

# The TEDM Principle: Improving Written Feedback

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## Abstract

Recent discourse on assessment literacy is supportive of dialogic practices, without addressing the concomitant challenges of workload, high student numbers and sustainability. This paper presents the findings of a small-scale qualitative study exploring teacher and student views on the effectiveness of written feedback using a 'showing; not telling' approach, which used a descriptive pattern of feedback as opposed to an instructional model within a peer-tutor review framework. Paramount was the use of modelling, a method of 'showing' students how to improve their work at the formative stage as opposed to 'telling' them how to improve it after assignment completion. This modelling was practised using the TEDM principle: tell, explain, describe and model. Key findings are that the model is: effective with high numbers; positively received by students; and sustainable.

**Keywords:** feedback; assessment; summative; formative; modelled feedback; descriptive feedback; instructional feedback

## Introduction

In Barrett and Barrett's (2008, p.3) management of academic workloads report 'almost half of respondents [found] their workloads unmanageable' a point reinforced by Graham (2014) and extended by Minassians (2014) emphasising the competing demands of teaching and research. This paper's focus is on the effectiveness of a 'feedback as showing' model of written feedback to large cohorts for whom dialogic feedback was not possible due to staffing/workload levels (Tuck 2012; Winstone & Carless 2019). The context is within two Master of Education programmes (Professional Practice and Teaching English to Speakers of

Other Languages) at the University of Glasgow. Previous findings suggest that instructional models relying on 'feedback as telling' (Sadler, 2010) are problematic, and, to ameliorate these problems, we aimed to produce a novel approach to written feedback. The internalisation gap, 'the gap between current and desired understandings in response to feedback' (Hattie & Timperley 2007, p. 86), refers to the process of decoding and subsequently actioning feedback, and by surveying these issues in the context of extant peer review research we generated solutions within this new model. Research questions guided the theoretical basis of the study and provided helpful points on which to structure changes to the 'feedback as telling' model. The following review of literature aims to answer the key research question:

What are the common issues that arise in communicating feedback to students and how can they be offset within the context of written-only feedback?

This will entail an analysis of what remedy peer review models offer to close the internalisation gap (Carless & Boud 2018) as well as an examination of the drawbacks of 'feedback as telling' models; and how a 'showing not telling' model can offset them. In developing such a model, cognisance has been taken of the suggestions from Black and McCormick (2010) who propose that new approaches for delivering feedback and assessment should address a range of issues. These include the need to: take account of prior research; consider the benefits of written feedback; develop a synthesis between formative and summative assessment; and to have an explicit focus on how the pedagogy employed will develop specific skillsets in students. This final point should have "the aim of helping students to become independent in taking responsibility for their own learning" (Black & McCormick 2010, p. 493) on which our own research goals also focus.

## **Feedback in Higher Education: Historical Problems**

There is growing tension between university staff workloads and the ability to introduce formative methods of assessment, hybridised forms of assessment, and feedback that uses dialogic interaction between students, peers and tutors. Furthermore, while feedback is a communication between a teacher and a student

within an active dialogic framework (Molloy, Boud, & Henderson 2020), it is often communicated in the written mode in high cohort programmes. Whatever the mode of communication, this dialogue aims to inform both student and teacher about learning gaps, and to 'alter the gap' (Sadler 1989, p. 121) between each student's current ability and where they, and the teacher, judge it needs to be.

So, having forwarded a pragmatic definition of feedback, we can now ask how is feedback created and what problems for feedback emerge from the literature? The effective use of feedback entails the student having responsibility to absorb that feedback from external sources (teacher or peer) and then internalise it for use in later assignments; an essential outcome to any formative assessment process (Nicol & Macfarlane-Dick 2006). Implementing feedback requires the student to undertake five actions: decode the feedback; internalise it; compare it against the student's own work; make judgements about the quality of their own work; improve future work (Nicol 2010). Feedback from the educator, then, should help the learner to understand their learning goals, their current place in relation to achieving those goals, and how to bridge that gap (Sadler 1989). Feedback should also encourage self-regulation (Carless & Boud 2018) by involving students more actively in feedback processes in line with social constructivist and sociocultural principles of learning; an approach which also supports the development of student feedback literacy (Tai et al. 2018) and enhances feedback sustainability (Carless et al. 2011) by shifting the onus from the tutor to deliver the feedback towards the student to self-regulate their work. Before discussing this aspect and its purpose, we will discuss the wider feedback problems to develop an account of how they might be solved with our model.

