

Beyond ‘doing time’: investigating the concept of student engagement with feedback

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Feedback on students’ assignments may be comprehensive and well-constructed as a result of careful thought from tutors trying to identify and address students’ needs. However, feedback’s utility ultimately depends on the way students engage with it. ‘Doing time’ by complying with a norm of collecting, but then only skim-reading, feedback is a long way from the ‘mindful’ engagement associated with reflection, interpretation, deepening understanding and changes in later behaviour.

This article argues that the literature’s traditional focus on experimental studies of feedback *attributes* (whilst ignoring students’ *engagement*) is misplaced, particularly given the methodological problems and inconsistent findings associated with these studies. These limitations suggest the need for an alternative line of enquiry.

In this article, we develop a conceptual framework intended to illuminate the process of student engagement with feedback. We further propose a research agenda which can convey the variety of student experiences and generate analytic insights about students’ evolving engagement as a result of multiple feedback encounters in an educational setting. We suggest that this research agenda can lead to policies and practices to enhance student engagement with feedback, which may build students’ sense of responsibility and ownership for their learning.

Keywords: *feedback; engagement; student experience; assessment; research methods*

Introduction

Feedback on students’ assignments may be comprehensive and well-constructed as a result of careful thought from tutors trying to identify and address students’ needs, but its usefulness depends on the response from students. ‘Doing time’ (Zyngier, 2008) or ‘mere compliance’ from students who dutifully collect their

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marked assignments, skim the feedback and then literally or metaphorically ‘throw it in the bin’ (Gibbs & Simpson, 2004, p. 14) is a long way from the ‘mindful’ engagement associated with reflection, interpretation, deepening understanding and changes in later behaviour (Salomon & Globerson, 1987).

In this article, we will argue for a research agenda which investigates student *engagement* with feedback so that policies and practices can be developed to enhance their engagement and facilitate learning. The shift towards *student engagement* is proposed as a counterweight to the attention traditionally given in the feedback literature to the study of *effectiveness*. The substantial body of previous literature on feedback effectiveness has attempted to isolate the feedback variables that lead to greatest student learning, but for several reasons, which we discuss next, the methodological problems and inconsistent findings point to important limitations with this line of research. These limitations suggest that an alternative method of enquiry is needed.

The article is structured as follows. We begin with a brief review of the literature on feedback effectiveness and outline problems in that literature. We then develop an alternative research agenda which focuses not on feedback effectiveness but on student *engagement* with feedback. To do this, we first highlight key concepts and debates on student engagement from the education and feedback literatures, and then develop a conceptual framework which can support research on *student engagement with feedback*. The discussion is accompanied by illustrative diagrams looking initially at the micro-level of interactions between students/tutors/assignments/feedback, and then moving to the macro-level to bring in temporal and socio-cultural aspects. It is these broader aspects which have to some extent been neglected in the literature (for similar problems in the employee engagement literature, see Macey & Schneider, 2008). Finally, we propose a research agenda that can convey the variety of student experiences and generate analytic insights about students’ engagement with assessment feedback over time as a result of multiple feedback encounters. We suggest that the pursuit of this agenda may lead to policies and practices that enhance student engagement with feedback, building students’ sense of responsibility and ownership for their learning.

Research on feedback ‘effectiveness’: what has already been learned?

Much of the earlier literature on feedback for students in schools and higher education has sought to judge its ‘usefulness’ in terms of measures of learning, relying on experimental studies of the impact of pre-identified feedback variables on student performance on simple tasks with a single correct answer. This methodological approach was particularly evident in the disciplines of mathematics, computing and psychology. Whilst seemingly ‘old’ the seminal studies of the 1970/80s and the meta-analyses of the 1990s are still quoted today. For example, as recently as 2008, Shute described the meta-analyses conducted by Bangert-Drowns *et al.* (1991) and Kluger & DeNisi (1996) as the two ‘landmark’ reviews of the experimental work on feedback effectiveness. These analyses drew for example on stud-

ies such as Kulik & Kulik's (1988) meta-analysis on the impact of feedback's timing, and Kulhavy's (1977) classic study on written feedback.

'Learning' in these experimental studies was usually defined as an improvement in students' performance scores where the comparison was made *between groups*, where student groups received different types of feedback or none at all on a preliminary task before going on to do the 'test' task. Feedback was defined in the influential Kluger and DeNisi meta-analysis as '... actions taken by (an) external agent(s) to provide information regarding some aspect(s) of one's task performance' (1996, p. 255); the implicit aim was to close what Sadler (1989) has called the 'performance gap' (see also Sadler, 1987).

