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**Researching Feedback Dialogue: An Interactional Analysis Approach**

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**Abstract**

A variety of understandings of feedback exist in the literature, which can broadly be categorised as cognitivist information transmission and socio-constructivist. Understanding feedback as information transmission or ‘telling’ has until recently been dominant. However, a socio-constructivist perspective of feedback posits that feedback should be dialogic and help to develop students’ ability to monitor, evaluate and regulate their learning. This paper is positioned as part of the shift away from seeing feedback as input, to exploring feedback as a dialogical process focusing on effects through presenting an innovative methodological approach to analysing feedback dialogues in situ. Interactional analysis adopts the premise that artefacts and technologies set up a social field, where understanding human-human and human-material activities and interactions is important. The paper suggests that this systematic approach to analysing dialogic feedback can enable insight into previously undocumented aspects of feedback such as the interactional features that promote and sustain feedback dialogue. The paper discusses methodological issues in such analyses and implications for research on feedback.

**Introduction**

Effective feedback practices are the subject of great concern. Students complain that feedback comments are badly timed, unhelpful and do not address what they want them to address (Kluger and De Nisi 1996; Carless 2006; Sadler 2010; Urquhart, Rees, and Ker 2014). Research into feedback has typically explored staff and/or student perceptions about feedback comments, and analysed written staff comments to students. However, research approaches that follow through such comments to examine their effects—how they are received and acted upon—are limited. While there are studies about the effects of various kinds of comment on student performance on tests, these typically do not examine the processes involved and how these effects are achieved (Shute 2008). In recent years there has been a renewed focus on feedback practices in higher and professional education to identify what they are, how they can be conceptualised and how they can be more effectively deployed. The focus of these developments is to place attention more on effects than on inputs and, rather than as an adjunct to marking, placing feedback as part of an on-going relationship between teacher and student.

The aim of this paper is to contribute to considering the effects of feedback rather than seeing feedback as input. It addresses the question of how we might examine feedback processes in context in order to identify the effects produced. In particular, it views feedback not as a set of unilateral comments, but as a social act, a dialogue. It shows how feedback can be understood through presenting a research approach that analyses feedback dialogue. This research approach is based on the premise that a robust way of tracking feedback is needed which focuses on key understandings about what makes feedback effective. That is, feedback is about having a positive influence on what students do and that feedback is most effective when it is cyclical and involves a dialogue (Carless et al. 2011; Price, Handley, and Millar 2011; Boud and Molloy 2013). However, it also accepts that the nature of the inputs made to students may have powerful effects, but these are not realised unilaterally. That is, student responses are not fully determined by the nature of the inputs but by what they bring to them.

The paper approaches the challenge of analysing feedback by first focusing a critique of commonplace monologic feedback pointing to the importance of feedback being based on a reciprocal relationship. Second, it focuses on the conditions needed for feedback to be effective in terms of a socio-constructivist view of how it has an effect. It goes on to outline an approach for analysing feedback that examines turn-taking and the social and relational features of talk between tutor and student. It illustrates this with an example from an online course deliberately designed to foster feedback dialogue as access to records of interchanges are readily available in text. The paper seeks primarily to exemplify a methodological approach—a proof of concept—rather than demonstrate substantive findings about feedback *per se*.

*Critique of monologic feedback*

Several understandings of feedback exist in the literature that can broadly be categorised in relation to the following perspectives of learning: cognitivist information transmission and socio-constructivist (Askew and Lodge 2000; Evans 2013). Understanding feedback as information transmission has dominated most of the literature (until recently) where research in this tradition has focused on the content and delivery of the feedback, i.e. what the teacher does. Feedback as ‘telling’, which positions the learner as a passive recipient, is problematic, as the act of telling does nothing to ensure the learner has read or listened to the feedback, understood it or acted upon it (Boud and Molloy 2013). Viewing feedback as something that is ‘given’ to a student to correct their errors aligns it with a narrow, transmission view of learning. It does not take into account the dynamic and interpretive nature of communication (Higgins, Hartley, and Skelton 2001). Higgins, Hartley, and Skelton (2002) and Carless (2006) make the argument that feedback should be seen as a process of communication and is therefore a social and constructed phenomenon.