## **Problems with summative feedback**

There has been a long-standing body of evidence showing that summative feedback is consistently rated unfavourably by students (Gibbs 1999) and is missing its intended goal. A 2008 study, for example, found that 'in England, 39% of students reported that teacher feedback was not sufficiently detailed, 44% that it did not help clarify things they did not understand, and 44% that it had not been promptly

delivered' (Nicol 2010, p.11). So, while feedback helps with aspects like spelling and grammar, it lacks content-specific direction on how to improve, and emphasises positive and encouraging comments rather than anything of substance with which the student can work. Lizzio and Wilson (2008), Nicol (2010), Orsmond, Merry and Reiling (2005), Poulos and Mahony (2008) and Duncan (2007) all found that most feedback focused on mechanical aspects of writing and academic style, was difficult to understand, and evinced a propensity for positivity in place of meaningful advice on how to improve. The literature also points to consistent misunderstandings regarding the purpose of formative feedback.

Overall, it is clear from the literature that there are a number of feedback issues at both the institutional and student/educator levels. In a sense, learners and educators are talking past each other, which is a symptom of the feedback as telling model; i.e. feedback that does not provide additional support on how to improve nor to provide support to internalise that feedback, which results in problems using it (Winstone et al. 2017; 2020, cited in Smith 2021). Such a paradigm may be characterised as not developing the self-regulatory skills necessary for internalisation of feedback. So, at this point we can raise a distinction between 'showing' *versus* 'telling'. 'Showing' should refer to pedagogic practice that specifically aims to motivate self-regulation in learners.

From the students' perspective, inability to understand feedback is also a common finding (Hounsell 1987; Ivanic Clark & Rommershaw 2000), and there were also concerns in a study by Lea and Street (1998) that feedback which pertains to 'structure', 'argument' and 'clarity' were of little help to students. Weaver's (2006) study found four overarching student concerns making feedback internalisation for future use challenging: generalisations or vagueness; omission of guidance on how to improve; focus on negatives; and disconnection to assessment criteria.

Additionally, there are indicators that student understanding of success criteria is also problematic. Sadler (2010) suggests that students cannot convert communication and feedback into improvement action without an understanding of some fundamental concepts that educators draw on when awarding a grade or

giving feedback and providing students with this knowledge or skill is necessary to improve internalisation. When educators provide feedback, they draw from tacit knowledge that is not obvious to students. A study by Higgins, Hartley & Skelton (2002) found out that only 33% of respondents understood the assessment criteria, and given the ongoing shift in H.E. towards student-centred learning, it is imperative to understand student responses to current feedback methods and whether they understand the requirements. Higgins, Hartley and Skelton (2001), Carless and Boud (2018) and Rae and Cochrane (2008) are examples of research in this area, and the findings are also supported by Winstone et al. (2017; cited in Smith 2021) who emphasise poor student engagement. However, while lecturers can find providing extensive feedback labour intensive and cognitively demanding, the area of teacher feedback is under-explored (Carless & Winstone *in press*).

Notwithstanding the workload involved in providing detailed and considered marking, and the issues of the tacit nature of assessment criteria, a further barrier to students' internalisation of feedback remains. Teachers as assessors have a distinct knowledge of previous assessments and this feeds into their judgements of quality. Knowledge that is used in assessment and grading can be split into two categories (Sadler, 2010):

1. A knowledge of overall quality; overall quality refers to the assessors' knowledge of all the past works they have graded, and the work is held to this general standard.
2. And, comparability with a given subset; comparability refers to the specific characteristics that can be communicated to a student.

Sadler's (2010) characterisation suggests that each piece of work can be represented along these axes and feedback is constructed within these spaces. Although students can relate to the comparability if they have been given access to graded exemplars, it is not possible to provide access to the assessors' knowledge of quality. Other studies suggest that there is a need for active participation if feedback is to be actioned (Rust 2007), and that any course development programme ought

to be mindful of this in its development (Higgins, Hartley & Skelton 2002). Feedback, in the form of comments, has been compared to a “bottle at sea” (Perrenoud 1998, cited in Webb 2010, p.601); it is claimed that we should be aware that there is never any guarantee that the student will receive the feedback, much like a bottle with a message sent out to sea.

## **Peer-tutor feedback**

as previously described, a key concern is the gap between feedback and its internalisation, and peer review has been suggested as a possible mechanism to bridge this gap by providing learners with an experience that mirrors that of teachers i.e. the student must become an assessor to understand the way that feedback is generated (Boud, Cohen & Sampson 2011). However, an effective peer review model should not mimic the methods of feedback that result in the above problems; it should address them directly, and so the elevation of student assessment literacy is a vital step. Nevertheless, students have concerns about peer review models that focus solely on providing comments. Any effort, therefore, to implement a ‘showing not telling model’ should also encompass workshops and seminars on how to peer review the work of their peers. By itself, feedback as telling (i.e. top-down written feedback) does not prepare students to internalise feedback in the way that we would hope precisely because of student concerns about reviewing their peers’ work and so any development of a peer review model should also account for the psychological aspects of peer reviewing. Cartney (2010) points to these emotional aspects in her conclusions: “Findings highlight the emotional component...ranging from feelings of anxiety to anger towards students who had not fully participated.” (Cartney 2010, p.563).

