-809X>

Elizabeth Molloy  <https://orcid.org/0000-0001-9457-9348>

Margaret Bearman  <https://orcid.org/0000-0002-6862-9871>

REFERENCES

- Harrison CJ, Könings KD, Dannefer EF, Schuwirth LWT, Wass V, van der Vleuten CPM. Factors influencing students' receptivity to formative feedback emerging from different assessment cultures. *Perspect Med Educ*. 2016;2:276-284.
- Castanelli DJ, Jowsey T, Chen Y, Weller JM. Perceptions of purpose, value, and process of the mini-Clinical Evaluation Exercise in anesthesia training. *Can J Anesth*. 2016;63(12):1345-1356.
- Gaunt A, Patel A, Rusius V, Royle TJ, Markham DH, Pawlikowska T. 'Playing the game': How do surgical trainees seek feedback using workplace-based assessment? *Med Educ*. 2017;51(9):953-962.
- Schut S, Driessen E, van Tartwijk J, van der Vleuten C, Heeneman S. Stakes in the eye of the beholder: an international study of learners' perceptions within programmatic assessment. *Med Educ*. 2018;52(6):654-663.
- van Melle E, Frank JR, Holmboe ES, et al. A core components framework for evaluating implementation of competency-based medical education programs. *Acad Med*. 2019;94(7):1002-1009.
- van der Vleuten CPM, Schuwirth LWT, Driessen EW, et al. A model for programmatic assessment fit for purpose. *Med Teach*. 2012;34(3):205-214.
- Schuwirth LWT, van der Vleuten CPM. How 'Testing' Has Become 'Programmatic Assessment for Learning'. *Health Prof Educ*. 2019;5(3):177-184. <https://doi.org/10.1016/j.hpe.2018.06.005>
- LaDonna KA, Hatala R, Lingard L, Voyer S, Watling C. Staging a performance: learners' perceptions about direct observation during residency. *Med Educ*. 2017;51(5):498-510.
- Watling CJ, Ginsburg S. Assessment, feedback and the alchemy of learning. *Med Educ*. 2019;53(1):76-85.
- Huffman BM, Hafferty FW, Bhagra A, Leasure EL, Santivasi WL, Sawatsky AP. Resident impression management within feedback conversations: a qualitative study. *Med Educ*. 2021;55(2):266-274.
- Bok HGJ, Teunissen PW, Favier RP, et al. Programmatic assessment of competency-based workplace learning: when theory meets practice. *BMC Med Educ*. 2013;13(1):123. <https://doi.org/10.1186/1472-6920-13-123>
- Massie J, Ali JM. Workplace-based assessment: a review of user perceptions and strategies to address the identified shortcomings. *Adv Health Sci Educ*. 2016;21(2):455-473.
- Dannefer EF. Beyond assessment of learning toward assessment for learning: educating tomorrow's physicians. *Med Teach*. 2013;35(7):560-563.
- Beitat K. *Trust and Incidents: The Dynamic of Interpersonal Trust between Patients and Practitioners*. Wiesbaden: Springer; 2015.
- Sztompka P. *Trust: A Sociological Theory*. Cambridge: Cambridge University Press; 2003.
- ten Cate O. Medical education: trust, competence, and the supervisor's role in postgraduate training. *BMJ*. 2006;333(7571):748-751.
- 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.
- Hauer KE, ten Cate O, Boscardin C, Irby DM, Iobst W, O'Sullivan PS. Understanding trust as an essential element of trainee supervision and learning in the workplace. *Adv Health Sci Educ Theory Pract*. 2014;19(3):435-456.
- ten Cate O, Hart D, Ankel F, et al. Entrustment decision making in clinical training. *Acad Med*. 2016;91(2):191-198.
- Melvin L, Rassos J, Stroud L, Ginsburg S. Tensions in assessment: the realities of entrustment in internal medicine. *Acad Med*. 2020;95(4):609-615.
- Telio S, Ajjawi R, Regehr G. The "educational alliance" as a framework for reconceptualizing feedback in medical education. *Acad Med*. 2015;90(5):609-614.
- Sargeant J, Lockyer JM, Mann K, et al. The R2C2 model in residency education: how does it foster coaching and promote feedback use? *Acad Med*. 2018;93(7):1055-1063.
- Sklar DP. Assessment reconsidered: finding the balance between patient safety, student ranking, and feedback for improved learning. *Acad Med*. 2017;92(6):721-724.
- Carless D. Trust and its role in facilitating dialogic feedback. In: Boud D, Molloy E, eds. *Feedback in Higher and Professional Education: Understanding it and Doing it Well*. New York: Routledge; 2013:90-103.
- O'Connor A, McCurtin A, Cantillon P, McGarr O. Illusions of specificity in power-laden clinical performance assessment. *Med Teach*. 2018;40(3):313-314.
- Haugaard M, Clegg SR. Introduction: Why power is the central concept of the social sciences. In: Clegg SR, Haugaard M, eds. *The SAGE Handbook of Power*. London: SAGE; 2009:1-24.
- Foucault M. Afterword: the subject and power. In: Dreyfus HF, Rainbow P, eds. *Michel Foucault: Beyond Structuralism and Hermeneutics*. Chicago: University of Chicago Press; 1982:208-226.
- Bleakley A, Bligh J, Browne J. *Medical Education for the Future: Identity, Power and Location*. Dordrecht Springer; 2011.
- Kemmis S. *A Practice Sensibility*. Singapore: Springer; 2019.
- Göhler G. 'Power to' and 'power over'. In: Clegg SR, Haugaard M, eds. *The SAGE Handbook of Power*. London: SAGE; 2009:27-39.
- Billett S. Work, subjectivity and learning. In: Billett S, Fenwick T, Somerville M, eds. *Work, Subjectivity and Learning*. Springer, Dordrecht; 2007:1-20.
- Allen A. Rethinking Power. *Hypatia*. 1998;13(1):21-40.
- Möllerling G. Connecting trust and power. *J Trust Res*. 2019;9(1):1-5. <https://doi.org/10.1080/21515581.2019.1609732>
- Weiss A, Michels C, Burgmer P, Mussweiler T, Ockenfels A, Hofmann W. Trust in everyday life. *Journal of Personality and Social Psychology*. 2020. <https://doi.org/10.1037/pspi0000334>
- Schilke O, Reimann M, Cook KS. Power decreases trust in social exchange. *Proc Natl Acad Sci U S A*. 2015;112(42):12950-12955.
- Wenger E. *Communities of Practice: Learning, Meaning and Identity*. Cambridge: Cambridge University Press; 1998.
- Billett S. Personal epistemologies, work and learning. *Educ Res Rev*. 2009;4(3):210-219.
- Boud D. Assessment for developing practice. In: Higgs J, Fish D, Goulter I, Loftus S, Reid J-A, Trede F, eds. *Education for Future Practice*. Rotterdam: Sense Publishers; 2010:251-262.
- Castanelli DJ, Weller JM, Molloy E, Bearman M. How Trainees Come to Trust Supervisors in Workplace-Based Assessment: A Grounded Theory Study. *Acad Med*. In press.

