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TEACHING STRATEGIES

Challenging feedback myths: Values, learner involvement and promoting effects beyond the immediate task

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Abstract

Context: Research suggests that feedback in the health professions is less useful than we would like. In this paper, we argue that feedback has become reliant on myths that perpetuate unproductive rituals. Feedback often resembles a discrete episode of an educator "telling," rather than an active and iterative involvement of the learner in a future-facing process. With this orientation towards past events, it is not surprising that learners become defensive or disengaged when they are reminded of their deficits.

Methods: We tackle three myths of feedback: (a) feedback needs praise-criticism balancing rules; (b) feedback is a skill residing within the teacher; and (c) feedback is an input only. For each myth we provide a reframing with supporting examples from the literature.

Conclusions: Equipping learners to engage in feedback processes may reduce the emotional burden on both parties, rendering techniques such as the feedback sandwich redundant. We also highlight the benefits for learners and teachers of conceptualising feedback as a relational activity, and of tracing the effects of information exchanges. These effects may be immediate or latent, and may manifest in different forms such as changes in learner evaluative judgement or professional identity.

1 | INTRODUCTION

Some educational rituals are so deeply ingrained and so ideologically seductive that we accept them as practices that don't need to be challenged. The provision of "balanced" feedback to health professionals or to health professional learners represents one of those traditions, further legitimised and embedded in practice through models such as the "Pendleton system" and the "feedback sandwich." Research over the last 20 years, particularly in workplace-based feedback, reveals that feedback does not always have the effects on learners we would hope for.[1]

Close examination of feedback episodes suggests that the "feedback sandwich" may not have the desired effect of increasing palatability, but may, rather, result in both learners and educators investing energy in the wrong places.[2] Educators craft what they think are sensitive comments and deliver these in ways that may be hard to decipher by anyone other than the educators themselves, whereas learners expend energy on decoding these one-way narratives or focus only on praise. Worse still, both educators and learners may avoid or deflect feedback all together[3-5] to avoid the inevitable bitterness. We argue that not only do educators' compensatory linguistic mechanics chew up valuable grey matter megabytes for both parties, but that the underpinning philosophical message that information oriented to how the learner can improve should be buffered or offset by "good news" is even more damaging. This information, after all, is often labelled "negative feedback" by the learner and the wider academic community.[4,6]

In this paper, we argue that involving the learner in feedback processes is the best way to navigate the emotional responses that are reported in teacher-led feedback rituals characterised by one-way information transmission. This means arming learners with feedback

literacy, or the "understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies."[7] Part of learner feedback literacy is indeed learning how to anticipate emotion and manage emotions in relational activities, particularly when there are disparate perspectives on performance between the learner and the "other," whether that is the teacher, peer or patient.[4]

After a prolonged season of seeing (and researching) feedback as an input mechanism only, we argue for a refocus on feedback as a process involving set points (standards), inputs and outputs, or as feedback that makes a difference to learners. We also argue for a clearer focus on the situated and relational nature of feedback, in which "feedback rules" do not stack up across contexts. Our conceptualisation of feedback is represented by the definition:

> Feedback is a process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work.[8]

This broader understanding of feedback as a process enacted over time, rather than as a one-off exchange of information from teacher to learner, challenges the notion that feedback is an input, typically, an input of telling. Using this definition of feedback, the learner is active in seeking the information he or she needs to make judgements about the quality of his or her own work, and uses this self-generated and externally generated information to improve learning strategies or future work. By necessity, in order to close this loop, learners need to access a subsequent performance opportunity in order to translate these new understandings into practice. This view of feedback demands that we focus on learners' judgements, priorities and actions, rather than on what teachers do for them.[9]

2 | MYTHS READY FOR CHALLENGING

We explore three myths that have become deeply rooted in feedback practice and offer reframings. These entrenched characteristics have been documented in observation and interview-based studies of feedback in the classroom and workplace, and feature as anchors in professional development "feedback resources" for educators.

1 Feedback needs rules for the balancing of praise and criticism (values are ignored).
2 Feedback is a teacher skill (learners are ignored).
3 Feedback is an input only (effects are ignored).

3 | MYTH 1: THE NEED FOR PRAISE-CRITICISM BALANCING RULES

Research suggests that learners struggle to implement feedback in practice.[10-12] Learners also report negative emotional reactions when receiving feedback, which may have effects beyond the educator's intent, and beyond the episode of engagement.[13] Educators painstakingly craft "feedback messages" and deliver these to recipients with the dual goal of improving learners' performance and maintaining learners' self-confidence and their confidence in the educational partnership. Attempting to preserve learner face and confidence, in the context of "delivering a blow," has resulted in recognisable rituals of providing praise and constructive or "negative" feedback in equal measure, or, in the case of the feedback sandwich, a carbohydrate-rich casing of praise with the intent of leaving the learner in a state of equanimity.