Cartney (2010) also argues that tutors should be aware of the emotional and psychological effects peer review can have on group dynamics. Furthermore, Sadler (2010) suggests that students require key knowledge concerning task compliance, quality and criteria before being able to meaningfully engage with peer review, and so develop the skills necessary to understand their own feedback and apply it to their future assignments. To elicit most benefit, Sadler (2010) even argues that peer

review processes should be integrated into the overall pedagogy of a course, but without a specific model that addresses the various concerns it is unlikely to bridge the internalisation gap. The challenge for peer review is to show students how to internalise their comments rather than to passively receive them, which involves taking cognisance of the challenges that are generally associated with formative assessment and addressing them. This seems to suggest that in addition to peer review as a feedback loop, it should also contain elements of instruction in how to give feedback and also what counts as useful feedback. The research suggests that student concerns are deep, and that any peer review system should take these into account. Feedback as telling (which we take to be the same as providing comments) does not fully engage students in the way that is necessary to develop the kind of internalisation skills necessary to use the comments they receive themselves, therefore it has to be modified considerably. Additionally, there is a paucity of research in the area of peer-tutor feedback (Han & Xu 2020), which our model deploys.

## **Implications/Conclusions from the Literature Review**

Peer review is a model that can deal with the gap between feedback and its internalisation experienced by students. However, it is also important that any such model responds to student concerns. To address the psychological and emotional implications of feedback, tutor involvement is essential. The proposed 'showing not telling' model addresses these concerns in the form of workshops on how to peer review, a clear structure on how to develop comments, and also provides tutor guidance on how to action peer comments.

## **Methods**

Here, we describe and evaluate our model, tested in its fourth year of operation, and created in response to concerns found in the literature. We hybridised formative and summative assessment by providing feedback from, firstly, student peers and then tutors on the first 1,500-words of 5-6,000-word assignments using the Aropä (nd) platform; a local platform developed within the Psychology department at the

University of Glasgow. Key to the efficacy of the model was the adoption of descriptive *versus* instructional written feedback using the TEDM principle to show students how to improve their work rather than by telling them what needed to be done:

- **T**ell the student that some aspect of their work is either effective or ineffective in meeting the assessment criteria;
- **E**xplain why it has been effective or ineffective;
- **D**escribe how the student could do better either in another draft or in another assignment;
- **M**odel exactly how the student could do better by showing them examples of how aspects of their work could be improved.

### **Procedure, materials and participants**

To support the students (n=70) to deliver this level of feedback, they were initially provided with assessment literacy training using a feedback framework template with guide prompts and grade descriptors aligned to different grade bands. They were then invited to offer feedback as part of 10 feedback 'hubs' (10 peers and 1 tutor) on 3 sample assignments. These were authentic exemplars chosen to represent suitable target levels for the students (Hawe, Lightfoot & Dixon 2017), and, to further support the development of their assessment literacy and tacit knowledge, they were also given access to the original tutor feedback (Carless and Boud 2018; Bloxham & Campbell 2010). By allowing students to see the standards within the exemplars (Carless & Chan 2017), this process also helped to develop qualitative judgements (Tai et al. 2018).

In the subsequent 'live' feedback, students first provided peer feedback, which was then followed up with additional lecturer feedback designed to mediate students' interpretations of assessment standards (To & Liu 2018). The lecturer feedback largely reinforced the peer comments and highlighted any essential elements that had been overlooked. Both peer and lecturer provided an indicative grade.

Finally, given the 'front-loading' of formative feedback, on final submission of the assignment, the summative feedback concentrated on the extent to which previous feedback had been implemented by the student.

Our new model asked for feedback on up to three positive trends in the assignment. The underlying principle was to motivate by highlighting positive trajectories. This also focused assessor attention away from a search for obvious flaws. Second, feedback was sought on up to three areas which were effective, but which could be improved through targeted support. The key component here lay in modelling good practice and so the conventional instruction, for example, to apply greater levels of critical awareness (an instructional model 'telling' the student what to do) was replaced by a demonstration of what needed to be done to 'show' the student what to do to achieve the desired outcome. Within this framework, the requirements were exemplified or modelled to make the internalisation process easier for the student and to aid retention. Lastly, students had to be aware of up to three serious omissions or trends in their assignment that were incongruent with the assessment criteria.

