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From monologue to dialogue: improving written feedback processes in mass higher education

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Student surveys across the world have highlighted that students are dissatisfied with the feedback they receive on their assignments and many institutions have been putting plans in place to address this issue. Much of this work has focused on improving the quality of written comments. This paper takes a different perspective. It argues that the many diverse expressions of dissatisfaction with written feedback, both from students and teachers, are all symptoms of impoverished dialogue. Mass higher education is squeezing out dialogue with the result that written feedback, which is essentially a one-way communication, often has to carry almost all the burden of teacher–student interaction. The paper suggests ways in which the nature and quality of feedback dialogue can be enhanced when student numbers are large without necessarily increasing demands on academic staff. It concludes with a conceptual discussion of the merits of taking a dialogical approach when designing feedback.

Keywords: monologue; dialogue; written feedback; workload

Introduction

Providing written comments on students' assignments is seen as a central feature of feedback processes in higher education. In the past, when student numbers were smaller, written feedback was part of a larger coordinated system of teacher–student communication that also involved one-to-one discussions and the drafting and redrafting of assignments. Also, the comments themselves would have been provided within the context of earlier assignments that would have been the subject of earlier discussions and feedback. While this feedback system might still be in place in some select universities (e.g. Oxford and Cambridge) where it forms the cornerstone of their 'tutorial systems' (Gibbs 2006), in most institutions, due to the growth in student numbers, written comments have become detached from this supportive context. The result is a great deal of dissatisfaction with feedback by students and teachers, as evidenced in a number of surveys, research studies and reports.

One source of information about what students think about feedback comes from national student surveys (NSSs) such as the Australian Course Experience Questionnaire (CEQ) and the UK NSS (HEFCE 2010, http://www.hefce.ac.uk/learning/nss/). In the UK, final year students are asked to rate different features of their courses including the provision of feedback. Although the NSS does not specify what kind of feedback is under scrutiny the wording of the relevant statements imply that the

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referent is written feedback on assignments. Research (McDowell et al. 2008) and informal interviews with students across a number of higher education institutions have confirmed this interpretation. Every year since the survey began, the results have shown that feedback receives lower ratings than any other course feature; for example, in 2008 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. These results are not confined to the UK: dissatisfaction with written feedback as revealed through national surveys is a prime concern internationally (ACER 2009; Rowe and Wood 2008). Importantly, it is not just students who are dissatisfied with feedback, so are members of teaching staff: a commonly expressed concern is that even though teachers spend considerable time carefully constructing feedback comments on assignments, these are often not collected by students and, when they are, students often do not seem to act on the feedback provided.

Duncan (2007) provides some research evidence highlighting typical difficulties that students face in relation to written comments. In a planned intervention, he offered to provide students with forward-looking feedback for a future assignment in the form of an individual learning plan based on his analysis of the feedback that students had received on their last eight assignments from a range of different tutors. In reviewing previous instances of feedback, however, Duncan found that most comments focused on mechanical aspects of the task (e.g. spelling, grammar), that many of the others were difficult to understand (e.g. 'use a more academic style', 'analyse don't describe') and that there 'was a preponderance of positive and encouraging comments on feedback sheets at the expense of clear advice on how to improve the quality in subsequent work'. Duncan's findings, which also showed inconsistencies in feedback provision across tutors, are consistent with numerous prior investigations that have analysed students' perceptions of teacher comments (e.g. Lizzio and Wilson 2008; Orsmond, Merry, and Reiling 2005; Poulos and Mahony 2008).

Research on written feedback

Over the last 10 years, the research literature on written feedback has approached the topic from different perspectives. One line of research focuses on teacher feedback as an input message: this message, it is argued, is often unclear and deficient in quality, therefore more effort should go into improving the way in which feedback comments are formulated (Duncan 2007; Lizzio and Wilson 2008; Poulos and Mahony 2008; Walker 2009). The UK NSS, in which the survey items are mainly about the quality of feedback delivery (e.g. 'I received detailed comments on my work'), and institutional responses to that survey which focus on ways of improving what the teacher writes, might be seen to be framed within this perspective. Typically, improvements in written feedback might involve providing students with more timely and detailed comments about the strengths and weaknesses of their work and with clearer suggestions about ways of making improvements. Interestingly, this approach, if taken on its own, would represent a transmission view of feedback.

