What we've got here is failure to communicate: Exploring perceptions of how much feedback is happening in clinical workplace teaching

Delaney Wiebe  
University of Alberta

Rosslynn Zulla  
University of Calgary

Shelley Ross (✉️ sross@ualberta.ca)  
University of Alberta

Research Article

Keywords:

Posted Date: February 7th, 2023

DOI: https://doi.org/10.21203/rs.3.rs-2548626/v1

License: ☋️ This work is licensed under a Creative Commons Attribution 4.0 International License.  
Read Full License
Abstract

Introduction: Feedback is invaluable in helping learners improve their performance and clinical competence, but studies have historically documented contrasting perspectives between learners and teachers in how much feedback is given by teachers to learners in clinical training. We explore why there is a discrepancy between learner and teacher perceptions of the feedback that is shared in a clinical teaching encounter.

Methods: We recruited 23 preceptors (clinical teachers) from a mid-size Canadian medical school that has a diverse group of generalist and focused specialties. We used inductive content analysis to explore preceptors’ perceptions of both how much feedback they shared with learners, as well as amount of feedback that they believe learners would report was shared.

Results: Analysis of interviews generated two themes: (i) difficulty among preceptors in quantifying the feedback they share to learners, and; (ii) discrepancies between preceptors in the definition of feedback.

Discussion: The key themes identified in this study highlight that preceptors’ varying definitions of feedback and their difficulty in ascertaining how much feedback they share with learners can be attributed to a lack of a common understanding of feedback. When engaging in a feedback conversation, both the teacher and the learner engage in a meaning-making process that yields a shared understanding that feedback is occurring, and that information offered by the teacher is aimed at supporting the learner. We recommend that both faculty development sessions and educational sessions with learners should incorporate early check-ins to ensure a shared understanding of the definition of feedback.

Introduction

Feedback is socially constructed between teachers and learners (Adcroft, 2011), with both parties working collaboratively to establish meaning of the information being shared (Carless, 2006). This social construction of meaning occurs whether the context is the classroom (Carless & Boud, 2018) or the clinical workplace (Miles et al., 2021). While there is general agreement about the value of feedback to learning (Brookhart, 2001; Carless, 2007; Ende, 1983; Jensen et al., 2012; Lipnevich & Smith, 2009; Sender Liberman et al., 2005), there are persistent differing perspectives between teachers and learners regarding how much feedback is actually being shared in clinical training (Groves et al., 2015; Kornegay et al., 2017). The social process of feedback (Adcroft, 2011) necessarily requires that learners recognize that feedback conversations or dialogues are occurring (Poulos & Mahony, 2008), making it crucial to understand the mis-alignment between the feedback practices that teachers and learners know should be happening, and what they perceive is happening. Unpacking the reasons behind learners’ and teachers’ disparate perceptions of when and how much feedback is being shared in teaching encounters is a crucial step in identifying what interventions might work to ensure that effective feedback is shared consistently during clinical training – and that feedback is consistently recognized as such by both teachers and learners.
Effective feedback is important to clinical teaching: it describes the gap between the learner’s current understanding and skill level and the learner’s desired state of understanding and/or skill, thereby enabling the learner to work towards mastery of the skill in the future (Brookhart, 2001; Carless, 2007; Ende, 1983; Jensen et al., 2012; Lipnevich & Smith, 2009; Sender Liberman et al., 2005). Best practices in sharing formative feedback follow a dialogic approach (Ajjawi & Boud, 2018) in which there is an exchange of information as short descriptive comments based on observation of the learner (formative assessment) that occurs within a relatively short timeframe following the performance observed (Algiraigri, 2014; Bienstock et al., 2007; Branch & Paranjape, 2002; Wilkinson et al., 2013). Several researchers have established that feedback is most effective when it is specific, informative, reflective, non-judgmental, focused, action-oriented, timely, frequent, and (ideally) documented in some way for later reflection by the learner (Bienstock et al., 2007; Branch & Paranjape, 2002; Jensen et al., 2012; Lipnevich & Smith, 2009; Wilkinson et al., 2013). Formative feedback can potentially empower learners with information to correct poor behaviors prior to a final assessment and can facilitate the development of self-reflection skills necessary for ongoing self-regulated learning (Bernard et al., 2011; Brookhart, 2001; Wilkinson et al., 2013). Without formative feedback, a learner’s performance errors can remain unchanged, and learners may incorrectly self-assess their performance (Bernard et al., 2011; Bienstock et al., 2007).

