Research Article

Seeing Eye-to-Eye? Staff and Student Views on Feedback

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Abstract

Feedback on academic performance is of critical importance to students' learning, and in their perception of the quality of instruction they receive. Here we report the outcomes of a study comparing the views and expectations of first year biological science undergraduate students and academic staff regarding feedback provision and utilisation. The results indicate that while students and staff are generally satisfied with the feedback process, there are some tensions generated by perceived differences in desired academic outcomes. In particular, these tensions focus on perceptions of inconsistency in the feedback processes and in the use made of feedback to inform future practice.

Keywords: feedback, survey

Introduction

It is well recognised that feedback plays a critical part in student learning (Ramaprasad, 1983; Hattie *et al.,* 1996; Black and Wiliam, 1998; Hattie and Jaeger, 1998). The importance of providing feedback that is understandable, timely and that students can act on is emphasised as an integral part of the empowerment of students as 'self-regulated learners' (Gibbs and Simpson, 2004). However, despite general acknowledgement of the importance of feedback to learning and development, the recent UK National Student Surveys (2005–2007) have highlighted students' relative dissatisfaction with the feedback they receive (HEFCE, 2006).

Although feedback from formative assessment can be given in many different forms (Hyland, 2000), as student numbers increase direct interactions between staff and students inevitably decline, leading to a greater reliance on written feedback. Academic staff devote considerable amounts of time to providing feedback to students but anecdotal evidence would suggest that they are unclear to what extent the students engage with the feedback provided and whether the intended messages are transmitted successfully. It has been suggested (Higgins *et al.,* 2001, 2002) that feedback may not be effectively used by all students due to differences in how students understand feedback and therefore make sense of their assessments. Orsmond *et al.,* (2005) suggested that for feedback to be effective there needs to be a common understanding by both staff and students of the purpose of feedback and how it should be used.

A number of reasons have been proposed as to why students do not fully utilise feedback (Wojtas, 1998; Glover and Brown, 2006): some students will only look at the grade given because they believe it provides them with a clear, meaningful reflection of their progress (Ecclestone, 1998); some students will only read feedback comments if the mark they receive is outside their expectations (Taras, 2003). However, an additional group of students may not read or take the feedback advice on board because they do not fully understand or realise

the potential use of the comments (Chanock, 2000). This thinking may be exacerbated by the modular structure of many degrees where students often do not receive feedback on assessed work until after a module has finished (Lea and Strierer 2000). One approach to try to overcome such effects of degree modularisation is the delivery of feedback in a form that encourages 'feed-forward' reflection by students, as suggested by Higgins *et al*., (2001).

Nicol and Macfarlane-Dick (2006) have identified seven principles of good feedback practice, which they broadly define as 'anything that might strengthen the students' capacity to self-regulate their own performance'. However, although feedback which follows these guidelines is likely to be constructive, research has also shown that it has a limited effect if students do not actively engage with it (Fritz *et al.,* 2000).

The study reported here provides a comprehensive examination of the perceptions regarding feedback given on the first year of the Biological Sciences degree at the University of Leicester. For the thirteen modules taught in the First Year, written feedback is predominant and is given to students on their practical write-ups, presentations and essays through a formal School of Biological Sciences feedback sheet, recently (January 2007) re-designed to encourage staff to more easily identify areas of strengths and to suggest points for improvement in an attempt to encourage 'feed-forward' practice by students. To encourage early engagement with their studies, biological science students are required to complete their first assessed piece of work and receive feedback on it within ten days of starting their course and subsequently submit assessments and receive feedback weekly throughout the first semester. Although a structured approach to giving feedback is encouraged within the School of Biological Sciences, there remains a range of variables which impact on how staff and students perceive the role of feedback, including differences in staff approaches, differences in assessment format and differences in subject matter. The aims of this study were to compare the perceptions of students and staff on a number of aspects of feedback on the first year of the biological science degree and on the relationship that this feedback has to student learning.