A different line of research questions the way in which the feedback process is conceptualised and the role of the student in that process (Boud 2007; Elwood and Klenowski 2002; Nicol and Macfarlane-Dick 2006; Sadler 1998). Researchers in this area argue for a need to re-cast students as active agents in learning, and consistent

with this, *active constructors* of feedback information, generating it themselves and seeking it out from multiple sources including the teacher. Just as learning does not occur through the mere transmission of written or spoken information, nor does feedback delivery on its own lead to learning improvement. For students to learn they must do something with transmitted information, analyse the message, ask questions about it, discuss it with others, connect it with prior understanding and use this to change future actions. The same is true for feedback comments. While the quality of the comments is important, the quality of the students' interaction with those comments is equally, and perhaps more, important.

Feedback and its dialogical characteristics

How should we think about the feedback process when designing learning and courses? This paper builds on the research cited above, however it goes beyond a single focus on the input message or on the active role that students must play in constructing meaning from feedback information. It proposes that feedback should be conceptualised as a dialogical and contingent two-way process that involves co-ordinated teacher–student and peer-to-peer interaction as well as active learner engagement. Taking this perspective, the many diverse expressions of dissatisfaction with written feedback can be interpreted as symptoms of impoverished and fractured dialogue. Mass higher education is squeezing out dialogue with the result that written feedback, which is essentially a monologue, is now having to carry much of the burden of teacher–student interaction. The paper argues that when its dialogical context is reinstated, written feedback is more effective.

The idea that dialogue is fundamental to successful learning and teaching is well established in the educational literature. Laurillard, following Pask (1976), called her influential theory of teaching and learning a 'conversational framework'. In this framework, she emphasised that learning results from 'iterative dialogue between the teacher and student focused on a topic goal' (2002, 77). Laurillard (2002) defines four characteristics that underpin effective dialogue: it should be *adaptive*, that is, contingent on students' needs; it should be *discursive*, rich in two-way communicative exchanges; it should be *interactive*, linked to actions related to a task goal; and *reflective*, it should encourage students and teachers to reflect on the 'goal–action–feedback cycle'. The purpose of dialogue is to help students understand concepts and ideas and to apply their understanding in learning tasks (Laurillard 2002).

Laurillard's framework prescribes a form of interaction between a teacher and student that she believes would result in effective learning. However, her framework, and its characteristics, could in many ways also be viewed as a description of the feedback process, which itself must be ongoing and cyclical, and which requires co-ordinated actions by teachers and students to be effective. Indeed, an established form of feedback dialogue in higher education is project supervision where there is continuity, adaptivity and development over time, with both teacher commenting and teacher–student discussions linked to an overall goal. Taking the perspective that feedback is a dialogical process and not a delivered message (product), this paper uses Laurillard's framework as the starting point for its analysis.

Wood, Wood, and Middleton (1978), in their research on contingent tutoring, address the *adaptive* nature of teacher–student interaction in more detail. They demonstrated that there is no ideal or single level for the specificity of feedback comments from a tutor. Instead, what is optimal is continual dynamic adjustment of

the level of tutor input depending on the degree of learner understanding. Wood, Wood, and Middleton (1978) make it clear that more iteration is not necessarily better: the point is to enact only as many as are necessary for successful learning. While this research was conducted in schools, it has relevance for higher education.

Many researchers, including Wood, Wood, and Middleton (1978) and Laurillard (2002), discuss dialogue as a process whereby a knowledgeable person (e.g. teacher or peer) interacts with and supports another person with less knowledge and understanding (a student). These researchers draw on Vygotsky (1978) and social constructivist interpretations of learning (e.g. Palinscar 1998) by assuming that, to be useful, feedback input coming from external sources must ultimately trigger inner dialogue in students' minds around disciplinary concepts and ideas. Without this inner dialogue, it is difficult to envisage how students would be able to produce meaning from feedback interactions and to use this *consciously* to influence future action. Such inner dialogue would involve students in actively decoding feedback information, internalising it, comparing it against their own work, using it to make judgements about its quality and ultimately to make improvements in future work.

In summary, this paper examines written feedback from a dialogical perspective. It argues that written feedback to be effective must be embedded in dialogical contexts in which feedback activities are shared across teachers and students and are adaptive, discursive, interactive and reflective. In the paper, as in Nicol and Macfarlane-Dick (2006), it is assumed that the overall purpose of the feedback process in higher education is to help students develop the ability to monitor, evaluate and regulate their own learning.

Drawing on research and accounts of practice, the paper is organised in three main sections. The first section is about establishing an appropriate context for productive feedback as dialogue, the second is about the tailoring of teacher feedback to student needs and the third is about continuing the feedback dialogue by drawing on as many sources (teachers, peers, self-generated) and types (written, verbal) of dialogue as possible. Each section begins with a feedback issue, highlighted through typical comments made by students and teachers about their experiences of written feedback. This is followed by an analysis of that issue and by some practical suggestions about how to address the issue based on research and examples of current practice. Each section ends by referring back to the dialogical framework. The paper concludes with a conceptual discussion of the relative merits of a dialogical model and of the work-load implications of adopting a dialogical perspective. For clarity, it is assumed in this paper that the task for which feedback is being provided is an extended written assignment, for example, an essay or report, even though most of the discussion would apply to other assignment tasks.