This model was based on Bandura's (1977) work on social learning theory and the principle of social constructivism (Vygotsky 1978) which highlight four important factors in learning:

1. Attention - paying attention to the model is a condition for learning;
2. Retention - remembering what the model did is a condition for imitating the model's behaviour;
3. Reproduction - people must have the capacity (e.g. skills) for imitating the behaviour;
4. Motivation - people must be motivated to imitate behaviour (e.g. importance of model or reward).

In our model, we hoped to address, each of these factors placing particular emphasis on reproduction i.e. the ability to not only to learn new skills, but to reproduce those in the peer's own work.

One of the key challenges of supporting the conversion of feedback into action is in the idea that students do not action instructional feedback because they simply do not know how to do so; there is a cognitive gap between the expectations placed upon them and their ability to convert feedback into appropriate action. Modelling the skills absent from the assignment stops telling a student what to do to improve their work and shows them how to do this, thus closing this cognitive gap.

This model was implemented first within the MEd practice programme and then, in the following year, extended to two courses on the MEd/MSc Teaching English to Speakers of Other Languages programme (Language, Assessment, Proficiency and Feedback, and Course Design and Practice). Each of these courses was taught by a different tutor. To evaluate the success of the model, 8 focus groups of 3 students were conducted following the completion of the courses and assessments. Each of these focus groups lasted approximately one hour and aimed to solicit views of the process to identify its perceived benefits and limitations. The questions used to elicit this information included the prompts: How aware were you of your strengths/weaknesses before and after the process?; and Which aspect of the model helped you identify your strengths and weaknesses the most? Also, as a key determinant was motivation, the participants were also asked: How likely is it that you would repeat the process in the future?; and What are the overall benefits of the process? The information elicited was used to make recommendations for a feedback literacy tool for use by staff and students.

### **Data Analysis**

Following transcription, a variation on Braun and Clarke's (2006) six stage model of thematic analysis was used as a paradigm followed by all four researchers throughout the process.

Step 1: Familiarisation with data	Step 2: Initial coding	Step 3: Generating themes
Step 4: Testing the validity and reliability of themes	Step 5: Defining and naming themes	Step 6: Interpretation and reporting

Conventionally, the arrangement into thematic sets is proscribed by the selection of either an inductive or a deductive paradigm. Our approach, however, while mainly deductive (to test our model of feedback) also included inductive elements (where we examined the hypothesis with respondents that current feedback protocols had considerable pitfalls).

Following transcription, we carried out Step 1, familiarisation with the data. Steps 2 and 3, initial coding and generation of themes, were discussed as a team to establish our shared understanding of the application of the model. One team member was then asked to analyse one focus group transcript to applying initial coding and the initial themes (Step 4). Steps 5 and 6 were conducted as a group, but using the pattern established in steps 2 and 3 and so transcripts were divided among the team who produced their analyses, which were then critiqued by the whole team in order to generate Step 6. This final stage was completed by the team member who carried out steps 1 and 2. We found that a number of key themes emerged from this process: Confidence, Emotion, Engagement with Criteria, Engagement with Feedback Usefulness, Objectivity, Opportunity, Motivation, and Unexpected Outcomes.

## Discussion of Themes

The data point to practices to enhance feedback through peer-tutor review processes and highlight many of the deficiencies of and opportunities to the development of effective practice. We now move to consider the outcomes of this thematic study. In developing and exploring of the themes, we grounded our observations in existing literature to highlight the connections between existing research and furthering the development of an effective pedagogy for peer review. This generated numerous

ways this research could be viewed: feedback lenses (seeing the work of others and having your work seen by others); the motivational effect of deadlines; opportunities for discussion; confirmation of work trajectory and opportunities to develop work to improve the final grade. It also highlighted, however, challenges for students including: lack of training in giving feedback at this level, notwithstanding the training inputs offered; surface *versus* deep comments; and the challenge of assigning grades. Other elements included: additional layers of demand added by the review process; tighter deadlines; and changing existing work.

The first theme identified was confidence, which can be understood in two ways: the student's perception of their own ability; and their perception of their peers' ability to provide appropriate feedback. The prevalence of data items suggests that this is a concern of students that is worth further investigation. Furthermore, confidence could be best explored as intra-personal confidence and inter-personal confidence. Intra-personal confidence relates to confidence levels the students had when doing the task including their ability to follow criteria and to give feedback to their peers. Inter-personal confidence relates to students' attitudes towards the feedback they received which were based on their confidence in their peers' ability to give accurate and complete feedback. While there were frequent confidence issues related to giving feedback, there were also important issues in the perception of the feedback received, with some students rejecting the feedback entirely. Conversely, however, there were much positive data in relation to developing the confidence of students: they noted that seeing discrepancies in their colleagues' work settled their own anxieties; that providing feedback made them focus on the criteria; and that they felt more confident overall.