Research Methodology

Research was conducted into the views and perceptions of staff and students regarding feedback using a combination of online questionnaire, focus groups and interviews. Interviews and focus groups were recorded and transcribed. Permission for recording was sought prior to the start of interviews and confidentiality ensured by anonymising transcripts. Management of the project was undertaken by a research assistant who was not involved in any aspect of teaching delivery within the School. Academic staff did not participate in recruitment of students or in conducting focus groups to obviate any likelihood of students' responses being biased by an academic presence.

Feedback Questionnaire

An anonymous 'feedback questionnaire' based on Gibbs' Assessment Experience Questionnaire (Gibbs and Simpson, 2003) was posted on the University's virtual learning environment, Blackboard™, for a total of nine weeks during Semester 2. This sought views on students' perceptions of a number of aspects of feedback, including quantity, timing, use and quality. Responses were given using a five-point Likert scale ranging from 'strongly agree' to 'strongly disagree'. Reliability analysis was performed to determine Cronbach's Alpha using SPSS.

Student focus groups

Student Focus Groups: Students across the range of academic performance were selected for participation in focus groups based on their 1st semester module results. Ten students were allocated to each of four focus groups conducted over four consecutive weeks. Overall, 20

students were involved in the study. The students' range of academic performance and male: female ratio that was representative of the year group as a whole. Focus group discussions were semi-structured in nature, covering aspects of feedback as in the feedback questionnaire and were led by members of staff who were not involved in teaching within the School. This approach allowed flexibility of discussions and provided an informal environment in which the students felt able to give their views on all aspects of feedback, both positive and negative (Orsmond *et al*., 2005). The recording of focus group sessions did not, in the main, appear to restrict discussions with students freely naming both modules and staff in their comments.

Staff Interviews

Views and perceptions of staff regarding feedback were collated during one-on-one interviews with three groups of Course Convenors (13); Personal Tutors (7) and Student Learning Centre staff (1) with responsibility for biological science students. Interviews were conducted using a semi-structured discussion format based on aspects of feedback covered in the feedback questionnaire and focus groups. Permission for recording was sought prior to the start of interviews and confidentiality ensured by anonymising participants in transcripts. Recording of the interviews did not, in the main, appear to restrict comments and only one member of staff declined to be recorded Transcripts were analysed as previously described for focus groups. As participation in the study by course convenors was high, the views of staff expressed here are a good representation of those responsible for the teaching of, and giving feedback to, 1st year biological science students.

Ethical Approval

Ethical permission for the study was obtained in accordance with the University of Leicester research protocol for non-clinical projects concerning human subjects.

Results

Feedback Questionnaire

The response rate to the feedback questionnaire was 56.9% (*n*=45) and reliability analysis gave a Cronbach's Alpha value of 0.748 (*n*=26) indicating the questionnaire data to be trustworthy. Feedback questionnaire respondents were grouped according to the degree classes obtained in the first semester, and all classes were found to be represented (Figure 1).

Student focus groups

Forty-one 1st year biological science students (51.9% of the year group) were invited to one of four focus group sessions and, of those, twenty students (25.3% of year) attended. The final focus group cohort was representative of all degree classes (Figure 1) with a Male:Female ratio of 1:1.5 (in comparison with 1:1.39 for the year group as a whole).