So-called "balanced" methods of feedback delivery, such as the feedback sandwich in which the learner is insulated from the negative or critical element in the feedback message by the positive padding, are promoted as helpful for the teacher who finds constructive feedback difficult. The intention behind the ritual is to be considerate of the learner's feelings and to protect the educator's conscience.[14] However, through its very focus on positive/negative/positive, the sandwich highlights a conceptualisation of feedback as information rather than as a process whereby information is used to improve work or learning strategies. Interestingly, criticisms of this approach date as far back as the 1980s, when the potential for "positive feedback" delivered with reinforcing intent to be seen as padding by the learner, thereby threatening the authenticity of the process, was recognised.[15]

In the coaching literature, the focus on sandwiching takes on different connotations: John Woden was known for a sandwich approach to skills demonstration in the 1970s, when he demonstrated ideal form, followed by incorrect form, and finished with ideal form as a way of reinforcing correct performance (no negative feedback in sight; simply a clear demonstration of potential errors).[16] This technique was subsequently adapted by Docheff to a different version of the feedback sandwich that included a positive statement, followed by specific performance-related information and then motivation.[17] Note the absence of *negative* from the sandwich: it consists of something *positive*, something *specific* and something *motivating*. The example Docheff provides contains no criticism in the feedback: "Good job, Bob. With your elbow in like that you will always have good alignment when shooting the basketball. Keep up the good work."[17]

Pendleton et al's[18] rules for the delivery of feedback were developed to support the provision of feedback after patient consultations observed in the context of ongoing relationships between general practice trainees and supervisors. As such, Pendleton et al[18] recommend a sequence of engagement in feedback in which the learner is invited to identify elements of good performance, and the teacher then identifies strengths, after which the learner discusses elements that could be improved and makes recommendations for how he or she might go about this, followed by the same input from the teacher. The two then have a discussion and resolve any disagreements in such a way that the learner should be left with a clear summary of strengths and a plan for actions that might lead to improvement. Consistent with the feedback sandwich, Pendleton et al[18] highlight the importance of making deposits (positive

statements) before withdrawals (critical statements) and, in a sense, also focus on balance. However, they also argue that early learner engagement helps the learner to feel in control, builds his or her self-assessment skills, and helps the supervisor gain insight into learner self-perception.[18] However, the long-term follow-up (ie the closing of the feedback loop) is not explicitly reinforced in many retellings of this method and thus, we suspect, is left off the radar of many who follow these rules.

3.1 | Reframing: the value of "values-led" feedback

One of the consequences of our concern with how we "deliver" feedback through sandwiches or other prescriptive models is that we become obsessed with our feedback delivery skills. This may lead us to the erroneous conclusion that saying the right words at the right time is all that is necessary to help our learners improve. There are many consequences to this, not least tokenism, whereby what is intended to be educative becomes formulaic.[19] What might we do other than "give" learners a balance of positive and negative feedback?

The simulation-based learning literature may be a source of useful advice. In simulation-based education, facilitators debrief learners after an experience in order to help them learn. Debriefing and feedback can be viewed as "different sides of the same coin."[20] Debriefing is positioned as "a facilitated reflection in the cycle of experiential learning to help identify and close gaps in knowledge and skills."[21] In line with this, debriefing practices come without some of the unwelcome associations of mythic feedback. "Let's debrief" is a request markedly different from "Let me give you some feedback."

There is an extensive literature on debriefing.[22,23] A 2015 interview study investigating practice features of expert debriefers in immersive manikin simulation suggests that experts do not focus on words.[24] The qualities *valued* by experts, such as dedication, honesty, genuine curiosity and learner-centredness, were significant influences. Experts also described the *artistry* of debriefing, including that involved in "thinking on their feet," whereby they dynamically adapted to their learners and their context. Finally, they described specific *techniques* such as developing a plan of action, promoting learner reflection and managing learning objectives. However, Krogh et al[24] saw these as the least significant and suggested that debriefers' educational values formed the foundation for their overall approach.

We suggest that this study[24] provides valuable insights for feedback practices and processes. Thinking about the values that underpin feedback exchanges may be a critical first step. If you want to tell the student why you are right and he is wrong, then this message will be clear even though your phrasing might draw from student-centred models. In debriefing, it is common to declare the core educational values to learners at the start of any simulation session, such as by articulating "a commitment to respecting learners and understanding their perspective."[25] This is done before any debriefing or even any task is undertaken that might generate feedback information. This commitment lays the ground for work that is to follow.

