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To cite this article: G. W. Scott (2017) Active engagement with assessment and feedback can improve group-work outcomes and boost student confidence, Higher Education Pedagogies, 2:1, 1-13, DOI: [10.1080/23752696.2017.1307692](https://doi.org/10.1080/23752696.2017.1307692)

To link to this article: <http://dx.doi.org/10.1080/23752696.2017.1307692>



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Published online: 12 Apr 2017.



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# Active engagement with assessment and feedback can improve group-work outcomes and boost student confidence

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## ABSTRACT

This study involves evaluation of a novel iterative group-based learning task developed to enable students to actively engage with assessment and feedback in order to improve the quality of their written work. The students were all in the final semester of their final year of study and enrolled on either BSc Zoology or BSc Marine and Freshwater Biology at a mainstream UK university, but the findings of this research can be generalised to a wider student body. The main findings are that in a group work context, individual students can use provided assessment criteria to accurately assess the work produced by their group and that their ability to produce and recognise work of a higher quality improves as a result of a social dialogue around self/peer assessment and self/tutor generated feedback. The study also reveals that producing poorer work over-assess and those achieving the highest marks under-assess. Over-assessing students focus to a greater extent upon the superficial deficiencies in their work, whereas under assessing students are more likely to focus on more significant issues. High-achieving under-assessing students lack confidence in their own abilities, but believe feedback provides a confidence boost.

## ARTICLE HISTORY

Received 1 August 2016  
Revised 9 February 2017  
Accepted 14 March 2017

## KEYWORDS

Group work; feedback;  
reflection; self-assessment;  
peer-assessment

## Introduction

Student engagement with assessment and feedback is a fundamental concern of higher education and the subject of a rich body of scholarly work (see for example the review by Evans (2013) and the work of Evans, Mijs, and Tomlinson (2015)). Formal assessment tasks are the main tool used by tutors to measure the acquisition of knowledge and skills by students and it is well established that feedback to students on those tasks is an important part of the learning cycle (Carless, Salter, Yang, & Lam, 2011; Hattie & Timperley, 2007; Hounsell, 2003; Vancouver & Kendall, 2006). However, tutors typically perceive feedback as being more valuable than their students do (e.g. Brown, 2007; Carless, 2006) and students tend to report dissatisfaction about assessment and feedback through national surveys such as the UK National Student Survey (Higher Education Funding Council for England, 2011) and the Australian University Experience Survey (Graduate Careers Australia, 2015). Historically, the feedback tutors provided to students was often limited to corrections to

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highlight disciplinary knowledge gaps with relatively little attention given to the role that feedback (or perhaps more properly feed-forward) might play in enabling students to improve the quality of future assessments (pers obs). During recent decades, however, considerable attention has been given to both practical means by which the quality of feedback (and its use by students) might be increased, and to the theoretical underpinnings of the approaches advocated. Key amongst the latter is the work of Boud and Molloy (2013), Carless et al. (2011) and Nicol and Macfarlane-Dick (2006), who have together reconceptualised feedback such that each describes it as a process of constructive dialogue between the student and their wider learning community (self/peers and tutors). In establishing their seven principles of good feedback practice, Nicol and Macfarlane-Dick (2006) build upon the work of Butler and Winne (1995) and situate feedback within a social constructivist conception of learning (Palinscar, 1998). Arguing that students routinely self-assess and that learning tasks should take this into account, they see students as having a proactive role in generating their own feedback and integrating it with feedback from multiple sources (self, peers and tutors for example) to construct new learning practices in a self-regulating way. Carless et al. (2011) adopt the definition of feedback developed by Askew and Lodge (2000) as ‘all dialogue to support learning in both formal and informal situations.’ They too see feedback as a dialogue involving students, their peers and tutors rather than as a directed monologue. Central to their model of sustainable feedback is the idea that active engagement with feedback is a process by which students further develop their intrinsic ability to self-assess and thereby enhance their capacity for life-long learning. They argue that this will be most easily achieved through assessment tasks that are designed to facilitate repeated engagement over a period of time in such a way that achievement can be assessed at multiple stages. Similarly Boud and Molloy (2013) propose a shift from feedback as a tutor to student monologue (a delivery model) to co-constructed feedback that draws upon multiple sources (a social dialogue). They also suggest that to be of value, this dialogue should be based around a designed sequence of learning tasks enabling development over time rather than focusing upon an isolated assessment activity. It is also important to remember that for feedback to be effective, it must be provided in a timely fashion to enable students to take timely action to meet the requirements of subsequent assessments (Evans, 2013).