*'you've got more confidence in yourself, you've got more confidence in your peers,'*

Another common theme was the need for praise in giving or receiving feedback. Some students were more confident when they realised the tutor, who also provided feedback, only developed or referred to the feedback provided by the peer. The role of the tutor, then, is perceived by students as paramount in the feedback process and should not be removed lightly. In developing a peer review model as formative

assessment, cognisance should be given to both the reviewer and the reviewee, so the tutor ought to be mindful to correct any mistakes made in feedback from their peer, and to point out where the reviewer has also done well. Thus, our data does point to the presence of a tutor monitor as an example of good practice.

Closely related to confidence, the theme of emotion suggested a high level of attachment to students' own work, and some defensiveness at the comments levelled at their efforts. Emotion as a theme connects to aspects of inter-personal confidence because, while at first the emotion seems to relate to their own work, and to defending it, it is more suitably related to levels of confidence in the peers' ability to produce worthwhile comments. Furthermore, this lack of confidence may be impacted by either the tone or the content of the feedback students received from peers. It was clear from the data that, in several instances, emotion did overtake concerns about inter-personal confidence. For example:

*'You have your own research project...then you are asked to be very specific on someone else's work...Overload.'*

There is also evidence that frustration occurs when peers do not engage appropriately with the peer review assignment. Rae and Cochrane (2008) point to this psychological dimension of student dynamics and the extent to which they actively engage with the task. This can be a problem for developing good practice in peer review, and can generate an emotional response from students who might be described as 'active' when paired with a 'passive' peer reviewer i.e. it can undermine the effectiveness of the feedback. One student noted their frustration when 'someone just didn't even reply', and the tone shifted into irritability when their lack of confidence seems to have resulted in uncertainty about how to perform the peer review:

*'So, you are wondering how it is going to be, when I am not even sure [about] what I [m supposed to] write.'*

Overall, it seems that varying levels of student engagement with feedback, combined with a lack of support for students who do not feel confident can

undermine the effectiveness of the peer review process. Ryan and Henderson (2018, p.881) note that, “unfortunately, when students experience adverse emotional reactions as a result of the feedback process, their receptiveness may be limited.” Drawing on work by Higgins (2000), they also noted that students “may feel personally affronted when a more knowledgeable and authoritative individual, such as a lecturer or tutor, points out insufficiencies” (Ryan & Henderson 2018, p. 881). Effective practice then ought to take these group dynamics and power relations into account.

Peer assessment can lead to improved self-assessment skills (Reinholz 2016). Being responsible for marking and evaluating someone else’s work can encourage students to engage with and understand the marking criteria and assignment rubric. Our data showed that the peer-review process had the potential to improve the students’ self-assessment skills as they were better able to understand the criteria, a necessary step in developing critical self-awareness (Sadler 1989). Students commented on how assessing the performance of a peer to a desired goal, set by the criteria, led to a better understanding of the assignment task and criteria:

*'you're so careful during the peer feedback you were getting it, right, you were, really aware of the criteria.'*

This supports research which suggests that students generally do enjoy critiquing their peers’ work because it allows them to become more critical of their own (Carthy 2017). Checking a peer’s work catalysed active engagement with the criteria and students observed that peer reviewing focused their understanding of how marks are awarded following which the students took these skills and applied them to their own work:

*'you identify your own areas for development'*

Students also commented on how they valued the social aspect of the process; by comparing their work with others they were forced to become more critical of their own work. Black, Harrison and Lee (2003) note that this aspect of peer assessment encourages a more objective perspective than would otherwise be possible when

students only evaluate their own work. Thus, a dialogic component combined with peer assessment enhanced critical self-awareness skills (Carthy 2017; Nicol, Thomson and Breslin 2014):

*'because it forced you to look over and think right what do I actually really need help with?'*

## **Engagement with Feedback and Objectivity**

Students wanted clear, constructive, informative comments that could be interpreted easily and particularly valued feedback that gave them encouragement. However, student preferences for feedback types varied, so it may be beneficial to provide a plurality of feedback types:

*'as long as it is kind of clear and to the point, there doesn't really need to be loads.'*

Many preferred short, to-the-point feedback, which may indicate that too much feedback could act as a distraction (Jawah et al. 2004):

*'Actually, I like short and to the point.'*

However, for others the degree of helpfulness depended on the quality of feedback. Objectivity influences the quality and helpfulness of feedback in relation to developing the work.

*'It's funny how you can't see your own assignment with the same eyes you see other people's assignment. It's bizarre.'*

Li, Liu and Steckelberg (2010, p.533) note that "the ability to give high quality feedback is a critical issue." Thus, good practice should focus on helping students to learn how to approach giving feedback, as well as what to do when they receive their own.