40. Roosevelt T. Citizenship in a republic. Paris 1910. <https://www.theodorerooseveltcenter.org/Learn-About-TR/TR-Encyclopedia/Culture-and-Society/Man-in-the-Arena.aspx>. Accessed June 8, 2021.
41. Crotty M. *The Foundations of Social Research : Meaning and Perspective in the Research Process*. St Leonards: Allen & Unwin; 1998.
42. Charmaz K. *Constructing Grounded Theory*, Second Edition. London: Sage; 2014.
43. Tweed A, Charmaz K. Grounded Theory Methods for Mental Health Practitioners. In: Harper D, Thompson AR, eds. *Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners*. Chichester, UK: John Wiley & Sons, Ltd; 2012:131-146.
44. Hauer KE, Oza SK, Kogan JR, et al. How clinical supervisors develop trust in their trainees: a qualitative study. *Med Educ*. 2015;49(8):783-795.
45. Sheu L, Kogan JR, Hauer KE. How supervisor experience influences trust, supervision, and trainee learning: a qualitative study. *Acad Med*. 2017;92(9):1320-1327.
46. Lincoln YS, Guba EG. *The Constructivist Credo*. Walnut Creek: Left Coast Press; 2013.
47. Bearman M, Lawson M, Jones A. Participation and progression: new medical graduates entering professional practice. *Adv Health Sci Educ*. 2011;16(5):627-642.
48. Govaerts MJB, van der Vleuten CPM, Holmboe ES. Managing tensions in assessment: moving beyond either-or thinking. *Med Educ*. 2019;53(1):64-75.
49. Varpio L, Aschenbrener C, Bates J. Tackling wicked problems: how theories of agency can provide new insights. *Med Educ*. 2017;51(4):353-365.
50. Schut S, Heeneman S, Bierer B, Driessen E, van Tartwijk J, van der Vleuten C. Between trust and control: teachers' assessment conceptualisations and relationships within programmatic assessment. *Med Educ*. 2020;54(6):528-537.
51. Royal College of Physicians and Surgeons of Canada. Competence committee guideline: process and procedures in decision making. <http://www.royalcollege.ca/rcsite/documents/cbd/competence-committees-process-procedures-e> Accessed June 8, 2021.
52. Abruzzo D, Sklar DP, McMahon GT. Improving trust between learners and teachers in medicine. *Acad Med*. 2019;94(2):147-150.
53. Castanelli DJ, Weller JM, Chander AR, Molloy EK, Bearman ML. A balancing act: the supervisor of training role in anaesthesia education. *Anaesthesia Intensive Care*. 2019;47(4):349-356.
54. Regehr G. It's NOT rocket science: rethinking our metaphors for research in health professions education. *Med Educ*. 2010;44(1):31-39.
55. Bourdieu P. *The Logic of Practice*. Cambridge Polity Press; 1990.
56. Engeström Y. Activity theory and learning at work. In: Malloch M, Cairns L, Evans K, O'Connor BN, eds. *The SAGE Handbook of Workplace Learning*. London: Sage; 2011:86-104.

How to cite this article: Castanelli DJ, Weller JM, Molloy E, Bearman M. Trust, power and learning in workplace-based assessment: The trainee perspective. *Med Educ*. 2022;56(3):280-291. doi:10.1111/medu.14631

APPENDIX A: INTERVIEW SCHEDULE

1. I would like you to think back to a workplace-based assessment that was useful for your learning. Can you talk me through what happened in as much detail as possible?
2. Now, I would like you to think back to a workplace-based assessment that wasn't useful (or was less useful) for your learning. Can you talk me through what happened?
3. Have you ever chosen not to do a WBA (workplace-based assessment) on a case because of a *lack of trust in or distrust of* the supervisor? Can you tell me more about that experience?
4. Moving on, I'd now like you to think about your relationship with a supervisor where you are working now who you trust and have known for some time. How has the relationship evolved over your time working together?
5. How has the way you value learning from assessment changed over time?
6. And lastly, is there anything else that you might not have said so far that you think I should know about trusting a supervisor and learning from WBA?