### ***Self-assessment and the use of feedback by students***

The ability to self-assess and to judge the value of one's own work is a key graduate attribute and is therefore a primary aim of higher education (Boud & Falchikov, 2006). Assessment criteria are typically developed by a tutor to enable the grading of work in a repeatable and equitable way, and to enable tutors to determine the degree to which a student has achieved the learning outcomes associated with the task that is being assessed (Boud, Lawson, Darrall, & Thompson, 2013). Whilst tutor assessment is fundamental in education, it is also important that students have the ability to use assessment criteria as a scaffold for their learning. Ideally students should be in a position to use assessment criteria to judge the value of their own work prior to submission so that they can be confident that they have done their very best. Beyond the short-term relationship between effective self-assessment and immediate academic achievement, self-assessment is important in the longer term as students' transition from tutor-led learning to independent life-long learning (Nicol & Macfarlane-Dick, 2006). That students have a capacity for self-assessment is well documented although the

level to which they do so successfully (usually measured as a level of agreement between a tutor grade and a student generated grade) is known to vary (Boud & Falchikov, 1989). It is commonly reported that more academically able students are able to self-assess more accurately than their less able peers, furthermore these more able students are more likely to under-assess whilst their less able peers are more likely to over-assess (e.g. Boud & Falchikov, 1989; Boud et al., 2013; Karnilowicz, 2012; Kun, 2015; Lejk & Wyvill, 2001). Although in some cases the level to which students and tutors disagree over marks can be small enough to be considered unimportant. It has also been shown that the ability of students to judge the value of their own work improves with practice (e.g. Lawson et al., 2012; Lew, Alwis, & Schmidt, 2010; Lew et al., 2010). Boud et al. (2013) have demonstrated this to be the case amongst students who volunteered to self-assess as a formative learning task over two, three or four semesters but they add a note of caution over the interpretation of their results because their study population was a volunteer one and therefore possibly not representative of the full range of students. However, reporting on a situation where iterative self-assessment (in this case assessment of the potential worth of ones own work prior to summative assessment) was a compulsory part of the learning process Morrell (2015) has demonstrated that practice/experience does improve the ability of students to recognise higher quality work.

### ***The current study***

This study involves the evaluation of a novel iterative learning task that was developed specifically to enable biology students to engage in an active way with assessment and feedback in order to improve the quality of their written work (i.e. to improve their grades). The activities reported here were not therefore designed as a research project, rather they were developed as practice in response to the research of others (e.g. Boud & Falchikov, 1989; Dochy, Segers, & Sluijsmans, 1999; Orsmond, Merry, & Reiling, 1996) and a belief (based upon experience) that the combination of biology students enthusiasm for a particular taxonomic group, self management and reflective self assessment would improve student learning and academic outcomes. The task is group work-based and involves self, peer and tutor assessment and self- and tutor-generated feedback. It facilitates a social dialogue involving students and tutors and provides opportunities for students to reflect upon their individual ability to assess the quality of their own work and that of their peers. It is my belief that in developing and evaluating this specific learning activity, I am in a position to make an original contribution to our wider understanding of two key aspects of student engagement with assessment and feedback, namely the value of iterative learning tasks involving the active use of feedback by students, and the value of a social dialogue around feedback within student groups. To achieve the first of these objectives, I explore the extent to which my students can use provided assessment criteria to accurately assess (grade) the work produced by their group; and their ability to improve the quality of their group's work after combined self/peer assessment and self/tutor generated feedback. To achieve the second objective, I explore individual variation in the ability of biology students to self/peer assess and to make use of self/tutor generated feedback.

## Methods

### The modules

The modules, *Whales, Dolphins and Sharks* and *Current Ornithology*, were designed to enable students to take advantage of their enthusiasm for particular taxonomic groups (whales, dolphins and sharks in the case of students reading BSc Marine and Freshwater Biology, and birds in the case of students reading BSc Zoology) as a motivational tool to enhance group-based learning. Data derived from students enrolled on the modules between 2003 and 2015 were used to achieve the aims of this study. The modules were delivered at a mainstream UK university.

