CHAPTER 13: DECISION-MAKING FOR FEEDBACK

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As the earlier chapters have shown, there is now considerable research-based knowledge about feedback for learning in a wide variety of modes and contexts. There are also a vast number of different ways of undertaking feedback that have been used. Many of these authors challenge common taken-for-granted assumptions about what feedback is and how it should be conducted. However, even if the challenge is accepted and our notion of feedback reframed, there is the problem of choice of particular strategies and approaches. On what basis should feedback strategies be selected for any given purpose in any given situation? At what stage is it appropriate that such decisions are made? Who should be involved in them? And, should these decisions change as learners advance along the novice to expert spectrum in their field of study?

This chapter brings together the themes of the book to focus on the design and choice of feedback approaches. It seeks to provide a summary resource to aid decision-making. It starts by reviewing some of the main messages that have arisen so far and moves to what needs to be done to establish a program climate conducive to healthy feedback practices and produce a particular feedback episode. Rather than provide a reference-rich account, we have used our own judgement about what has been presented earlier to generate key decision-points in planning for learning and the issues that need to be considered at each point. We do not seek to be prescriptive but to raise questions about what might be considered at each stage of thinking about a program. The chapter ends by reflecting on how organisational and dispositional changes might be made to move from a conventional view of feedback to one that has a serious influence on learning.

An important emphasis here is that consideration of the role of feedback, like that of assessment more generally, is something that needs to be dealt with at an early stage in the sequence of the planning and conduct of programs. It is not something determined once courses have been settled and assessment tasks designed. It is a fundamental part of curriculum decision-making. This is not to say that there are not particular local or real-time choices to be made by those giving and receiving feedback at the time of its occurrence, but these micro-decisions need to be framed within a context set by some macro ones at the time of course planning. Effective feedback is not something that can be slotted into a program as an afterthought.

Feeding back the main messages
The many and diverse contributions to this book have canvassed a great deal of research about feedback and assembled much useful advice about feedback in a variety of circumstances. In closing the book, we review what we take the main messages about feedback to be.

Feedback is undeniably seen as problematic, both for the learner, and from the educator's perspective. This 'problem' has been reported across disciplines, across learning contexts and across countries. However, other than the adoption a few standard, and different, recipes, there is little agreement on what should be done about it. This is mainly because there is little consensus on what is the nature of the problem of feedback and, remarkably, little engagement with the research evidence that does exist.

Feedback is often perceived not to work well because it is not being implemented at all. Key elements of the feedback process are ignored or omitted from consideration. The most important omission is that feedback information needs to be organised to influence the learner to usefully act. Knowledge of effects of feedback information is needed, and students must have an active role in producing these effects. Without these features it does the notion of feedback a disservice to have lesser processes labelled with this name. As commonly used in practice, 'feedback' is really a surrogate for 'hopefully useful information'.

Feedback must necessarily lead to noticeable positive differences in what students can do. This is the principal justification for it. Feedback therefore needs to be judged primarily in terms of its impact on learning. Discerning what is this impact is an important role for teachers and all others involved in feedback processes. Without this knowledge, they cannot provide effective inputs to learners and they cannot learn from feedback on their own interventions to attune their interventions effectively.

Learners must have an active role in feedback. If they are passive recipients of inputs from others, feedback for learning is not occurring. It is only the learner who can ultimately act to change what they do. Students must therefore develop the skills of engagement, including seeking feedback, self-evaluating, and making sense of internal and external judgements, at the earliest stage. This a priority not only to prepare students for 'feedback interactions' but to be self-regulating in all aspects of their work in the course and beyond. Feedback processes must be specifically designed to mobilise student activity. This involves dialogue to appreciate and clarify standards of performance and criteria for judgement, to identify ways of noticing qualities of work, and to show how improved work can be generated. Feedback necessitates learners becoming aware of the standards that need to apply to their work and being able to discern how these standards can be manifest in the work they produce. These standards can rarely be simply transmitted to students through explanation or text. The appreciation of standards and how they are applied is a central part of study. While the degree and intensity of dialogue may vary from task to task, the default assumption can never be that feedback is unilateral and unsolicited.