Perceptions and Function of Feedback

To initiate discussions, focus group participants were asked to 'think about what you see as feedback, what are the different types of feedback that you've experienced [on the course to date]?' All students readily identified written feedback via the formal School feedback sheets for practical write-ups and essays and, when prompted, also referred to feedback from oral presentations. In general, annotations on scripts were not discussed unprompted as a form of feedback until later in the sessions. Verbal feedback was considered to mainly come from demonstrators during laboratory practical classes. However, students also viewed contact with Personal Tutors as being a source of verbal feedback.
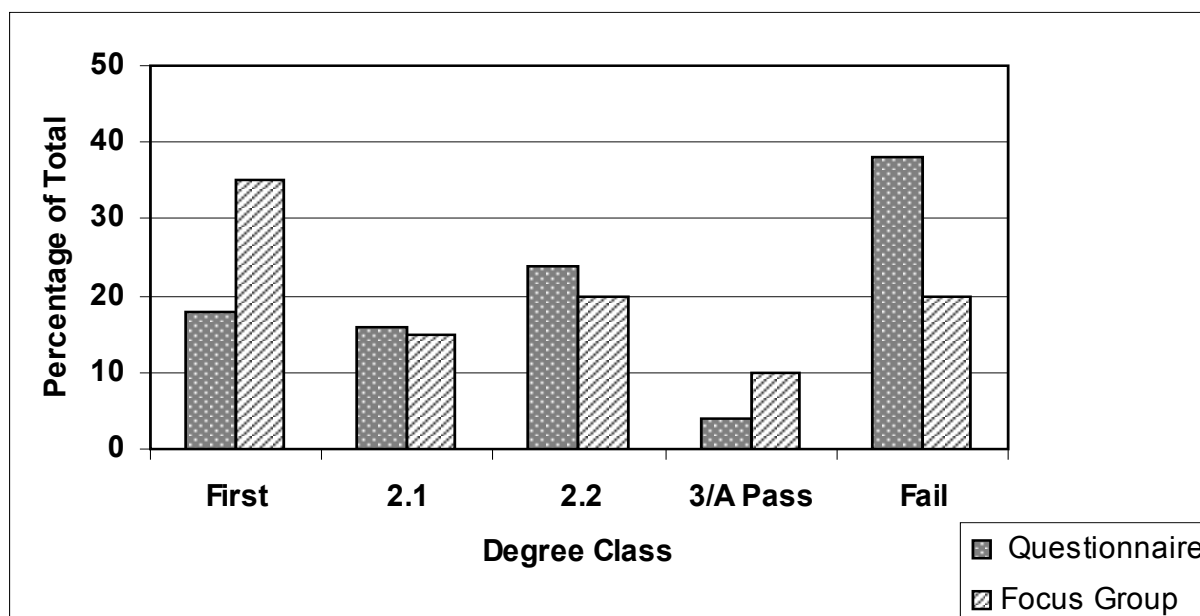
Figure 1 *Degree class representation in study cohorts for Feedback Questionnaire (n=45) and Focus Groups (n=20). Degree class was based on students' 1st semester module results with First >70%; 2.1=60-69%; 2.2=50-59%; 3=40-49%; A pass=35-39% and Fail<35%.*

For comparison, Course Convenors were asked for 'their perceptions of what students regarded as feedback'. Formal written feedback on the School feedback sheets and annotations on scripts were identified by all Convenors, which was in agreement with the students. Although Course Convenors regarded interactions with demonstrators and practical leaders in laboratory classes as giving students (verbal) feedback, staff opinion was divided as to whether students appreciated this, as typified by a comment from a course convenor,

> *"They [the students] are probably less aware of the direct help they get by talking to people in lab classes, I think".*

Student perceptions of the function of feedback were ascertained during focus groups with participants being asked 'what do you think the purpose, or function of feedback is on your degrees?'. All students immediately identified the main function of feedback as helping them to improve their next piece of work,

> *"Is it to take it in and improve future work, because they've told you what you've done wrong so you don't make the same mistake again?"*

When prompted, all students acknowledged feedback could also be used to show strengths and weaknesses in a piece of work, to justify the grade given and to highlight general errors in spelling, punctuation and referencing.

For comparative purposes, staff were also asked: 'how would you define feedback?'. All members of staff defined feedback in terms of giving students an appraisal of their performance,

> *"I guess feedback is exactly what it says, it's giving students information about their performance in a piece of work, obviously with a view to their improving or maintaining their level"*

In addition, Course Convenors and personal tutors were asked 'what do you consider the function of feedback to be?'; staff were in agreement with students, linking feedback to informing the student of their performance in a particular task, and providing information on how to improve in subsequent pieces of work,

"Well, they are to deduce from the bad points that are highlighted where they are to do better, and deduce from the good points that are highlighted what they are doing right and to carry on doing it".

Aspects of Feedback

In the following sections, the results of the feedback questionnaire addressing specific aspects of feedback are presented in comparison with student views obtained from focus groups and views of staff expressed during interviews.

1. Quantity of Feedback

The feedback questionnaire contained four questions relating to the quantity of feedback received on the 1st year of the biological science degree, and student responses are shown in Table 1.