The relationship between the teacher and learner is essential when considering feedback as a social process (Adcroft, 2011; Telio et al., 2015; Telio et al., 2016). For example, both recognition that feedback has been shared and use of feedback have been tied to positive relationships between residents and teachers (Bowen et al., 2017), particularly if teachers are perceived as credible (Bing-You & Paterson, 1997; Poulos & Mahony, 2008; Watling et al., 2012), and have positive attributes (e.g., agreeable, positive demeanor and mood) (Bowen et al., 2017; Fredette et al., 2021). Relational factors can also affect whether a learner feels that the feedback shared is meaningful (Sargeant et al., 2018), and/or whether a learner will act on the feedback (Bowen et al., 2017; Molloy et al., 2020; Sargeant et al., 2018).

While these studies examining the importance of the learner-teacher relationship contribute to our understanding of whether or not learners perceive that feedback has been shared with them, there is still a gap in what is known about why there is a persistent lack of agreement between how much feedback teachers feel that they share with learners, and how much feedback learners report has been shared (Bernard et al., 2011; Carless & Boud, 2018; Fowler & Wilford, 2016; Groves et al., 2015; Yarris et al., 2009; Kogan et al., 2012; Kornegay et al., 2017). Some authors attribute disparities in the perceived amount of feedback exchanged between residents and teachers to differing perceptions about what counts as feedback (Sender Liberman et al., 2005). Other authors emphasize the intersection of recognition of feedback and individual cognitive processes: these researchers propose that individual expectations and appraisal processes carried out cognitively determine the value of the feedback that is shared, which in turn may result in misperceptions or false classification of the information as something other than feedback if the information in the feedback is not valued (Bowen et al., 2017; Rassos et al., 2019).
While these studies all provide evidence about what might contribute to whether learners recognize that feedback has been shared with them, most of these authors examined learner perceptions of feedback in the context of how different factors related to content or delivery influence whether learners value, acknowledge, or use feedback. In focusing on learners, these studies did not explicitly consider the social construction of feedback and how meaning is co-constructed between teachers and learners (Carless & Boud, 2018). What is missing is a direct examination of how clinical teachers interpret learners' perceptions of feedback and subsequently how these interpretations have implications on how teachers co-create meaning with learners in feedback conversations.

The social process of feedback requires perception by both teacher and learner that a feedback conversation is occurring: this shared understanding is necessary to ensure that the information contained in the feedback will help the learner to develop competence through recognizing what behaviors should change versus what behaviors are strong. In order for feedback conversations to have the desired effect, it is essential that we seek to better understand the reasons behind the misalignment between learner and teacher perceptions of the amount of feedback being shared in a teaching encounter. In this study, we carried out interviews with individual clinical educators to try to uncover why there is a persistent problem of differing perspectives about the amount of feedback shared between preceptors and learners. Specifically, we examined teacher perspectives on how much feedback they thought learners would report receiving.

**Methods**

**Setting and participants**

We conducted our study in a mid-sized Canadian Faculty of Medicine that includes an undergraduate medical school and multiple postgraduate (residency) training programs. Participants were recruited initially through convenience sampling, followed by snowball sampling. The study team aimed to ensure that the recruited preceptors represented teaching at both undergraduate and postgraduate medical education levels, and came from both generalist specialties and more focused specialties. A total of 23 preceptors participated in this study; at the end of the study, each participant received a report of their feedback practices. This study was approved by our local institutional Human Research Ethics Board.

**Study Design**

We observed preceptors as they worked with learners in the clinical workplace over four separate observation sessions. At the end of each session, we interviewed preceptors about the session that had just occurred using a semi-structured interview guide. We used inductive content analysis to analyze the data from the interviews. (Fig. 1).

