

Feedback literacy as a model to explore how learners respond to feedback

Abstract

Clinicians spend a considerable part of their time while supervising trainees providing feedback. It is generally accepted that feedback can play a major role in subsequent academic performance. Traditionally it was thought that all feedback was good feedback, that inevitably improved learner outcomes. This has been challenged and it is now understood that feedback can have a beneficial or deleterious effect on the student. A number of factors can affect a learner's response to feedback. The concept of feedback literacy is helpful to understanding these responses – this describes the processes by which a learner makes sense of feedback and subsequently uses it to enhance learning. A learner who is feedback literate can recognise when they are getting feedback and understand how it relates to their progress; they can process it effectively both cognitively and emotionally, and they can put it in to action in ways which benefit their learning. Modifiable and non-modifiable factors can influence feedback literacy, with modifiable factors including feedback standards and supervisor behaviours. Providing clear feedback expectations, ensuring accuracy of feedback messages and focusing on the relationship between the teacher and learner have the most evidence for their effect on facilitating feedback literacy.

Key words: Assessment; Feedback; Feedback literacy; Training

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Background

Clinicians spend significant time and effort in feedback activities with students and trainees. For some time, it was considered that feedback would invariably be beneficial, and it is one of the most influential factors on academic achievement. Hattie (2008), in his seminal meta-analysis ranking influences on academic outcomes, identified that the average effect of all factors on achievement was 0.4. He termed this the 'hinge point', such that any factor which had an effect greater than this had a higher than average positive influence on academic performance. Feedback was deemed to have a value of 0.78, which is almost twice as positive an influence as the average factor in affecting achievement. This finding is widely reported elsewhere: feedback improves performance. In fact, only one of half a dozen reviews on this subject found that feedback negatively impacted learners (in up to one-third of cases; Kluger and DeNisi, 1996). There is now a more nuanced understanding of how feedback impacts learning. When done well, feedback can be transformative for the learner, but when done badly, it is not merely unhelpful, but can be detrimental. Research has explored why learners vary in their responses and highlighted the complex interplay of multiple factors which affect this. This article discusses these factors and how they limit or enhance feedback literacy.

Feedback has never been more prominent in undergraduate and postgraduate training. There has been a global move towards programmatic assessment, which emphasises assessment for learning rather than assessment of learning. In practice, this means frequent, low-stakes assessments, in multiple formats, by multiple assessors, anchored on the provision of detailed narrative feedback (Van Der Vleuten et al, 2015). Despite such paradigmatic shifts in assessment, university students continue to be less satisfied with feedback compared with most other elements of their studies (Office for Students, 2020). Students frequently request more feedback, yet often do not engage with it, and may even fail to access it (Irby, 1995). Simultaneously, training bodies and scholarly work alike espouse the value of and requirement for regular feedback (Canadian Residency Accreditation Consortium, 2020). This mismatch in learner

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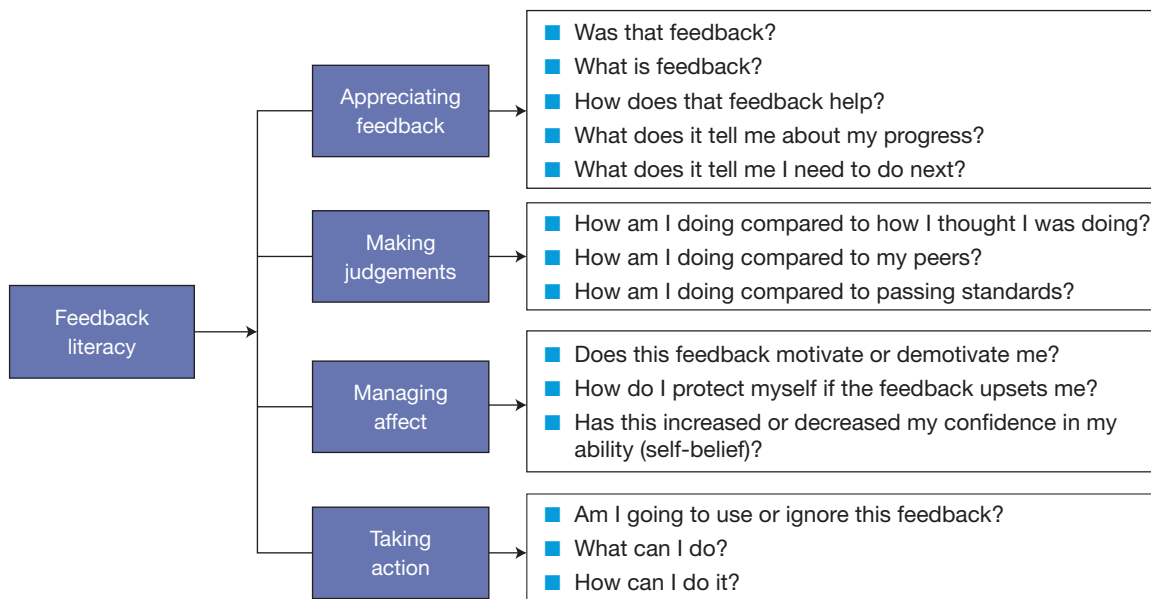


Figure 1. Components of feedback literacy and examples of how each element relates to facilitating learner understanding of and ability to enact feedback.

and teacher experience suggests that feedback processes continue to be misunderstood and commonly fail to fulfil their potential. This article explores what makes feedback successful, ie what factors in feedback interactions enable feedback literacy and what factors inhibit it.