The main purpose of feedback, in a socio-constructivist view, is to develop students’ ability to monitor, evaluate and regulate their own learning; i.e. to promote self-regulation (Nicol 2010; Price et al. 2010). This perspective focuses on learners’ interpretations about, engagement with and use of information constructed through interactions with others and in context. Research highlighting the importance of the relationship in feedback interactions lends credence to this perspective. For example, research in medical education highlights that learners make credibility judgements about their tutors, which influence their interpretation and incorporation of the feedback in positive or negative ways (Sargeant et al. 2011; Watling and Lingard 2012). Medical students and trainees consider the clinical capability and interpersonal skills of their supervisor and may reject feedback from those judged lacking (Bing-You and Trowbridge 2009; Urquhart, Rees, and Ker 2014). Other factors seen to influence credibility of feedback interactions include whether performance was observed, demonstrated understanding of the learner’s role and aspects of the tutor-learner relationship (Eva et al. 2012; Watling and Lingard 2012; Watling et al. 2012). Utilising a concept from psychotherapy, Telio, Ajjawi and Regehr (2015) highlighted the potential for the educational alliance (the quality of the relationship between the tutor and the learner) to influence use of feedback information. Therefore, the learners’ subjective evaluation of the quality of the relationship is an important aspect of the utility of feedback. Here the individual and social processes of knowledge construction can be seen to be connected and interdependent.

‘Using the educational alliance as a lens reframes the feedback process from one of information transmission (from supervisor to trainee) to one of negotiation and dialogue occurring within an authentic and committed educational relationship that involves seeking shared understanding of performance and standards, negotiating agreement on action plans, working together toward reaching the goals, and co-creating opportunities to use feedback in practice.’ (Telio, Ajjawi, and Regehr 2015, 612).

Beyond medical education, Savin-Baden (2010) critiqued the field of feedback research for its lack of theoretical stance and argued that a dialogic approach to feedback is required to improve assessment literacy. She draws on the dialogic learning literature including the work of Bakhtin (1986) to redefine feedback practices. Common to this pedagogical approach is the view that learning can be more meaningful when “placed in a discursive space which allows for knowledge-generating discussion resulting, potentially, in higher levels of understanding” (Stenton 2011, 16). Dialogic feedback creates space for knowledge exploration with collaborative or reciprocal association between learners and tutors (Stenton 2011).

Viewing feedback as a social act involving the learner, tutor (or peer, colleague, friend, etc.), context and relationship might explain the frequently reported feedback gap in the literature. Research consistently demonstrates that tutors perceive the quality and quantity of feedback they ‘provide’ as better than perceived by the learners (Carless 2006; Price, Handley and Millar 2011; Urquhart, Rees, and Ker 2014). If tutors perceive feedback as corrective information transmission and ignore the complexities of relationship, context, materials, learners and the feedback process it is not surprising that they perceive their feedback inputs to be more useful than they are perceived to be by the learners. To be effective, feedback needs to be “meaningful, understood and correctly acted upon” (Orsmond, Merry, and Reiling 2005, 369). Dialogue between tutors and students serves to reduce misconceptions and differing perceptions about assessment and feedback (Carless 2006) whilst also engaging learners with feedback in active ways.

*Rationale and aim*

In thinking about how to analyse feedback dialogue as communication we turned to the literature. Many studies have analysed the information provided by a teacher to a student. The tutors’ comments are viewed as a-contextual and in absence of any response or action as a result of the comments, are simply coded in relation to pre-specified codes derived from the literature (see e.g. Brown and Glover 2006; Dekker et al. 2013). Hughes, Smith, and Creese (2014) developed a coding framework incorporating: praise, progress, critique, advice and query. Another coding approach involved using categories, developed by Chi et al. (2001) such as: giving explanations, corrective feedback and suggestive feedback. Price et al. (2010) have critiqued the use of input measures such as timing, frequency, quantity or externally judged product quality as a way of evaluating feedback effectiveness, arguing that students who are assessment literate are best placed to evaluate the effectiveness of feedback. Coding the apparent intent of feedback information cannot capture the communicative nature of the phenomenon.

Another body of literature we explored involved analysing computer mediated interactions (relevant to the context of the data presented here). Although research in this tradition has explored actual dialogue interactions, they seek to generate typologies of dialogue in order to group the talk into pre-defined (deductive) categories of exchange between tutor and learner (e.g. technical, administrative, supportive etc.) (see e.g. Teles et al. 2001; Littleton and Whitelock 2004; Bosley and Young 2006). Focusing on the pedagogical role broadly, they identify aspects of exchange related to cognitive, metacognitive, social and affective aspects of learning. However, where feedback is concerned although identified it is not explored in depth but simply noted to be present in the dialogue. Therefore, empirical studies have not researched actual written or spoken feedback interchanges as communicative acts in depth.

