Evaluating and enhancing the feedback process: An international college case study

Michael P McEwan
Science and Engineering Tutor/Acting Programme Leader
Glasgow International College
mmcewan@kaplan.com

Abstract

This paper identifies a style of feedback which is comprehensible and meaningful to international students on pathway to HE programmes. Moreover, it identifies the extent to which international students at pathway level can interact and engage with academic feedback on academic assignments in the fields of mathematics and statistics. Two distinct styles of feedback were offered to students studying academic modules on pathway programmes at Glasgow International College (a collaboration between Kaplan International Colleges and the University of Glasgow). Students were surveyed regarding their reaction to and use of assignment feedback, as well as their understanding of it and their perception of its role in their learning. This case study suggests that a simple and directed style of feedback which deals with each question or aspect of an assignment individually, highlighting weak areas and allowing students to pinpoint their weaknesses combined with short ‘feedback meetings’ is particularly appropriate for international students. This case study was financially supported using a professional development grant awarded by Glasgow International College.

Keywords feedback; internationalisation; international students; pathway; foundation programme.

Background

The recent growth in international students entering the United Kingdom (UK) for undergraduate and postgraduate study has stimulated an increased awareness in the need for academic pathway preparation or foundation programmes. International foundation programmes are increasingly offered by institutions and these programmes
are often ‘outsourced’ to collaborations between English as a Foreign Language (EFL) units and private education providers. Glasgow International College (GIC) is one such collaboration between the University of Glasgow (GU) and Kaplan International Colleges. GIC offers foundation, diploma and pre-masters pathway programmes comprising a mix of English for academic purposes, skills for study and subject specific curricula which allow successful international students to progress to a range of degree programmes at GU.

Teaching international students can present additional challenges when compared to native students. These challenges may include language barriers, differences in academic or societal cultures across international boundaries or even different assumed prior learning on entry to HE (Trice, 2003; Andrade, 2006). For the purpose of this case study an international student is defined as a student who has crossed international boundaries to study or a student who does not speak English as a first or native language, or both. Studies by Robertson, Line, Jones and Thomas (2000) and Murphy (2011) suggest that teaching staff believe English is the most significant challenge when teaching international students. On the contrary, other studies have shown that academics assume that international students will arrive with language skills allowing effective understanding and interaction within courses (Ryan & Viete, 2009).

Many UK Higher Education (HE) Institutions admit students into programmes of study with a language ability measured by the International English Language Testing System (IELTS) test. Typically, students with an IELTS score of between 6.0 and 6.5 are deemed suitable for many UK HE programmes, although there is no uniform entry requirement across UK HE (n.b. a lower language criteria is required to gain a Tier 4 visa which allows entry to the UK for HE study). Often deemed a simple ‘entry requirement’, an IELTS score of 6.5 can often be misunderstood by academics regarding its true meaning (Hyatt & Brooks, 2009). Typically, a student with an overall 6.5 IELTS score will have a reading speed for comprehension of approximately 80 words per minute as compared to 400 words per minute for native speakers. Moreover, a person with an IELTS score of 6.5 will have a working vocabulary of approximately 4000 words (Schmitt, 2007) whereas a native speaking university graduate could easily command 20000 word families, exceeding 50000 individual words (Nation & Waring, 1997). As a result, language ability for international students is clearly a barrier, but not necessarily the only, or major barrier to effective teaching and learning.
Culture and Student Learning

Students’ approaches to learning are intertwined with social and academic cultures (Manikutty, Anuradha & Hansen, 2007). In the UK, the questioning of principles, testing of hypotheses, critique and evaluation of sources and data are regarded as critical skills required of any graduate (The Quality Assurance Agency for Higher Education [QAA], 2009). As a result, students are encouraged to openly enter into discourse and debate with teachers to encourage further learning and understanding and to present their own evidence-based opinion and theory in assessment. The academic culture of the UK thus shares many of Hofstede’s cultural dimensions which typifies UK societal culture as low power distance (the extent to which power is distributed equally within a culture) and individualist (Hofstede, 1986). Individualism refers to the extent to which members of a society have individual priorities or have priorities which are integrated as part of a collectivist group. Manikutty, Anuradha and Hansen (2007) have argued that this Socratic, low power distance, individualist culture may promote a deeper approach to learning in order to further knowledge. In contrast, some Confucian-based cultures, such as China, can be described as high power distance and collectivist (Hofstede, 1986). This cultural mapping places great respect on authority, impacting on the academic culture of teaching and learning. Students from a Confucian-based culture show respect by fully understanding instructional material, rather than by questioning its validity or challenging their teacher, who is master of the subject (Chang, 2001; Kingston & Forland, 2008).