In relation to perceived usefulness, while the task or feedback is not always welcomed initially, comments were overall positive. A number of participants commented that the requirement to provide feedback, while not initially seen as positive, was helpful retrospectively:

*'Oh, I hated it, [at the time] but it is good'*

An internal contradiction is apparent here, between the typically negative connotation of obligation and its positive effects. Not only did the peer assessment requirement ensure the assignments were completed in a timely manner, but the process of giving and receiving feedback increased confidence, improved the quality of the work, and developed critical self-awareness. The findings show that peer reviews engage students in multiple acts of evaluative judgement, both about the work of peers, and, through a reflective process, about their own work; that it involves them in both invoking and applying criteria to explain those judgements; and that it shifts control of feedback processes into students' hands, a shift that is crucial to their ownership of the process.

Feedback specificity providing constructive useful advice was also welcomed:

*'The feedback isn't just telling you what you have done wrong. It is giving you help on how to fix it as well'*

Here we can see an eagerness to improve. Feedback is considered "effective when it consists of information about progress, and/or about how to proceed" (Hattie and Timperley 2007, p.89). However there are different foci of feedback i.e. task, process, self-regulation and self. Students' level of specificity and of critical self-awareness was also evident in their desire to learn how to give effective feedback and thus make the process helpful and meaningful:

*'Maybe a little bit more teaching and maybe even showing us a little bit about what the markers would do'*

## **Unexpected Outcomes**

The study produced a number of unexpected outcomes. Participant responses indicate that they valued the social aspect of the learning process; that by comparing

their own work with others they were forced to become more critical of their own work, which increased their confidence. Students also discussed how the process made them engage with their peers by offering a non-standard means by which they could connect with their classmates. In online programmes this may be very helpful to develop a sense of community. In university environments, this can foster collegial development and have further unexpected outcomes:

*'you identify your own areas for development before offering them to other people'*

## **Conclusions**

The data identify feedback enhancement practices via peer-tutor review processes, and highlight opportunities to develop effective practice further. From our analyses it is clear that modelling helped the participants to internalise and convert written feedback into feedforward. Furthermore, clear alignment between the assessment criteria and feedback comments made it easier to improve specific responses to each criterion. The feedback helped students to improve later drafts and grades in the majority of cases, which was highlighted as a major strength of the model, while the hybridised formative and summative assessment framework supported students through the process of constructing their assignments in stages and was also felt to be beneficial as a motivator. It seems that the nurturing of relationships encouraged students to engage actively with feedback. Positive relationships were established more effectively within contexts in which students felt that assessors were being supportive. This atmosphere was engendered by following the order of feedback presented in the model, beginning with the positives to create a supportive initial contact. This was reinforced by the provision of exemplification that encouraged the student to return to the assignment with a clear idea of how to improve on the first draft. Finally, obvious issues were identified which prevented their escalation into highly problematic issues which impinged on the grade awarded. The key to all of this, however, was word choice and tone. Supportive and encouraging word choices tended to produce better results than unreconstructed comments provided by assessors who had not considered their potential impact. Finally, as this was the fourth year of operation, the model was workable and sustainable with large cohorts.

## Recommendations

The hybridisation of formative and summative assessment allied to the recalibration of feedback to an earlier stage, creates the opportunity for students to improve a piece of work prior to final assessment thus increasing the possibility for improved outcomes and student satisfaction. As such its wider use should be considered. Equally, as the internalisation gap and the ability for students to self-regulate has been shown to be problematic, initiatives that directly address the issues contingent upon the development of such skills should be used. One such technique is that of modelling which can support students to improve the quality of a draft of their work to close the cognitive gap between feedback expectations and actioning them. There is a need for support to develop this feedback literacy. Hence, there is a need to develop resources that offer more than a checklist guide. Support is required to shift from 'telling' to 'showing', which cannot be achieved using instructional modes. Such professional development could be promoted at the programme level beginning with undergraduate year 1, and at course level to reinforce the required skills. This could improve student confidence in deploying peer assessment and also add to their resilience when receiving peer review. Another positive benefit would be the development of higher quality feedback from both peers and tutors as the process becomes more widespread.

## Authors' Disclosure Statement

All materials included in this article represent the authors' own work and anything cited or paraphrased within the text is included in the reference list. This work has not been previously published nor is it being considered for publication elsewhere. No conflicts of interest exist which might have influenced us in reporting our findings completely and honestly.

## Reference List

Aropä, (nd). Available at: <http://www.dcs.gla.ac.uk/~hcp/aropa> (accessed 26/8/21).

Bandura, A., (1977). *Social learning theory*. Eaglewood Cliffs NJ: Prentice Hall.