Both modules employed the same delivery mode involving student managed learning and minimal tutor input. In total seven tutors have been involved in the module as tutorial facilitators and assessors (two for the eleven years of teaching contributing to this study (including the author), three for between four and six years and two for two years). Self-selected groups of 4–6 students (typically friendship groups) in the final semester of their final year at university determined their own learning goals (knowledge to be acquired) in response to a recently published science media article (typically 250–500 words) concerning an aspect of the biology (in the widest sense of the word) of a species of whale, dolphin, shark or bird. Learning was scaffolded through group and individual based assessment tasks and a programme of 8-weekly tutorials (1 h duration and facilitated by a tutor) over a 12-week semester. A single student group and a single tutor were present at each tutorial. During their first tutorial, students were provided with the stimulus article and asked to share their existing knowledge and gaps in their knowledge about the topic. Then together they decided upon an area of literature-based research that was inspired by (but not necessarily closely related to) the article. In this way, the students themselves determined the curriculum content for the module. Groups then spent 4 weeks researching and producing a multi-authored booklet on the topic they had chosen to which each individual made a contribution (typically a single chapter) of 2000 words. This booklet (referred to in this paper as *task 1*) was submitted for summative assessment by two tutors (who agreed a single group mark but provided individual feedback). Alongside the submission of *task 1*, each group member submitted an individual self/peer assessment. This consisted of a reflective justification (*reflection 1*) of the mark that they expected the tutor to award *task 1* (based upon assessment criteria available to both students and tutor throughout the module, and discussed (briefly) with the students during one of the tutorials) i.e. each individual completed a formative assessment of their group's work, an example of combined self/peer assessment. Although the reflective justification was in itself a summative task (tutor assessed), the students understood that their self/peer assessment did not contribute in any way to the marks awarded for *task 1*. This activity was an example of a learning task that 'fosters reflection on the student's own learning process and learning activities compared to those of the other members in the group' (Dochy et al., 1999). A tutorial session was held during which the group members discussed the feedback that the tutors had provided and during which students were encouraged (but not compelled) to share with one another the self generated feedback that they had submitted as *reflection 1* (almost all were happy to do so). Tutor mark in the context of *task 1* and *task 2* refers to a mark agreed, through discussion, by two tutors (one of whom facilitated the tutorials involving the assessed group, and one drawn randomly from the module team) after each had independently assessed the work.

The same group of students were then provided with a new stimulus article involving a different species of whale, dolphin, shark or bird (and thought by the tutor to be likely to lead them towards a different area of biology) and repeated the process to produce a second booklet (*task 2*) for summative assessment. The second booklet was accompanied by a second individual summative assessment (*reflection 2*) which this time required students to discuss their response to the feedback and grade their group received on *task 1*; the way in which they had used that feedback to improve *task 2*; and, upon any discrepancy between the tutor assessment and their own assessment of *task 1*. This second individual assessment did not require students to undertake a formative assessment of *task 2* between 2003 and 2013, but they were required to do so in 2015.

This learning sequence therefore included the key elements identified by Boud and Molloy (2013), Carless et al. (2011) and Nicol and Macfarlane-Dick (2006) for effective engagement with assessment and feedback and the utility of the feedback is enhanced because it is provided in a timely fashion Evans (2013). Through combined self/peer-assessment and active reflection, students had a proactive role in generating their own feedback and integrating it with feedback from peers and tutors as part of a social dialogue. Through iteration, students had an opportunity for repeated engagement with feedback and the feedback process, and to apply new learning within a social constructivist framework. It is important however to bear in mind that in this case when students are referred to as assessing their own work and that of their peers they are in fact assessing a single piece of co-constructed work.

### **The study population**

Two hundred and twenty-four students completed the modules between 2003 and 2013. Data were also collected from 56 students who completed the modules in 2015. (The 2014 cohort are excluded from the analysis because the assessment of the module differed in that year preventing direct comparison). Sample sizes for individual analyses vary because not every student completed every assessment task, and because archiving processes did not preserve marks for all assessment tasks in all years. Data were available in anonymised form and so no gender/age/other educational experience or other demographic factors are considered. There is no reason however to assume that these students were atypical of the wider UK Biology undergraduate community.