Some schools of thought have gone so far as to suggest that differences in academic culture represent a ‘deficit’ whereby international students lack skills, language or specific academic cultural experience which may inhibit their academic performance. Ninnes, Aitchison and Kalos (1999) suggested that this ‘cultural deficit’ can encourage a surface approach to learning which may prove difficult to adapt in a Socratic classroom and can be perceived as disrespectful by some UK teachers. The deficit model implies that the student must adapt to the new academic culture, rather than the teacher constructing learning opportunities appropriate to the learner. This paper, whilst acknowledging that a deficit does exist, argues that the deficit should be bridged by both the teacher and the student, and that both parties remain mindful of academic and
socio-cultural differences which may impact on student learning. This collaborative bridging is particularly applicable in a foundation or pathway programme.

The Role of Feedback in Student Learning

The combined prevalence of limited language ability, academic and socio-cultural differences among international students can be seen as a common set of barriers to be addressed by UK HE programmes. One situation where all three coincide to make teachers’ roles more difficult is in the provision of formative feedback. Within UK institutions, the academic culture is such that formative feedback is part of an iterative loop which requires both teacher input and student engagement in order to further the student learning experience and promote deep learning (Elwood & Klenowski, 2002). Effective feedback must deliver information to students about how to improve weaker areas (Rowntree, 1987) using language which the learner can engage with (Sadler, 1998), ensuring the possibility of a reduction of the gap between weak and acceptable student performance (Nicol & MacFarlane-Dick, 2006). Feedback should not be a one-way transmission from the teacher to the student. Formative feedback should facilitate dialogue between students and teachers and students play an active part in the learning process through their use of feedback (Sadler, 1998; Nicol & MacFarlane-Dick, 2006). Indeed, formative feedback can be more effective when strategies to enhance the reflective, iterative nature of the process are employed by teachers (Bailey & Vardi, 1999).

However, when feedback is offered, language ability is often assumed to be competent enough to interpret the feedback in the manner it was intended to be understood. This follows on from Ryan and Viete (2009) who suggest that many academics believe international students arrive with competent language skills. The extreme pressures of learning in a second language may not allow time for students to engage in the reflective process of formative feedback (Ninnes, Aitchison & Kalos, 1999). Reflection is a vital part of learning which encourages students to feed forward to the future iterations of the feedback cycle and future assignments (Quinton & Smallbone, 2010). Consequently, the process of receiving and engaging with feedback may be more challenging when dealing with international students due to differences in assumed language ability and academic or socio-cultural backgrounds.
Aims of Study

The aim of this case study was to compare international students’ responses to two distinct models of feedback: one specific, directed style which deals with each question or section of an assignment individually and one ‘holistic’ style of feedback which deals with student submissions as a whole. This case study aims to identify which model of formative feedback newly arrived UK HE international students find most accessible and useable. Moreover, by using the seven principles of good feedback (Nicol & MacFarlane-Dick, 2006) this case study aims to find the best feedback approach to encourage reflection on formative feedback, encourage self-assessment and enable students to begin to close the gap between desired and actual performance by closing the feedback loop and feeding forward into future assignments (Quinton & Smallbone, 2010).

Methodology

In order to determine the preferred style of formative feedback eighty students were given one of two distinct models of formative feedback. The first feedback model was designed to be explicit, ‘direct’ written feedback where each question was dealt with individually in feedback, with strengths and weaknesses highlighted explicitly whereas the second feedback model, termed ‘holistic’ feedback, deals with the student submission as a whole, and discusses certain areas of the course or learning outcomes which were poorly demonstrated were mentioned along with suggested action. The direct feedback generally contained less complex (or new) vocabulary and dealt only with errors in the assessment. On the contrary, the holistic style aimed at encouraging a deeper understanding and was more criteria linked but contained significantly more complex and new vocabulary.