Feedback must build learners' capacity to make their own judgements about their work. Learners will only change what they do once they have made their own judgements that this is necessary. The judgements of other parties always informs this self-judgement by the student. It is in the influencing of these decisions to which the energy of the teacher or peer or other person needs to be directed. The sharing of their own opinion, in itself, is not feedback and is not sufficient.

Feedback should not be seen as an exclusively teacher-student interaction. Other parties—peers, practitioners, clients and others—have important and varied roles to play on different occasions and for different tasks. Learners must look to other parties for the particular kinds of knowledge they can contribute. Not just because this provides an additional data source to complement their learning in the institutional setting, but because seeking and making sense of feedback from multiple sources is a key practice for lifelong learning in the workplace. Peers and consumers are an underutilised source of information and support for learning.

Feedback must be viewed as a part of overall course and program design and planned and organised accordingly. Left solely to individual teachers, its potential will not be realised. Considerations of feedback and where it will fit must be undertaken before the timing and nature of assessment tasks are resolved. Thinking about feedback needs to occur not as an adjunct to existing fixed tasks, but as a teaching and learning feature of the curriculum as a whole. Conditions therefore need to be created for feedback at the level of decisions about the curriculum, the forms of pedagogy to be used and everyday interactions between teachers and students and among students.

Feedback information needs to be thoughtfully directed at the appropriate level if it is to be expected that it will be acted upon. The nature of the information provided needs to be framed more in terms of its effects on the learner and what they can do with it, than in terms of decontextualized or essential qualities of the work. No one form, mode or strategy for feedback is appropriate. Feedback needs to take on different forms for different purposes in different contexts.

Expectations of feedback change throughout a program, especially across major transitions: from school to higher education, from higher education to the workplace and from workplace to workplace. Feedback practices need to be staged and designed to anticipate and accommodate such transitions. As learners become more experienced, their reliance on 'external feedback from the teacher' should be reduced as they increasingly seek feedback from other useful sources including peers and consumers. Their self-monitoring and self-regulatory practices should be more finely tuned (and utilised) compared to their entry point into a program or discipline of study.

Discrepancies in judgements between learners and others almost always has emotional import and commonly touches on the emerging professional and personal identity of the learner. Feedback, like assessment, is an emotional business. This impact must be considered in the design and utilisation of feedback. Providers of feedback must therefore be seen to have the best interests of the learner at heart and should be mindful of the way they construct the language they use to comment to learners—both in written and verbal forms. This sensitivity in language choice, and prioritisation of message content should ensure that the currency in feedback is behaviours or outputs (that can be changed), not the person (that for the present purposes cannot, and is resistant to change). Orientating learners to the explicit purpose of feedback, that it is a tool for the learner to help the learner, may help the process enormously. The more that students are given opportunities to practise giving, receiving and utilising feedback, the more likely they are to build their capacity to benefit from it. Building their self-regulatory system should help learners to make

increasingly sound judgements about their own work and that of others' so as to improve their work practices.

Making choices about feedback

Before considering the many decision points involved in creating and implementing feedback strategies, it is useful to return to the definition of feedback we introduced at the beginning of the book. This provides the overall frame and focus for planning. There we identified feedback as:

> *a process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work.*

When making decisions about what to build into a program this definition directs our attention to the following:

1. The learner is central to the process and the learner is the person who benefits from it. This implies an active role for the learner throughout. Other parties may be important, but what they do is subordinate to what is of benefit to the learner. Of course, all learners are different, so that implies the need to have processes which adapt to this variation.

2. The standards applicable to the work produced is the second most important consideration. Learners need to understand what are the appropriate standards and how they can be applied to their own work. Being told what they are is seldom an effective strategy on its own as it would not be worth the effort of introducing a feedback activity at all if all that was required was simple instruction. The investment of feedback in a course is only needed when learning is not straightforward. Also, standards need to be appreciated and utilised effectively before they can be deployed well in the production of new work. Any occasion of feedback requires that standards be made explicit and this may need exemplification of them through the use of examples of good work.