We found one study that explored feedback interactions between medical teachers and students within the general practice setting (Rizan et al. 2014). This study utilised principles of conversational analysis to explore how corrective feedback is enacted within 12 video-recorded bedside teaching encounters (involving doctor-student-patient). Using inductive and deductive analyses, they demonstrate a range of correction strategies from implicit to explicit enacted through linguistic strategies; thus, highlighting the potential of researching feedback as talk. The key aim of the current paper is to propose an analytical approach that has the potential to provide insight on the nature of feedback dialogue and to illustrate it with some initial analyses.

**Theoretical positioning of methodological approach**

The methodological approach presented here is underpinned by a social constructionist epistemology, in which knowledge is viewed as constructed through social interaction (Crotty 1998). We draw on symbolic interactionism, which focuses on how individuals construct meaning, identity and order through social interaction (Sandstrom, Martin, and Fine 2006). Symbolic interactionism within the current approach focuses on the individual and interaction, and takes account of local context. In addition, we referred to ‘Interaction Analysis’ to inform our methodological framework (Jordan and Henderson 1995). Interaction Analysis is an interdisciplinary approach for researching human-human and human-material interactions. A basic assumption is that knowledge and action are fundamentally social in origin and rooted in particular social and material ecologies. Its use provided a window into exploring how the material world features within feedback interactions. By conceptualising feedback as interaction i.e. a social act, we open it up to different research approaches. Such a research approach focuses on the function of dialogue in the collaborative construction of shared understandings rather than viewing language as merely for information exchange (Benwell and Stokoe 2002). Various aspects of talk may be analysed in order to understand the meaning of an experience both *what is said* and *how it is said*, and what it appears to lead to.

In terms of *what* is said we employed framework analysis (Ritchie and Spencer 1994) adopting an interpretative stance with a mixture of inductive (open) and deductive coding (based on theories of feedback and self-regulation) to better understand the nature of feedback dialogue and its impact on learner and tutor. We used Hattie and Timperley’s (2007) conceptual framework for feedback as our a-priori deductive codes to get an initial handle on the data. We chose this model because it takes account of self-regulatory purposes often absent from other coding frameworks and it has an emphasis on potential effects. They suggest that three key questions need to be addressed in feedback interactions: what are the goals? (feed up); how am I going? (feed back); where to next? (feed forward). Each of these questions may operate at four levels: task, process, self-regulation (or metacognition) and self (unrelated to the task). The self-regulation level is focused on developing greater skill in self-evaluation and/or confidence to engage further on a task (self-efficacy). Hattie and Timperley argue that the feedback inputs oriented at the levels of process and self-regulation are powerful for promoting deep processing and mastery. Inductive codes were also generated through an iterative process of interpretation, negotiation and discussion between the researchers and the data during analysis (Ritchie and Spencer 1994).

In terms of the *how*, researchers have examined the contribution of emotional talk and pronoun use to understand meanings attributed to the interaction (see e.g. Rees, Knight, and Wilkinson 2007; Rees and Monrouxe 2008; Monrouxe et al. 2011). Relevant to the excerpt used below, the use of pronouns in interactions may give us clues as to how the speaker is positioning themselves in relation to the other (Mercer 2004; Rees and Monrouxe 2008). Also relevant to the current analysis is Brown and Levinson’s (1987) politeness theory, which suggests that pronoun substitutions (such as ‘we’ for ‘I’) are employed to create and maintain positive politeness in face-threatening interactions, suggesting solidarity between participants. Tutors may also use hedging language to soften the threat to face (‘sort of’, ‘in a sense’, ‘perhaps’), hesitation or purposeful avoidance of pronouns (Benwell and Stokoe 2002).

*Context*

The methodological approach was explored within the Postgraduate Certificate in Medical Education Programme at the University of Dundee. This is a fully online distance education programme composed of four modules (15 credit points each). This means that normal interactions between student and tutor are all text-based and a trail of these is available for analysis. The programme is unusual in that it is not cohort-based: there are rolling enrolments and flexible assignment submission. This is significant for feedback dialogue as it means that feedback dialogue is not inhibited by arbitrary assignment deadlines. To delimit scope, we chose to look at only the first two core modules of the programme. There are four summative assessment tasks associated with each of these modules: 'Teaching and Learning in Medical Education' and 'Principles of Assessment in Medical Education'. The feedback process involves students completing an interactive cover page for each assignment where they evaluate their work against the assessment criteria and request specific feedback. Tutors provide comments in relation to students’ work and the assessment criteria, they also respond to student self-evaluation and to specific student requests. The student then uploads their marked assignment to a personal feedback journal (only accessible by the student and tutors) where they reflect on and respond to four questions including requests for further information. The tutor is alerted to student postings and can continue the dialogue as needed. The pedagogy of the course sought to exemplify the communicative view of feedback discussed earlier (see Figure 1). The University Research Ethics Committee approved the conduct of our study (the results of the study are not reported here but this is where the exemplar below was obtained from).