An example of the directed feedback offered to a student studying PM011 is given below:

‘Q1: revise the frequency table hand-out on Moodle as you struggled with the calculations here.'
Q2: experimental design was good, but your definition of a control group did not answer the question → watch out for ‘task completion’.
Q3: regression graph and calculations were excellent but your analysis of the limitations, assumptions and validity was of the method was poor.
Q4: probability – very good, full marks.’

An example of the holistic feedback offered to a student studying FC020 is shown below:

You demonstrated that you can do the calculations very well, but you have struggled when asked to ‘apply’ a theory to solve problems. Work on applying maths in your physics and engineering modules to help with this issue

Participants

Eighty student participants in the case study were split across three different modules. The largest group was a Pre-Masters Science and Engineering group of fifty one students studying a module ‘PM011 Statistical Design for Science and Engineering Research’ at GIC in the 2010/2011 academic year. The Pre-Masters students were taught as a single, large group for weekly two hour lectures. This groups was sub-divided into three smaller, similarly sized classes for weekly two hour seminars. The author taught two of the three seminar classes and the lecture group. All three classes took part in the study. A secondary cohort of fifteen Foundation Engineering students who studied ‘FC020 Applied Mathematics’ and ‘FC021 Physical Sciences’ also participated. The majority of students originated from East and Southeast Asia and the Middle East.

Every participant in this case study undertook two or three pieces of summative assessment in the relevant module. The summative assessments in each case were timed, unseen mid-term examinations which assessed recently covered material. These assessments were designed to encourage student reflection on learning prior to the final end of term summative assessment. Each participant received formative feedback designed to deliver information to enable reflection and enhance student learning for future summative assessment. It was this formative feedback which formed the basis for investigation in this case study. Formative feedback was delivered within two weeks of
an assessment and the class tutor conducted a short feedback meeting (3 to 5 minutes) with each student to discuss the feedback, the impact of any grade on their programme, any problems or strengths apparent in their assessments and also to allow a further form of communication in the dialogue between students and their feedback facilitating collaborative bridging.

The Pre-Masters students were randomly divided in two experimental groups using a stratified approach whereby half of the students in each of the three classes were given one style of feedback. As a result, 25 Pre-Masters students received directed feedback, and the remainder received holistic feedback. Foundation students were divided differently since they received feedback on two assessments (one assessment for each of FC020 and FC021). Initially, a random division was carried out in FC020 and the result of this was used to inform the division for FC021 with the goal that each foundation student would receive directed feedback for one module and holistic feedback for the other. After the division, 39 students received the explicit and directed style of feedback and 41 students received the holistic style.

**Data Collection Method**

A pilot study was carried out in the same modules but with different cohorts where students were given formative feedback for a timed, unseen mid-term examination. Approximately one week after being provided with assessment feedback, students were given an evaluation questionnaire containing open questions. This was designed to ensure that a typical sample of international students was able to comprehend written feedback to an extent that they could comment on it effectively. The results showed that the typical cohort of penultimate term international students (with an IELTS score of roughly 6.0) could comprehend the majority of the feedback if given some time to unpack the meaning. Furthermore, the students could also effectively communicate their feelings related to the feedback using evaluation questionnaires containing open questions.

As a result of the pilot study an evaluation questionnaire was developed which aimed to gauge student perceptions of their feedback and the process of receiving feedback,
student expectations of feedback, students use of and reflection on feedback and the extent to which students used feedback to improve their learning.

The following questions were used:

1. Please state one good thing about the process of receiving feedback for the test.
2. Please state what you wanted your feedback to include.
3. What can you take from your feedback to improve your understanding of the module?
4. Was your feedback useful (and state why)?