The debriefing literature acknowledges the importance of these values-based approaches, but also recognises that those who are not expert may require scripts.[21] However, the aspiration is to be dynamic and responsive to context rather than formulaic and generic. Krogh et al[24] found that expert debriefers were constantly seeking to develop themselves. They had come to find "comfort with discomfort" and had begun to use uncomfortable debriefings as learning opportunities.[24] This has direct parallels for teachers who engage in feedback exchanges in which reciprocal vulnerability can work as a mechanism for development.[26]

4 | MYTH 2: FEEDBACK IS A TEACHER SKILL

The rituals we now take for granted as "feedback" may detract from, or indeed sabotage, the very purposes of feedback as a process that enables learner changes in knowledge, skill and identity. Learners are relatively absent from the equation, other than providing the stimulus for a feedback occasion (work). This brings us to our second myth: that feedback is a skill that resides in the teacher. Higher education initiatives worldwide focus on improving the "feedback-telling" skills of teachers, and very few institutions focus on how to help learners to engage in feedback processes.[7,27]

The perceived usefulness of the feedback influences learner achievement and interest.[7] Attention to this aspect can be seen in more recent models of feedback.[27,28] The assumption in medical education is that feedback is related to tasks or discrete knowledge, which narrows feedback to vocational competence as opposed to capability. Methods of "giving" feedback, as described in the section above, assume a focus that may have inadvertently reinforced a task-focused philosophy. Such an approach may not meet more personal aspects of development, such as professional identity formation and self-regulation, which in the long term may be more beneficial to practice.

In challenging the myth that feedback is a teacher skill, how should the nuances of feedback be better articulated to accommodate and ensure that task-, process- and person-focused demands of practice are developed? This next section reframes the notion of "skill" by describing recent approaches to feedback training that focus on how the relational features implicit in feedback interactions can be appropriately accommodated and responded to.

4.1 | Reframing: relationship-based approaches may be more useful

Two relationship-based approaches that eschew the feedback sandwich and are gaining ascendency in medical education are the "educational alliance" and the relationship, reactions, content, coach (R2C2) approach. Both these approaches aim for a more dynamic and responsive feedback dialogue in recognition of feedback as a complex social interaction, influenced by those involved and the relationship, culture and context in which the interaction occurs.[9]

The educational alliance extends work in psychotherapeutics which identified that outcomes correlated to patients' perceptions of the strength of the therapeutic alliance.[29] Applied to medical education, the educational alliance consists of three key aspects: (a) a shared sense of goals; (b) shared activities; and (c) bond. The focus on goals and iterative loops within and across encounters offers structure but is not prescriptive. Through establishing shared goals and activities, an educational alliance is strengthened and can then be leveraged for behaviour change.[30] The three components interplay in the sense that if an educator takes the time to discuss and negotiate goals and an agreement about how to work towards the goals, this demonstrates that the supervisor is invested in the learner and thereby strengthens perceptions of trust and respect (ie the bond). Further, if the educational alliance is judged to be strong by the learner, preliminary research shows that trainees are more likely to disclose about themselves and to engage in positive feedback behaviours such as feedback seeking.[5] Importantly, trainees report that they are more likely to act on constructive feedback (even if it is worded very negatively) in the context of a strong educational alliance.[5]

The R2C2 approach was developed through research on feedback in medical education informed by three theoretical perspectives: (a) humanism; (b) informed self-assessment; and (c) the science of behaviour change.[31] There are four phases: (a) building the relationship; (b) exploring reactions to feedback; (c) exploring feedback content; and (d) coaching for change. There are guiding questions for each of the phases to facilitate the conversation. Preliminary research indicates that using the model prompted trainees and supervisors to think differently about feedback conversations as opportunities for learning and improvement—working *with* rather than *against*.[32] Trainees were more engaged with the R2C2 approach and feedback loops were established when supervisors and trainees returned to the goals.[33] Learning coach plans offered concrete action.

Shared educational principles across these two approaches include acknowledgement of the importance of establishing (and re-establishing) relationships, discussion and setting of goals, the active engagement of the learner, iterative feedback loops and a focus on learner development. Neither is prescriptive in flavour, but they offer structure, which is appreciated by educators.[30,33] When feedback conversations are oriented towards improvement, the ritualised hang-ups around positive and negative content and the myriad of behaviours (such as avoidance or sugar-coating) described above are broken. The purpose of the conversation is thereby clarified, and made possible, within a stronger educational relationship.