**Data collection**
Our semi-structured interview questions explored the following elements of sharing feedback: 1) the amount of feedback (e.g., How much feedback did you feel you shared during this observation); 2) the degree to which the learner recognized the feedback (e.g., Do you think the learner recognized the feedback you shared?); 3) the amount of feedback the clinical educator felt they had shared by (e.g., How much feedback do you think the learner recognized); and 4) an exemplar of a feedback shared by the clinical educator (e.g., Can you describe a specific example of feedback that you gave or describe it in general terms?). Interviews were recorded with consent and transcribed verbatim by the two research assistants.

Analysis

We analyzed interviews concurrently with the data collection (Fig. 1). Interviews were analyzed for themes to better understand the experience of sharing feedback using Elo and Kyngäs’ approach to content analysis (2008). Using an inductive content analysis approach, we explored how differing preceptor experiences of sharing feedback to learners could generate characteristics about the process of giving feedback to learners (Elo & Kyngäs, 2008). Three steps comprised the inductive content analysis approach: reviewing the transcripts (preparing), analyzing the data (organizing) and sharing findings (reporting) (Elo & Kyngäs, 2008). The preparation phase consists of re-reading the transcripts to gain a sense of the data (Elo & Kyngäs, 2008). The organizing phase involves a 3-step process: generating meaningful units (open coding), organizing these units (creating categories) and interpreting these units (abstraction) to create themes. The final stage is the presentation of findings and the process. Microsoft Word was used to support this analysis.

We created a codebook that was generated by two members of our research team (DW, RZ). Our codebook was developed by analyzing six sets of transcripts (each set containing four separate interviews with the same preceptor). We followed a coding process of (1) developing codes (open coding), (2) grouping similar codes (creating categories) and (3) generating a description of the patterns amongst codes (creating themes). Upon completion of our codebook, we coded the remaining transcripts (Kleinheksel et al., 2020). We discussed any points of confusion and came to consensus. We discussed emerging themes in the data as the data was being collected and probed the preceptors in subsequent interviews in accordance with emerging themes or issues.

We discussed reflexivity before and during data analysis with the intent to identify potential biases and pre-existing assumptions. Due to SR’s long-term research interest in feedback theory and practice, a deliberate choice was made to have DW and RZ conduct the observation sessions and interviews, as well as the initial data analysis, to mitigate potential bias. At the time of the study, RZ was a doctoral candidate with extensive qualitative research experience. DW was a master’s student with some qualitative research experience.

Results
We identified two main themes through our inductive content analysis: 1) difficulty among preceptors in quantifying feedback that they shared; and 2) discrepancies between preceptors in how they personally define feedback. Both themes are connected by a common thread: confusion and difficulty around the definition of feedback.

**Difficulty in quantifying feedback**

The first theme identified was the difficulty expressed by the participants when asked to quantify the amount of feedback that happened in an observation session. This question was asked both as how much feedback that the preceptor felt that they shared, as well as how much feedback that the preceptor felt was perceived by the learners in the session. Many of the participants struggled when reflecting on the amount of feedback they shared and that their learners perceived, and this was related to how the preceptor understood or defined the concept of feedback, either for themselves or how they interpreted their learners’ definition of feedback, as seen below,

“Um, I think one of the things is that there needs to be a broader definition of feedback especially in a busy clinical environment because it’s so integrated with patient care” P06

“We do a case and we talk about something and I’m mentioning things about a case, I’m assuming that’s feedback but I don’t know by definition, if that actually qualifies as feedback, that’s why I’m tentative, if that makes sense.” P15

“The more junior learners seem to think that the only time you’re giving feedback is when you’re in the classroom or you’re doing it in some formal setting that’s away from the patient.” P21

“I think feedback is kind of based on what the resident perceives. Not every single encounter requires this, you know, this long-winded feedback or anything, I think this resident did a good job, she probably did a good job, sort of thing” P25

“This particular learner is a senior learner. She’s very strong and so the feedback becomes less formative and more just a sharing of stuff. So I don’t know if that counts [Laughs] as feedback” P01

These aforementioned quotes also illuminate how definitions of feedback are connected to situational cues specific to the clinical encounter, specific to characteristics of a learner, or specific to a set of behaviors demonstrated by the clinical educator.