## **Results**

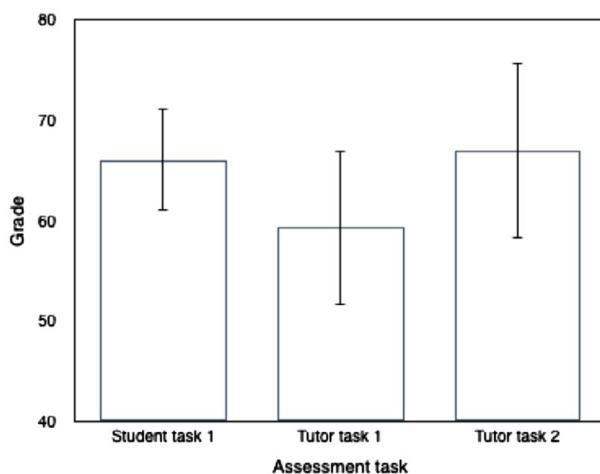
### **Self assessment accuracy and post feedback improvement of work: the value of iterative learning tasks**

To explore the extent to which students were able to accurately assess the quality of their group's work when provided with assessment criteria, paired *t*-tests were used to compare the mean mark that students awarded their group with the mark awarded by their tutors (the 'paired data' being the marks awarded by tutor and student for the same piece of work). To explore the extent to which students were able to improve their ability to assess the quality of their work when afforded an opportunity to do so, paired *t*-tests were used to compare the mean mark that students awarded their group for two pieces of work completed in sequence (in this case the 'paired data' being the marks that the same student awarded to the

two pieces of work completed by their group). Students completing the module between 2003 and 2013 significantly over-assessed *task 1* (Figure 1, *task 1* mean student assessment  $66.06\% \pm 5.2$  SD, mean tutor assessment  $59.05\% \pm 7.7$  SD; paired *t*-test,  $t = 11.89$ ,  $N = 171$ ,  $p < .001$ ). However, a comparison of the marks awarded to students for *task 1* and *task 2* revealed that groups of students were in a position to improve the quality of their work when afforded an opportunity to do so (Figure 1, *task 1* mean tutor assessment  $59.05\% \pm 7.7$  SD, *task 2* mean tutor assessment  $67.0\% \pm 8.8$  SD; paired *t*-test,  $t = -14.18$ ,  $N = 192$ ,  $p < .001$ ). The same pattern is apparent in the data collected during the 2014/15 academic session (Figure 2, *task 1* mean student assessment  $67.7\% \pm 5.6$  SD, and mean tutor assessment  $58.6\% \pm 5.1$ ,  $N = 54$  paired *t*-test  $t = 10.82$ ,  $p < .001$ ; *task 2* mean student assessment  $67.3\% \pm 4.8$  SD, and mean tutor assessment  $65.7\% \pm 5.2$  SD,  $N = 54$  paired *t*-test  $t = 2.089$ ,  $p = .042$ ). Tutor awarded grades for *task 2* were significantly higher than those awarded for *task 1* (Figure 1, *task 1* mean  $58.6\% \pm 5.1$  SD, *task 2* mean  $65.7\% \pm 5.2$  SD,  $N = 54$ ; paired *t*-test  $t = -7.593$ ;  $p < .001$ ) confirming that like their predecessors, these groups of students were able to improve upon the quality of their work when afforded an opportunity to do so. Figure 2 also indicates that as well as being able to produce better work students were better able to assess the quality of their group's work if they had an opportunity to complete a similar assessment previously. The mean discrepancy between the grade students awarded themselves and the grade awarded by the tutor decreased from  $-9.2\% \pm 6.0$  SD to  $-.24\% \pm 11.9$  SD ( $N = 54$ ; paired *t*-test  $t = -4.852$ ;  $p < .001$ ).