3. Feedback events are not isolated 'reception of information' episodes supplemental to learning activities or assessment tasks. They can only be effective if they are an integrated part of the course. They are needed to achieve the desired learning outcomes at the level required. In areas of learning that are hard won, multiple occasions of feedback are likely to be necessary. For example, students do not learn to become adept at academic writing through one or two writing tasks that involve feedback. Likewise, a physiotherapy student is unlikely to develop effective joint mobilisation skills after working on a few patients, even with feedback from supervisors and the patients themselves. Refinement, or learning, comes with multiple practice opportunities with continual uptake of feedback from multiple sources.

4. If the focus of learning is on an appreciation of variation between the standards of work and the work itself, then active and sustained engagement by the learner is needed. If a learner could readily see the differences between their own work and the relevant standards, then feedback processes would be redundant. Such engagement involves a working with the information provided, the standards involved and what the implications are for their own work. Learning is not a case of clear input that determines a predictable output; a process of making sense is involved. This may involve some form of discomfort or disruption or ambiguity in what to do next. Such engagement is a normal part of the feedback process.

5. Finally, such a view of feedback means that action leading to the production of new work is a necessary part of the process. The generation of information for learners through most feedback mechanisms is too time consuming or resource intensive for it to just hang in anticipation that learners might, at some stage, do something with it. The generation of information to students about their work is one of the most time consuming activities teachers and supervisors engage in. It cannot be justified if there is no explicit expectation that it will be specifically used. In any situation where it is apparent that information to learners about their work is not being used, there is a need for a intervention to stop the wasting of valuable time that could be used more productively elsewhere.

Decision points for feedback

While proposals for improving feedback throughout the book may appear to be quite complex, decisions can be simplified to some extent by considering the stage at which each is taken. Some are made only when a new course is being designed (macro-decisions), and some when particular students are enrolled in a course unit (micro-decisions). The first of these relate to what kinds of information are required from whom at what stage in order to reach the course outcomes. They are part of the basic structure of the course and events such as the timing of assignments and their relationship to each other are determined well in advance. The second set of decisions relate to the particularities of the cohort, the nature of student needs and real-time decision-making. These can be varied readily to respond to local circumstances. They adapt to the students and the challenges they specifically face. Once some of the earlier decisions are taken, they won't need to be revisited until the whole program is revised. Also, some decision-making is simplified as soon as it is know what kind of work is being produced by learners at which stage of the program.

At what stage of planning and execution of a program should different feedback decisions be made? This will depend a great deal on the type of course, what it is seeking to do and the experience of the learners in managing their own learning. For example, first year students will need to be carefully inducted into understanding what counts as good work and taking responsibility for their own learning, postgraduate courses may contain more experienced, self-regulating learners. In either case, the assumptions made need to be tested against the actual response of learners and modified accordingly. Macro and micro levels are not either-or distinctions, and some

issues reoccur at each level. However, general features of what needs to occur at each stage can be identified.

These decision points are formulated for the principal decision-makers at each stage: program, course, unit and practice coordinators. In many cases, other parties—teachers and tutors, workplace supervisors, students—have important roles in the decision process. Coordinators therefore need to involve others as appropriate in making decisions. An important tension should be identified however: it is easy to inhibit full student engagement by locking in too many decisions at an early stage. A locked-down agenda leaves little opportunity for learners to identify and enact what they see as meaningful or useful in their learning. Scope is needed for meaningful participation by the actual group of students who will be involved in the specific feedback processes to be designed.

Macro-decisions about feedback (curriculum decisions)\
Macro-decisions apply to long term planning. They are major curricular decisions decided ahead of students commencing a course. They form part of overall design of courses. They relate to learning outcomes and structural features of the course. They are made once program-level learning outcomes have been identified and the final kinds of work to be produced by students are determined. Here are some questions that educators may ask themselves in program design.

What is the **place** of feedback in the program? What work does feedback do in the curriculum vis a vis other elements?

