Imperial College
London

Educational Development Unit

Workshop Programme

A Practical Guide to Giving Effective Feedback

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Formative Assessment Strategies

How can using formative assessment techniques in *lectures* move students on in their learning?

Two Point Rule

One way to gain quick feedback in a lecture, to give an indication of how much students are learning, is to get a written comment towards the end of the lecture. If you ask for too much students will not take part. Also build it in as part of your lecture, do not make the request at the end when everyone is packing up. For example, tell the students you have a couple more things to cover about ten minutes before the end of the lecture but before that you are going to give them five minutes to write down two points:

1. **One thing that you feel you gained a good understanding of through the course of the lecture.**
2. **One thing that has remained unclear from the lecture that they would like to be covered again.**

This provides you with immediate feedback on the learning and on what needs to be covered next, and requires students to reflect on their progress.

Peer Feedback

Feedback does not have to come directly to you; students can feedback to one another. E.g., by asking students to compare notes at some point in the lecture they can check with their partner if they have missed anything and clarify things.

Traffic Lights

Provide students with signals that they can use to communicate with you. Putting up hands may be appropriate for asking questions or a show of hands for decision making activities, but you could also develop other symbols or gestures. For example, a cross, a tick, or a question mark in a hand out, which you could ask the students to hold up to check their understanding at a particular point in the lecture. Or another system is to use traffic lights. For example, you might want to check student understanding during a lecture, Provide them with coloured card, which they can hold up:

Green = Full understanding
Amber = Partial understanding
Red = Little understanding

This will give you guidance as to whether you can move on. These are, of course, all 'low tech' solutions. Some lecturers will now have access to 'clickers' where electronic voting can take place.

Thinking Time

If you are going to ask individuals for feedback try to avoid the 'stunned rabbit' syndrome or the tumbleweed scenario, when you ask a question and get a look of fear and surprise on everyone's faces or no response at all! Instead, provide thinking time, tell your students in five minutes I am going to ask this question and I expect you to have an answer. This will allow for more constructive feedback and give more focus to the learning.

Mini Quiz

Another common method for checking understanding in a lecture is to use a mini quiz or test. The most important element when using this strategy is what you do after the quiz. You need to get some feedback (no matter how rudimentary) so that you know where the misunderstandings are. There are two main reasons for the use of this quiz; firstly to indicate to the lecturer the level of learning and secondly to indicate to the learner their own level of learning. Therefore once you have determined gaps in knowledge or understanding, you can signpost to students what they need to do independently to close these gaps, for example direct them to a particular text. In addition, this is an opportunity for you as the lecturer to recap or reteach an area where there is widespread misunderstanding. This may be on the spot or in a future teaching opportunity.

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Formative Assessment Strategies

How can using different *marking* techniques move students on in their learning?

No Marks

It is perhaps no real surprise that when students have a piece of work returned to them the only thing that they focus on is the mark. Often teachers have spent significant time writing detailed comments, which students spend no time reading because they focus entirely on the summative assessment. If you want them to take any notice of what you have written the solution is not to give them the mark until the comments have been read, digested and discussed. At this point the mark can be revealed.

Questions

Students are excellent strategic learners; they look for cues for what they need to know to pass their exams. This means that they often miss the deeper learning opportunities. When marking a piece of work rather than just telling students what they did wrong and how to improve; pose it as a question rather than an instruction. For example:

You suggest that there is a connection between X and Y, what evidence can you provide for this connection?

More importantly ensure that students act on this question. Tell them that you expect them to have answered that question at your next teaching opportunity.

The Two Comment Rule

One way to minimise your marking load is to really focus on the two most significant comments that you need to make to help students move on. There is always plenty that could be commented on when a student submits a piece of work but much of it is ignored, so less is often more. Make one comment saying what was done well (so that you reinforce what you want them to repeat) and one comment for improvement. Remember do not comment on what was done badly; instead write a comment stating how to improve. For example:

The level of detail you provide in your methodology is exemplary. Ensure that you reference any evidence you refer to.

Statement Banks *

You may find that you are writing the same comments over and over again, which can feel wasteful of your time. Try creating a statement bank in which you list all of these commonly written comments. You can then use these comments interchangeably on a students' piece of work, either electronically (or on sticky labels). This is not 'cheating', in fact often you are able to say more than you would have time to write by hand or type. It is time consuming at the start but will save a lot of time in the long run. Make sure that your comments are detailed and specifically identify what steps a student needs to take to move on. If the comments are detailed, useful and you have explained your rationale to students, they will not feel 'cheated'.

Cover Sheets

Cover sheets are commonly used to make formative comments to students and their success is really very much dependent on how well written they are. You can combine a number of the strategies outlined here on the coversheet. For example, using the two comment rule from a statement bank, leave a gap for the mark and pose a question that needs to be addressed in order to make improvements. Also leave spaces for the students to do some self-assessment and/or peer assessment. For example, they might need to reflect on the best aspects of their work and where they know they need to make improvements, set themselves targets for a second draft etc.