*Application of approach*

We framed feedback in terms of episodes of dialogue (turn-taking) between student, tutor and the course (Figure 1). The course materials that stimulated actions on the part of the student prompted some of these: complete an assignment; request particular feedback information; reflect on tutor responses, etc. Tutors prompted some: response to an assignment; reply to a request, etc. Others were from students, either prompted by course materials or the tutor, or initiated by them. There are as many interchanges either as are needed or can fit within the overall timescale of the unit as regulated by the learner. Subsequent assignments can be seen as part of the continuation of the dialogue with new substantive work to consider.

[Insert Fig 1 about here]

For the larger study (not reported here), we identified 10 students who had engaged with the feedback dialogue process in depth based on the volume of writing in the cover page and feedback dialogue in their journal. Volume was a practical inclusion criterion as markers of feedback quality would require further in depth analysis and have tended to focus on content (something we wanted to avoid). The cover pages and journal entries for these 10 students related to the first two core modules of the programme were de-identified and compiled into one word document for each student. This formed a core data set of eight completed cover pages and respective journal entries per student as each of the core modules has four summative assignments associated with it. This generated 132 pages of text comprising about 47,000 words. These data files were converted from word to rtf and imported into ATLAS.ti version 7 for review. ATLAS.ti is qualitative data management software that enables systematic storage, coding and querying of the data.

One of us (RA) read through the data in depth identifying feedback loops. A feedback loop was defined as an initiation-response pattern between student and tutor that may then lead to further responses. These feedback loops may be initiated by the student, tutor or prompts in the materials, as demonstrated below. Both researchers analysed the data; we met regularly to discuss the developing coding framework and emerging interpretations of feedback dialogue loops. The data was coded deductively using Hattie and Timperley's (2007) model to identify the type of feedback intervention as related to feed up, feed back, feed forward, task, process, self and self-regulatory comments. Through iterative reading of the data, further codes generated inductively from the data and informed by the theoretical frameworks highlighted above, were added to the coding framework and linked to the literature. For example, features of self-regulation of learning theory were seen in the dialogue and the use of politeness strategies.

*An example*

The following excerpt involves two feedback loops over a three-week period and occurs across the cover page and journal for the same assignment (Principles of Assessment module – assessment 2: PoA2). The given assignment involves the student selecting an appropriate standard setting method for an exam he had recently been involved in and reflecting on the implications of the use of the chosen approach. Dialogue is initiated by a question on the cover page. This question is designed to be self-regulatory in focus asking students to identify their own learning needs in relation to the assignment and to seek feedback to address this. The learner (pseudonym Mike) asks a question that aims to apply content from the assignment to his own context. The tutor (pseudonym Ken) integrates the declarative knowledge from the module and his own experiential knowledge of standard setting to respond to the student’s query. In Table 1, the first column indicates turn-taking, the second the actor who or what initiates/sustains the episode, the third where the action takes place, the fourth summarises what is said and the final column provides a commentary (our own interpretation) on what is occurring. Although the notion of artefacts “taking a turn” may be perceived as unusual, in Interaction Analysis turn-taking encompasses more than talk as participation in an interactional exchange may be constituted by action and indeed artefacts (Jordan and Henderson 1995). The underlining of words in the quote is used to highlight features of talk we refer to in the interpretation.

[Insert Table 1 about here]

It can be seen from the interchanges in Table 1 that the feedback cycle is initiated by prompts in the course material about the nature of the assignment and the other actions expected of the student. The course materials take a turn by opening up a dialogic space where co-construction of meaning may occur (turn 1). This prompt can be analysed as a particular type of intervention using the Hattie and Timperley (2007) model – one that is self-regulatory in nature and results in subsequent responses from student and tutor. It is only in the student’s response (turn 2) that we see the question has had the desired evaluatory effect. Subsequently, there is a mix of interventions by the tutor in response to what the student has done or said and ‘conversation’ which helps maintain the dialogue. The dialogue ceases when one or other of the parties chooses not to respond to what has been said previously.

In the above example, the interaction remains primarily in the informational sphere. This is in part due to the tutor’s response which maintains a veil of objectivity (‘it is usually recommended’ – turn 3) and avoids the interpersonal through a third person response and avoidance of ‘we’. The tutor does not invite further dialogue by virtue of his response not containing any invitation for further questions or demands for response. However, the reflection-on-feedback journal takes on the role of a third actor (turn 4) to create a further opportunity for dialogue where the student again takes the opportunity to ask a question and seek additional information. Unlike the Initiation (question posed by tutor), Response (by student) and Evaluation (by tutor) sequence typically seen in classroom research (Benwell and Stokoe 2002), we see here two questions initiated by the student following an invitational prompt on the cover page and the feedback journal.