Establishing a context for feedback dialogue

> I am not sure what the tutor is looking for in this assignment. (student)
>
> The assignment criteria were not clear in advance. (student)
>
> The student did not answer the question. (teacher)

In social settings, interaction and dialogue normally take place within a shared context of understanding: speakers and listeners interact in the context of a common frame of

reference and the meaning of each exchange is determined by its location within the dialogue. The context might exist at the outset or be established in the early stages of the discussion and be reinforced through the ongoing interactive exchange. Without some shared understanding, either tacit or explicit, what the speaker conveys and what the listener interprets are likely to differ. In higher education there is a significant body of research showing that students frequently do not share their teacher's understanding of the assessment requirements, and that this weak contextual understanding undermines learning and feedback (Hounsell 1997; MacLellan 2001; Norton 1990; Rust, Price, and O'Donovan 2003). In practice, it is widely recognised that students often do not understand the assignment brief. Anecdotal evidence comes from teachers when they complain that students 'did not answer the questions set' and from students when they report that they were unsure about what was required by the assessment task. Hounsell (1997) and others provide research on this topic (MacLellan 2001; Norton 1990).

Hounsell (1997) investigated students' and teachers' conceptions of essay requirements in history and psychology and found that the quality of the essays produced was highly correlated with the degree of overlap in conceptions: the closer their conceptions matched those of their teachers the better students performed. Importantly, the conceptions held by students not only influenced the marks awarded but also influenced how they interpreted and responded to feedback comments. When students did not share their teacher's conceptions the feedback was less likely to 'connect'; that is, even if the feedback advice was clearly written, students had difficulty interpreting its meaning and relevance (Hounsell 1997). The problem of conceptions mismatch is widely recognised in the higher education literature although it has been given different interpretations by researchers.

Rust, Price, and O'Donovan (2003) maintain that conception mismatches arise because assessment criteria are tacit. They note that conventional practice where a list of printed criteria is shared with students is not enough to transfer tacit knowledge from teacher to student. Lea and Street (2000) take an academic literacies perspective and argue that writing an essay or report is a contextualised social practice yet the ground rules of this practice are often not explicit to students. Glaser and Chi (1988) maintain that experts spend more time than novices constructing the initial representation of complex tasks and that this, in part, accounts for their better performance. Importantly, these researchers suggest that training novices to adopt the tactics of experts can enhance achievement in complex tasks.

Research and practice

While it is common practice to clarify assignment requirements at the beginning of a task by providing students with a list of printed criteria, this is only a first step as students often do not understand the language of criteria (Lea and Street 2000) and they may not know how to use criteria to enhance the production of academic work.

More effective results can be achieved if students are required to emulate the behaviour of experts and take a more active role in constructing the context for the assessment task before they begin an assignment. Asking them to discuss the task demands in groups and even rephrase the requirements in their own words before beginning an assignment is one approach (Nicol 2009b). Another approach would be to ask them to identify the criteria themselves before carrying out an assignment by comparing samples of good and poor assignments submitted by previous student

cohorts and to explain which is better and why (Rust, Price, and O'Donovan 2003). If carried out in a group, this would also generate supportive peer dialogue. Sadler (1989) maintains that having students analyse and discuss the strengths and weaknesses of a range of concrete exemplars is the most effective strategy for sharing task requirements, given that criteria are tacit, emergent and often unarticulated even in the minds of tutors. Exemplars clarify what is required, whereas variation lets students know that quality is not a fixed attribute but can be expressed in different ways. The over-riding principle here is interactive engagement: the more students actively engage with the task goals, criteria and exemplars, the more likely they are to internalise requirements (Nicol 2009b; Price and O'Donovan 2006).

Understanding a task goal is not, however, all or nothing: the desired end state becomes increasingly specified as the work proceeds, and feedback does not just help guide students towards their goals, it has a crucial role in clarifying and reinforcing what these goals are (Sadler 1989). Hence, spending time clarifying goals and criteria at the beginning of a task is only the first step. It is also important that when feedback is provided, it continues to clarify and reinforce task requirements. One way to do this is to provide feedback in relation to criteria when the assignment is returned. This not only ensures that the shared context for feedback is kept alive but it also helps students to make sense of received feedback. Many teachers use assignment return sheets to frame feedback with comments produced alongside criteria. It is important, however, that broad criteria are used and the number of criteria is limited for extended writing tasks (e.g. essays), where good performance is not just about addressing criteria one by one, but is more about producing an holistic and coherent response (see, Lunsford 1997; Nicol and Macfarlane-Dick 2006; Sadler 1989).