Feedback literacy

A key concept is feedback literacy, defined by Carless and Boud (2018) as ‘understandings, capacities, and dispositions needed to make sense of information and use it to enhance work or learning strategies’. They propose four main characteristics:

1. Appreciating feedback
2. Making judgements
3. Managing affect
4. Taking action.

Figure 1 represents the components of feedback literacy and examples of how each element relates to facilitating learner understanding of and ability to enact feedback. Appreciating feedback means recognising it and its value: both feedback of knowing which informs how they are currently performing, and feedback for knowing which advises on what to do next (Sutton, 2012). Making judgements refers to the ability to evaluate their own and others’ work. Managing affect refers to acknowledging emotional reactions which occur during feedback, and the learner’s strategies in responding. Taking action is a relatively new concept in feedback definitions, focusing on the learner’s role in engaging with and enacting feedback. The feedback literate learner, therefore, is someone who makes the most of feedback, by recognising that they must proactively engage with it (Quigley, 2021).

What is feedback?

A significant challenge in optimising feedback is the diversity of its interpretation. The authors’ systematic review identified that only 14% of publications provided a definition of feedback (Spooner et al, 2022). Teachers and learners frequently report different views of what feedback is and what it means (Carless, 2006). Consequently, feedback strategies tend to be haphazard without due consideration of instructional design (Esterhazy and Damşa, 2019).

So, while feedback means different things to different people, research does not provide a universally applicable and recognised definition. However, a clear evolution of meaning over time can be extrapolated from published work. These can be discussed under two main categories: feedback message and feedback event, with feedback existing on a continuum for both.

Feedback message

In earlier work, feedback message is referred to as ‘knowledge of results’ (Kluger and DeNisi, 1996) or ‘outcome feedback’ (Butler and Winne, 1995), ie information on their performance, without context or evaluation. Examples include the grade on an essay, or ‘right’ or ‘wrong’ on a multiple choice question. Alternatively, the message can focus on ‘narrowing the gap’ between observed and desired performance (Ramaprasad, 1983), eg identifying strengths and weaknesses, and relating these to the target goal. While this provides more information to the learner, the emphasis is still on ‘giving’ feedback, without consideration of whether it is ‘accepted’. A development on this is when the message also includes what should happen next, ie developmental planning (Boud and Molloy, 2013). With this final definition, there is a shift to shared responsibility: the teacher and learner collaborate. In requiring the learner to participate, the model becomes learner-centred, in keeping with modern socio-constructivist epistemology of learning.

Feedback event

The feedback event was originally represented as transmissive, whereby the assessor relayed information to the learner, without consideration or opportunity for dialogue. This naturally occurs with written feedback, but in clinical environments it is also commonly reported in on-the-job verbal feedback. Evidence demonstrates that back-and-forth, to allow clarification, discussion and planning, is preferable for positioning the learner as an active participant. This more recent paradigm indicates that learners’ interactions with feedback are multifactorial and context-driven (Sargeant et al, 2008a; Mann et al, 2011; Boud and Molloy, 2013).

This article now expands on the modifiable and non-modifiable factors that aid or limit learners in being feedback literate, to develop understanding of how clinical supervisors can effect evidence-informed practice to support learners. **Table 1** provides practical examples of how to support feedback literacy through modifiable factors related to feedback response.

Modifiable factors: message and environment

Feedback messages must be explicit to enable literacy

What are you telling me?

Literature indicates that feedback messages vary widely. Learners are more likely to recognise and appreciate feedback if it is clear and explicit, with specific examples that relate to an observed performance. This allows them to make judgements of their ability vs external standards, eg exams (Chiu et al, 2014). Learners commonly report that feedback is

Table 1. Modifiable factors for enhancing feedback literacy

	Factor	Practical examples	Area of literacy supported	Why it works	Barriers
Message	Clear	Faculty development Provision of detailed performance descriptors Transparent assessment standards to reference available to teachers and learners	Appreciating feedback, making judgements	Learners are more likely to identify they have received feedback and understand how the content relates to their progress	Vague messages mean feedback is not recognised, which frustrates learners and devalues the process
	Accurate	Observation of performance Consider recordings as well as live observations Multiple supervisors Multiple occasions	Appreciating feedback, making judgements	Learners are more likely to enact feedback that they perceive to be a true reflection of their performance	Learners disengage from feedback that they do not perceive to be credible