**Discussion**

The example above shows how the feedback dialogue space can mediate learning, which is distributed across people, time and space, and the value of the pedagogical design in sustaining feedback dialogue. In a single excerpt we see multiple turns, which function at the level of task and self-regulation (Hattie and Timperley 2007). Two criteria that highlight a self-regulatory feedback focus are prompting self-evaluation and continuing beyond the task (Hattie and Timperley 2007). We clearly see the learner utilising learning and feedback dialogue in his work activities beyond the course. The interplay between materials, tutor actions, student actions and the context can thus be exposed for analysis.

In the above example the student is being self-regulatory in seeking application of knowledge beyond the module to his context and so constructing his medical educator identity beyond his student role. The tutor constructs an objective helpful academic role, maintaining interactional distance through the use of linguistic (e.g. avoiding first person and collaborative ‘we’ pronoun use) and other communicative strategies (e.g. avoiding asking questions and only responding specifically to the question asked); thus, keeping the interaction in the informational sphere. There is limited investment from the tutor in the relational aspects and self-regulatory needs of the learner beyond immediate answering of the question. Despite this we see that the materials provide space for the student to pursue his agenda and to seek feedback information that addresses his learning needs. The use of politeness strategies (e.g. acknowledging response) and hedging strategies (e.g. may be) are used to preserve face in what can be a face-threatening situation for the tutor and student.

Analysing feedback as interaction enables a broader interpretation of the functions of feedback. Beyond simply providing information about performance, feedback serves several functions. For example, Price et al. (2010) argue that feedback serves the purpose of promoting assessment literacy. Molloy (2009) identified that feedback promotes professional socialisation. Telio, Ajjawi, and Regehr (2015) argue that the relational aspects of feedback are crucial and under-explored. This systematic approach to analysing dialogic feedback enables insight into previously undocumented aspects of feedback such as the interactional features that promote and sustain feedback dialogue. Further, it holds potential for analysing feedback dialogue in numerous contexts addressing the limited research of real feedback interactions as documented in the literature. It has implications for informing strategies for prompting feedback through study materials and tutor interventions that generate and sustain constructive dialogue. Hyland and Hyland (2001) report that comments to learners meet several goals including pedagogic, informational and interpersonal. Exploring feedback dialogue can shed light on how these goals are mediated through the interaction, the materials and in context.

A key strength of this research approach is analysing feedback *in situ* taking into account interpretations of the exchange from both perspectives as well as the dynamic nature of the dialogue within the educational context. By analysing feedback talk the meaning of those experiences arise through the interaction (Blumer 1969) and so can interpret how personal meanings are constructed in relation to feedback. And importantly how feedback may effect internal cognitive and affective change in the learner (or indeed the teacher). This may hold potential for educators to analyse their own feedback practices and educational design including for example sequencing of assignments, design of interactive cover pages, or prompts from teaching interventions.

Novel research questions that the interactional approach would answer include: How are linguistic and para-linguistic strategies used to sustain (effective) feedback dialogue? How might politeness and hedging strategies used in feedback dialogue serve to save face and sustain relationships (or indeed to obfuscate)? How do materials influence feedback dialogue and what design features would promote effective feedback dialogue? What are the affordances and constraints of different contexts (e.g. online environments, face-to-face, oral feedback) on feedback dialogue and incorporation of feedback? Importantly, this approach could help link feedback information to learning effects over time. Furthermore, interactional analysis in health professions education research has highlighted how language, para-language and non-verbal communication can serve to exclude patients and medical students from bedside teaching encounters (Monrouxe et al., 2009; Rees et al., 2013). Similarly educators’ use of jargon, directives, pronouns, humour, lack of questioning and relationship strategies, and/or excessive reliance on face saving strategies may exclude students from feedback interactions and reduce the impact of feedback on learning. This would be important to show empirically.

The challenges of adopting such a research approach include identifying coherent episodes of dialogue across multiple assignments, tutors and modules, as well as the time commitment to transcribe (in the case of verbal feedback) the audio to the level of discourse analysis and experience in such an analytical process. In our present case, analysis was greatly aided by the fact that we were dealing with an on-line course in which all interactions were recorded in text. Our research approach draws on social constructionist epistemology suggesting that there are multiple interpretations of reality and ways of knowing (Crotty 1998). With this in mind, we offer up our ‘findings’ as an interpretation (rather than the only interpretation or ‘truth’) nonetheless our interpretations were strengthened through our different disciplinary backgrounds, theoretical approach and regular meetings and negotiation of the coding framework.