Table 1 *'Feedback Questionnaire' responses from 1st year BS students regarding aspects of the quantity of feedback received on 1st year BS degree. Figures represent the percentage of total responses (n= 45). Students agree = strongly agree and agree; students disagree = strongly disagree and disagree.*

Response	Students agree (%)	Students neither agree nor disagree (%)	Students disagree (%)
Q1: On this course I get plenty of feedback on how I am doing.	66.7	20.0	13.1
Q4: I don't like to receive too much feedback.	4.4	13.3	82.3
Q5: The feedback on my assignments is usually too uninformative or brief to be helpful.	35.1	40.0	24.4
Q6: The more feedback I receive the more I learn.	88.9	8.9	2.2

For comparison, focus group participants were asked, 'In general, do you think there is enough feedback on the course?'. Just over half of the students in the focus groups supported the feedback questionnaire findings,

"Yeah mostly I'm happy with the amount of feedback. If sometimes it's a little vague, especially with the practical reports, but personally I'm happy"

"You don't want essays of feedback, you want a few points but good points that will help you improve".

However, the remainder did not agree that there was enough feedback which, despite having been asked to think in general terms, may have been module-specific criticism. In addition, students in all focus groups invariably commented on the inconsistencies in the feedback they received, both within and between modules, and this may have been a contributing factor to the less positive response for Q5 of the feedback questionnaire compared with Q1 (above).

2. Timing of Feedback

The feedback questionnaire contained three questions relating to the timing of feedback received on the 1st year of the Biological Science degree, and student responses are shown in Table 2.

Table 2 *'Feedback Questionnaire' responses from 1st year BS students regarding aspects of the timing of feedback received on 1st year BS degree. Figures represent the percentage of total responses (n= 45). Students agree = strongly agree and agree; students disagree = strongly disagree and disagree.*

Response	Students agree (%)	Students neither agree nor disagree (%)	Students disagree (%)
Q2: It doesn't matter if a module has finished before I receive feedback as I know the advice will be relevant to my new module.	51.1	33.3	15.6
Q3: The feedback usually comes back promptly.	55.6	26.7	17.8
Q7: Whatever feedback I receive comes back too late to be useful.	15.1	35.6	48.8

Focus group participants were asked for their general views on the 'turnaround' time (time taken to receive marked assessment with feedback) for feedback on the Biological Science degree. Students readily identified differences in 'turnaround' times for different types of assessed work, with the greatest concern being expressed about laboratory practical work where the general theme of inconsistency both within and between modules was again highlighted.

> ". . . all that [turnaround time] depends on the demonstrator. This time we've had one who was taking sometimes two weeks to get them [practical reports] back. Another one has got them back [within the week], so it depends really on who you've got".

Students were particularly focused on receiving feedback from a previous practical report prior to writing the next one in the series. However, the 'turnaround' time for feedback on essays and oral presentations appeared to be less of an issue with comments having less 'urgency' associated with them. A minority (3/20) of focus group participants supported the feedback questionnaire findings in expressing the view that feedback given at the end of a module, or after a module had finished was still useful:

> "It might be too late for that module but it can be usually applied to the next module."

Views of course convenors on timing of feedback were also ascertained (where appropriate to module structure). When asked 'what is the turnaround time for your module?', Course Convenors in general recognised the importance of returning feedback as quickly as possible; with practical write-ups, most Module Convenors endeavoured to return scripts and feedback in time for the next practical session. Whether this was always achievable was acknowledged as an issue by some members of staff. The turnaround time for essays was generally quoted by Course Convenors as the School requirement of three weeks, with some Course Convenors aiming for a quicker turnaround if possible. Due to the structure of modules, the majority of feedback on essay assessments was given after the module had finished. In order to address the usefulness of such feedback, Course Convenors were asked, 'If the feedback doesn't get to them [the students] within the module, would it still be useful to them?' Course Convenors responded more positively than the students, with seven out of the eight Course Convenors expressing the view that feedback comments received after a module had finished would be useful for the student in future modules.

3. Use of Feedback

The feedback questionnaire contained seven questions relating to the uses of feedback by first-year biological science students, and responses are shown in Table 3.