Another way of using written feedback to reinforce task requirements is for teachers to provide a summary of the submitted assignment as part of the feedback. Summaries replay to students the bigger picture: they portray how the teacher perceives the overall shape of the assignment. This gives students some information about their actual performance, which they can compare against what they think was required (e.g. 'your thesis is that feedback is only valuable if students have the intellectual readiness to understand it, you cite some examples of feedback that you believe are not within Vygotsky's zone of proximal development'). Ferris (1997) found that when students received summaries of their writing they made more substantial revisions. A complementary, and perhaps more empowering, approach would be to ask students themselves to provide a summary of their assignment when they hand it in (e.g. an abstract of an essay or a report). This would help teachers better understand the students' perspective and help them tailor their own feedback accordingly. This approach would also help develop meta-cognitive skills in students, the ability to stand back and reflect on what they have produced.

In Laurillard's conversational framework, the discursive feature of dialogue has many purposes – to ensure that teachers' and students' conceptions are accessible to each other, to enable them to agree a learning or assignment goal and to enable the generation and receipt of feedback in relation to an assignment goal. In conventional teaching practice in higher education the creation of rich dialogue centred on the assignment requirements is often overlooked, and especially when student numbers are large where it appears difficult to achieve. This occurs despite the fact that there is now substantial research that such dialogues can lead to significant improvements in the quality of the assignments that students produce.

Adapting teacher feedback to learners' needs

> I did not understand the feedback comments I received. (student)
>
> The comments I received did not help me in the areas I had most difficulty with. (student)
>
> It is difficult to tailor feedback comments to individual students in large classes. (teacher)

Students often report that they do not understand written feedback comments and/or that the comments do not help clarify areas that they do not understand. Yet teachers often feel overburdened by having to produce these comments and they often feel that they do not lead to learning improvements (Crisp 2007). Research shows a variety of possible reasons for these problems. From the student perspective, feedback comments may be ambiguous (e.g. 'poor effort, could do better'), too general or vague (e.g. 'you've got the important stuff'), too abstract (e.g. 'this essay is not sufficiently analytical'), too cryptic (e.g. 'why?') or they might be provided in a disciplinary discourse that is unfamiliar to them (Higgins, Hartley, and Skelton 2001; Walker 2009). Teachers however face a difficult task in adapting comments to students' needs, especially when student numbers are large and personal contact is limited.

There is a great deal of research on the features of good written feedback comments and a summary is reported in Nicol (2010). However, important as this advice is, it is only a starting point when thinking about feedback and it does not really go far enough. Feedback, as has been argued earlier, is not a monologue. The meaning of feedback comments is not transmitted from the teacher to the student; rather meaning comes into being through interaction and dialogue. So how might we enhance the dialogical nature of teacher comments?

Research and practice

One way of making teacher feedback more dialogical and also sensitive to learner needs is to have students express a preference for the kinds of feedback they would like when they hand in an assignment. McKeachie (2002) suggests asking students to request feedback, to attach questions with their submission identifying areas with which they would like help; while some might be about the writing process, others might be about conceptual understanding or concept application. Bloxham and Campbell (2010) have tested this approach with first-year students and found positive learning benefits, although they also found that some students had difficulty formulating high-level conceptual questions. However, this can be addressed through better initial support for question formulation (see, King 1994) and/or beginning with a collaborative essay task where groups work together to form questions. Students requesting feedback based on their own concerns empowers them more than just receiving feedback based on the teacher's interpretations of weaknesses. (Note, however, that these procedures do not stop teachers raising additional issues not identified by students.)

Elbow and Sorcinelli (2006) offer a structured variant on this approach; they ask students to write an informal cover letter to hand in with an essay, but they provide a framework using specific questions such as: 'What was your main point?', 'What were your sub-points?', 'Which parts of the submitted essay feel strong and weak?', 'What questions do you have for me as reader?' The cover letter ensures that the

students' comments initiate the dialogue that is continued by the teacher through the feedback. They note that the dialogue can extend further by having students respond to the teacher's feedback; for example, they might write a short note that tells what they heard in the comments and how they will use them.