*Conclusion: strengths and limitations of an interactional analysis approach*

This paper demonstrates how feedback dialogue excerpts may be analysed and the value in using an interactional analysis approach. Therefore, we are not attempting to generalise about the impact of such a curriculum reform for all students. Exploring the *what* and *how* of the interaction provides insight into feedback as a relational and dialogic phenomenon (Urquhart, Rees, and Ker 2014). In so doing it is respectful to the phenomenon as it occurs in a naturalistic setting (preserving context). A further strength is that it enables feedback to be researched longitudinally. Although we have used this approach to analyse written feedback, a major strength of interactional analysis would be with the use of audio and video data where paralinguistic (e.g. pauses, laughter) and non-verbal (e.g. positioning, eye contact) features of communication (not present in our current data) could richly be observed.

Such an approach needs to be judged not only on its effects in collecting useful data in a form that allows it to be used to influence decision-making about and among students, but also in terms of its utility. Does it contribute to a better understanding of feedback that might influence the ways in which feedback activities are deployed in the design and conduct of courses? From this point of view it has some success, but also some limitations. It clearly can identify useful feedback interventions that get taken up by students—a first step in having an influence on their learning. Due to the in-depth nature of interactional analysis it is usual for such research to be based on small sample sizes (Monrouxe et al., 2009; Rees et al., 2013). Scaling up this approach and refining the process so that it is less labour-intensive and focuses on those things that students, tutors and course designers can act upon remains a challenge. In doing so we nonetheless recognise that the basic level of understanding of feedback processes by all parties needs to be raised if feedback is to have an impact on learning.

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**References**

Askew, S., and C. Lodge 2000. “Gifts, Ping-Pong and Loops – Linking Feedback and Learning.” In *Feedback for Learning*, edited byS. Askew, 1-18. London: RoutledgeFalmer.

Bakhtin, M. 1986. *Speech Genres and Other Late Essays* (V. W. McGee, Trans.). Austin, TX: University of Texas Press.

Benwell, B., and E. H., Stokoe 2002. “Constructing Discussion Tasks in University Tutorials: Shifting Dynamics and Identities.” *Discourse Studies* 4(4): 429–453.

Bing-You, R. G., and R. L., Trowbridge 2009. “Why Medical Educators may be Failing at Feedback.” *JAMA* 302(12): 1330-1331.

Blumer, H. 1969. *Symbolic Interactionism; Perspective and Method*. Englewood Cliffs, NJ: Prentice-Hall.

Bosley, S., and D., Young 2006. “Online Learning Dialogues in Learning Through Work.” *The Journal of Workplace Learning* 18 (6): 355-366.

Boud, D., and E., Molloy 2013. “Rethinking Models of Feedback for Learning: The Challenge of Design.” *Assessment and Evaluation in Higher Education* 38(6): 698-712.

Brown, E., and C., Glover 2006. “Evaluating Written Feedback.” In *Innovative Assessment in Higher Education,* edited by C. Bryan and K. Clegg, 81-91. Abingdon: Routledge.

Brown, P., and S. C., Levinson 1987. *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.

Carless, D. 2006. “Differing Perceptions in the Feedback Process.” *Studies in Higher Education* 31(2): 219-233.

Carless, D., D. Salter, M. Yang, and J. Lam. 2011. “Developing Sustainable Feedback Practices.” *Studies in Higher Education* 36 (4): 395–407.

Chi, M. T. H., S. A., Siler, H., Jeong, T., Yamauchi, and R. G., Hausmann 2001. “Learning from Human Tutoring.” *Cognitive Science* 25: 471–533.

Crotty, M. 1998. *The Foundations of Social Research*. London: Sage Publications.

Dekker, H., J., Schönrock-Adema, J. W., Snoek, T., van der Molen, and J., Cohen-Schotanus 2013. “Which Characteristics of Written Feedback are Perceived as Stimulating Students’ Reflective Competence: An Exploratory Study.” *BMC Medical Education* 13: 94.

Eva, K., H., Armson, E., Holmboe, J., Lockyer, E., Loney, K., Mann, and J., Sargeant 2012. “Factors Influencing Responsiveness to Feedback: On the Interplay Between Fear, Confidence, and Reasoning Processes.” *Advances in Health Sciences Education* 17(1): 15-26.

Evans, C. 2013. “Making Sense of Assessment Feedback in Higher Education.” *Assessment and Evaluation in Higher Education* 83(1): 70-120.