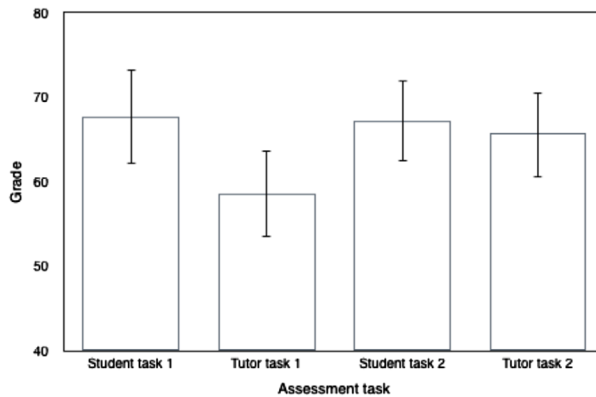
### **Individual variation in student self/peer assessment: the role of the feedback dialogue**

The data presented in Figures 1 and 2 suggest limited variation around the mean marks that both students and tutors awarded to the written assessment tasks. However, the linear regression analysis reported in Figure 3 (2003–2013 cohorts) revealed that students who were members of groups that may be categorised as being on the whole less academically able



**Figure 1.** Student and tutor assessment of group booklets (2003–2012 cohorts).  
Note: Mean percentage grades ( $\pm$ SD) awarded by students (*task 1*) and tutors (*task 1* and *task 2*).





**Figure 2.** Student and tutor assessment of group booklets (2014/2015 cohort).

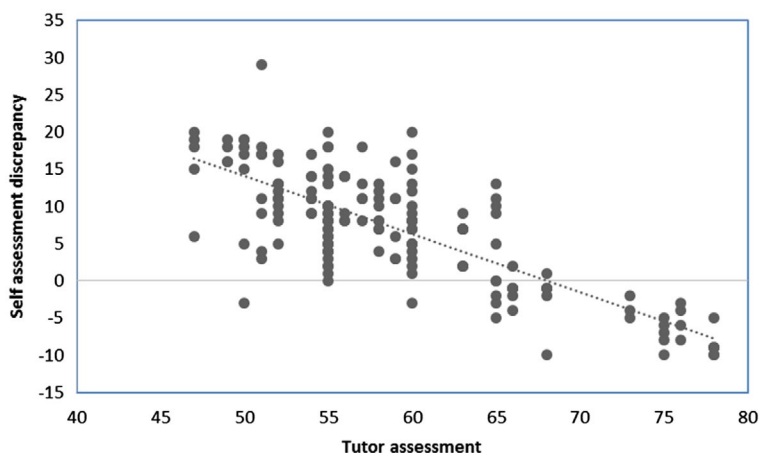
Note: Mean percentage grades ( $\pm$ SD) awarded by students (*task 1* and *2*) and tutors (*task 1* and *2*).

(i.e. those groups achieving lower group marks) were significantly more likely to over-assess the quality of their group's work, whilst members of groups categorised as being more able tended to under-assess the quality of their work ( $r^2 = .6122$ ,  $N = 171$ ,  $p < .001$ ). This pattern is also apparent in Figure 4 (2015 cohort), in the case of student assessment of both *task 1* (linear regression  $r^2 = .239$ ,  $N = 53$ ,  $p < .001$ ) and *task 2* (linear regression  $r^2 = .248$ ,  $N = 53$ ,  $p < .001$ ). It is important to remember that in this context, less and more able refer to groups and not to individuals and that it is very likely that within groups, students exhibit differing levels of academic ability.