A recent innovation is audio feedback. The teacher reads the student script and attaches audio files. Early reports suggest that students respond more positively to audio feedback, seeing it as closer to a dialogue (Merry and Orsmond 2008). Teachers can produce reactions to the writing as they read, can ask questions and suggest improvements. Variations in tone and the naturalness of the approach seem to give students more of a sense that teachers are interested in what students have written. Early research shows, however, that it can take time for some teachers to get used to this feedback format.

Although these approaches are helpful in making feedback relevant, more progress can be made if teacher input is used as the starting point for a feedback dialogue that is built from other sources. For example, after having received their assignments back in a tutorial, students might be asked to read the teacher-feedback comments and then be organised into small groups to share and discuss them. The output might be an action plan for the improvement of future assignments. Moreover, if the teacher reinforces the good ideas generated by the group discussions this would add a further reinforcing layer of feedback input to the discussions (see, Bloxham and West 2004). In the next section, the value of peer dialogue is explored in more depth.

This section has highlighted the important role of students in making teacher-feedback comments relevant. In requesting feedback, students engage in reflection even before comments are received while in responding to feedback or in formulating action plans they are interactive in the linking of teacher comments to the assignment task. Also, having students request feedback based on their concerns is more empowering than teachers just providing feedback based on their interpretation of students' assignments. Importantly, requested feedback might help reduce unproductive commenting by teachers.

Continuing the dialogue: the role of peers

> The feedback I received was not sufficiently detailed. (student)
>
> The best way to improve feedback would be one-to-one meetings with the tutor. (student)
>
> I don't have time to meet every student individually to discuss the feedback. (teacher)

Student satisfaction surveys and course reviews invariably find that students would like more detailed feedback comments from their teachers. When questioned in interviews, students also claim that the best way to enhance written feedback would be to support it with one-to-one meetings with the teacher where the assignment and feedback can be discussed (Higher Education Academy 2010). However, mass higher education has made it almost impossible for teachers to hold one-to-one meetings and difficult for them to tailor comments to individual needs.

In Laurillard's framework dialogue is conceptualised as an ongoing and discursive process. Hence, it is not enough for students to receive feedback comments once, only after a completed assignment. Rather there should also be iteration in feedback exchanges during assignment production, a point emphasised by Wood, Wood, and

Middleton (1978), and by students in surveys when they request follow-up discussions with tutors. But how can feedback dialogue be enriched and sustained when there is only one teacher and class sizes are large? The solution lies in capitalising on peer dialogue.

Peer feedback methods not only increase opportunities for feedback dialogue but they also bring into play a qualitatively different type of feedback input from that provided by the teacher (Boud, Cohen, and Sampson 2001). Firstly, when numbers are large, it is difficult for teachers to adapt comments to individual student's needs or to provide them in a language that students might understand. Peers, however, who are tackling the same assignment, might be more able to write meaningful and relevant comments in a student-centred discourse. Secondly, when students engage in commenting on the work of others they are put in the role of the assessor. Having experience in this role is important if students are to develop the ability to evaluate their own work and to acquire the skills needed for life beyond the university (Topping 1998). Also, experience in assessing and giving feedback might help students understand the complexity of the task facing teachers: in turn, making peer feedback visible to teachers might help them see what students most value in feedback. Thirdly, in most peer-commenting situations, students get to see examples of good and poor work produced by other students tackling the same assignment. Although unusual in higher education, this can be a powerful way of helping students become more detached and critical about their own work.

There are many ways to organise peer dialogue around written assignments.

Research and practice: peer critiquing

Sadler (personal communication) describes an approach he uses where first-year students write a short (e.g. 300-word) essay and bring three copies to a tutorial. The student's name is not put on the essay only an identification number. The teacher distributes these across the tutorial group so that each student provides and receives three sets of peer feedback comments. The teacher also writes an essay for peer comment. Later in the tutorial there is an open discussion of the comments produced. Sadler does not provide criteria in advance, as he wants his students to express criteria in their own words in the first instance. This approach, the rationale for which is provided in Sadler (2009), encourages high-level and active reflection on the assignment goals and criteria, it enriches the volume of feedback that students receive and, potentially, it optimises its adaptation to student needs given the volume, variety and the active engagement that it entails. This approach also links all the feedback to the production of a specific output. Hence all four of Laurillard's characteristics of effective dialogue are brought into play.

Falchikov (2005) has also reported on studies of peer feedback. In one investigation, 38 fourth-year biological science students gave peer feedback on draft essays, which students could then use to make improvements in the final submission. They also received feedback from the lecturer. Falchikov found that 88% of students reported that they did use the peer advice to improve their assignment. Furthermore, an analysis of the feedback comments showed that, surprisingly, peers provided more, and more positive feedback than the lecturer, as well as more prompts and suggestions for improvement. Again, in relation to Laurillard's framework, both the volume and helpfulness of the feedback were greater when peers were involved than when only the teacher provided feedback.