Feedback variables tested experimentally in this way included *load* (essentially, the amount of information), *type* (sub-categorised as verification or elaborative), *timing* and *media*. Relatively little attention was given to the impact of feedback's *elaborative* attributes which related to the type of content provided; examples included re-statement of the correct answer, error-flagging plus explanation, and feedback which was more general and 'facilitative' (Black & Wiliam, 1998) such as provision of worked examples and advice on meta-cognitive strategies to tackle the task (see also Brown & Glover, 2006; Shute, 2008; Walker, 2009).

The drive to isolate the feedback variables with greatest effect size was, and still is, however, problematic. In particular, there are three difficulties with the emphasis on 'effectiveness'. These relate to methodological problems as well as the empirical issue of inconsistency of research findings.

First, there is the methodological constraint that an emphasis on effect size favours reductivist research designs which attempt to disaggregate the impact of each variable. Whilst useful to some extent, the disaggregation of variables may produce misleading findings. Indeed, many authors now argue that it is the *interaction* between those variables (as well as the influence of individual differences and situational context) which create the conditions for learning, and that this interaction *in a naturalistic setting* should therefore be examined (Salomon, 1992; Shute, 2008).

Another methodological constraint of the earlier experimental designs reported in meta-analyses is that tasks tended to be constructed in a way which ensured a single correct answer, since this simplified the measurement of the impact of feedback interventions. Whilst 'binary' tasks may be suitable for formulaic tasks in technical subjects such as early-stage algebra and computing, they are rarely appropriate in higher-order tasks or in the social sciences where complex, ill-structured problems can often be addressed in several ways leading to different but equally appropriate answers (e.g. Sternberg & Frensch, 1991; Spiro *et al.*, 1996; Eden & Ackermann, 2004).

The second problem—which is perhaps a result of the first—is that the outcomes of these experimental studies are inconsistent and inconclusive (e.g. see reviews in Mory, 1996; Shute, 2008). As large a proportion as one-third of the studies included in the Bangert-Drowns *et al.* (1991) and Kluger & DeNisi (1996) meta-analyses showed negative effects of feedback on learning. The synthesis by Hattie (1999) is more positive, showing that 'clearly, feedback can be powerful ...

[but there is] considerably variability, indicating that some types of feedback are more powerful than others' (p. 83). It seems that Cohen's observation in 1985 may still hold: that feedback 'is one of the more instructionally powerful and least understood features in instructional design' (cited in Shute, 2008, p. 153).

A third problem is that the atomistic examination of *which* variables cause *which* changes in test scores says nothing of the different ways that students interact with the feedback. Yet it is quite possible that some feedback is unproductive not because of its content or medium or any other intrinsic quality, nor because of the nature of the 'immediate' context, but because the inter-play between feedback, student and the socio-cultural *situation* encourages a mindless or surface-level response in the student (see also Lave & Wenger on *situated* learning (1991); and Osborne on *context* (2004)). In other words, we may be unduly blaming the feedback, or even the immediate context, without acknowledging the centrality of student engagement.

Given the problems outlined above with measuring the impact of discrete feedback variables on student learning, the remainder of this article proposes a research agenda focused on the study of *student engagement with feedback*. We do not, however, mean to suggest that studies on the impact of feedback are fruitless; for they are not. Instead, we argue for less reliance on atomistic experimental studies of feedback (because of the concerns raised above), and for greater attention to alternative methods of studying the relationship between feedback and student learning. This could include—as we argue here—a focus on student engagement, taking engagement *not* as merely another independent variable affecting an output called feedback effectiveness, but as a means of shifting our attention, and taking a broader perspective on the process by which students receive, use and take action on their feedback.

Exploring the concept of engagement

The literature carries an often-implicit distinction between student engagement with an *institution* or community within that institution, and engagement with a *specific activity* such as an assignment, and so the two aspects will be separately discussed next. The distinction allows us to consider the relational and temporal dimensions of engagement, and the socially-constructed nature of a seemingly isolated feedback 'episode' when a student receives and responds to an apparently independent piece of feedback.