Hattie, J., and H., Timperley 2007. “The Power of Feedback.” *Review of Educational Research* 77(1): 81-112.

Higgins, R., P., Hartley, and A., Skelton 2001. “Getting the Message Across: The problem of Communicating Assessment Feedback.” *Teaching in Higher Education* 6(2): 269-274.

Higgins, R., P., Hartley, and A., Skelton 2002. “The Conscientious Consumer: Reconsidering the role of Assessment Feedback in Student Learning.” *Studies in Higher Education* 27(1): 53-64.

Hughes, G., H., Smith, and B., Creese 2014. “Not Seeing the Wood for the Trees: Developing a Feedback Analysis Tool to Explore Feed Forward in Modularised Programmes.” *Assessment and Evaluation in Higher Education* DOI 10.1080/02602938.2014.969193.

Hyland, F., and K., Hyland 2001. “Sugaring the Pill: Praise and Criticism in Written Feedback.” *Journal of Second Language Writing* 10(3): 185-212.

Jordan, B., and A., Henderson 1995. “Interaction Analysis: Foundations and Practice.” *The Journal of the Learning Sciences* 4(1): 39-103.

Kluger, A. N., and A., De Nisi 1996. “The Effects of Feedback Interventions on Performance: A Historical Review, a Meta-analysis, and a Preliminary Feedback Intervention Theory.” *Psychological Bulletin* 119(2): 254–284.

Littleton, D. P., and D., Whitelock 2004. “Guiding the Creation of Knowledge and Understanding in a Virtual Learning Environment.” *Cyberpsychology and Behavior* 7(2): 173-81.

Mercer, N. 2004. “Sociocultural Discourse Analysis: Analysing Classroom Talk as a Social Mode of Thinking.” *Journal of Applied Linguistics* 1(2): 137-168.

Molloy, E. 2009. “Time to Pause: Giving and Receiving Feedback in Clinical Education.” In *Clinical Education in the Health Professions,* edited by C. Delany and E. Molloy, 128-146. Sydney: Elsevier.

Monrouxe, L. V., C. E., Rees, N. J., Lewis, and J. A., Cleland 2011. “Medical Educators’ Social Acts of Explaining Passing Underperformance in Students: A Qualitative Study.” *Advances in Health Sciences Education* 16(2): 239-252.

Monrouxe, L. V., C. E., Rees, and P., Bradley 2009. “The Construction of Patients’ Involvement in Hospital Bedside Teaching Encounters.” *Qualitative Health Research* 19(7): 918–930.

Nicol, D. 2010. “From Monologue to Dialogue: Improving Written Feedback Processes in Mass Higher Education.” *Assessment and Evaluation in Higher Education* 35(5): 501-517.

Orsmond, P., S., Merry, and K., Reiling 2005. “Biology Students’ Utilization of Tutors’ Formative Feedback: A Qualitative Interview Study.” *Assessment and Evaluation in Higher Education* 30(4): 369-386.

Price, M., K., Handley, and J., Millar 2011. “Feedback: Focusing Attention on Engagement.” *Studies in Higher Education* 36(8): 879-896.

Price, M., K., Handley, J., Millar, and B., O'Donovan 2010. “Feedback : All that Effort, but What is the Effect?” *Assessment and Evaluation in Higher Education* 35(3): 277-289.

Rees, C. E., R., Ajjawi, and L. V., Monrouxe 2013. “The Construction of Power in Family Medicine Bedside Teaching: A Video Observation Study.” *Medical Education* 47(2): 154-165.

Rees, C. E., L. V., Knight, and C. E., Wilkinson 2007. “User Involvement Is a Sine Qua Non, Almost, in Medical Education: Learning with Rather than Just About Health and Social Care Service Users.” *Advances in Health Sciences Education* 12(3): 359-390.

Rees, C. E., and L. V., Monrouxe 2008. ‘‘Is it Alright if I-um-we Unbutton your Pyjama Top Now?’’ Pronominal Use in Bedside Teaching Encounters.” *Communication and Medicine* 5(2): 171–182.

Ritchie, J., and L. Spencer 1994. “Qualitative Data Analysis for Applied Policy Research.” In *Analyzing Qualitative Data*, edited by A. Bryman and R. G. Burgess (173-194). London: Routledge.

Rizan, C., C., Elsey, T., Lemon, A., Grant, and L. V., Monrouxe 2014. “Feedback in Action Within Bedside Teaching Encounters: A Video Ethnographic Study.” *Medical Education* 48(9): 902-920.

Sadler, D. R. 2010. “Beyond Feedback: Developing Student Capability in Complex Appraisal.” *Assessment and Evaluation in Higher Education* 35(5): 535-550.