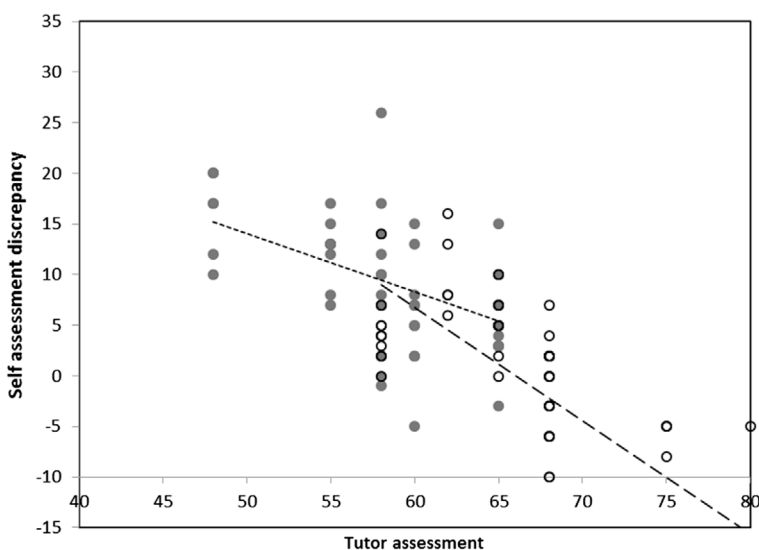
To better understand student engagement with the assessment and feedback process, an inductive thematic analysis (Boyatzis, 1998) of a selection of the reflective essays (*reflection 1* and *reflection 2*) was carried out. Through repeated reading of the reflections, and discussion of their content with colleagues involved in the assessment of the module, comments made by students that related directly to assessment and the use of feedback identified and extracted. Comments with a common context or content were re-iteratively grouped and the 'list' collapsed until key themes emerged. The sample included the work of 31 students who completed *reflection 1* (16 of whom had over assessed the quality of *task 1* by 12% to 20%, and 15 of whom had under assessed the quality of *task 1* by 5% to 10%); and of 26 of these who also completed *reflection 2* (13 over and 13 under assessors). These students were deliberately selected because they represented the extremes of under/over assessment in the data. (It is acknowledged however that any interpretation of the statements made by this small sample of students should be generalised to a wider student population with caution).

Two broad categories of comment emerged from *reflection 1* (submitted before the grade for *task 1* was released to the students). The first, comments framed in a positive way, explained what had been done to justify a mark (*positive justification*). The second, comments framed in a negative way, explained what had not been done or should have been done (*negative justification*). Examples of *positive justification* included phrases such as *we worked hard*; *we did a lot of reading*; *our formatting was good*; *we used knowledge based arguments*; *we compared multiple viewpoints*, *we synthesised information*, and *we demonstrated critical evaluation*. Examples of *negative justification* included phrases such as: *writing styles varied*, *we needed more figures*, *our referencing format was wrong*, *our work lacked detail*,





**Figure 3.** The relationship between student assessment and tutor assessment (*task 1*, 2003–2012 cohorts). Notes: Tutor assessments of group booklets are presented as percentage grades (*X*-axis), student assessments of group booklets are presented as the discrepancy between the student grade and that awarded by the tutor. Discrepancies greater than zero indicate over-assessment, negative grades indicate under-assessment. The horizontal line indicates a student assessment discrepancy of zero, the dotted line indicates the rate (linear regression) at which the self-assessment discrepancy changes with increase in grade.



**Figure 4.** The relationship between student assessment and tutor assessment (2014–2015 cohort; *task 1*, closed symbols and dotted line; *task 2*, open symbols and dashed line). Notes: Tutor assessments of group booklets are presented as percentage grades (*X*-axis), student assessments of group booklets are presented as the discrepancy between the self-assessment grade and that awarded by the tutor. Student assessment grades greater than zero indicate over-assessment and negative grades indicate under-assessment. The dotted and dashed lines indicate the rate (linear regression) at which the self-assessment discrepancy changes with increase in grade.

*our work lacked originality* and *our work lacked criticality*. It is clear that within both the *positive justifications* and *negative justifications*, a continuum existed such that at one end, comments made were quite *superficial* (concerned structure, effort, grammar etc.) whilst at the other, they were quite *insightful* (concerned critical thinking, synthesis of material from

varied sources etc.). Similarly, *Reflection 2* revealed a mixture of *superficial* and *insightful* comments in addition to providing information about the way students believed they had used the assessment criteria and feedback. The 13 students who over-assessed the quality of their group's work reported that their work lacked a coherent structure (eight students), that they should have used the assessment criteria and read the work prior to submission (three students), and that they did poorly because the assessment criteria were difficult to use (two students). Other comments made focused upon poor referencing and typographical errors and three students complained that the marks simply did not reflect the effort that they had put into the work! The 13 students who had under-assessed their group's work explained that they had used the assessment criteria but stated that they had not done so well enough. They made a small number of comments that were similar to those of the over-assessors (relating to poor referencing and typographical errors related to lack of proof reading) and several students highlighted the fact that their work had a coherent structure. These students were far more likely to remain focused upon the topics that I have previously described as *insightful* than were their peers (seven under-assessors compared to four over-assessors).