More research is required in the area of peer critiquing as a formative and developmental process. Most of the published investigations are confounded due to the embedding of peer feedback in high-stakes assessment processes: students mark as well as provide feedback comments and the marks count and are used for final grading purposes. Such peer assessment is more threatening and can undermine the benefits of peer critiquing as it introduces high-stakes competition and can inhibit risk taking and learning.

Also, while consistency and reliability are important in marking and grading, this is less important for feedback. Indeed, there can be significant benefits from variation in feedback, especially when the task is complex and open-ended (Rowntree 1977). Having different readers respond to and comment on an assignment provides multiple perspectives and it invokes multiple opportunities for scaffolding. Instead of finding out how one reader experiences and responds, the student is able to benefit from the responses of many readers, each with a different perspective. If each reader-evaluator makes similar comments this provides strong evidence of genuine difficulty with the way the assignment was tackled that must be addressed. If each reader offers different comments this might suggest to the writer that readers interpret the text differently and that there are many ways of making improvements each with its own merit, or even that some feedback is misconceived. Interestingly, this situation reflects feedback input in professional practice and in academic journal writing, which usually comes from many sources. A by-product of this approach is that students learn ways of adapting their writing to a broader base of readers, another important skill in the professions.

However, it is not just the receiving of feedback from peers that is beneficial so, also, is the producing of feedback in relation to peer-produced assignments. When students regularly give feedback on the assignments of peers (who have written to the same assignment brief) they develop the ability to recognise what characterises a quality assignment and about the different ways it can be produced: they learn that quality does not come in a pre-defined form, rather there is a spectrum of possibilities.

Research and practice: collaborative assignment production

Another way of improving the richness of feedback dialogue during the execution of a task is to get students to work together collaboratively to produce the assignment. For example, in a study reported in Nicol (2009a), 560 students taking a first-year psychology module were organised in groups (each with seven to eight students) and were required to write six essays online over the course of the year. The main mode of feedback was the feedback given by students to each other in their groups while writing the online essays. The course leader provided guidance on the giving of constructive peer feedback and restricted his feedback to the provision of essay exemplars and of general comments to the whole class. The exemplars were selected from the students' own submissions and posted online after all groups had submitted their assignment. The students were encouraged to compare their submissions against the range of exemplars. This approach was very successful with a majority of the students (64%) reporting that the peer commenting increased their understanding of the topic being studied. Notably, there was a significant improvement in mean essay performance in the final exams compared to previous years (see Nicol 2009a). This approach encouraged students to produce and receive feedback on actions linked to a task goal, which, according to Laurillard (2002), should result in improved performance on future learning tasks of a similar kind.

Although research suggests that significant learning gains are possible when students receive regular teacher comments on their writing, most teachers feel overwhelmed by the workload associated with providing such feedback when student numbers are large. Peer feedback helps address this bottleneck by enriching feedback possibilities, but it also introduces a new component when compared against teacher feedback. In peer commenting and in collaborative authorship students produce feedback comments, they are not just receiving them (Cho and Schunn 2007; Elbow and Sorcinelli 2006). They analyse each other's writing, detect problems in understanding and in the writing process and they make suggestions for improvement. This is beneficial for all students, but especially for those who might fail to detect misunderstandings or flaws in their own writing, as well as for those who might overestimate their understanding and capabilities.

Research and practice: exposing students to others' dialogues

When teachers provide feedback comments, these are usually produced for a single reader, the student who has produced that assignment, even though the tutor will normally assess many assignments. Many students, however, report that the comments they receive do not meet their needs and/or do not address areas where they suspect they are weak. One solution to this problem, that is not widely practised, is to expose students to the whole databank of comments from which their own specific comments derive. Seeing the kinds of comments that teachers write on other students' assignments provides a richer array of feedback comments. Moreover, if students were asked to make judgements about which comments are most relevant to their assignment this would encourage inner reflection both on the comments themselves and the quality of the assignment. For example, students might select from the collated list the comments they consider most relevant to their assignment, and say how they might act on them. Importantly, in this situation, the students are proactive in identifying the relevance of comments, that is, it requires that students, and not the teacher, actively locate the contingency relationship between the feedback and the assignment.

Comments might be shared in many ways. The teacher might produce a summary list of the comments for a single assignment and share this in a tutorial or through an online environment. This approach need not take more academic staff time as the feedback advice that is produced for one student cohort could be reused with subsequent cohorts.