The questionnaire was distributed to 80 students in class at the end of a taught session. Students were given one week to read and absorb their written feedback, and then were then asked to comment through the use of the evaluation questionnaires. As a result of this distribution method, all 80 students completed and returned the questionnaire.

All participants were then invited to attend a student led forum to discuss their expectations of feedback. Nine students volunteered to attend the forum, but only six actually attended. The student led forum allowed students to communicate their expectations of feedback, and provided another form of communication to discuss the entire process and study. The forum was recorded and students were informed of this prior to attendance.

**Data Analysis**

A general inductive approach (Thomas, 2006) was adopted to identify key themes in student responses in both the questionnaires and the forum which addressed the aims of this case study. An example of a specific theme which recurred was that students who received directed feedback were able to identify their weaknesses in a topic. Alternatively, students who received holistic feedback often requested more details in the feedback. The following quotations from student feedback indicate the process of identifying the recurring theme of identifying weaknesses in response to question 1:

Knowing my weak points
I know what I did wrong in the test to prevent making the same mistake
The recurring themes for each of the responses were noted for each question, and these themes are recorded in Tables 1 to 4 in the Results and Discussion section.

**Ethical Considerations**

Ethical approval for the case study was granted by senior academic staff in the college on the grounds that student participation was voluntary and participants were informed of the case study by letter. All students indicated that they were happy to participate in class, after some open discussion regarding the purpose of the case study. It should be noted that an inherent bias may exist within this study due to the author’s teaching role, delivery of the questionnaire and management of the focus groups. Consequently, the findings and conclusion of this case study should be considered with appropriate caution.

**Results and Discussion**

The first question was designed to encourage students to think about the feedback process, why it is given and how to interact with it. This helps address some of the seven principles of good feedback discussed in Nicol and MacFarlane-Dick (2006) as well as promote the collaborative bridging concept discussed earlier. The first question asked students to state one good thing about the process of receiving feedback for a test. The most common recurring themes have been categorised in Table 1 with the number of respondents in brackets:

**Table 1.** Q1 Please state one good thing about the process of receiving feedback for the test

<table>
<thead>
<tr>
<th>Directed Feedback (39 students)</th>
<th>Holistic Feedback (41 students)</th>
</tr>
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<tbody>
<tr>
<td>59% Identify weaknesses</td>
<td>44% Identify weaknesses</td>
</tr>
<tr>
<td>15% How to improve</td>
<td>34% How to improve</td>
</tr>
<tr>
<td>10% Required standard</td>
<td>10% Required standard</td>
</tr>
</tbody>
</table>
In general, the responses showed that the directed feedback is marginally more successful at allowing students to identify their weaknesses with 59% of 39 students using the directed feedback to identify their weaknesses compared to 44% of 41 for holistic feedback. However, it should be noted that the responses that the holistic feedback is promoting a stronger response from students regarding how to improve, rather than just focussing on mistakes. 34% of students who received holistic feedback have used this to identify how to improve, compared to just 15% for directed feedback which suggests that holistic feedback promotes closing the gap between desired and actual performance more effectively than directed feedback.

The second question aimed to identify anything which students expect from their feedback and allows the measurement of whether the feedback meets students’ needs and expectations. This question asked students to state what they wanted their feedback to include. The most common answers are indicated in Table 2:

Table 2. Q2 Please state what you wanted your feedback to include

<table>
<thead>
<tr>
<th>Directed Feedback (39 students)</th>
<th>Holistic Feedback (41 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36% Answers or mistakes</td>
<td>34% More details</td>
</tr>
<tr>
<td>21% How to improve</td>
<td>29% How to improve</td>
</tr>
<tr>
<td>13% More details</td>
<td>24% Answers</td>
</tr>
<tr>
<td>10% Everything was there</td>
<td></td>
</tr>
</tbody>
</table>