In the following quote, the preceptor tried to explain their perception of the thinking process of a learner if the learner was asked about how much feedback had been shared in a teaching session. The preceptor spoke as a learner, attempting to convey the idea that learners may separate the concepts of learning/improvement from the specific concept of how much feedback was shared.

“I learned lots. We talked about cases, yah, I got some feedback. Not, I learned lots, we talked about cases, oh that was feedback... It’s not about semantics. Like who cares, right? If you go, I learned lots, you
**Discrepancies in definitions of feedback**

Some preceptors attempted to define feedback as part of their response to the questions, which resulted in the second theme identified: confusion between preceptors in how to define feedback. The following quotes captured the struggle some preceptors had with whether a specific example from the teaching session should ‘count’ as feedback.

“So kind of assess their knowledge as well on what the subsequent case might be. Um, to see where they might have some difficulties or that kind of thing, kind of confirm their knowledge, I guess, yes, I don’t think that was feedback, though.” P25

“So, in my mind that would be feedback … you know … in discussion about how to manage a patient.” P15

One of the most common points of confusion and tension when trying to define feedback was the juxtaposition of teaching and feedback, as illustrated below,

“When it is sort of general teaching about how I would manage specific patients …. I don’t know honestly how much they [the learner] recognize that as feedback or whether they see teaching and feedback as the same thing.” P05

“But I don’t know if anyone … if there was any quote-unquote feedback, cause it was sort of: what would you do in this case... so it is... it will be interesting cause I’m not sure if that would be perceived as feedback or not … umm … but I still kinda felt it was good teaching in that way” P07

“One of the times, was when [student’s name] was presenting something and it was exactly what I would have done and I said, ‘that’s exactly what I would have done. And that’s perfect, that’s great that you thought about that’. But that wasn’t really feedback, it was more just sort of confirming.” P02

Some participants felt strongly that teaching and feedback were two opposite things and attempted to define them separately, as highlighted below,

“…you know, we may think of feedback more (interruption)... we think of it as it as more formal kind of I am now providing you feedback, as opposed to kind of that ongoing process. And there are things that are more subtle which certainly we can reinforce or re-emphasize certain points which we may not recognize as feedback in that moment, but certainly impacts the way the learner chooses to do something” P03

However, another group also emerged that described teaching and feedback as being much more related and defined them in a more related manner – indicating that they informed each other, as shown below,

“I think teaching is one type of feedback.” P5
“Ahh I would. I feel that feedback can inform teaching.”

“The question is … would [the learner] consider it feedback or would he consider it teaching? That might be a good question … so I don't know … I'm not sure [the learner] would differentiate between the two.”

P17

Discussion

A key finding from this study was that definition drives perception: in other words, how an individual defines something (such as feedback) will determine when and how that thing (feedback) is seen to be present or absent according to that individual. For example, if a clinical teacher defines feedback as being distinct from teaching, then that teacher will have a different perception of how much feedback occurs in a teaching session as compared to the perception of a clinical teacher who sees teaching and feedback as integrated. The preceptors that we interviewed held varying definitions of feedback, and at times the definition of feedback held by a preceptor did not align with how feedback is defined in the literature. Further, most of the preceptors in our study were unsure of how learners might define feedback, and often assumed that learner definitions would differ from their own – particularly when talking about feedback during clinical workplace teaching. As a result, most preceptors struggled with quantifying both how often they shared feedback with learners in a teaching session, as well as with how much feedback they guessed that learners would have perceived as being shared during the session. When considering feedback as a social process between a learner and a teacher, this issue has serious implications: if preceptors are unclear about what is and what is not feedback, how can learners be expected to consistently recognize feedback? And if learners do not recognize feedback, how can the social process of meaning-making of feedback occur?

Unsurprisingly, the preceptors in our study did not question the value of feedback. There is a general belief in health professions education that feedback is valuable to learning (Bing-You et al., 2017; Hattie & Temperley, 2007), and this belief is becoming more entrenched in the era of coaching and competency-based medical education (Hall et al., 2021). Interest in ensuring that effective feedback conversations happen in clinical teaching has resulted in an increase in the offerings available to clinical teachers to learn how to be effective in sharing feedback – local faculty development, national/international conferences, and courses through respected institutions. With this plethora of opportunities targeted at the phenomenon of feedback, how can there still be uncertainty among preceptors in how to define feedback?