Table 3 *'Feedback Questionnaire' responses from 1st year BS students regarding aspects of their use of feedback received on 1st year BS degree. Figures represent the percentage of total responses (n=45). Students agree = strongly agree and agree; students disagree = strongly disagree and disagree*

Response	Students agree (%)	Students neither agree nor disagree (%)	Students disagree (%)
Q19: I have received clear and sufficient guidance on how to understand and use feedback.	42.2	20.0	37.8
Q20: I read the feedback carefully and try to understand what is being said.	91.1	8.9	0
Q21: I use the feedback to go back over what I have done in the assignment.	55.5	28.9	15.6
Q23: I have good intentions to act on feedback I receive but forget suggestions for improvement next time I do coursework.	28.9	26.7	44.4
Q24: I do not use the feedback when revising.	31.2	40.0	28.8
Q25: I tend to only read the marks.	8.9	22.2	68.9
Q26: My personal tutor discusses my feedback with me when we meet.	24.5	42.2	33.3

Students were asked during focus groups, 'In general, when you receive your work back with the feedback sheets, what do you do with it?' The majority of students agreed that the mark was the first thing that they looked at. What they did subsequently was variable: for some, the mark obtained would influence any further action,

> *"A lot of the time it'll depend on the mark as to how much I do look at it [the feedback]. If I've got a really high mark I'll tend to look and think 'oh I've done well and just put it away. If I've got a really bad mark I'll look and think what I've done wrong, why I got that mark",*

> *"If I expect a mark, low or high, and it's that, I don't really read the comments. If I get a mark that's really different from what I expected then I'll really read the comments".*

For others, however, the mark had no influence over their use of the feedback. It also became apparent that when students received their work and feedback sheets, after looking through them individually they would also compare their work with that of their peers,

> *"When we get them [marked worked] back I tend to compare them with my friends and see what we've picked up marks from."*

Feedback questionnaire data did not clearly define whether students were using a 'feed-forward' practice in their utilisation of feedback. This area was explored further during focus group discussions and, in general, when students were asked about their use of feedback, they appeared to describe a 'feed-forward' approach,

"I look at the mark and the improvements, look through my script and file them away. Occasionally I'll look back at them. When I'm doing the [next] report I'll look at last week's to see what I can do differently".

Students were also asked for their perceptions of how the staff thought they used feedback. Responses to this were varied, from negative statements,

"They probably think we don't read it and just put it to one side",

"I'm sure some of them think they're just doing it and it's a bit pointless and you're not going to look at it anyway".

to a rather more positive view,

"I suppose some of them [markers] must hope that if they bother to write something down then it gets read. But they must accept that there's a great deal of variation between students". [variation in how the feedback will be used by students]

When asked the question: 'do students utilise the feedback they are given?' Course Convenors and personal tutors were divided in their opinions. Some were very positive in their response and had seen clear evidence of improvement in students work following feedback, particularly in practical write-ups,

"My experience is that feedback is definitely used, it's a very constructive thing, a useful thing and a good proportion of students are using feedback",

"I think we did see that with the practicals this year, with us being able to turn them around so quickly. We did see an improvement in the marks…just looking at my own group you could see they were improving for example their graph drawing skills".

Others expressed the view that the students' use of feedback would depend on how close the mark given was to that expected by the student,

"I think it depends on what they [the student] were expecting and how close to what they were expecting was achieved. …."

This view had been confirmed by some students participating in the focus groups. Staff also agreed with the students' views that utilisation of feedback by students was inconsistent,

"I think it's very variable. I think the current students are so geared to passing tests that they see every piece of work as passing a test rather than a learning process. ....If they don't get the best possible mark and there are lots of comments on it then they feel they haven't done very well. They don't pay attention to the fact that doing the essay is a learning experience".

Some course convenors and personal tutors also expressed the opinion that although they considered that students did utilise feedback, proving that the source of any improvement in students' work was due to the feedback given was difficult.