What **purpose** does it seek to fulfil? Is it a principal driver of learning? A confirmation? A correction? A supplement? To develop judgement? To give practice in using feedback?

How is it **allocated** across a course, what kinds of feedback are needed for which aspect? When is it most needed? When is 'hopefully useful information' sufficient? What kinds of learning outcome might most benefit from feedback, eg. threshold concepts, key skills and practices, high risk outcomes, academic literacies?

What is the **relationship** between different occasions of feedback? How do they complement each other? How can they be made more effective together than being seen as separate events? What feedback activity is allocated to each task, how are tasks timed with respect to each other, what is the relationship between them?

What **conditions** are required for feedback to be successful? Is feedback tied or not tied to formal assessment tasks? How much is enough?

What **medium** of feedback is needed for each purpose? Eg. written, verbal? With an accessible record/without a record (of performance or information on performance)? If it is recorded, which **form** of record is needed: in text, in learning management system, audio, video?

What kind of **expertise** is needed to generate information? When can non-experts (eg. peers, consumers, patients) be used, and for what purposes?

Who provides information? If there is more than one person involved, how do the different parties link together? That is, self, teacher, peers, practitioners, workplace supervisors, recipients of service (clients/customers/patients)?

What are the distinct **feedback loops** that need to occur within the course?

How many are needed, what form should they take? Is sufficient time allowed between occasions of feedback, provision of information and subsequent tasks to allow information to be fully used? What turnaround times in the provision of information are needed for each occasion of feedback be effective?

What **preparation of students** is needed for them to understand the role of feedback in the program and their role in it? How will student activity and responsibility for **learning be mobilised**? What initiatives by students are required at each stage? What strategies are to be used for this? What will be the signs that they being successful?

What are the **standards** to be applied to the work identified? How can students learn to identify and utilise such standards from the resources at their disposal? How can students come to a sufficient and progressive understanding of appropriate standards to enable them to apply them? How will they be able to check that they are applying them appropriately?

How are feedback practices designed to **develop** over the course of study and over time? Are different forms and approaches to be used at different stages? How will students be scaffolded across course units to take increasing responsibility?

How will the notion of **feedback processes be presented** (sold) to students? How will it be ensured that students embrace the notion of feedback and take its practices seriously?

What **preparation of staff** is needed in order for them to understand the role of feedback in the program and the centrality of the learner in this process? What kinds of work are required to 'undo' previous conceptions or practices of feedback that may have been based on the teacher as teller?

Micro-decisions about feedback (local pedagogical decisions)

Micro, or local-level, decisions are those within course units, or within workplace learning settings, applicable when the characteristics of the particular learners involved and specific tasks are known. They take into account the macro decisions already made and operationalize feedback in the day-to-day activities of teaching, learning and assessment.

What is the specific **nature of the content** of the information to be provided on any given task? To what features of the work is it directed?

To what **end** is feedback directed? In Hattie's sense, is it primarily to be task focussed, process focussed or self-regulation focussed? How will it avoid being self-focused?

How much information should be shared? Do aspects of work need to be prioritised to ensure that there is not cognitive overload for the learner?

What **mode** of operation is needed? Does it need to be uniquely tailored for each leaner? Can collective responses be used? Will individual feedback in front of a group lead to good outcomes for the others, or will this lead to public humiliation? Where are electronic systems that respond to students' correct and incorrect answers appropriate?

What **invitations or opportunities** are provided for students to **seek feedback?** Are they encouraged to cue educators or any other external source to the type of feedback they are looking for? That is, particular areas of work or practice that they feel needs attention.

How is information to learners to be **formulated**? What characteristics should it have? How will the use of inappropriate formulations of information be avoided, that is. picking up use of final vocabulary, comments on persons rather than features of work, positioning the student as capable or incapable of achieving the desired change through selection of language etc.?

What **expectations** need to be set up for learners' actions after receiving information? What kinds of **student responses** are anticipated, eg. replying to comments, contesting comments, deflecting comments, action on the basis of comments, etc.?