* Whenever you see the resources folder icon, go to: http://bit.ly/1Wt9wWT

Formative Assessment Strategies

How can using *assessment criteria* move students on in their learning?

Checklists

Depending on the nature of the task that you wish to set your students, a useful tactic might be to include a checklist of what should be included in a piece of work. This might be shared before the task is set, so that students know what to do or as a tool for peer or self-assessment after the task is complete. Be aware this is not a list of content but more like headings, such as:

> **Students have included:**
> 1. **A hypothesis**
> 2. **An apparatus list etc...**

Collaborative Criteria Setting

On occasion it may be appropriate to work with a group of students on setting the assessment criteria together. By asking the students what they perceive as important for success in a particular piece of learning, this will give them a deeper understanding of what they need to do to rather than being strategic. It is also more empowering, which means that they might be more engaged in the task. Obviously there is a role for the teacher to play here in ensuring that the criteria are appropriate, without under-mining the student suggestions.

Mark Weighting

To lift levels of engagement in assessment talk with students about weighting of marks. In a given task, each element will be allocated a certain number of marks, usually with sound justification. Try hiding this from the students and asking them to decide how many marks each section/question should have from the total. The important question to ask them here is why. This should give clues as to what the assessment is looking for. If appropriate you may even decide to alter the weightings in light of these discussions.

'Student Friendly' Criteria

As assessors, we all have to work with level descriptors/mark schemes/benchmarks etc. In some circumstances, it may be entirely justified to share these with students either before or after an assessment. However, often these sorts of documents are not useful to students for three reasons. Firstly, students cannot interpret much meaning from them as they are written for academics and the jargon is often unfamiliar. Secondly, there is a lot of inference involved, which only makes sense to those in the know, who are experts in their field. Finally, academics work with a lot of tacit knowledge which such criteria cannot address, in other words we have expectations which we do not make explicit to students. For these reasons it may be very useful to help your students move on, to write out some 'student friendly' criteria. This is basically an exercise in translation to make explicit to your students what you expect from them. Be aware; this is not content driven. You are not telling them what you want to see but the criteria for success. For example, you might ask students to research some information on childhood obesity. The QAA criteria might include benchmark criteria such as: Students should show an ability to demonstrate knowledge and understanding of essential facts, concepts, principles and theories related to different subject areas. This, as it stands, may be a little meaningless due to the amount of inference and tacit knowledge tied up in this statement. You may write 'student friendly' criteria that looks like this:

- **Locate and read the findings of the most recent research on childhood obesity.**
- **Familiarise yourself with the socio-economic factors impacting on childhood obesity.**
- **Evaluate the validity of the research.**

With criteria written like this, students are aware of what they need to do, it also gives you criteria that you can hang your feedback on and potential targets for the students to use for making progress. Yet it does not provide answers, there will still be a lot of scope for a range of marks to be awarded.

Formative Assessment Strategies

How can using *self-assessment* techniques move students on in their learning?

No Comment

Providing students with raw marks only, with no indication of why they have got those marks can be a useful way of engaging them into trying to solve their own problems. Return a piece of marked work to a student with only the raw marks showing, then spend your teaching time going through that piece of work indicating how the marks were awarded. Ask the students to comment on their own work to show how they can improve. Sharing the mark scheme with them may be helpful. It can also be a good idea to encourage them to do it in a red pen. Finally, if appropriate, at the end provide them with the grade/degree classification boundaries, as the 'big reveal'.

Target Setting

Encouraging students to set their own targets for improvement can be a really useful process, as long as you ensure that you give it weight and significance. If you see it as an 'add on', your students will not acknowledge its importance. Therefore, set aside some designated time to ensure that they set meaningful targets (SMART). In addition to setting targets, you then also have to be committed to review those targets so that students know that you will be checking to see that they have met their targets.

Portfolios

Portfolios are used in the Faculty of Medicine as a matter of course and there is an expectation that all medical students complete one. There is a lot to be learned from this procedure but it does not necessarily need to be as comprehensive as this version in all disciplines. However, it might be useful to get students to start to keep a record of the work that they believe showcases their best learning. This will help them to monitor their progress and also help them to identify their goals for the future. It is also a useful tool for a personal tutor to use as a basis for discussion of their academic/ professional career.

Reflective Questioning

Questioning is arguably the best method to ensure that students reflect on their learning. Unfortunately there is an assumption that asking questions is easy, that anyone can do it and it requires no planning or preparation. However, if you going to be successful at this technique planning, preparation and practice are necessary. One easy way to get around this problem is to write down your questions in advance and ask students to complete them and then have a conversation about their responses. Effective reflective questioning should not be about factual recall, although research has shown that most questions asked in learning situations are based on recall. The type of questions to ask for reflective questioning are meta-cognitive, this means that they intend to question the student on their own cognition (their own thinking processes). According to Anderson et al 2001, this type of knowledge lies on the furthest end of the domain and deals in the abstract and for this reason it may be harder for students to address. For example:

- **How did you start off? How did you decide what to include?**
- **What did you find the most difficult part? How did you tackle it?**
- **What assumptions have you made? Why?**
- **What connections have you made? What makes a good connection?**
- **Did you have a plan and did you have to change it?**

Formative Assessment Strategies

How can using *peer-assessment* techniques move students on in their learning?