Engagement with institutions

In the educational literature, attention is usually given to students' engagement with the school, university or wider community rather than engagement with specific tasks and the ensuing performance feedback. Often this literature focuses on *lack* of engagement, withdrawal and the problems of 'dropping-out' (e.g. Willis, 1977; Finn, 1989), alienation (Mann, 2001; Bryson & Hand, 2007; Case, 2007), exclusion from school (McCluskey, 2008) or the broader aspects of (non)

participation and identification with the institution (e.g. Willms, 2003; Martin, 2007). Zyngier (2008) draws on Sefa Dei (2003) to create an evocative distinction between students' (positive) engagement on the one hand, and 'doing time' or mere endurance on the other. He argues that 'there have been very few attempts to define engagement other than behaviourally or to study it as part of the learning process' (p. 1769). A point he makes clear, however, is that student *interest* should not be conflated with student *engagement*. Engagement is more than mere interest or satisfaction. It is a multi-faceted and complex concept with a 'long tradition from Dewey to Freire' connecting student engagement with learning which elevates its conceptual importance even though it may be difficult to define empirically (Zyngier, 2008, p. 1767). The concept of engagement is fundamental to contemporary socio-constructivist theories of learning which argue that individuals make sense of the world by interacting/engaging *with it*, where interpretations are *shaped* by the socio-cultural context (Rust *et al.*, 2005).

In their review of the schools literature, Fredricks *et al.* (2004) outlined three facets of engagement—behavioural, emotional and cognitive—encompassing tasks but mainly looking at broader social forms of engagement. Behavioural engagement draws on ideas of participation and involvement in academic, social or extra-curricular school activities (e.g. asking questions in class); emotional engagement relates to affective responses to tasks, teachers, fellow pupils or the wider school community; and finally, cognitive engagement incorporates ideas of thoughtfulness and a willingness to invest the effort necessary to grasp complex ideas and master difficult skills. The authors further acknowledge that each facet overlaps with concepts previously studied—such as student conduct, attitudes and self-regulated learning—but argue that 'engagement has considerable potential as a multidimensional construct that unites the three components in a meaningful way ... and can be thought of as a meta construct' (Fredricks *et al.*, 2004, p. 60).

More recently, Harris (2008) has called student engagement 'a contested concept' which is theorised in a variety of ways (p. 57). She goes on to highlight areas of convergence, including the move to seeing engagement as a multi-dimensional construct involving the three dimensions identified by Fredricks *et al.* (2008), with an occasionally-cited fourth dimension of 'academic', which Anderson *et al.* (2004) propose to refer to time spent doing learning activities as opposed to other, more generalised behavioural engagement. What makes Harris's work particularly interesting is her phenomenographic study of *teachers'* conceptualisations of student engagement, summarised as behaving, enjoying, being motivated, thinking, seeing purpose and owning. Here in the latter category of 'owning', we see an aspect of engagement which is qualitatively different from 'doing' learning, i.e. students' sense of ownership and responsibility for their learning. This theme is echoed by Zyngier (2008) who draws on Dodd (1995) to argue that an antecedent of engagement is not necessarily 'fun' or entertainment, but is instead students' sense that they can take ownership of their learning.

In a related literature—that of employee engagement in organisations—there is a distinction between 'being' (i.e. a *readiness* to engage) and 'doing' (i.e. an *action*

in response to a particular event) (e.g. Macey & Schneider, 2008). What is particularly relevant is the recognition of the *adaptive* nature of active engagement: the authors argue that it is almost impossible to prescribe what engagement ‘should’ look like because the very nature of positive engagement cannot be predicted in advance of situations which call for it (2008, p. 24). In a similar way, it can be argued that in the educational literature, it has not been possible or desirable to prescribe a set of behaviours that in some sense prove that students are using a ‘deep approach’ (Marton & Saljo, 1984) to their studies, or are engaged ‘mindfully’ (Salomon & Globerson, 1987) with their feedback. This issue is developed later.

Engagement with feedback

We have so far discussed engagement at the institutional level. Many of the ideas and concepts can be applied to the more bounded notion of engagement with an assignment task and ensuing feedback, although some adaptation of concepts is required.

The nature of engagement with feedback has received little direct attention in the pedagogic literature. However, feedback engagement has been considered in relation to other themes such as self-regulated learning (e.g. Butler & Winne, 1995), intelligent tutoring systems (e.g. Wenger, 1987), the ‘four levels’ at which feedback operates (Hattie & Timperley, 2007), computer-based training (e.g. Handley, 2003), and studies of students’ in-class participation with assessment (e.g. Ahlfeldt *et al.*, 2005; Dancer & Kamvounias, 2005). More generally, though, whilst there have been studies of students’ perception about the *purpose* of feedback (e.g. Walker, 2009), the process of *student engagement* with feedback has been relatively neglected. This is a serious omission if we accept the premise that the strongest influence on students is not the ‘teaching’ they receive but the assessment and feedback processes with which they engage (e.g. Gibbs & Simpson, 2004; Kember, 2004).