4. Quality of Feedback
The feedback questionnaire contained five questions relating to the clarity of feedback comments received on the first-year biological science degree, and responses are shown in Table 4.1

Table 4.1 *'Feedback Questionnaire' responses from 1st year BS students regarding aspects of the clarity of feedback comments received on 1st year BS degree. Figures represent the percentage of total responses (n= 45). Students agree = strongly agree and agree; students disagree = strongly disagree and disagree*

Response	Students agree (%)	Students neither agree nor disagree (%)	Students disagree (%)
Q8: The feedback I receive uses language that is easy to understand.	86.7	11.1	2.2
Q11: I don't understand some of the feedback.	24.4	22.2	53.3
Q12: Constructive criticism motivates me to improve.	84.4	15.6	0
Q17: I have ignored negative or critical feedback.	8.9	24.4	72.7
Q18: I find it more helpful to receive feedback about what I got wrong than on what I got right.	48.9	35.6	15.5

Focus group discussions supported the feedback questionnaire findings in agreeing that feedback was written in language that was easy to understand. However, there were comments from a few students regarding the legibility of some of the feedback given and this may have contributed to the responses to Q11 compared with Q8. The response of the students from the feedback questionnaire showed that they were motivated by constructive criticism, which was again supported by focus group participants,

> *"For one of the modules the first week I got 70[%] and she [the marker] put some improvement points. The next week I included those and she remembered and commented on it and I got a higher mark. That was good because it was the feedback working".*

Students were clear, however, that they do not ignore any negative or critical feedback. The feedback questionnaire data showed that students, in general, considered feedback on what they had got wrong was most helpful. This was supported in focus group discussions, with participants expressing the need to be shown clearly what they had got wrong in order to improve their next piece of assessed work,

> *"Negative feedback, although it can be a bit sad, is actually more helpful. Positive feedback is good for bolstering confidence; negative feedback is good for improving".*

The feedback questionnaire also contained seven questions relating to the effectiveness of feedback comments received on the 1st year biological science degree, and responses are shown in Table 4.2.

Focus group discussions provided some clarification of the apparent contradictions in the responses obtained in the feedback questionnaire,

> *"To be honest, the forms that come back with the feedback don't help all that much. They may have points on where I went wrong, but no points on how to improve it".*

As discussed previously, a recurring theme that was highlighted throughout the student focus group discussions was the inconsistency of markers in filling out feedback sheets and annotating scripts. For each focus group, participants were asked to bring with them an example of feedback they had found useful and an example that they had not found useful,

> *"I got one [write-up] which was 90% and she [the marker] was still like 'you could improve it here or here'. It was quite a lot of comments considering it was a high mark and it was really good because it was 'ok, that's what I need to be doing".*

Table 4.2 *'Feedback Questionnaire' responses from 1st year BS students regarding the effectiveness of feedback comments received on 1st year BS degree. Figures represent the percentage of total responses (n= 45). Students agree = strongly agree and agree; students disagree = strongly disagree and disagree.*

Response	Students agree (%)	Students neither agree nor disagree (%)	Students disagree (%)
Q9: The feedback shows me how to do better next time.	73.3	22.3	4.4
Q10: The feedback mainly allows me to compare how well I am doing in relation to others.	37.0	26.5	36.5
Q13: The feedback helps me to understand where I went wrong.	86.7	6.7	6.6
Q14: When I get things wrong I don't receive much guidance on what to do about it.	46.7	24.4	28.8
Q15: Once I have read the feedback I understand why I got the mark that I did.	53.3	28.9	17.8
Q16: I can seldom see from the feedback what I need to do to improve.	35.5	22.3	42.2
Q22: The feedback does not help me with subsequent assignments.	11.1	22.2	66.7

The examples of unhelpful feedback shown were where work had been returned with blank feedback sheets, with only the mark written on them. When asked, students commented that this was not uncommon, but again was very variable between markers and modules. In addition, a lack of comments on the feedback sheet did not always appear to be replaced by a wealth of annotations on the script itself. Lack of annotation also seemed to contribute to an apparent uncertainty from the students as to how they had gained marks in assessed work,

> *"You don't know what you got marks for so you don't know what to include next time. As well as not knowing how to move on you don't know how to get to the same place again".*

Discussion

The aim of the study reported here was to compare the views of students and staff on a number of aspects of the feedback process currently in place on the first year of the biological science degree at the University of Leicester. Although previous studies have reported on feedback practice (Mutch, 2003; Nichol and Macfarlane-Dick, 2006) and its utilisation by students (Higgens et al.; 2002, Orsmond et al.; 2005, Weaver 2006) few have directly compared perceptions of feedback from both the staff and student perspective (Maclellan 2001; Carless 2006).