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Table 1. Modifiable factors for enhancing feedback literacy (continued)

	Factor	Practical examples	Area of literacy supported	Why it works	Barriers
Environment: standards	Defined expectations	Teacher meets with learner at start of rotation to set expectations of feedback	Appreciating feedback, making judgements	Teachers and learners agree on who will give feedback, when, in what formats. Puts responsibility on teachers to provide feedback and on learners to actively seek it and recognise it	Learners may not recognise feedback without signposting. If learners and supervisors have different views on what encompasses feedback, this is unlikely to meet learner needs
	Active feedback culture	Feedback is provided at all teaching and learning activities, eg short verbal comments after presenting a history or answering a question on ward rounds, formal written records for summative assessments Consider using technology, eg audio recordings, online comments	Making judgements, managing emotions	Learners are better able to map their progress with regular input on their performance. When feedback is normalised as 'everyday' activity, learners are less likely to find it stressful and/or react negatively	Learners are less likely to ask for feedback if they feel it is not the norm. Feedback may be associated only with high-stakes activities if not part of daily routine. This may cause performance anxiety
Environment: process	Bi-directional dialogue	Provide opportunities to chat about feedback: can be face-to-face, online, via email Encourage culture of back-and-forth: ask questions, elicit learner opinion Plan next steps together: make suggestions and seek learner input, editing and recording	Making judgements, managing emotions, taking action	Learners need opportunities to clarify feedback. Facilitated reflection is more likely to result in acceptance Co-created learning goals support engagement	Unidirectionality reinforces the transmissive model where the learner is a passive recipient, less onus to enact Without the chance to clarify, ambiguous interpretation is more likely
		Supervisors		Develop relationship with the learner Encourage dialogue, acknowledge emotions, present feedback as an opportunity for growth	Learners are more motivated to implement feedback when there is a positive relationship with the supervisor. Learner acts as active participant if teacher treats them as peer collaborator
Environment: faculty development	Trained supervisors	Faculty development courses Provision of feedback models	Appreciating feedback, taking action	More likely to provide messages effectively, more likely to develop constructive learner-supervisor relationship, more likely to co-create developmental plans	Feedback processes are commonly misunderstood. Teachers often have outdated notions about best practice in terms of purpose of feedback and process

vague and confusing (Hyland and Hyland, 2001; Gleaves et al, 2008). When this happens, learners struggle to make sense of how they are doing (making judgements) and how to enact it (taking action) (Wardman et al, 2018). Politeness, hedging and ‘sugar-coating’ are additional barriers (Hyland and Hyland, 2001; Ramani et al, 2018). These may occur in an effort to avoid difficult work relationships or to preserve the learner’s self-concept (Sargeant et al, 2008a). However, learners describe frustration with having to translate or ‘read between the lines’ to ascertain the true meaning (Gleaves et al, 2008) and favour corrective feedback rather than just compliments (van de Ridder et al, 2015). Some studies report that learners choose not to even access feedback when it needs deciphering (Jonsson, 2013). Ultimately, to be feedback literate, learners need to be clear about what is meant. This will lead to adapting learning goals and application of the feedback in future learning (van de Ridder et al, 2015).

Feedback environment

It is becoming more apparent that feedback interactions are highly contextualised and learner feedback literacy will vary from one encounter to another. Consideration of the feedback environment and the factors which influence this is important in potentiating literacy. A number of features have been identified to this end. A learning culture that supports feedback can be optimised through:

1. Standards
 - a. Defining feedback
 - b. Creating a feedback culture
 - c. Centring feedback on direct observation
2. Process
 - a. Making feedback dialogic
 - b. Focusing on learner–supervisor relationship
3. Faculty development.

Standards: what will feedback look like? When, where, from who, how?

Institutional embedding of well-publicised and routine practices enables feedback literacy. Defining feedback dispels ambiguity and means that learners and teachers are on the same page. Most training bodies require feedback to be considered a routine practice (Canadian Residency Accreditation Consortium, 2020). When learners expect it as a habitual activity, normalised in their schedule, they engage more (make judgements, take action). Direct observation of performance is preferable, as this is linked with increased feedback use, as learners consider the feedback more credible (Watling et al, 2014).

Process: can I talk to you about that feedback?