When is information most needed? To secure understanding of key material/practices before moving on? To provide for immediate skill development? To assure key learning outcomes?

What is the specific **role of the learner** on each occasion of feedback? Are they expected to generate their own responses first, compare their judgements with those of others', articulate this comparative judgement or keep it to themselves, produce further work, etc.?

What emotional or identity **issues** need to be considered in the form and type of feedback used? What resistances might reasonably be expected? How might they be addressed, and at what stage will it be necessary to do so?

How is the feedback **loop completed** for learners? What tangible products and outcomes manifest the effects of the feedback intervention? Who notices this and how do they do so? Who is this fed back to, other than the learner, for what purpose?

How will information about learners' work **influence teaching**, learning and feedback practice with this group of students? That is, how will the feedback loop be completed to help the educator improve their teaching?

Application of feedback decision-making

How might this framework for decisions be applied? The following two examples illustrate how decisions might prompted by questions such as these. On the left hand side of the table is the 'story' and this is marked by annotations on the right hand side of the table to highlight the underpinning rationale for the feedback design.

Table 13.1 Scenario 1. A lecture-based undergraduate course with a common first year

Practices in a first-year university setting	Feedback design rationale
In this course students enter with a wide range of experience and capability. One of the main aims is to bring the students up to a common standard of academic literacy to enable them to benefit from the rest of the program.	Macro decision: The purpose of feedback is to drive particular kinds of learning which focus students on the particular kinds of academic skills (writing, use of references, etc.) they will need in other parts of the course and practice them.
In each lecture, questions are posed to enable students to check their own understanding, responses from students are collected through a student response system and immediately portrayed to the group. Sometimes discussion with other students is prompted before an answer is sought. The lecturer then discusses the results with the class and devotes additional time to misconceptions or poorly understood points.	Macro decision: As the first year is a vital base for all that follows, feedback activities are distributed across all the courses and all parts of the courses, focusing on the production of work that meets the standards required. Macro decision: Feedback is regarded as so important that it is not just used for set tasks and tutorial activities but in lectures as well.
The first tutorial exercise in the second week of the semester uses the well-known exercise (commonly attributed to Graham Gibbs) of distributing three short completed assignments from a previous year to small groups of students for discussion. This is a prelude to them completing a similar assignment for themselves. The groups are asked to differentiate between the three: why is one better than another, what can be noticed in the work that leads to this conclusion, what can then be inferred about the qualities being sought in this	Macro decision: Find ways of making competencies or standards of work explicit to students so that they know what they are trying to achieve. Feedback activities are staged so they start with exercises that all students can complete and the level of challenge raised subsequently.

assignment? They draw up a list of features to look for in this kind of assignment. This acts as a task on appreciating standards, not through being told what they are, but through appreciating what they are through interaction with others.	
For the first assignment students are asked to complete an assignment, but before submission to check it against the list their group has generated and include a statement on the cover sheet saying what they think their assignment does well and what not so well. After marking, it is handed back without a grade, but with comments that refer directly to their own judgements and suggestions for actions they might take for the upcoming second assignment. Grades are given, but need to be accessed by logging in to the learning management system.	Macro decision: Provide student practice in identifying and using standards to apply to their work. Have them reveal their judgements about their work so they can be commented on to help them calibrate their judgements. Micro decision: The distraction of grades is removed to focus attention on the information provided
The second assignment covers new subject matter, but it also focuses on some of the academic writing features emphasised in the first task. In a tutorial, students undertake an exercise on identifying what would constitute a really good submission for this assignment. The list generated by students is transcribed and made available to the whole group. The week before the submission deadline, students are asked to exchange their assignment with a colleague and offer comments to each other using the list of points of a good submission previously generated. When they hand in the assignment they are also asked to comment on the changes they made in response to peer comments. The returned assignment from the tutor focuses once again on the process of writing and uses the ideas and	Macro decision: Further practice in use of standards and application of them to their own work. Structured peer discussions to ensure all students actively contribute. Macro decision: Learning outcomes are included that overlap with those from the first assignment to ensure that the feedback loop is completed Macro decision: Involvement of peers ensures that a wider pool of standards is opened up for consideration. Peer feedback is utilised to add other perspectives on the work and to give students practice in articulating their understanding of the work to others.