As a contribution to closing this gap, the next section develops a proposed framework for conceptualising student engagement with assessment feedback.

Building a conceptual framework

The conceptual framework is built using illustrations which depict different aspects of student engagement. Figure 1 represents the interplay between five artefacts in a specific activity—that of producing an essay in the Social Sciences. The five artefacts are the task (reflected in the *assignment brief*); *completed assignment* (submitted by the student); *assessed assignment with formative feedback* (written by the assessor); *student*; and *assessor*. The process of engagement occurs around these artefacts.

The assignment brief is included because students’ engagement with feedback cannot be understood without considering their experience with the preceding assignment task, such as its perceived authenticity and utility (Ainley *et al.*, 2006).

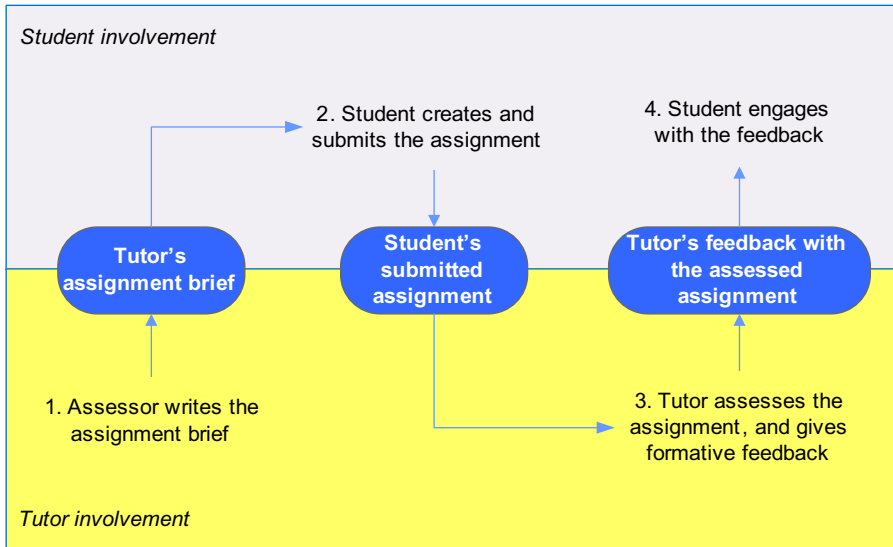


Figure 1. Preliminary illustration of student engagement with assessment-and-feedback

Students' expectations, goals, level of interest and readiness-to-engage are critically influenced by their experience of the task which frames the subsequent feedback, and so any organising framework should, we suggest, also take account of this.

Figure 1 distinguishes between actions primarily involving the tutor (bottom half of diagram), and those primarily involving the student (top half). For the sake of visual simplicity, the diagram excludes the many additional interactions which may occur such as conversations between student and tutor about the meaning of the assignment guidelines.

Figure 1 depicts the core elements essential at the immediate, transactional level in a classic assignment-and-feedback episode. Much of the traditional literature on feedback effectiveness has remained at this micro-level and has ignored the temporal and relational dimensions and the socio-cultural context which influences student engagement. Indeed, the horizontal mid-line can be interpreted in two ways: as a boundary where an assignment is impersonally exchanged with 'the other side'; or as a meeting point of dialogic action and culturally-informed expectations.

Figure 2 builds on the first diagram by indicating the shaping role of contextual influences, and by making explicit that the student involvement with assignments creates specific expectations. These expectations may be about the function of feedback, the expected grade, the potential utility of the feedback and so on. Figure 2 shows that students' expectations influence their readiness-to-engage with a specific assignment/feedback and their choice of action; it also shows that students' outcomes—after engaging with feedback—can iteratively influence future engagement patterns with feedback, assignments or more widely with academic staff or their institution. Indeed, Hockings (2009), drawing on Ashwin & McLean (2004),