Barrett, L.C., and Barrett, P.S., (2008). *The management of academic workloads: Full report*. London: Leadership Foundation for Higher Education.

Black, P., Harrison, C., Lee, C., Marshall, B. and Wiliam, D. (2003) *Assessment for learning: Putting it into practice*. Buckingham: Open University Press.

Black, P., and R. McCormick. R., (2010). Reflections and new directions. *Assessment & Evaluation in Higher Education*. 35(5), 493-499.

Bloxham, S., and Campbell. L., (2010). Generating dialogue in assessment feedback: Exploring the use of interactive cover sheets. *Assessment & Evaluation in Higher Education*. 35(3), 291–300.

Boud, D., Cohen, R., and Sampson. J, (2001). *Peer learning in higher education: Learning from and with each other*. London: Routledge.

Braun, V., and Clarke, V., (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3(2), 77-101.

Carless, D., (2006). Differing perceptions in the feedback process. *Studies in Higher Education*, 31(2), 219-233.

Carless, D., and Boud, D., (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*. 43(8), 1315-1325.

Carless, D., and Chan. K.K.H., (2017). Managing dialogic use of exemplars. *Assessment & Evaluation in Higher Education*. 42(6), 930–941.

Carless, D., Salter, D., Yang, M., and Lam, J., (2011). Developing sustainable feedback practices. *Studies in Higher Education*. 36(4), 395-407.

Carless, D., and Winstone, N., (*in press*). Teacher feedback literacy and its interplay with student feedback literacy. *Teaching in Higher Education*. Available at: <https://doi.org/10.1080/13562517.2020.1782372> (accessed 26/8/21).

Carthy, J., (2017). Enhancing feedback in higher education: Students' attitudes towards online and in-class formative assessment feedback models. *Active Learning in Higher Education*. 18(2), 127-141.

Cartney, P., (2010). Exploring the use of peer assessment as a vehicle for closing the gap between feedback given and feedback used. *Assessment & Evaluation in Higher Education*. 35(5), 551-564.

Duncan, N., (2007). Feed-forward: improving students' use of tutors' comments. *Assessment & Evaluation in Higher Education*. 32(3), 271-83.

Gibbs, G., (1999). Using assessment strategically to change the way students learn. In: S. Brown and A. Glasner, eds. *Assessment matters in higher education: Choosing and using diversity approaches*, pp. 41-53, Buckingham: Open University Press.

Graham, A.T., (2015). Academic staff performance and workload in higher education in the UK: The conceptual dichotomy. *Journal of Further and Higher Education*. 39(5), 665-679.

Han, Y. and Xu, Y., (2020). The development of student feedback literacy: The influences of teacher feedback on peer feedback. *Assessment & Evaluation in Higher Education*. 45(5), 680-696.

Hattie, J., and Timperley, H. (2007). The power of feedback. *Review of Educational Research*. 77(1), 81-112.

Hawe, E., Lightfoot, U., and Dixon, H., (2017). First-year students working with exemplars: Promoting self-efficacy, self-monitoring and self-regulation. *Journal of Further and Higher Education*. 43(1), 1-44.

Higgins, R., (2000). Be more critical!: Rethinking assessment feedback. Paper presented at British Educational Research Association Conference, September 7-10, 2000, Cardiff University. Available at:

<http://www.leeds.ac.uk/educol/documents/00001548.htm> (accessed 30/7/12).

Higgins, R., Hartley, P., and Skelton, A., (2001). Getting the message across: The problem of communicating assessment feedback. *Teaching in Higher Education*. 6(2), 269-74.

Higgins, R., P. Hartley, and Skelton, A., (2002). The conscientious consumer: reconsidering the role of assessment feedback in student learning. *Studies in Higher Education*. 27(1), 53-64.

Hounsell, D., (1987). Essay writing and the quality of feedback. In: J. Richardson, M.W. Eysenck and D.W. Piper, eds. *Student learning: Research in education and cognitive psychology*. pp.109-119. Milton Keynes: Open University Press.

Ivanic, R., Clark, R., and Rimmershaw, R., (2000). What am I supposed to make of this? The messages conveyed to students by tutors' written comments. In: M. Lea and B. Stierer, eds. *Student writing in higher education: New contexts*. pp. 28-39. Buckingham: Open University Press.

Juwah, C., Macfarlane-Dick, D., Matthew, B., Nicol, D., Ross, D. and Smith, B., (2004). *Enhancing student learning through effective formative feedback*. York: The Higher Education Academy.

Lea, M., and Street, B., (1998). Student writing in higher education: an academic literacies approach. *Studies in Higher Education*. 23(2),157-72).