vocabulary from the checklist generated in the tutorial.	
The third assignment again includes new subject matter, but the academic skills required overlap with the second assignment. This time students are asked to specifically identify what they want to receive comments about and are giving a simple form to prompt their request. It is emphasised throughout that students need to be very active in their learning if they are to succeed and this challenge is given great prominence in the lectures and guidance given on how to present their requests.	Macro decision: Completion of a second feedback loop in included by overlap of desired learning outcomes in the subsequent assignment Further active involvement of students is prompted through the expectation that they will identify the kinds of feedback they need. Hattie's idea of four levels of feedback is provided to them and they are asked to frame their request within this..

Table 13.2 Scenario 2. A fourth year medical student on a surgical ward placement

Practices on the ward placement	Feedback design rationale
The fourth year medical student is placed on a surgical ward with the aim of applying theory to practice. He meets his supervisor on the first day of the 4 week placement for orientation. The student had filled out a 'Learning Needs Form" (a requirement sent out prior to the placement) outlining strengths in his own performance to date, and aspects of practice he needs to improve on. The student and supervisor work through this form- it frames the conversation as to the learner's goals and potential needs re support and supervision. The conversation finishes with the supervisor asking 'so in summary, what would be the three key things that you want to improve on in this placement?' He agrees with the student that these goals are achievable and asks that they be written	Macro decision: The educator privileges an orientation discussion as a way to empower the learner to analyse and express his past learning experiences, along with articulating goals for the placement. This increases the transparency of learning expectations. The learner comes prepared and is not confronted with this important reflective task on the spot. Micro decision: As the discussion was approximately one hour long, and plenty of ground was covered, the educator asked for a summary of what had been discussed (from the learner's perspective), and also asked for a written account of the summary. The need for the written record is two fold- an acknowledgement that

down and emailed to him	memory/cognitive load has limits, and that the written account would form an anchor that the pair can revisit throughout performance discussions during the placement
Over the period of the placement (including in the orientation meeting) the supervisor encourages the learner to cue him in to aspects of his practice that may need improvement, eg "as I watch your Physical Examination of the patient, is there something that you would particularly like me to focus on?"	Macro-decision: This 'cueing activity' is a way for the learner to solicit feedback that is meaningful to them. It puts them into the centre of the feedback process. They often have a good understanding of what they anticipate will be difficult for them, or has proven difficult for them, in practice. This helps the educator to focus on certain activities, and of course does not prohibit them from commenting on performance outside the prompted aspects.
The supervisor draws up a provisional timetable for the placement duration, and provides this to the student. It includes the likely activities to be performed each week, and these activities are repeated and also staggered so that they become increasingly complex throughout the placement based on the learner's likely development. For example the first day the student is shadowing members of the ward team as a way to warm up and observe expert practices. The second day, the learner will complete a Physical examination with a peer and a supervisor observing, and by the second week the student is likely to complete a physical bedside examination independently, and report back on their experience.	Macro decision: The learner is provided with repeat opportunities to perform a task, so as to put into practice the feedback. There are 'overlapping' tasks throughout, but generally these are increasing in complexity to accommodate the student's developing expertise. Micro decision: Peers are used to observe student performance (so they can learn through observation without the pressure 'of doing', and so they can provide a different perspective on the task performance, in line with the benefits of multisource feedback described in the research.
As part of generating the placement timetable, the student and the supervisor together agree on how and when feedback will be provided. They decide on verbal feedback throughout the placement, immediately after the patient encounter (and preferably not in front of the patient, unless there is risk to patient safety, or practitioner safety and the supervisor needs to intervene. The pair also agree to formal verbal feedback	Macro decision: Informal and formal verbal feedback sessions are scheduled into the placement timetable Macro decision: The supervisor agrees that feedback should occur as close to the learning episode as possible, and preferably away from the bedside to create a 'safe learning environment' and