Sandstrom, K., D., Martin, and G. A., Fine 2006. *Symbols, Selves, and Social Reality: A Symbolic Interactionist Approach to Sociology and Social Psychology*, 2nd ed. New York: Oxford University Press.

Sargeant, J., K., Eva, H., Armson, B., Chesluk, T., Dornan, E., Holmboe, J. M., Lockyer, E., Loney, K., Mann, and C. P. M., van der Vleuten 2011. “Features of Assessment Learners Use to Make Informed Self-Assessments of Clinical Performance.” *Medical Education* 45(6): 636-647.

Savin‐Baden, M. 2010. “The Sound of Feedback in Higher Education.” *Learning, Media and Technology* 35(1): 53-64.

Stenton, A. 2011. “How Could a Dialogic Approach to Teaching Transform Students’ Learning? A Discussion with Reference to Medical Education.” *Higher Education Research Network Journal* 4: 15-22.

Shute, V. J. 2008. “Focus on Formative Feedback.” *Review of Educational Research* 78(1): 153-189.

Teles, L., S., Ashton, T., Roberts, and I., Tzoneva 2001. “The role of the instructor in e-learning collaborative environments.” *TechKnowLogia*, May/June, 46-50.

Telio, S., R., Ajjawi, and G., Regehr 2015. “The ‘educational alliance’ as a framework for reconceptualizing feedback in medical education.” *Academic Medicine* 90(5): 609-614.

Urquhart, L. M., C. E., Rees, and J. S., Ker 2014. “Making Sense of Feedback Experiences: A Multi-School Study of Medical Students' Narratives.” *Medical Education* 48(2): 189-203.

Watling, C., E., Driessen, C. P. M., van der Vleuten, M., Vanstone, and L., Lingard 2012. “Understanding Responses to Feedback: The Potential and Limitations of Regulatory Focus Theory.” *Medical Education* 46(6): 593-603.

Watling, C., and L., Lingard 2012. “Toward Meaningful Evaluation of Medical Trainees: The Influence of Participants’ Perceptions of the Process.” *Advances in Health Sciences Education* 17(2): 183-194.

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| Turn | Name | Date | Context  | Quote | Interpretation |
| 1 | Course materials | 13/09/12 | PoA2 cover page | W*hich aspect(s) of your assignment would you specifically like feedback on?* | This material initiated question is self-regulatory and prompts feedback seeking and evaluation of learning needs (goals – feed up). It has an invitational quality, which opens a space for dialogue. |
| 2 | Learner: Mike | 13/09/12 | PoA2 cover page | In my situation for an OSCE\* with up to 36 students and 10 stations is the Modified Angoff better than the borderline method?  | Feed forward and self-regulatory with application continuing beyond the task to own context. |
| 3 | Tutor: Ken | 24/09/12 | PoA2 cover page | It is very risky to use the borderline group method with 36 students. There may be no borderline students within a small group. It is usually recommended to have more than 100 students if you use borderline group method. However, you may consider using borderline regression method which takes the marks of every student into account in setting the pass mark. | The tutor responds to the learner’s query with a clarification about different types of standard setting approaches, hence maintaining the dialogue and meeting the learner’s self-defined goals. The tutor provides an informational response with no relational features such as the use of I or we (inclusive group) or personal/identity reference. ‘It is usually recommended’ – is ambiguous as to who does the recommending. The tutor also uses politeness strategies rather than directives in his response with the word – ‘you may consider’. |
| 4 | Course materials | 02/10/12 | Feedback journal | *What did you learn from the feedback process?* | An external prompt of reflection and self-evaluation |
| 5 | Mike | 02/10/12 | Feedback journal | I had questions around the borderline method in my self-reflection which were answered and a helpful suggestion around the borderline regression method. An up to date reference for the borderline regression method would be useful. Do you know of one? | The learner acknowledges the tutor’s response (the word helpful) and requests further reading on the topic in his journal entry. The use of I maintains agency in the feedback seeking in the first part of the text (evaluation of response). The wording of the question ‘do you know of one’ is directive. |
| 6 | Ken | 03/10/12 | Feedback journal | The following reference may be helpful. It can be accessed through the Dundee Library …  | The tutor provides the reference in response to the learner's question (mirroring the same word in the student’s question but using hedging with the words ‘may be’ in case the student doesn't find it helpful). His response is future oriented and so closing the dialogue. |

\* OSCE: Objective Structured Clinical Examination

Table 1. Excerpt of feedback dialogue and use of approach to analyse feedback: Question and answer

Figure 1: Diagrammatic representation of the feedback process in the PGCert Medical Education

