DEPARTMENT OF STATISTICS

Giving Useful Feedback to Students – Guidelines for Markers

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This is a summary of the literature on what constitutes good feedback to students. Examples of feedback given to the Statistics S1C class in previous sessions have been included to illustrate the main points.

(1) Good feedback is … a balance of positive and negative

Negative feedback itself can have damaging consequences but it can also be a method for improving students’ performances. An important negative effect of criticism is a reduction in confidence and motivation in students (Taylor and Hoedt, 1996). For example, criticism can be seen as a confrontation that serves to challenge a student’s confidence.

Despite its shortcomings, negative feedback is a critical tool for helping students to realize and improve their weaknesses. The purpose of feedback is to provide an accurate account of how good the work is. This would be virtually impossible without any negative feedback. The crucial thing is that the criticism is constructive and delicately managed. In a study at Nottingham Trent University (Weaver, 2006) a tremendous majority felt ‘constructive criticism is needed to know how to improve.’ This was 100% of the Art and Design students and 92% of the Business students who were interviewed. Many teachers are aware of this and keep criticism without any suggestion for improvement to a minimum. Here are some examples of markers following this rule.

“This gives a wrong representation of the populations responses. Percentages should be within levels of region” – Report N2, student received 6/10.

“This is a wrong test. Remember you are comparing two populations, you should have used 2 sample t test” – Project 1, student received 10/25.

However, not all of the feedback is explicit about what should be changed.

“You have treated age as a categorical variable here” – Report L3, student received 9/10.

In Hyland and Hyland’s (2001) study, 76% of negative feedback was in some way made less severe. They found many teachers used imprecise quantifiers such as ‘some’ and ‘little’ to mitigate criticism.

It has been found that students are most motivated when their goals are not too difficult to achieve (Freeman and Lewis, 1998). This suggests that the student should see all constructive criticism as attainable.
With regards to positive feedback, intuitively praise for good work will result in an increased positive attitude (Gee, 1972). Many students can become pessimistic about their work and disregard the feedback if no positive comments are given. Giving feedback on what a student has done well is essential for knowing what to repeat in future work. Weaver’s study (2006) showed strong agreement from students that more praise should be provided. An ideal structure is the sandwich, where criticism is sandwiched between two pieces of positive feedback.

It is also strongly recommended that the feedback avoids the word ‘but’ which can devalue the praise being given (Brockbank and McGill, 1998).

“Good but your descriptive analysis was incomplete” – Project N2, student received 6/10.

If positive statements are seen as insincere, it is doubtful that they will be motivating. The next example illustrates a useful method of giving a summary comment.

“Very good. I hope the comments above will be helpful for future reports” – Report M3, student received 8/10.

This is effective because it ends with positive comments alongside a reminder to study the previous constructive criticisms. Brophy (1981) found that for positive feedback to be effective it needs to be informative and realistic.

(2) Good feedback is … appropriately detailed

General statements are of no use so all feedback should be specific (Brockbank and McGill, 1998). No benefit is taken from comments such as, “good piece of work” or “not good enough”. A study that interviewed students at Robbins University found widespread disappointment with how detailed the feedback was. Much of this focused on how little detail they were given on how they could improve their work (James, 1996). The next example illustrates this.

“2 groups, continuous, in range of etc” – Report F3, student received 7/10.

It seems unlikely that the student would know exactly what to change from this statement. Another problem arises with the use of questions.

“Randomness of samples?” – Report 4, student received 8.5/10.


Many students are confused by these questions and do not identify them as negative feedback which requires them to change something. Furthermore these examples do not contain enough information on where marks were lost. These questions would be much more helpful if they were phrased as statements such as the following.

“You must state your reasons for saying this” – Project L2, student received 8/10.

This statement is much more helpful than the frequently written “Why?”
The situation appears even worse when the work is good. General comments are more commonly found with praise, for example:

“Very good” - Report L2, student received 9/10.

Students find this very frustrating (Cowan, 2006). The following is a much better example, as the marker specifies exactly where the praise is aimed and explains why this was good work.

“This is an excellent plot for question 2. It shows that the two data sets are dependent” – Project 1, student received 10/25.

When feedback is made specific, there is even a reduction in students’ concerns over the fairness of their mark (Wilson, 1999). It seems that once provided with the correct information students can understand their mistakes and agree with the marker. Several researchers go as far as to say that specificity is correlated with learning.

(3) Good feedback is … the right amount of comment

Many researchers believe that feedback should only focus on a few areas so that students know exactly what to change. This is especially true with negative feedback which, for maximum benefit, might have to be limited to one or two areas (Brockbank and McGill, 1998). After this, many students switch off – so it is better not to concentrate on insignificant or infrequent errors (Wilson, 1999). However, Weaver (2006) discovered that 96% of Business students and 75% of Art and Design students felt they were not provided with enough feedback.

(4) Good feedback is … objective

One way markers can be objective is by phrasing their comments as their own view.

“I think the aim has to do with testing assumptions of normality” – Lab report, student received 7.5/10.

This shows their feedback may not be a universally agreed view and takes accountability for what they are saying (Brockbank and McGill, 1998). This is also a useful method for softening criticism. It acts to decrease the authoritative gap between teacher and student. This may mean that students are less threatened and more willing to take the feedback on board (Hyland and Hyland, 2001).

(5) Good feedback is … timely

The most repeated principle for effective feedback in the literature is that it must be timely. Feedback can never come too soon and should be given as soon as possible. If the delay in receiving feedback means the student is on a different part of the course, it is unlikely any real attention will be paid to the feedback. Hartley and Chesworth (2000) found that 59% of students felt feedback was given too late to be helpful. Even if students pay attention to markers’ comments at that stage, very few of them will enquire about their feedback if the delay has been long (Filer, 2000). The
principle of timely feedback is thought to be even more important for first year students. For these students, it is essential that, before more work is completed, they know what to change or are given the confidence they deserve (James, 1996).

Enrolment documents for all Statistics courses give timescales in which we aim to return marked work, e.g. two weeks after the submission date of lab reports. Given that time is required in the office for checking, recording and collating marks, the marking itself has to be done in appreciably less time than these deadlines might initially suggest, e.g. ten days for lab reports.

(6) Good feedback is … future oriented

Feedback should have clear implications for the current and future tasks. Therefore feedback should not be limited because the work is a final draft. Even though nothing can be changed on the current work the advice can be taken to forthcoming assignments. The marker should be doing more than justifying the grade for the current report. For example, feedback on lab reports should help students when they write project reports later in the year.

If feedback is written with this principle in mind, recurring problems should become evident to the student. The following are perfect examples of this, as the markers are giving constructive feedback even though the student received full marks.

“Next time you can reduce the font size so that everything will be accommodated” – Report F3, student received 10/10.

“Safer to use the probability plot to establish normality” – Report F3, student received 10/10.