5 | MYTH 3: FEEDBACK IS AN INPUT ONLY

Contemporary feedback practice in higher education has been described as the "provision of hopefully useful information"[8] as "hoping" is about the best we can do in a climate in which the effect of the information is not monitored. The enactment of feedback in education has morphed considerably from the mechanism of feedback in biology and engineering, in which there are set points or standards, an input and an output.[8] In education, there has been an over-investment in feedback as input, with the responsibility for ensuring output (or effect) perhaps residing in another field called "learning."

In workplace learning environments in health care, there is often less control in setting up nested tasks for learners to enable the translation we are "hoping for" in the feedback process.[34] Increasingly, longitudinal supervisory relationships are disrupted so that educators are not present to observe changes in learners after feedback encounters.[35] A prescriptive "dose" of telling de-emphasises teachers' adaptive expertise in feedback. Adaptive expertise would involve the teacher (or peer) responding nimbly to learner cues, knowledge of the learner's progress and his or her individual goals. A large body of research carried out over the past two decades suggests that rituals characterised by telling (even sensitive telling) do not have the desired effect: "Learners do not always learn much from purely being told, even when they are told repeatedly in the kindest possible way."[36]

In a recent study of feedback in Australian universities, both staff and students expressed ideas that feedback constituted comments on work, with the majority of students reporting that they were not able to act on the feedback information provided.[37] The authors argued that "feedback should be judged by looking at what students do with information about their work, and how this results in demonstrable improvements to their work and learning strategies."[37] A refocus on the outputs of learner engagement with performance-relevant information may not only strengthen learners' engagement in feedback processes (the proof is in the pudding), but may also help all parties to set up the conditions that promote feedback that has an effect. That is, it is only by looking for the effects that there can be a critical analysis and calibration (if needed) of the information and processes that help to generate the outputs.

5.1 | Reframing: learner engagement with feedback processes produces effects (beyond the immediate task)

5.1.1 | The multiple outputs of feedback

In terms of feedback research, there is some consideration of feedback as output. Many feedback studies take a skill or knowledge assessment, provide learners with information about their performance, and then re-test that same or a closely related task within a short time frame. Although we recognise that good feedback information can change performance (and that improved performance is important), a focus on specific knowledge attainment or skill performance is only one part of the picture. The possibility of multiple effects provides a significant challenge to measurement,[38] but should not preclude attempts to do so.

So what do we know about how feedback influences learners in the broadest sense? There is no simple relationship between

feedback and performance.[39] In a seminal meta-analysis, Kluger and Denisi[40] found that more than a third of feedback interventions were associated with worse subsequent performance. What was striking was the variability in the approaches taken by researchers to test hypotheses and also what they were testing. What can be taken from this and subsequent work is that when we consider feedback, we need to pay attention to what requires development: the task, the process or the person.[41]

Other outputs may be considered if we take a longer-term and broader understanding of feedback. These may include improved understanding of standards of work,[2] improved skills or learning strategies,[11] improved learner capability for judging the quality of work (ie evaluative judgement),[42,43] changes in learner professional identity[44] and changes in learner motivation.[40] It may be that these gains or outputs have a life beyond the focus of the task that triggered the feedback information in the first instance. We do not have enough studies to indicate what the multiple effects of feedback are, principally because we have had a limited vision as to what constitutes feedback in that feedback may refer to comments on work or a justification of marks.[45] We have also adopted a limited perspective on what traces to look for in terms of feedback impact. Identity formation is one area in which research is starting to build and we will further unpack the relationship between feedback processes and identity formation below.

5.1.2 | Foregrounding professional identity as an output of feedback

Professional identity (or possible identity) is neither fixed nor unitary; rather, it is relational in that an individual responds to various experiences, situations and people through an evaluative and emotional process. From this engagement an individual constructs, or renegotiates and reconstructs, his or her professional identity.[46] Individuals develop meaning about their professional selves through feedback experiences.[47] Conversely, the absence of regular feedback has been found to hamper professional identity formation.[44]

Feedback from a range of sources, including professional peers and clients or patients, can influence professional identity.[46,48-50] However, the contribution of feedback processes to professional identity formation is more nuanced than implied by the simple receipt of a palatable message and an according response. Rather, it is "others" reactions' that help to shape professional identity.[51,52] Ibarra[51] identified two ways in which the reactions of "others" shaped identity through feedback processes that occur when: (a) others validate (or fail to endorse) new learner behaviours; and (b) others signal ways to improve.