We suggest that the variation in definitions of feedback is the result of a lack of shared understanding of the term feedback. The majority of research into feedback in the health professions education literature has focused on the content and mechanism of feedback conversations, with little research into the social process of feedback (Fig. 2). As a social process, feedback is a meaning-making process co-created between teachers and learners that yields understandings that shape behaviors of both parties as well as potentially offering validation during the encounter. For instance, when a teacher-learner dyad engages
effectively in the social process of feedback, the learner both enhances their awareness of how to be a better clinician, and gains validation of what it means to be a growing clinician. However, when the teacher and the learner hold different definitions of feedback, there may be a lack of recognition that feedback is being shared, and the social process of feedback cannot happen effectively. Consequently, the learner may feel doubtful about their learning or competence due to the misperception of not receiving feedback.

As outlined by the theory of language convergence/meaning divergence (LC/MD), when meaning-making processes occur between social actors (i.e., teacher and a learner), there is a possibility that emergent meanings will conflict and overlap (Dougherty et al., 2009). Differences in meanings can occur whether social actors use different words or the same word to illustrate a concept (Dougherty et al., 2009); in the context of this study, the word ‘feedback’ was used consistently by all participants, but the meaning of the word varied across individuals. Differences in the meaning attached to words can be attributed to subjective (e.g., an individual’s beliefs), relational (e.g., interactions between social actors) and situational factors (e.g., norms of behavior in the workplace) (Dougherty et al., 2009). Having a shared understanding is important because “a shared, common language” can unify a group of stakeholders towards a common goal (Thomas & McDonagh, 2013); however, working to ensure a shared understanding is not a simple task (Thomas & McDonagh, 2013). Achieving a shared or mutual understanding is an interactive and continuous process that involves co-construction of ideas (Spencer-Oatey & Franklin, 2009; Thomas & McDonagh, 2013; Weigand, 1999) and ensuring that everyone in the conversation holds the same meaning for specific words being used, as described in LC/MD theory (Dougherty et al., 2009).

Our finding of variations in how preceptors define feedback for themselves, and in how they attribute definitions of feedback to the learners they work with, may arise from a communication misunderstanding - the result of an assumption of mutual understanding and shared meaning, without overt discussion to explore individually-held meaning and/or why differences in meaning may exist. As Dougherty and colleagues (2009) warn, attempts to attain a shared understanding for everyone can be illusory when those attempts fail to incorporate a consideration and exploration of differences. Coming to a shared understanding involves learning why differences in meaning emerge and reconciling these differences.

Misunderstanding is an inevitable outcome in communication, and is a passive process – often, neither the speaker nor the listener is aware that a misunderstanding has occurred (Weigand, 1999), because it results from differences in interpretation and perception (Thomas & McDonagh, 2013; Weigand, 1999). These types of misunderstandings can occur when a word or term is commonly used, such as the term feedback (Dougherty et al., 2009): we all know what it means, so why would we check in on understanding? The theory of LC/MD highlights the dangers of the “illusion of shared meaning in organizational language” (Mayfield et al., 2020), and feedback appears to be one of those terms where there is an assumption that everyone knows what it means, but there are actually divergent interpretations among individuals (Dougherty & Goldstein Hode, 2016) as seen in our study. Without a
common understanding of feedback as emphasized by the LC/MD theory, there can be differences between preceptors and learners in perceptions of the amount of feedback shared in the clinical teaching context (Bowen et al., 2017; Rassos et al., 2019; Sender Liberman et al., 2005).

The uncertainty and discrepancies among teachers around what is feedback and what is not – either their own definitions, or the definitions of feedback that they attribute to their learners – is particularly important when considering the social process of meaning-making in feedback conversations. By applying LC/MD theory to explain discrepancies in perceptions of when and if feedback has been shared, we can better understand how misplaced confidence in assumptions of shared meaning can hinder the social process of feedback. A teacher-learner dyad cannot effectively co-construct meaning in an exchange of learning information without both parties being aware that a feedback exchange is happening. More simply: a learner cannot act on information (i.e., feedback) that they do not perceive.