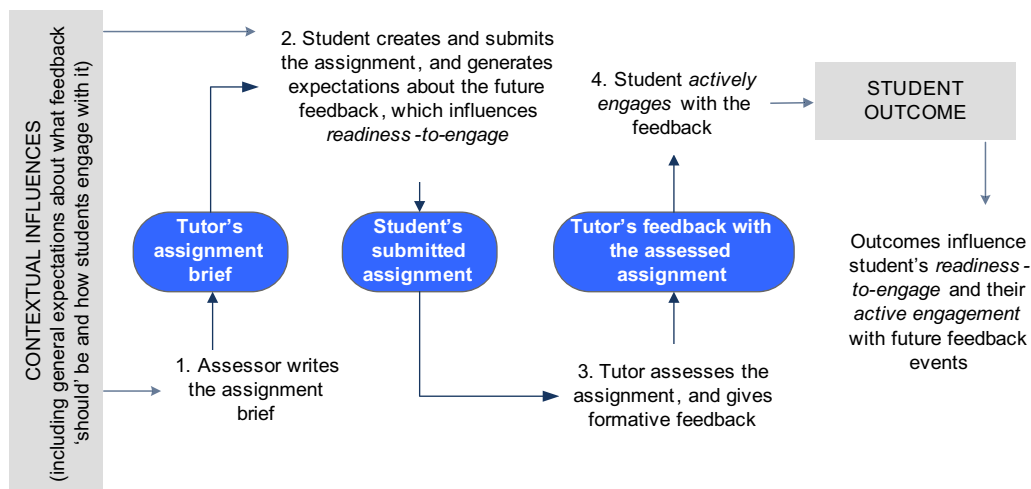


Figure 2. Contextual and recursive influences on student engagement with assessment-and-feedback

has suggested that students' academic engagement is shaped by multiple situational contexts: biographical; social and course-related; institutional and disciplinary; and wider social, political and economic. Situational contexts frame and impinge on student engagement and, we argue, influence students' (and tutors') general expectations about what feedback *is* or *should be* and about the norms of engagement. Tutors' broader assumptions about processes of learning and teaching (e.g. Prosser *et al.*, 2005), and the implied judgements about what constitute 'positive' patterns of interactions and social relations, will also influence their expectations about student engagement. In this sense, engagement is a social practice, embedded in institutional relationships and structures.

Having outlined a basic conceptual framework, it may seem appropriate to define precisely the notions of readiness-to-engage and active engagement. However, this could be premature: the attempt to outline constitutive constructs would pre-empt the identification of (perhaps more appropriate) constructs, and so may hinder rather than support further research aimed at deepening our understanding of student engagement. On the other hand, it seems negligent to ignore constructs which might shed light or have some relevance, and we briefly consider these next whilst recognising that others may reveal themselves empirically.

Readiness-to-engage

In the literature on engagement, a readiness-to-engage is sometimes associated with the concept of commitment, perceived as a willingness to invest effort and energy in the activity-at-hand, depending on the circumstances (e.g. Fredricks *et al.*, 2004; Robinson *et al.*, 2004; Saks, 2006). Students' readiness-to-engage may depend on the perceived authenticity of the assignment itself, and the anticipated

feedback. It may also depend on students' self-efficacy—their sense of *being able*, with the knowledge and skills they have or the resources they can access, to do something about the feedback they receive (Bandura, 1977). Self-efficacy is likely to be influenced by individual differences (e.g. relating to attribution theory) shaped by the educational and socio-cultural environment, as well as the feedback itself; for example, if feedback is so task-specific that students cannot generalise to other assignments, they are unlikely to feel confident in applying it to later assignments (Hattie & Timperley, 2007). Another potential element is a sense of ownership, where students feel ownership for, and therefore value, their completed assignments and the feedback received on them. Harris (2008, p. 73) described students who engaged with a sense of ownership as 'exercising a higher level of control over their learning' and having a 'relationship' with their learning.

Commitment, self-efficacy and ownership are suggested here only as some of the possible aspects of students' readiness-to-engage with feedback; an empirical programme of research of the type outlined later will enable researchers to develop a more nuanced understanding of this construct. Furthermore, readiness-to-engage will evolve over time, as a result of experiences and socialisation processes embedded in the students' *habitus* and in wider contexts, which we refer to later. Indeed, students' experiences may shape their attitudes, beliefs and routines such that they develop a readiness to *dis-engage*, or a readiness to challenge others. Although seemingly aspirational, 'engagement' can be driven by many motives including the desire to resist authority or question a tutor's judgement (by, for instance, challenging marks) or to project a desired identity such as being a street-wise student as opposed to a 'geeky swot'. Finally, we should remember that readiness does not necessarily lead to action.