Exemplars

Exemplars or model answers are a tried and tested method which can really help students to move on in their learning. When and how you use such artefacts will make a difference. Some important points to consider revolve around whose model answer to use. If it is created by the academic it can feel daunting and unachievable. Also there is the significant problem that students will not feel able to deconstruct or critique the artefact as they will feel that it showcases the pinnacle of achievement. Similarly, if you use an example from the group that you are teaching, you will find that some people are unwilling to critique and others are far too willing to critique! This can cause difficulties in the group dynamics. One possible solution is to use an exemplar from every student for particular reasons, so that it is transparent to all that there are both strengths and limitations to everybody's product. Or you can use an anonymous piece of work from a previous class. Whatever your decision is, it may well be worth first speaking to the group about how to critique in an ethical way. The final decision to make is when to share the exemplar before the task or after, as an aid to peer assessment. There is a danger of 'copying' aspects if you provide it beforehand. One solution to this is to provide an exemplar of the same mode but on a different topic. In this way, you are providing a model for the process but not the content. Alternatively present students with a summary of common pitfalls based on previous year's experiences.

Peer Feedback

It is generally considered good practice to draft and redraft a piece of work in order to make progress. The general rationale behind this is clearly to identify areas for improvement and make changes in order to address them. Using peers in this process is common practice, for example submitting a paper for peer review. However, this could be taken a step further by not only asking a student to peer review something but also asking them to complete a redraft or correct the mistakes of a peer. This is clearly not a strategy that is appropriate in all situations and the rationale for this process would need to be carefully explained to the students if they were to see any value in it. One scenario in which this might work is group work. You might need to explain to a group that part of the outcome of the learning is to encourage collaboration. You may ask different members of each group to take on a particular task, bring that back to another member of the group to review it, and then pass it onto another member of the group to redraft it, taking into consideration the comments that had been made. The type of task selected for this process and the reasons for it will be pivotal for its success.

Swap Mark

Getting students to swap and mark their peer's work is a commonly used technique, which can not only help with dealing with unmanageable marking loads but also expose students to a wider range of student work, which provides better insight into the assessment procedure. Practical constraints, such as time, location and level of students will impact on your decision as to what type of swap marking you choose. Clearly multiple choice or right/wrong type of questioning is easy and quick to swap mark. If you are embarking on swap marking something more qualitative or complex, it is worth spending some time creating a student-user friendly mark scheme. This may not be a suitable tactic to employ in a lecture as you may get a lot of questions and need for clarification. However, in a tutorial setting this Q & A might lead to invaluable learning.

Formative Assessment Strategies

How can giving effective *feedback* move students on in their learning?

Pendleton's Rules

Pendleton (1984) is one of the most commonly cited references for providing principles for giving feedback. The principles are set out as rules to follow when giving feedback, which are outlined below:

- Clarify any points of information, state the facts.
- The learner then identifies what they think went well.
- The teacher adds their observations and thoughts and reinforces the positive points.
- The learner then adds what went less well and what they would do differently next time.
- The teacher then adds their thoughts and recommendations for next time.

ALOBA

Agenda Led Outcome Based Analysis (Silverman et al 1996)

This approach shares some of Pendleton's principles but adds a more distinct focus on learning outcomes. It suggest the following format:

- Agree agenda with learner – learner reflects on areas he/she needs help with and identifies specific learning outcomes.
- Discuss skills necessary to achieve outcomes.
- Rehearsal of skills necessary to achieve outcomes
- Identification of future learning needs.
- Facilitator reinforces throughout process and introduces teaching points where necessary.
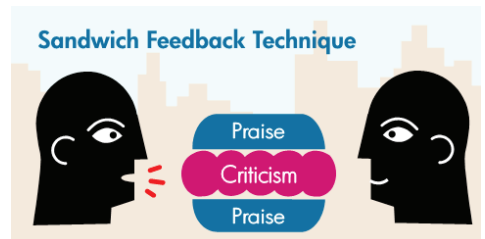
Reflection

Reflecting on learning situations is an important part of providing feedback and helps the learner to create a framework for an action plan. It is intended to recognise what has been successful and what has not and in light of this information, how you might change your actions in future. The DATA model (Peters, 1991) provides a useful framework:

- **D**escribe the area of practice which you feel needs improvement or change.
- **A**nalyse the factors contributing to the problem area of practice. Consider the assumptions and motivations of those involved.
- **T**heorise possible ways to improve the practice (draw on research, discuss with peers etc.) and suggest ways forward.
- **A**ct on your theory by trying out the new practice to see how it works.

Feedback Sandwich

This is a very simple and easy technique to remember when providing feedback. Start by feeding back what the student has done well then identify an area for improvement and finally state another positive aspect. Leeds Met conducted a pilot study on audio feedback, which was recorded by tutors and then emailed to students, the results of which can be found at http://bit.ly/lmaudio

Sandwich Feedback Technique

Praise

Criticism

Praise

Notes

Notes

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