Perceptions and Function of Feedback

The primary source of feedback identified by both staff and students was the formal written feedback given via the School feedback sheet and through annotations on scripts. This is unsurprising in light of the fact that the majority of feedback given and received on the 1st year biological science degree is in this format. Other types of feedback received are potentially less obviously identified, as highlighted by Gibbs et al. (2003) who proposed that although staff would perceive verbal comments as feedback, students may not do so. Academic staff in the School of Biological Sciences supported this view, regarding student interactions with practical leaders and demonstrators in laboratory sessions as verbal feedback, but were divided in their opinion as to whether students also perceived it as such. In contrast, however, students identified interactions in practical sessions as their primary source of verbal feedback, and the reliance of the students on and preference for this source of feedback became very clear during focus group discussions. Staff recognition of the impact of this source of feedback on 1st year students was not apparent during one-on-one interviews. Contact with Personal Tutors was an additional source of verbal feedback identified by the students for obtaining feedback on their progress in general and on exam marks.

The main identified function of feedback from both staff and students' perspective was to provide information, based on the analysis of performance of a specific task, on how to improve current and future pieces of work. However, although staff also recognised other more general functions of feedback such as identification of errors in spelling or referencing and justification of the mark given, students only did so when prompted.

Quantity of Feedback

Students were generally positive about the quantity of feedback they received and, further, linked learning and feedback in a positive way. However, it was apparent that, at a more specific level, the students were less satisfied with the actual amount of writing, or its quality, as indicated by the fact that 35% of them agreed with the statement that the feedback is usually too brief or uninformative to be helpful.

Timing of Feedback

Students' views on the timing of feedback appeared to be influenced by module-specific thinking, as focus group participants reported delays in receiving feedback from individual modules or individual demonstrators. This is reflected in that only 18% of the students in the feedback questionnaire disagreed that feedback is returned promptly but where there were inconsistencies of practice, these were particularly flagged in the focus groups.
Students and staff acknowledged the importance of prompt feedback and staff aimed to turn round marking and feedback on practical write-ups for return to students prior to their next submission. Some staff supported the students' view in admitting that turnaround of marking and feedback could be delayed if markers had a heavy marking load. These observations highlight the importance of managing and meeting expectations in terms of the timing of feedback. In contrast to practical write-ups, feedback on some oral presentations and particularly essays on the 1st year biological science degree is received after a module has finished, with turnaround being quoted by staff as the School requirement of three weeks. Only 16% of students concurred with the view that comments received after a module has finished cannot help them improve as they are module specific (Hartley and Chesworth (2000); Carless (2006)) and 7/8 staff agreed that feedback following a module would still be useful. These results further support the differential effects of the benefit of immediate feedback on task orientated work (practical write ups) versus the benefit of delayed feedback on the acquisition of fluency building in essay writing (reviewed in Hattie and Timperley, 2007). There is also an issue relating to the timing

of next submission, in that the intervals between essay submission typically extended beyond the three-week turnaround time for the marking.

Use of feedback

It has been reported (Weaver, 2006) that students may need advice on understanding and using feedback before they can fully engage with it. At the time of this study no formal guidance was given to students on the biological science degree as to how to understand and use feedback, however, as a consequence of this research it has now been included as part of the first-semester 'Study & Communication Skills' module.

One of the anecdotal preconceptions regarding students' use of feedback is that they are only interested in the mark awarded. The majority of our focus group participants agreed that the mark was the first thing that they looked for from feedback. As one member of staff commented though, "*students are now so geared towards passing tests that they see every piece of work as a test rather than a learning experience*", which may contribute strongly to this behaviour. Although some students admitted that their subsequent use of feedback would depend on how close the mark was to that expected, most students were very keen to read their feedback. Inevitably, staff participants were divided in their opinion as to whether students utilised feedback; staff perceptions of students not doing so may have formed, in particular, from the failure of students to collect marked work. Furthermore, it is recognized that feedback may not necessarily be effective because although the guidance offered can be accepted, it can also be modified or rejected (Kulhavy, 1977) Both staff and students, therefore, accepted the variability in extent of use of feedback, with staff ultimately feeling that once provided it was the students' responsibility to act on feedback given. Interestingly, the comments from the student focus groups indicate that the students perceive the staff as holding more negative views about the use the students make of the feedback than is the case.