sessions at the end of each week, and a final verbal feedback session (placement summary), where summative marks will also be given.	to avoid the potential for public loss of face. The supervisor also includes the caveat that in some high-stakes circumstances, didactic, unsolicited feedback needs to be given in situ to prevent or minimise error.
When the supervisor observes the student working with a patient post-surgery, he writes his impressions in a notebook. He also prompts the patient to report on how they felt during the physical examination (ie. were they comfortable, could they comment on how the student provided information relating to their surgery and recovery?) At the end of the session, the student and the supervisor spend 15 minutes 'debriefing' in the ward tutorial room.	Micro decision: The supervisor records his observations in written form so that he can capture specific behaviours to recount to the student during feedback. Specific examples, relating to demonstrable behaviours are more meaningful to students than global statements of 'that was good, or that needs more work". The supervisor invites the patient to comment on the physical examination (multi-source feedback) to provide another performance-related data point to the student. Hopefully, the student will start to elicit this patient feedback independently throughout the placement. The feedback or debriefing occurs in a private space to maximise the learning potential for the student, and to minimise emotional impact if the conversation brings up challenges for either party.
In the feedback session, the supervisor opens with "So, tell me about your impressions of your patient examination first" The student is a little global in his response "I think that went ok, but of course there is room for improvement" and waits for what he hopes will be the supervisor's appraisal of this performance. The supervisor replies "Ok, tell me more. Lets focus on the particular aspects that you think you would change next time round……" The student and supervisor work together to form a list of strategies to improve the task when it is next tackled.	Micro decision: The supervisor provides an invitation for the learner to self-evaluate first. Initially, this invitation is deflected by the student (firstly, because he's not practised at 'doing feedback in this way' and secondly because he thinks he will learn more from hearing from the expert. He soon learns that this need for expressing his own self-judgement is an implicit part of the feedback process here at this placement and that dodging hard questions does not work. Both deficits and strengths in performance are raised, and there is a clear action plan for how to improve the approach to the task.
The following day, the student performs another physical examination on a	Macro decision: In line with Feedback Mark 2, the student is provided with a

patient (a different patient, but similar in terms of complexity of condition).	subsequent opportunity to perform a physical examination on a patient. Both student and supervisor are watchful for the appearance of change in the performance, ie. that the action plan is actioned. If targets are met, this is acknowledged in the next feedback session, and new goals are set.

Changing feedback practices

The view of feedback presented here is more comprehensive than that found in many contexts. It problematizes common taken-for-granted practices and raises questions that may not be normally considered. In such circumstances it is not surprising that resistance to such changes might be generated.

Of course, any of these ideas can be picked up and applied by individuals within the areas of teaching for which they are responsible. If enough people did this then there would be some impact. However, noticeable improvement across the system will only be possible if, across a program, a collective view of the need to address the issue of feedback is taken. The biggest barrier to this is the notion that feedback should be regarded only as a transaction between a learner and a particular person with respect to a given activity, for example, as part of commenting on assignments. This positions feedback normally as a private teacher-student interaction. We take the view here that seeing feedback merely as an extension of local teaching or assessment activity, as an adjunct to marking perhaps, fails to realise the potential it has to offer. It needs to be treated primarily as a key focus of curriculum thinking and the implications worked through until it becomes manifest in specific teaching and learning interactions on particular tasks.

We suggest that the following are some of the issues to be addressed in confronting change about feedback:

An outcomes-centred and standard-based view of learning
The concept of feedback assumes that work can be improved and that the use of relevant information applied by the learner will result in better work. This is essentially an outcomes-centred view. Effectiveness is judged by results demonstrated in learning outcomes in relation to relevant standards. Standards are not some abstraction of worth, but tangible representations which provide yardsticks against which work can be judged. Any view that learning is norm-referenced, that is, learners are to be judged against the performance of others is antithetical to the views of feedback described here. There must be a notion that anyone can improve against the required standards irrespective of what other learners do.