However, the key difference between the under-assessing students and their over-assessing peers is that seven of them made statements in *reflection 2* to the effect that when self-assessing *task 1*, they recognised the quality of their work and understood that it matched the requirements of the assessment criteria, but that they lacked confidence that it matched them well enough or that they were even capable of matching them to the level required (no over-assessors made similar statements). Active engagement with the assessment process and active reflection upon feedback received provided a confidence boost for these students:

In some cases where tutors have acknowledged the same weaknesses [in] the individual report an overall boost of confidence was given. Thus enabling people to start trusting their own analysis of the work ... Over time this will improve the quality of work and be beneficial to the individual. However, as this can be a very long term process it can be a challenge for some people to make the connection between the use of feedback and the improvement to their standard of work. (Under-assessing student 2006, reflection 2)

Discussing the feedback ... has provided me with more confidence for writing the second report. (Under-assessing student 2013, reflection 2)

When describing their use of feedback, both under-assessing and over-assessing students focused for the most part (26 students) on the features of their work categorised as *superficial* and on the organisational processes a group might employ to achieve the required standards in these areas. Two over-assessing students mentioned the need to be more critical in their writing (one using the term in the sense that s/he needed to use peer reviewed sources rather than the mainstream media as a source of facts). Five of the under-assessing students discussed critical thinking/synthesis and whereas two of these did state that they needed to include more criticality in their work, the remainder talked about strategies to make more apparent to the reader the criticality that was already there (possibly suggesting increasing self confidence). The majority of the students (25 of 26) stated that the processes of combined self/peer assessment, the use of assessment, and active reflection upon feedback and the use of feedback were useful as the following quotes taken from student reflections illustrate:

Assessing the group work showed me 'how the work was assessed ... this allowed for critical evaluation of the work as a whole which would not otherwise occur ... the negative and positive aspects of the work can be seen by other group members rather than solely relying on the feedback from tutors ... more feedback is always a good thing'. (Over-assessing student 2012, reflection 2)

It was also helpful when the group got together and discussed where we had gone wrong and what we were pleased with. By comparing our individual assignments feedback from both my peers and my tutor has helped me realise the strengths and weaknesses of my work. (Over-assessing student 2009, *reflection 2*)

The two assessments have shown me that it is much more difficult to evaluate your own work than it is to evaluate someone else's, but they have also helped to show me the importance of feedback ... this process has enabled me to reflect upon my own work as well as other's work and use the feedback in a constructive manner. (Over-assessing student 2013, *reflection 2*)

It [self assessment] made me look at the group essay from a different perspective, and this allowed me to recognise our strengths and weaknesses and where we could have done better. Being asked to grade our work seemed odd, but having to justify that mark meant looking at the essay again from a different point of view as if we were the marker. (Under-assessing student 2012, *reflection 2*)

I particularly liked the idea of marking our own [work] ... comparing this with the actual marks and feedback we received, it allows us to understand where marks are gained and lost. By criticising your own report it has the potential to boost your performance next time as you are aware of the areas you believe you have gone wrong in. (Under-assessing student 2012, *reflection 2*)

However, one student did query the utility of mandatory combined self/peer assessment stating that:

If I knew of a specific weakness or omission I would have corrected it before we handed in the report. (Under-assessing student 2008, *reflection 2*)

## Discussion

I have shown that students are able to use provided assessment criteria to self-assess co-constructed group work (a booklet including their own work and that of their peers). I have also demonstrated that through the active facilitation of a within-group feedback dialogue, students are able to both improve the quality of their subsequent work and to improve their ability to recognise those characteristics of their work that make it better, supporting the observations of authors such as Lew et al. (2010), Lawson et al. (2012) and Morrell (2015). These results confirm the proposal of Carless et al. (2011) that two-stage assignments may have an important role to play in the development of sustainable feedback practices by enabling the iterative development of learning skills. Such tasks are likely to be particularly powerful learning tools if they involve students in authentic co-assessment (Evans et al., 2015); they involve structured peer engagement in formative assessment (Duah, Croft, & Inglis, 2014); and, if students are provided with appropriate training in the giving and receiving of feedback (Evans, 2015a, 2015b) all of which are characteristics of the learning task that is the focus of this study.