Chi, Roy, and Hausmann (2008) have reported and tested an alternative to the mere sharing of tutor comments. These researchers have investigated the potential benefits of the sharing of tutorial dialogues with students. They examined the learning that occurs when students engaged in peer dialogue while observing and consulting a pre-recorded videotaped dialogue of a single student being taught by a physics tutor. This condition was called 'observing collaboratively'. These researchers showed that students observing collaboratively learned to solve physics problems just as effectively as students engaged in direct one-to-one tutoring and more effectively than students collaborating on their own (i.e. interacting in dialogue and reading), or observing alone or studying alone. Their measure of learning was ability in solving problems of a similar kind in a post-testing situation. The amount of learning by the peer observers was shown to depend on how actively engaged they were in discussion and in constructing meaning from their observations. This research holds great promise for higher education in that it identifies a way in which the benefits of

tutor–student interaction (which prior research suggests is the ideal dialogical model) might be made more cost-effective and scaled up for the mass higher education context using peer processes. Furthermore, although this research involved physics problem-solving there is no reason why the principles would not transfer to writing tasks.

The examples in this section show ways of designing learning so as to strengthen all four of Laurillard's feedback characteristics. Peer feedback activities can heighten students' reflection. It results in students interacting with feedback from a wider range of perspectives, it engages students in commenting on others' work and in making judgements about feedback in relation to their own work. Peer feedback, where groups of students are involved, can also enhance opportunities for discursivity, for rich, iterative and extended dialogues. It is also interactive in that it invariably ties the production and receipt of feedback to a specific learning task. At the same time, peer feedback makes it more likely that students will find something of relevance in the feedback input that is provided (adaptive). Finally, having students engage in peer activities where they are both giving and receiving feedback not only adds to the richness but also to the power of feedback processes.

Discussion

In the sections above, ways of making feedback more effective in mass higher education have been explored based on the view that the feedback needs to be recast as a dialogical process rather than as a monologue. This perspective involves moving away from a narrow focus on feedback comments or on the need to ensure that students have opportunities to actively construct feedback information. Having established this more holistic framework, the discussion returns to consider feedback comments themselves and the nature of student engagement in the different dialogical contexts that have been proposed.

A dialogical context for written comments

There is a large and growing body of literature about the deficiencies in the formulation of feedback comments and many researchers have identified ways of improving them (e.g. Lizzio and Wilson 2008; Poulos and Mahony 2008; Walker 2009; Weaver 2006). The following is a summary of some recommendations from this research, which draws on researchers' reports of what students consider important. A fuller set of recommendations for good commenting is available in Nicol (2010).

The research suggests that written feedback comments should be:

- *Understandable*: expressed in a language that students will understand.
- *Selective*: commenting in reasonable detail on two or three things that the student can do something about.
- *Specific*: pointing to instances in the student's submission where the feedback applies.
- *Timely*: provided in time to improve the next assignment.
- *Contextualised*: framed with reference to the learning outcomes and/or assessment criteria.
- *Non-judgemental*: descriptive rather than evaluative, focused on learning goals not just performance goals.

- *Balanced*: pointing out the positive as well as areas in need of improvement.
- *Forward looking*: suggesting how students might improve subsequent assignments.
- *Transferable*: focused on processes, skills and self-regulatory processes not just on knowledge content.
- *Personal*: referring to what is already known about the student and her or his previous work.

The recommendations above are sound and representative of good practice at a general level. However, it is a challenge to implement them in mass higher education where student numbers are large and regular personal contact is difficult. Indeed, to be effectively implemented, the teacher would need to know something about the student, about her prior level of understanding, her ability to use the feedback advice and perhaps even something about what emotional reaction the student might have to the feedback comments (Pelligrino, Chudowsky, and Glaser 2001).

Arguably, however, the recommendations above are more likely to be realised when their implementation is embedded within the kinds of dialogical contexts laid out earlier. For example, written comments are more likely to be *understandable* if there is a shared context for the assessment task and the comments are provided in response to a specific student request. And feedback is more likely to be *timely* if there are many cycles of feedback and if this feedback is available from many sources, peers as well as teachers, from online databanks as well as from face-to-face interactions. When students complain that feedback comments do not meet their needs, this is as much a symptom of a failure of dialogue as it is a symptom of weaknesses in the quality of the comments themselves.

Active learning in different dialogical contexts

In the introduction, it was argued that a focus on active student engagement in feedback processes, while important, is not in itself a sufficient basis for the design of more effective feedback. Instead, it was suggested that feedback should be framed as a dialogical process in which active engagement is played out. But what kinds of student activity do the different dialogical contexts invoke and what are their relative benefits?