Common understanding of what feedback is and how it can operate
We believe that the lack of resolution of the public debate about feedback is due to a an absence of agreement about what feedback is, built on a poorly articulated

conceptual base. While the book goes some way to providing the conceptual base, there is still a need for this to be taken up and widely adopted. In particular there is a need for congruence between learners and teachers about what feedback is. This can only occur when there are sober discussions of the basic ideas and assumptions, followed by agreement on what is to be done. This agreement in principle is needed before it will be possible to get effective alignment of student and teacher expectations about feedback.

Willingness to take an evidence-influenced view of teaching and learning
So much of day-to-day activity in higher and professional education is based upon the cultural practices of the discipline or profession. Things are done because that is the way things get done around here. This is not a sufficient basis to run a system of education or even a particular course. Willingness to base educational practice on evidence of effects is necessary. While this needs to draw on publications based on systematic research, on a local level it depends just as much on the willingness to seek and use evidence about the effects of specific teaching and learning interventions. That is, a commitment to use data about student performance as a driver of change. Feedback is the most obvious arena for this because it provides data about what is and is not working. We just need to set up our own practices so they take notice of it. Data about what students can do following a task needs to necessarily drive what students do, but it also needs to drive teaching interventions. Such actions involve much greater reflexivity on the part of students and of teaching staff than is often apparent.

Many of the arguments presented in the book, particularly the claims around the notion of feedback as Feedback Mark 2, require systematic testing over time. Without this research, the arguments remain plausible suggestions guided by some evidence. In terms of research directions, we need to invest more energy in looking at the role of the learner as seeker and user of feedback. In situ observational studies are also required to examine the micro-skills of both learner and educator in feedback episodes, and in particular, the degree to which these skills can be influenced by explicit orientation and 'feedback training'. Characteristics that need to be captured and analysed include language, content, structure, conditions and, most importantly, the impact of these intersecting factors on the learner.

Leadership to name the problem and mobilise sustained action to address it
Probably the single greatest initiative needed to reform feedback practices is that of working across courses or programs, rather than solely working within them. Feedback is too important to be the concern only of the individual teacher. Exhortations about changing practices are ineffective, action in course design and planning is needed and this requires leadership beyond the immediate context to be exercised. The support of teachers and students in change and sustaining change needs to be enlisted. Even if educators do 'come around' to considering new notions of feedback, many will need to engage in their own reflective practice to avoid operating within old 'feedback as telling' paradigms, or within a limited 'micro' view of feedback that concerns the in situ encounter, rather than the design of the program, enabling feedback to do its work on subsequent learning tasks. Educators may also challenge themselves to consider the transparency of standards of work/learning outcomes that they want learners to achieve. Without a shared understanding of these targets, any feedback practice, in any form, is compromised. For program designers

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and teachers, this book challenges them to observe their own behaviours and default mechanisms in feedback encounters and in wider design practices—to see how these behaviours and strategies fit into the Feedback Mark 2 framework presented in this book. There is a call to educators to observe, more thoughtfully and with more commitment, the impact of their intervention on student outcomes. There is a need for all those with coordination roles to exert leadership to promote this practice as collective and systematic. We all need to be better at seeking out the effects of our interventions on learners.

In conclusion

Various ideas about feedback and the improvement of feedback practices have been discussed here. Unlike other ideas in teaching and learning which are a challenge to implement, feedback has a unique characteristic: once implemented in its full sense, it can become self-sustaining. It has a two-way benefit: it benefits the learner through information they use to improve their work, and it benefits the teacher and the course through information used to improve what they do. The two features engage students and teachers in a virtuous loop. It is the completion of the loop that is the vital feature of feedback. Without that the cycle is broken and both parties are operating with inadequate information for them to do either of their jobs well. The notion of feedback as presented in this book equips the learner beyond the immediate task and in fact should do more than help students cope, or cope well, within a course. The macro and micro design elements considered within the chapters should help learners develop the capacity to judge their own work. This is the most important work of feedback.

{NB: Full arguments and references are provided in earlier chapters of the book]