The general themes identified in student responses to the second question show a differing reaction to each style of feedback. The more specific directed feedback promoted a strong desire to see the correct answer to assessment questions (36% of respondents). A similar theme is also apparent in the holistic feedback responses but to a lesser extent with 24% of respondents requesting answers to assessment questions. Moreover, both sets of feedback allude to a significant number of students (20 out of the total 80) wanting more guidance on how to improve. Significantly, a much larger number of students (34%) felt that the holistic feedback did not contain enough details compared to the directed feedback (13%).
Interestingly, a recurring theme in the responses to question 2 was in direct contrast to one identified in question 1: namely, 20 respondents shown in Table 1 state that feedback was clear in making suggestions for improving understanding and performance, however 20 respondents shown in Table 2 state that they did not necessarily know how to implement those suggestions. Reflection and action on feedback is an essential part of the learning process and the feedback loop (Rowntree, 1987, p. 24) so clarifying this ambiguity in communicating how to improve is key to improving the feedback process. All forms of written feedback should communicate how to improve effectively.

As suggested by Quinton and Smallbone (2010), the third question encouraged reflection on feedback and moving students forward in following assessment and feedback iterations. This question asked students to identify what could be taken from the feedback to improve student understanding of the module. The most common themes in student responses are shown in Table 3:

**Table 3.** Q3 What can you take from your feedback to improve your understanding of the module

<table>
<thead>
<tr>
<th>Directed Feedback (39 students)</th>
<th>Holistic Feedback (41 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>41% I know what to work on for future</td>
<td>27% I know what to focus on in future</td>
</tr>
<tr>
<td>23% How to improve</td>
<td>15% How to improve</td>
</tr>
<tr>
<td>18% Unclear responses</td>
<td>12% Little or no use</td>
</tr>
<tr>
<td>10% Little or no use</td>
<td>12% Unclear responses</td>
</tr>
</tbody>
</table>

In general, the responses for the third question seem to indicate that the directed style of feedback is slightly more effective at pinpointing the topics which students should work on in order to close the gap between desired and actual performance (41% of respondents for directed feedback compared to 27% for holistic feedback under the same theme). Cumulatively, 64% of responses for directed feedback refer to ‘knowing what to work on for the future’ and knowing ‘how to improve’ compared to 41% of responses for the holistic feedback under the same key themes. It should be noted that this question seemed to be poorly understood and so may be subject to significant bias: in total 12 responses were either unclear due to language issues or failed to complete
the given task (i.e. responses related in no way to the question asked). Such responses are labelled ‘unclear responses’ in Table 3.

The fourth question again encouraged reflection but also aimed to identify whether holistic or directed feedback appeared more appropriate. This question simply asked whether students found their feedback useful, and to state the reasons for their answer. The results are shown below in Table 4:

**Table 4. Q4 Was your feedback useful (and state why)?**

<table>
<thead>
<tr>
<th></th>
<th>Directed Feedback (39 students)</th>
<th>Holistic Feedback (41 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>87%</td>
<td>63%</td>
</tr>
<tr>
<td>Somewhat</td>
<td>10%</td>
<td>24%</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>7%</td>
</tr>
</tbody>
</table>

The directed style of feedback received an almost unanimous ‘YES’ response with 87% of respondents agreeing that their directed feedback was useful. The response was also positive for the holistic style of feedback, but less extreme in its position with 65% agreeing with its usefulness. In general, there were more caveats attached to the responses for holistic feedback, and 7% of responses were negative. Students overwhelmingly preferred the directed style of feedback. Additionally, a common theme was noted when students offered reasons for the positive responses to directed feedback. In general, students stated that the directed feedback pinpointed mistakes, weakness and the areas of learning which required further work. Such common theme was not apparent in students’ reasons for holistic feedback.

Initially, the responses to question 4 raised a concern that students were less likely to adopt a deep and reflective approach towards learning which holistic feedback attempted to promote. However, the student-led forums revealed that students generally shared their feedback amongst peer groups. This sharing allows students to identify common errors and cement their awareness of such weaknesses as a collective group. This shows that these students have engaged well with the feedback process. This unexpected sharing is encouraging as it demonstrates a reflective approach towards feedback and learning. However, it is also suggested that this engagement may have been enhanced significantly by the request to participate in the case study (an
observational bias, or Hawthorne Effect). As a result, the entire case study process proved beneficial in promoting student reflection on feedback, and may indeed offer a technique which can encourage and engage students in a reflective approach towards feedback and learning for future cohorts.