External parties confer identity by providing social signals about who one is becoming. By gauging others' reactions to their behaviour, learners begin to understand who they are and who they want to be.[53] An example of this arose when pharmacy students were on clinical placement and attempted to enact their pharmacist identities (eg to provide medication advice) and found that clients or patients were not receptive to this advice.[44] These reactions left the students feeling confused about who they were becoming. Conversely, feedback reactions such as those generated by being well received by patients can validate a learner's sense of professional self.[47] Thinking about feedback in these broader and socially situated terms may explain why learners start to act differently in clinical environments, no matter what they are "told."

Equally, professional identity is shaped by feedback cues that signal ways to improve.[50,52] When examining medical residents' construction of professional identity, Pratt et al[52] found that residents' interactions with, and observations of, role models, combined with feedback, helped to develop professional identities by shaping behaviour. However, the signals for improvement and the type of feedback processes shaping identities described in this study were in no way balanced, rule-based or stepwise. Instead, the feedback was experienced as either "bites" or available through an active "grapevine."[52] Feedback "bites" were instances in which residents were yelled at when they made mistakes, whereas the feedback "grapevine" came into play when residents compared their performance with the performances of their colleagues through an active informal network of communication. They noted that these informal cues on the grapevine were faster and more helpful than formal evaluations. Although these feedback experiences seem less than ideal, and are certainly not sugar-coated, Pratt et al argue that experiences were shaping identities by shaping behaviour, in that: "…by learning what they, and others, were doing wrong and consequently how the work should be performed, they changed how they viewed themselves as physicians."[52]

These examples of feedback engagement shaping professional identity formation (output) further add to the argument that feedback is a process enacted over time, not a discrete "input." We need to broaden our view of the notion of feedback and dedicate more attention to the effects of information exchanges on the learner. This comes with the acknowledgement that the effects may be more variable than changes in learner skill. Another advantage of focusing on outputs in feedback is that the forward-facing orientation of the process can override the emotions associated with feeling criticised. "Feedback as telling" has a backward-facing orientation that lingers on the past and leaves the learner with little agency. Even within brief encounters, research highlights that a focus on effects such as "acting as a consultant" or future career specialty choices are possible through feedback dialogue and in reference to co-constructed goals.[30] If feedback were to be better designed as an iterative process involving nested tasks whereby both parties offer perspectives and strategies, there might well be less of an imperative for linguistic gymnastics on the part of the educator, and less risk of threat to learner identity.

6 | CONCLUSIONS

Feedback in health professions education is reliant on myths that we feel are problematic. In this paper, we suggest that the practice of feedback resembles an educator-delivered monologue rather

than a forward-facing process enacted over time. Given this retro-orientation, it is little wonder that learners become defensive or disengaged when they are reminded of their faults, particularly when the information is unsolicited.

In this paper we tackle three myths of feedback: (a) that feedback needs praise-criticism balancing rules; (b) that feedback is a skill residing within the teacher; and (c) that feedback is an input only. Involving the learner in feedback processes may be the healthiest way to negotiate the potential for feedback interactions to elicit emotional responses. We also argue for the importance of learners, teachers and feedback researchers in hunting down the effects of information exchanges, and speculate that these effects may not necessarily be immediately observed. Not only is this commitment to tracing effects likely to help learners to improve their practice, but it will also help us to better understand, and calibrate, feedback approaches. Without a future focus we do not have the data to make commentaries about whether or not feedback is effective. We also focus on a narrow band of effects, such as technical skill development, at the expense of understanding the impacts of feedback on professional identity development and other related capacities, such as evaluative judgement and motivation for learning.

We argue for more concentrated efforts in examining the socially embedded nature of feedback, privileging the role of trust in dialogues with remits of learner and teacher vulnerability and co-construction of knowledge. If our practices are underpinned by values, rather than rules, both parties are granted more flexibility to navigate the bumpy and unfamiliar terrain that is inevitable in the business of developing people. Recent large-scale studies reinforce the finding that learners and teachers still see feedback as something the teacher needs to cook up (or assemble when it comes to the sandwich). Good chefs are expert in handling ingredients and are also cognisant that their customers (learners) have appetites and allergies that need to be accommodated. We have presented evidence to suggest that it is time for learners to join the table. Puncturing the well-established rituals and reframing practice using educational principles, rather than survival principles, may give us the effects we are after.

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CONFLICT OF INTEREST

None.

AUTHOR CONTRIBUTIONS

All authors contributed to developing the conceptual framework of the paper. Multiple meetings were held to settle upon the three myths challenged and the associated reframings. All authors contributed to the writing and reviewing of the manuscript, and each author took leadership in addressing a problematic aspect of feedback, as addressed in the literature. All authors approved the final manuscript for submission.

ETHICAL APPROVAL

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