Li, L., Liu, X., and Steckelberg, A.L., (2010). Assessor or assessee: How student learning improves by giving and receiving peer feedback. *British Journal of Educational Technology*. 41(3), 525-536.

Lizzio, A., and K. Wilson., (2008). Feedback on assessment: students' perceptions of quality and effectiveness. *Assessment & Evaluation in Higher Education*. 33(3), 263-75.

Minassians, H.P., (2014). *Competing priorities: Efficacy of teaching and learning assessment in the ever-changing higher education space*. Available at:

<https://evollution.com/opinions/competing-priorities-efficacy-teaching-learning-assessment-ever-changing-higher-education-space> (accessed 26/8/21).

Molloy, E., Boud, D., and M. Henderson., (2020). Developing a learning-centred framework for feedback literacy. *Assessment & Evaluation in Higher Education*. 45(4), 527–540.

Nicol, D., (2010). From monologue to dialogue: Improving written feedback processes in mass higher education. *Assessment & Evaluation in Higher Education*. 35(5), 501-517.

Nicol, D., Thomson, A., and Breslin, C., (2014). Rethinking feedback practices in higher education: A peer review perspective. *Assessment & Evaluation in Higher Education*. 39(1), 102-122.

Nicol, D.J., and Macfarlane-Dick, D., (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*. 31(2), 199-218.

Orsmond, P., Merry, S., and Reiling, K., (2005). Biology students' utilization of tutors' formative feedback: a qualitative interview study. *Assessment & Evaluation in Higher Education*. 30(4), 369-86.

Perrenoud, P., (1998). From formative assessment to a controlled regulation of learning processes: Towards a wider conceptual field. *Assessment in Education* 5(1), 85–102.

Poulos, A., and Mahony, M.J., (2008). Effectiveness of feedback: the students' perspective. *Assessment & Evaluation in Higher Education*. 33(2), 143-154.

Rae, A.M., and Cochrane, D.K., (2008). Listening to students how to make written assessment feedback useful. *Active Learning in Higher Education*. 9(3), 217–230.

Reinholz, D., (2016). The assessment cycle: A model for learning through peer assessment. *Assessment & Evaluation in Higher Education*. 41(2), 301-315.

Rust, C., (2007). Towards a scholarship of assessment. *Assessment & Evaluation in Higher Education*. 32(2), 229-37.

Ryan, T., and Henderson, M., (2018). Feeling feedback: Students' emotional responses to educator feedback. *Assessment & Evaluation in Higher Education*. 43(6), 880-892.

Sadler, D. R., (1989). Formative assessment and the design of instructional systems. *Instructional Science*. 18(2), 119–144.

Sadler, D. R., (2010). Beyond feedback: Developing student capability in complex appraisal. *Assessment & Evaluation in Higher Education*. 35(5), 535–550.

Smith, C., (2021). Architecture students' uptake and use of formative and summative feedback. *Assessment & Evaluation in Higher Education*. Available at: <https://www.tandfonline.com/doi/full/10.1080/02602938.2021.1892028> (accessed 26/8/21).

Tai, J., Ajjawi, R., Boud, D., Dawson, P., and Panadero. E., (2018). Developing evaluative judgement: Enabling students to make decisions about the quality of work. *Higher Education*. 76(3): 467–481.

To, J., and Y. Liu., (2018). Using peer and teacher-student exemplar dialogues to unpack assessment standards: Challenges and possibilities. *Assessment & Evaluation in Higher Education*. 43(3), 449–460.

Torrance, H., and Pryor, J., (1998). *Investigating formative assessment: Teaching, learning, and assessment in the classroom*. Maidenhead: Oxford University Press.

Tuck, J., (2012). Feedback-giving as social practice: teachers' perspectives on feedback as institutional requirement, work and dialogue. *Teaching in Higher Education*. 17(2), 209–221.

Vygotsky, L. S., (1978). *Mind in society*. Cambridge MA: Harvard University Press.

Webb, M., (2010). Beginning teacher education and collaborative formative e-assessment. *Assessment & Evaluation in Higher Education*. 35(5), 597-618.

Weaver, M., (2006). Do students value feedback? Student perceptions of tutors' written responses. *Assessment & Evaluation in Higher Education*. 31(3), 379–394.

Winstone, N., and Carless, D., (2019). *Designing effective processes in higher education: A learning-focused approach*. London: Routledge.

Winstone, N., Nash, R., Rowntree, J. and Parker, M., (2017). 'It'd be useful but I wouldn't use it': Barriers to university students' feedback seeking and recipience. *Studies in Higher Education*. 42(11), 2026–2041.

Wood, D, and Middleton, D., (1978). An experimental evaluation of four face-to-face teaching strategies. *International Journal of Behavioural Development*. 1(2), 131-47.