Active engagement

Students' (positive) active engagement with feedback can be conceptualised as the invisible action of reflecting 'mindfully' (Salomon & Globerson, 1987) on feedback, as well as overt actions such as asking clarifying questions of the tutor who assessed and fed back on the work. In other words, both thought and action can be involved. Actions may be interpreted negatively by others (such as tutors), but to some extent even apparently disruptive behaviours such as challenging tutor marks carry the potential to be transformed into constructive dialogue about assessment criteria, standards, performance and learning. On the other hand, seemingly positive engagement may hide a student's desire to (merely) gain favour from others by portraying the chimera of attentiveness. Yet even here, a strategic intention to gain favour may actually facilitate productive dialogue with educational and relational benefit.

Like readiness-to-engage, active engagement may be 'invisible' to an observer if no outward behaviours are evident (for example, asking questions to clarify the feedback). And what appears to tutors to be 'surface' or superficial engagement (in a negative instrumental sense) may conceal mindful reflection. Indeed,

engagement may often seem to be a solitary process involving what Moore (1989) calls ‘learner-to-content interaction’, and what Holmberg (1986, cited in Hawkrigge & Edirisingha, 2002) calls an ‘internal didactic conversation’. For example, although some students may only look at their grade, others may mindfully ‘withhold or inhibit’ their immediate emotional and cognitive reaction to feedback—such as merely looking at the grade—and instead examine ‘situational cues and underlying meanings’ leading to the development of ‘alternative strategies’ to deepen understanding and achieve learning goals (Salomon & Globerson, 1987, p. 625). However, an apparent solitariness is something of an illusion: the relational and socio-cultural dynamics of education still pervade and influence the conditions of possibility for student engagement.

Active engagement may involve *visible* interactions with other people or resources. In Moore’s (1989) classification of educational interactions, she adds ‘learner-to-learner’ and ‘learner-to-tutor’ to the ‘learner-to-content interaction’ classification mentioned above. We propose drawing the net even wider: students in Higher Education interact with parents, siblings, friends and others when they try to interpret assignments and feedback (Morosanu, *et al.*, in press), and they may reach for resources such as textbooks, assignment criteria grids, model-answer guides and so on. All of these actions involve varying degrees of ‘effort’, though effort as a specific variable is almost impossible to measure definitively.

Students do a variety of things to make sense of their feedback and, perhaps later, to apply their learning to new situations. The classic attempts to operationalise active engagement quantitatively as ‘time-spent’ reading the feedback (e.g. Kulhavy & Stock, 1989) is inadequate in many ways. As Hattie & Timperley have suggested (2007, p. 101), ‘too often, the power of assessment feedback is aimed to “drive” students towards (often unspecified) goals to “do more” ...’. We suggest that a richer understanding of active engagement can be gained by emphasising its *adaptive* aspect discussed earlier (Macey & Schneider, 2008).

Temporal and situated contexts to student engagement with feedback

Feedback is not received in a vacuum, and an investigation of student engagement requires what Mercer (2008) has called ‘a temporal analysis’. Engagement with a specific piece of feedback at one time-point is influenced by the cumulative experience of engaging with previous learning and feedback episodes in different modules or assignments, and will itself influence future engagement. Furthermore, the act of engaging with specific feedback is situated in the practice of being a student in a community. There is thus a temporal and situated aspect of student engagement, taking into account what Bryson and Hand (2007) call ‘spheres of engagement’.

Taking this broader perspective allows us to ask questions about the integrative and progressive (or regressive) aspects of student engagement with feedback over the duration of a degree programme within an institutional setting. Student trajectories of engagement are likely to be varied and complex: for example, do

students experience a positive outcome of being able to understand and then apply feedback to later assignments? Or does the lack of apparent (to students) transferability encourage a behavioural dis-engagement, such as not bothering to collect formal, written feedback in the future?

Developing a research agenda

In the preceding discussions we argued that student engagement cannot be fully understood by examining a single, isolated episode of receiving feedback. Students have expectations about what they need from feedback; expectations about what feedback ‘should’ do (and what tutors ‘should’ provide), pedagogic capabilities for making the most (or not) of feedback; and an emotional willingness and confidence to do something (or not) with it. These expectations evolve over time, and are influenced by students’ relational networks which may be formal or informal; institutional or social or familial; transient or enduring. Academic staff, for example through networks of trust (or otherwise), are not the only actors with an influence on student engagement; students may be helped to interpret and make sense of feedback more often by a trusted friend or family member than by staff if the latter are deemed unapproachable or lacking credibility (Morosanu *et al.*, 2010).