Given the efforts that the medical education community has made to apply findings from research to clinical education practices, and the efforts put forward by preceptors to develop their feedback skills (through attendance at conference workshops and local faculty development opportunities), it is important to consider ways to address individual variation in how feedback is defined. The challenge of how to clearly define feedback has been identified in the medical education literature (Van de Ridder et al., 2008) and is periodically revisited (Lefroy et al., 2015; Urquart et al., 2014; Van der Leeuw et al., 2018), with new definitions of feedback proposed. However, these conversations about how to define feedback may be seen as abstract exercises in semantics, with academics debating minutiae of wording without engaging frontline teachers in a meaningful way.

It is possible that there are enough contextual differences between medical education researchers and frontline clinical educators to result in a divergence in understanding of what the term feedback means. It is equally possible that the assumed shared definition of feedback held by medical education researchers may be so socialized within their community of practice that the thought never occurs to do a meaning check-in with audiences outside of that community of practice, such as frontline clinical educators. This assumption of mutual understanding of how feedback is defined may be the missing link that sheds light on why there is a constant thirst for professional development sessions about how to share feedback, and why there is a consistently observed misalignment between teacher reports of how much feedback they share, and learner reports of how much feedback they believe is shared with them.

A simple solution would be to make check-ins on meaning, and explorations of differences in meaning, a standard way to start faculty development sessions about best practices in sharing feedback. Similarly, a quick check-in on meaning could become standard practice in educational sessions between clinical teachers and learners. This would establish a shared understanding of terms being used, and it would circumvent the misunderstandings that arise from differences in sense-making of common terms (Dougherty et al., 2009). Establishing this shared understanding could, over time, reduce the divergent definitions of feedback that we saw in this study. Further, establishing shared understanding and meaning convergence at the start of each educational session can also serve as sign-posting for learners
(Urquhart et al., 2014), priming them to be ready for feedback. This simple step should increase the effectiveness of feedback conversations by ensuring that all three essential components shown in Fig. 2 are addressed.

In applying the LC/MD theory, we highlight how meaning-making processes that shape definitions of feedback can be attributed to a variety of factors. In our study, we observed how definitions of feedback (i) overlap with a clinical educator’s definitions of teaching, (ii) are connected to situational cues (e.g., connected to a particular moment during a clinical encounter), or (iii) are connected to specific characteristics of the learner or the clinical educator. This highlights how the process of defining feedback is an intersubjective process and subsequently yields meanings that may be different and/or similar between the clinical educator and the learner. Likewise, it is possible that in social interactions when discussing feedback amongst clinical educators, different or overlapping definitions of feedback may emerge, if there are no intentional actions towards creating a shared understanding.

As with all research, our study has limitations. All of our participants came from the same institution. While we did observe and interview participants across four different teaching sessions, the interviews themselves were very brief; longer interviews may have captured more detail about feedback definitions and practices. Further, there may have been selection bias in who volunteered to take part in this study which could mean that the relevance of our findings is limited.

**Conclusion**

There is a wealth of research to support the importance of feedback in clinical medical education. Embedded in this research is an assumption of consistency in how academic medical education researchers define feedback, and agreement within the academic community about what is meant when the term feedback is used in the context of clinical teaching. However, our study found that clinical preceptors teaching in the clinical workplace did not share a common understanding or definition of the term *feedback*. Given the importance of achieving a shared understanding of the words we use, we hypothesize that this lack of a common definition of feedback among preceptors is an important factor impacting the discrepancy seen between what preceptors report about their feedback-sharing behaviours and what learners report when asked for their perceptions of the feedback that is shared with them. Taking the time to explicitly explore individually-held definitions of feedback in order to establish shared understanding is worth it: when teacher and learner are both ‘talking the same language’, feedback conversations are much more likely to be effective.

**Declarations**

**Acknowledgments**

**Funding:**

This work was supported by the following grants to the senior author:
Social Sciences and Humanities Research Council (SSHRC) (Grant # 435-2018-1461).

Teaching and Learning Enhancement Fund, University of Alberta.

References


**Figures**
Figure 1

Timeline of data collection and analyses. Data analysis occurred concurrently with data collection.
Figure 2

The three essential components of feedback conversations in clinical teaching.