Learners need respectful processes from trained teachers to enable literacy. Framing of feedback emphasises that the process and context in which feedback occurs are fundamental to supporting literacy, while transmissive models serve as barriers. Learners feel that they cannot take action when there is no opportunity to clarify messages. This is not just because of a lack of access to teachers, but a perception of inapproachability in the hierarchical culture of medicine (Archer, 2010). Face-to-face feedback evokes more emotion (Spooner et al, 2022), which may limit learner willingness to engage in back-and-forth discussions. Conversely, the opportunity for bidirectional conversation enables facilitated reflection and translation of critique into tangible action points (making judgements, taking action) (Watling et al, 2014; Sargeant et al, 2018). However, opportunity is insufficient; this must be coupled with an understanding of the ‘educational alliance’ between learner and teacher where feedback functions best (Telio et al, 2015). There is overwhelming evidence that learners retain, value and engage with feedback to a greater extent when this relationship is positive (Spooner et al, 2022). Models of feedback with relationship building as a central component are widely validated in promotion of literacy (Sargeant et al, 2015, 2018).

Faculty development

Clinical supervisors commonly have no training in feedback theory, yet such training reduces rating errors, leniency effects and improves observational accuracy (Li, 2010). Many have

trained in a transmissive model and adapt this when dealing with learners. Learners are more willing to accept and use feedback if the supervisor is credible (Ilgen et al, 1979) and if they feel the feedback is accurate (Brown et al, 2013). Faculty development fosters increased feedback and more ready recognition by learners (Warman et al, 2014) and supervisors who have had feedback training can improve learner self-efficacy (Siegle and McCoach, 2007).

Non-modifiable factors: valence and personal beliefs

Valence: how am I doing?

Positive valence indicates satisfactory performance; negative, an unacceptable standard. Negative valence feedback is more likely to be devalued and/or have its credibility challenged by learners (appreciating feedback) (Sargeant et al, 2005; Eva et al, 2012). This usually means it is not used (taking action) (Mann et al, 2011). On the other hand, some studies report that negative valence is more likely to effect changes in practice (Nofziger et al, 2010), particularly if feedback came from patients (Sargeant et al, 2008b), or was specific to a particular task, or linked to a specific assessment standard (Watling et al, 2014). Crucially, if the interaction is constructive, even with feedback that is difficult to accept, it is more likely to be used. Thus, while it may seem discouraging that providing ‘negative’ feedback risks learner disengagement, this can be tempered by some key strategies: aligning feedback with the learning activity, the assessment standards and cultivating a developmental attitude. Equally, it should not be taken that positive valence feedback is invariably accepted and used. Students may ignore or be demotivated by feedback if it accompanies an expected grade or performance level (managing affect and taking action) (Jonsson, 2013; Harrison et al, 2016). This tends to be more likely when feedback focuses on grades or scores alone.

Personal beliefs and self-concept

If learning is considered to be co-constructed by the learner in the context of their environment, it is unsurprising that personal characteristics of the learner influence feedback responses. Sex and age have both been identified as variables influencing feedback uptake. A study of Australian nurses indicated that female, non-national and older learners are more accepting of feedback (Carter et al, 2019). One study reported that males were more likely to accept positive and discount negative feedback, while females were more impacted by feedback as a rule, whether it was positive or negative (Roberts and Nolen-Hoeksema, 1989). Students with overall low achievement are less likely to collect or act on feedback; when they do act on it, it tends to be memorisation rather than meaningful application. Conversely, high-achievers access feedback more frequently and try to implement feedback to their learning goals (Orsmond and Merry, 2013). Self-efficacy – the belief in one’s own ability to perform a task – affects feedback response, as does the learner’s epistemological stance. With the former, the effects appear to be cyclical. Feedback, when done well, increases self-efficacy. This in turn improves performance, which further enhances self-efficacy (Schunk, 1995).

Conclusions

Feedback is understood to be far more than transmission of information to the learner. It is a complex act, embedded in social and cultural context. While having incremental potential to support learning, it has suffered from challenges with definition, expectations and therefore execution.

The concept of feedback literacy is helpful in characterising the learner role in feedback as an active participant with responsibility for ‘uptake’ and in outlining the necessary circumstances and standards to enable the learner in this role. Learners are more likely to appreciate feedback when messages are clear and accurate, in the context of defined expectations. Learners can make valued judgements of their progress when feedback maps to transparent assessment standards. Constructive teacher–learner relationships which focus on the developmental aspect of feedback are at the heart of managing affect in an event that is fraught with emotion for the learner. Together, these factors enable learners to take action meaningfully in applying feedback to their learning.

Key points

- Learners express dissatisfaction with feedback more often than any other parts of their training. They frequently request more feedback yet commonly do not use it.
- Research has evolved from considering how best to ‘give’ feedback to understanding how to create feedback interactions which optimise learner uptake.
- Feedback literacy is a key concept in considering how learners can potentiate their engagement with feedback. It acknowledges the complex interplay of feedback messages with context, emotions and relationships.
- Feedback literacy is best supported when feedback messages are clear and accurate, when there are agreed feedback expectations, when constructive teacher–learner relationships are cultivated and when feedback is focused on developmental planning.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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