Within this wider context, we have proposed that (positive) engagement with feedback can be conceptualised in terms of a readiness-to-engage and active engagement. In doing so we recognise that however technically ‘good’ a piece of feedback might be, it can have no impact unless students engage with it. Echoing Hockings *et al.* (2008) ‘we do not see students who appear to be disengaged as inferior, deficient or problematic’ (p. 192), but we do seek to unpack engagement with feedback in order to develop assessment practices and learning environments that are more meaningful and stimulating.

Policies and practices to develop student engagement are already in place in some institutions, but more research will deepen our appreciation of how to facilitate engagement. In this respect we echo the words of Fredricks *et al.* (2004) who pointed to the limitations of current research on schools engagement, which we believe extends to the sphere of higher education:

Research that takes a qualitative approach to understanding the phenomenology of engagement is needed ... [Prior] research has used variable-centred rather than pattern-centered analytic techniques. As a result, we have little information about interactions or synergy. (Fredricks *et al.*, 2004, pp. 86–87)

We propose that research could usefully be developed around three inter-related themes: first, **descriptions** of the phenomena of engagement in terms of the diversity of students’ *readiness-to-engage* and their *active engagement*; secondly, **analysis** (and partial explanations) of the *influences* on, and *outcomes* from students’ engagement with feedback; and thirdly, **broader systemic insights** about how student engagement *evolves over time* as a result of multiple experiences of assessment feedback. These three aspects are of course closely linked, and we share Ashwin and

McLean's (2004, p. 1) unease 'about the phenomenographic literature's severance from disciplinary, economic, social, political and historical contexts'. Instead we consider the inter-relations between these themes to be critically important. To some extent they build on each other; for example, an understanding of the variability of students' actions may lead to research designs which investigate what seems to influence students' choices. However, the reverse sequence might also be illuminating.

The three themes can be approached with different research perspectives, and it is likely that each perspective will emphasise particular research questions. Whilst recognising this, we propose that one option is to address the following questions:

1. What are the differences in students' readiness-to-engage with feedback, and in students' active engagement in response to feedback?
2. How do different pedagogic interventions and assessment designs facilitate or impede students' active engagement with feedback?
3. How does the assessment environment (and the wider academic and socio-cultural environment) influence students' readiness-to-engage and active engagement with feedback?
4. How does students' engagement with feedback change over time as a result of multiple experiences of assessment and feedback?

If this research is to have a broader impact, two further questions are required:

5. What are the implications of the research findings for policy and practice?
6. How can the proposed conceptual framework be developed through ongoing debate and empirical research?

The choice of research methods will be influenced by the specific goal and objectives chosen by researchers. There is also the critical choice of appropriate unit(s)-of-analysis. There are methodological and conceptual issues here, which have been succinctly discussed by Matusov (2007). He points to problems of horizontal and vertical *reductionism* (e.g. reducing a higher-level phenomenon to a lower-level unit of analysis); and to problems of *holism*. The problem of reductionism is often associated with psychological research, whilst the problem of holism is a feature of sociocultural research which sees scholars 'embracing bigger and bigger systems of practice, community, relations and culture' (p. 323). The latter drives the search for units of analysis which are more holistic but also (perhaps inadvertently) 'less manageable', creating its own inner contradictions because 'researchers simply cannot study everything and "travel" unlimitedly over open networks of practices ...' (p. 324).

An option for addressing the problem of manageability proposed by Rogoff (1995, cited by Matusov, 2007) is to consider multiple *planes of analysis*: a researcher can study in detail only the chosen 'foreground plane', but should

keep the rest of the unit of analysis in the ‘background’, recognising that none of the planes is self-sufficient. Matusov used this approach in his research on pre-service teachers’ narratives about minority children they worked with, as illustrated in class-related web forum postings. One of the units of analysis for the research was a teacher’s web posting about their children. However, this unit of analysis was not seen as a ‘property’ of the teacher in a psychologistic way, but rather as a window onto—and part of—many other related systems such as the teaching profession, participation in the teacher-training class, and so on (p. 327).

Choices concerning the appropriate unit of analysis are complex and rarely definitive, in part because ‘the unit of analysis cannot be fully known before the research is started’ (Matusov, 2007, p. 328). Recognising this limitation, we offer tentative suggestions for developing a research agenda, drawing on insights and precedents from existing literature, but also knowing that researchers will be guided by their ontological positions and reflections about the ongoing process of research.