At a fundamental level, teacher–student feedback dialogue is regarded as essential for the enhancement of learning. The teacher is usually the most authoritative source of feedback in the discipline and is the person best able to scaffold student learning. Although there is little direct evidence of the benefits of teacher feedback in higher education in relation to extended assignment tasks, research in face-to-face settings tends to confirm that teacher–student dialogue is more effective than other forms of interaction including collaborating with a peer (Chi, Roy, and Hausmann 2008; Pilkington and Parker-Jones 1996).

There are however potential pitfalls when teachers are the sole source of feedback input. For example, Orsmond and Merry (2009) carried out an investigation, across four universities, of high- and low-achieving third-year biology students' perceptions of teacher feedback. They found a consistent pattern, with low-achieving students much more focused on the surface features of feedback messages than high-achieving students, who sought the meaning behind the message. In this, and in other ways, they found that the low-achieving students showed a high dependency on the teacher. They

often sought teacher feedback with the sole intention of making incremental improvements in their work until they had produced what they believed the teacher was looking for. This suggests a need to help weaker students become more self-reliant. One option is to strengthen peer feedback processes.

Indeed, while feedback dialogue with the teacher is important for learning enhancement, it could be argued that peer feedback is equally important. It might even serve different purposes. Peer feedback scenarios where students receive comments on an assignment from many other students provide a richness and volume of dialogue that is difficult for a single teacher to match. In such situations, students must actively process and reprocess feedback input from a variety of sources and are potentially exposed to multiple levels of analysis and scaffolding.

Further benefits are realised from peer feedback when compared against teacher-feedback processes: students produce feedback as well as receive it. Producing feedback is more cognitively demanding than just receiving it: the construction of feedback is likely to heighten significantly the level of student engagement, analysis and reflection with feedback processes. From this perspective, one might argue that constructing feedback is at least as, if not more, beneficial than receiving it. However, in practice peer processes would normally involve both the construction and use of feedback. This affords additional benefits: where peers generate and receive feedback in relation to the same assignment task (i.e. an essay that all students are writing), they learn not only about their own work but also about how it compares with productions of other students.

Sadler (2010) goes further and has recently argued that if the goal of higher education is to develop in students the ability to evaluate the quality of their own work, then peer processes of the kind described in this paper must form the main pedagogical strategy, not just for assessment but also for the actual teaching of course content. His argument is that when students assess and provide feedback on the work of other students, they engage in activities similar to those that teachers engage in when they evaluate and comment on students' assignments. Just as teachers over time learn to make evaluative judgements about what constitutes a quality assignment, so would students.

While peer feedback methods are important pedagogically, some teachers find these methods difficult to implement due to students' lack of confidence in their peers and to prior predispositions to solo working. These issues can be addressed by linking peer feedback to teacher feedback in early implementations. For example, students might review and provide feedback comments on each other's assignment during its development, perhaps structured around criteria. The teacher would then provide comments not on the assignment but on the comments provided by peers. Bloxham and West (2004) provide an example of this approach where the teacher reinforces the feedback comments provided by peers. Such tactics might be used when peer feedback is first introduced, especially if there is a need to move students away from an over-reliance on teacher feedback.

Workload issues and dialogue

A final issue concerns the likely effects on academic workload of the approaches suggested in this paper. While demonstrating efficiency gains in feedback delivery and use is not straightforward, there is good reason to believe that there will be time saving in the provision of feedback input where peers are harnessed as a source, as this

would shift some of the burden for its production away from the teacher. There might, however, be an initial time burden in preparing students for such peer feedback activities so that they get the best out of them. There might also be efficiency gains due to increased use of teacher feedback. For example, students often do not collect the written comments that teachers have spent time preparing or do not seem act on them. Getting students to request feedback, to respond to feedback, and to actively connect feedback to their assignments, might result in students paying more attention to, and being more able to use, teacher feedback.

However, while the changes above might be usefully examined on their individual merits, the approach suggested in this paper argues for wider changes in teaching and learning and in the pedagogical models underpinning feedback designs. Peer critiquing and collaborative assignments are about refocusing teaching in ways that would engage students more actively in giving and receiving feedback. Such methods involve moving away from a model based on teacher delivery of feedback to one based on the co-construction of feedback. Given these changes, a wider lens would be required to ascertain not just the costs but also the benefits of these new methods against what they replaced. In many cases, new models might merely involve a re-allocation of teacher time. There are grounds, however, for believing that the approaches advocated in this paper would result in students taking more responsibility for, and a more active role in, monitoring and evaluating their own learning; and that there would be significant long-term benefits from such changes in relation to the development of important skills for learning at and beyond university. More research is needed to establish both the real costs and benefits of the new feedback paradigms implied by these changes.

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