I have also shown that individual self-assessment accuracy is nuanced, in that members of groups that produce work of a lower quality over-assessed to a greater degree than their peers in groups producing better work; and the members of the groups achieving the highest marks demonstrated a tendency to under-assess. In this respect, these biology students appear to be typical of the wider student population because this is a pattern that persists throughout the literature (e.g. Boud & Falchikov, 1989; Boud et al., 2013; Karnilowicz, 2012; Kun, 2015; Lejk & Wyvill, 2001). When justifying the grades that they would have

awarded their group, over-assessing students tended to focus more upon the superficial features of their work (presentation, structure etc.) while under-assessors demonstrated a higher level of insight and augment the superficial with factors such as a lack of criticality and originality. Although these findings are limited because they relate to a small sample, these distinctions are in accord with those reported by Orsmond and Merry (2013) who state that higher and lower achieving students adopt different strategies when processing tutor feedback. When reflecting upon the (in)accuracy of their assessments, students remained focused to varying extents upon those superficial characteristics of their work that they could potentially remedy relatively easily (poor referencing, lack of proof reading, poor structure etc.). Being aware of this tutors should adapt their feedback towards individual students or student ability groups to suit their individual needs, this is important because in light of this finding, simply providing one size fits all feedback is likely to result in the imposition of the kinds of barriers to effective engagement described by Winstone, Nash, Rowntree, and Parker (2016). Members of groups that achieved higher marks showed a strong tendency to be aware of the requirements of the provided assessment criteria but to lack confidence in their own ability to meet them.

## Conclusion

The literature often bemoans the fact that students do not engage effectively with feedback (Hyland, 1998), sometimes because they fail to even collect it (Hounsell, 2003; Sinclair & Cleland, 2007). In contrast, the students in this study reported that they found their feedback (and their involvement in the assessment process) to be useful, in that it enhanced their understanding of assessment processes and practice; enabled them to improve the quality of their work; and in some cases because it provided them with a confidence boost. The development/evaluation of iterative tasks to promote active engagement with assessment and feedback processes through a social dialogue involving students and tutors is therefore a priority area for future research.

In my practice, building the use of feedback into the learning process has overcome one of the oft-cited shortcomings of the modular system, namely that the timing of assessment and feedback as a module end point makes it difficult for students to relate lessons learned to future requirements (Hughes, Smith, & Creese, 2015). The structure of the learning process that has been implemented also goes some way towards addressing student readiness to engage with feedback (highlighted as an issue by Handley, Price, and Millar [2011]). Essentially those students lacking a capacity for self-driven engagement were encouraged to engage by the requirements of the assessed reflections. This learning process is likely to support the mind-set of proactive recipience amongst students advocated by Winstone et al. (2016), i.e. that students are active rather than passive receivers of feedback. Furthermore, by providing an opportunity for the active discussion of feedback students have been provided with a space in which they can be helped (through a dialogue involving self-reflection, peers and tutors) to understand and apply the feedback that has been given to them (thereby overcoming barriers around comprehension identified by Mutch, 2003; Taras, 2003; Winstone et al., 2016). This is also a space where their self-efficacy/self-regulation can be boosted as part of a process of self-regulated development (Hattie & Timperley, 2007; Vancouver & Kendall, 2006). It is therefore very important that both tutors and students are aware that higher levels of academic ability (and presumed possession of higher level academic skills)

may shift the required emphasis of supportive feedback from a ‘*what you need to do*’ model to a ‘*yes you can model*’.

## Ethical approval

This research was approved by the relevant institutional ethics committee (ref H033). As a retrospective study formal informed consent on the part of the students was not required.

## Acknowledgements

Dominic Henri and Lesley Morrell provided useful feedback on earlier versions of this manuscript. I would like to acknowledge the assistance of my colleagues who have helped to facilitate the modules over the years: Jon Harvey; Phil Wheeler; Michelle Smith; Darren Evans; Isabella Capellini and Dominic Henri.

## Disclosure statement

No potential conflict of interest was reported by the author.

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