The first theme (Question 1 above) concerns descriptions of the two key aspects of engagement. First, descriptions of students’ *readiness-to-engage* (also called state-of-engagement) have traditionally been investigated using batteries of scale items in standardised questionnaires, such as the American National Survey of Student Engagement (e.g. Kuh, 2007). The use of standardised instruments facilitates cross-student comparisons, whilst reducing sensitivity to local contexts and therefore reducing local validity. Qualitative, interpretive approaches would add important insights, e.g. drawing on phenomenographic approaches (e.g. Marton, 1981; Greasley & Ashworth, 2007; Harris, 2008). Secondly, *active engagement* (or dis-engagement) has conventionally been investigated using crude measures such as ‘time-on-task’ (Kulhavy & Stock, 1989). This proxy data is easy to collect on computer-based courses or intelligent tutoring systems, but less easy when written or oral feedback is received off-campus or out-of-sight, unless students are brought into non-naturalistic ‘lab’ experimental settings. Thinking-aloud protocol techniques, though potentially useful for gathering insights about ‘unseen’ cognitive processes (see, for example, Ericsson & Simon, 1984; Orrell, 2008) have similar disadvantages unless students can, for example, record audio diaries at a time and place where it is natural for them to review their feedback. Engagement which involves interaction with tutors or students is visible and therefore recordable to some extent (for instance, questions asked in class). However, as indicated above, there is a risk of over-emphasising the significance of institutionally-based, visible interactions when, in practice, students may engage with feedback more readily with the support of those in their wider social networks. Conventional semi-structured interviews may complement and overcome some of these limitations, although interviewees can only give their accounts of events and their recollections of experiences; they cannot, as Wengraf (2001, p. 1) and others have cautioned, give an ‘unproblematic window on psychological or social realities’. A limitation of phenomenographic, descriptive approaches is that

interviewees are often unaware of the structural factors which shape them (Ashwin & McLean, 2004, p. 7). Thus, interpretation of these 'descriptive' data relies heavily on understandings gained from pursuing the second and third theme.

Similar methodological questions surround the second theme (Questions 2 and 3) which concerns (partial) explanations of engagement. For investigative research, a close coupling of sequences of events, interactions, and the characteristics of the people involved is particularly important when crafting the 'story' of engagement. For example, critical incident technique (Flanagan, 1954) may be relevant as a mechanism for noting the sequence of elements which make up a significant 'episode', as may methods of narrative enquiry (Czarniawska, 2004) and story-telling. However, in this as with other research in the social sciences, explanations are always partial and tentative, and limited to the possibilities offered by the chosen unit-of-analysis (e.g. interactional or systemic/structural level).

For research questions relating to the third theme (Question 4), case study methods—which emphasise systemic relationships—may be appropriate (Gomm *et al.*, 2000). However, for an understanding of the longitudinal evolution of student engagement, a different portfolio of methods may be needed: for example, ethnographies such as those undertaken by Lave in her investigation of the practices of situated learning (Chaiklin & Lave, 1988; Lave & Wenger, 1991); learning histories using methods such as those articulated by Kleiner & Roth (1997); or methods associated with activity systems theory (see, for example, Engeström *et al.*, 1999; Engeström, 2001).

As a final (but essential) point we comment on role of students. If students are positioned only as participants—with the outcomes of research directed elsewhere to other academics—there is the risk that we not only dis-empower students but also weaken the analytical rigour of the research. Students' voices should of course be presented and become part of the analysis, but there is an important argument for giving students 'a chance to reply to this analysis . . . as much as it is possible [to do so] in order to develop the dialogic truth of the research . . . There is no last word for either the researcher or the research participants' (Matusov, 2007, p. 328).

Concluding remarks

We can teach students; but we can't 'learn' them'; they have to do the learning. (Boud, 2009)

Student engagement with assessment feedback—like student learning—cannot be imposed. 'Doing time' is very different from 'compliance' which is different again from adaptive engagement where the student takes responsibility for understanding, interpreting and applying the assessment feedback. Student engagement can, however, be facilitated if we gain a sufficiently rich understanding of the phenomenon of engagement, and the way in which interventions and pedagogic strategies—and, more broadly, the academic and sociocultural environment—influence students' readiness for active engagement.

In this article, we have argued for less research on measuring feedback ‘effectiveness’, and more on understanding student *engagement* with feedback. The research agenda outlined earlier is proposed as a contribution to this endeavour. Whilst our conceptual framework and the questions derived from it may seem tentative, we have erred on the side of caution in order to ground the framework in prior empirical and theoretical scholarship. However, we hope that insights from this research will be illuminating and promote significant change in scholars’ conceptualisation of student engagement with feedback, leading to innovative and potentially radical developments in pedagogic policy and practice.

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