A previous study (Duncan, 2007) reported that one important reason why students may not utilise feedback is 'a lack of appreciation that comments on one assignment could help achievement in a later one'. The term 'feeding-forward' has been adopted (Higgins *et al*., 2001) to describe the process of utilisation of feedback to improve future work. In the study reported here there was a degree of disagreement between staff and students as to whether feedback comments from one module on the biological science degree could successfully be 'fed-forward' into a different module. Although some focus group participants appeared to describe a 'feed-forward' approach to their utilisation of feedback, none of the staff could easily identify where this was demonstrable in practice.

From the study data, it was encouraging to find that students on the biological science degree linked feedback and learning in a positive way and this was reinforced by some focus group participants who acknowledged that acting on feedback comments had led to an improvement in their grades. Although staff also acknowledged improvements in students' work following feedback, some considered the link difficult to prove.

Quality of Feedback

One of the main aims of this study was to determine perception of the effectiveness of feedback received by students on the 1st year of the biological science degree. In general, students were positive about the clarity of the language used in feedback, although there were some criticisms regarding legibility of writing and the brevity of the comments. It was clear from students' responses that positive comments motivated them by bolstering confidence, but students expressed the view that comments showing errors in a piece of work would help them most to improve their next assessment. However, it is of equal importance that students are also shown what was right with their work and where marks were gained, in order that they

can at least repeat their performance in future work. This correlates with the observations of Hattie and Timperley (2007) that praise on its own has very little value because of the limited information content. However, positive comments related directly to aspects of the production of the work can have significant feed-forward benefit.

Staff generally acknowledged the importance of couching feedback comments in positive terms and appreciating that to firstly identify strengths of a piece of work when marking was of benefit to the student, both in terms of confidence-building but also in terms of highlighting where good practice should be continued. However, many staff also commented that they sometimes found it difficult to identify strengths in a very poor piece of work and to write comments that did not sound banal. Staff agreed with the students in believing that negative comments should not be excluded from feedback and that there should be a balance between the two types.

Students were of the general opinion that the feedback they received was good at pointing out what was wrong with a piece of work but did not always give enough guidance on how to improve; furthermore they felt it was often not made clear where they had gained marks. It was a common claim from staff that time pressures resulting from high student numbers on the 1st year meant they had little time to provide more detailed feedback, but as one focus group participant commented, students '*do not need essays of feedback, just a few good points on how to improve*'. It has been also been recognised in previous studies (Duncan, 2007; Hattie and Timperley, 2007) that a lack of identified areas for improvement in the feedback provided, particularly in terms of approaches to the production of the work, means that students will find it extremely difficult to 'feed-forward' to improve subsequent work. Some staff also acknowledged the inconsistency in feedback. This was identified as a particular problem by Personal Tutors who receive carbon copies of the feedback sheets, when using the feedback to monitor progress of personal tutees.

The study reported here provides a comprehensive comparison of the perceptions of students and staff of the current feedback process on the biological science degree within the School Biological Sciences at University of Leicester. Our findings, which were in line with those of the National Student Surveys (HEFCE, 2006), showed that biological science students expressed some dissatisfaction with feedback received, in the main due to inconsistencies with written feedback and a lack of management of student expectations. The apparent gulf between staff and student views of academic feedback and between students reported and considered views is explained by different perceptions. Students value personalisation in the feedback they receive, and would like feedback to feel part of a relationship or partnership with staff rather than an institutional process. A well defined feed-forward approach allowing staff to provide targeted comments for improvement could be facilitated by staff being made aware of these findings. In addition, students' dissatisfaction with the feedback cycle may be countered by adopting a formalised approach to their understanding of the utilisation of feedback. Increased use of technology might also be able to help with processing times and personalisation of feedback, matching expectations to the reality of the pressures in higher education.

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