The most significant finding obtained through the student-led forum was the statement that students value and want to retain the brief discussion of their feedback on a one-to-one basis with their course tutor. This face-to-face feedback helped cement the major areas for improvement in learning, as well as giving students a much needed opportunity for clarification in written feedback. This short feedback meeting could be utilised to expand on how to implement suggestions to improve, and also to help ensure that students read beyond the grade, if only for a few minutes. Additionally, as this process is often carried out in class, it gives an opportunity for the other students in the class to share their feedback whilst the teacher is engaging in one-to-one discussions. By comparing and sharing feedback, students can learn about common errors and how to improve collectively, as well as individually.

Whilst it is the directed style of feedback which has proven more popular, and perhaps more effective, there may be an underlying reason for this based on the sample of students selected for the case study. The explicit and directed feedback style is particularly suited to mathematical sciences as it was designed to deal with and communicate errors in mathematical processes. The idea is that this directed feedback aimed to deal with common questions asked by students which are often aimed to find out ‘what did I do wrong’. This is a common feature of the sciences where students can easily focus on processes, rather than concepts (i.e. the surface – strategic end of the approaches to learning spectrum, as opposed to the strategic – deep end of the spectrum). On the other hand, the more holistic feedback style was designed to deal with conceptual errors which often lead to an incorrect analysis of a question. Again, another common occurrence in my own teaching is that some students learn mathematical processes very well, but often apply them erroneously. The holistic feedback was aimed to address the strategic – deep end of the approaches to learning spectrum; hence it encourages students to investigate their application of various techniques, rather than the individual steps.
The forum also highlighted that typical GIC students are very target driven. This may well be applicable to all pathway students due to the nature of these programmes – entry to HE is often gained by achieving a predetermined grade. As a result, the grade awarded is a very important part of feedback for any assignment and any ‘comments only’ feedback is often not well received, as students want to measure themselves directly against their predetermined progression requirements. The grade, together with well designed, informative directed comments and a short meeting with each student is a well-received form of effective feedback for pathway students in numerate subjects.

Furthermore, the vast majority of students wanted either more details regarding their mistakes, or their exam scripts returned. Whilst this is against college policy for unseen, time limited assessments, it is suggested that a review session is integrated with the contact time for a module with the aim of reviewing past assessments in revision week as preparation for final assessments.

Conclusions and Reflections

This case study has identified that international students want specific, directed written feedback, which targets weaknesses in their learning and understanding, and that they want opportunities to collaborate in using that feedback. Student peer groups and short feedback meetings with tutors have formed a vital part of reflective learning from written feedback and the case study may have served to enhance student engagement in the process of feedback. Furthermore, even though well designed feedback can address all the principles of good feedback, it is also important to deliver good, comprehensible instruction about how to improve (not merely stating what to improve).

The international students who participated in this case study valued explicit and directed feedback with 87% of respondents suggesting explicit and directed feedback was useful to their learning. 64% of students who received directed feedback absorbed advice on how to improve significant areas of their performance (e.g. the suggestion of exercises to practice, resources to use, and additional support classes to attend and so on). Students particularly valued the individual ‘feedback meetings’ since this discussion could be used to offer further advice regarding how to improve. As one student put it, ‘You can say more than you can write’. Feedback meetings can be used to further
clarify points in the written feedback, these meetings can be used to reinforce learning and facilitate multimedia communication with students which is particularly beneficial when dealing with students learning in a non-native language as their reading and listening skills may not be uniformly developed and as a result, these feedback meetings are also beneficial for the teachers of international students.

The process of surveying students regarding their use of feedback also proved valuable as the case study appears to have encouraged students to be reflective regarding their feedback. Follow up studies using the same questionnaire with later cohorts have suggested that students are reflecting on feedback from previous assignments, and were also looking to use feedback to perform better in future assignments. One suggestion could be that the questionnaire itself serves to promote a reflective approach towards learning and feedback, and that together with explicit, directed feedback and an opportunity to discuss written feedback, students may be closer to closing the feedback loop.

References


