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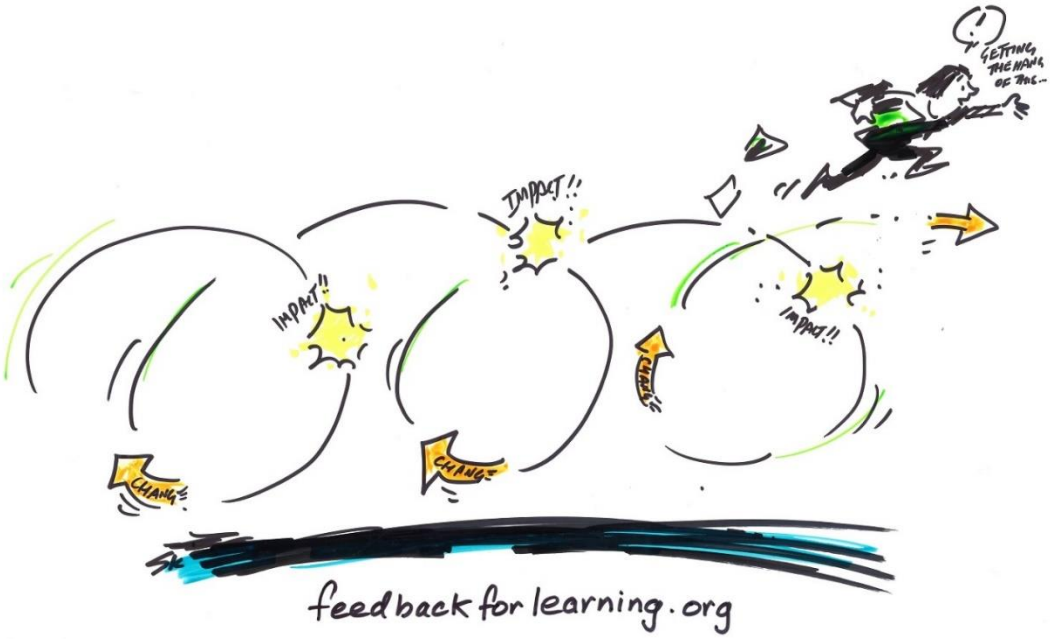
Feedback for Learning

Closing the Assessment Loop



Framework for Effective Feedback

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This proposed framework for effective feedback comprises four sections: (a) our definition of feedback, (b) challenges associated with this definition, (c) conditions for feedback success, and (d) strategies for enacting the conditions of success. The information provided here is the result of our research so far, and is considered to be a work in progress. We are refining this framework as a result of our national feedback roadshow and an upcoming survey of leaders and educators from all universities in Australia.

Definition

> *Feedback is a process in which learners make sense of information about their performance and use it to enhance the quality of their work or learning strategies.*

Challenges

There are several challenges inherent in this definition.

Process: There is no universal approach for feedback that works in all contexts; a key challenge in feedback is creating feedback processes that effectively use different sequences, sources, modalities, and so on.

Learners: Rather than focusing on comments, this definition focuses on what learners do. In this definition, information about performance could come from educators, but it could also be generated by the learner, her/his peers, others or even automated systems.

Sense making: A challenge in feedback design is the conceptualisation of the sense making process. How do we make sense of something? What skills do learners need? What features of the feedback process facilitate effective sense-making?

Information: What sort of information is most useful for learners (e.g., multiple sources, modalities, detailed, personalised, individualised, task oriented, metacognitive/thinking orientated, etc.)

Performance: Is a single performance sufficient? Should feedback focus on the entire performance, or only components? How can we have more early feedback opportunities without assessing more?

Effect/impact: How do educators or students know if feedback has an effect? A challenge in feedback design is to set the conditions in which learners have opportunities to demonstrate improvement which is more than simply asking them to do a further task. *It necessarily needs to also offer* a chance for learners to judge their performance and evaluate it in relation to their changed work/learning strategies.

Quality: Feedback information needs to be targeted towards improvement, but against what benchmark? In a criterion-referenced or standards-based system, comments on student work need to relate to explicit task expectations, however expert understandings of quality are often tacit or hard to describe.

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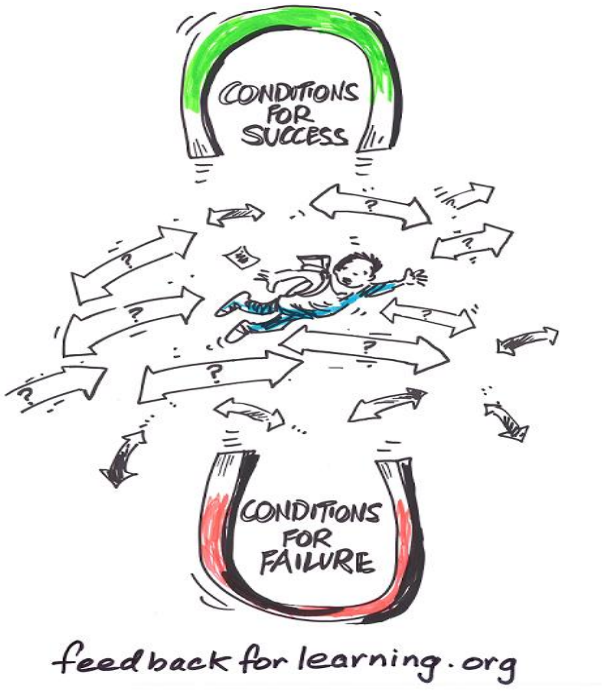
Conditions for success

In our research, we observed that successful feedback practices were influenced by the feedback design, people, institution, and culture involved. To engender effective feedback one needs to consider more than simply the feedback strategy or content.

Accordingly, we have identified a number of what we term “conditions for success”, which are thematically organised into three categories: capacity, designs, and culture.

This is not to suggest that these are the only conditions, nor that they all need to be simultaneously present to ensure success. Nevertheless, in our seven rich case studies, one or more of these conditions were observed as being a significant factor in the feedback success.



Consequently, we propose that **the success of assessment feedback may be facilitated by considering the following twelve conditions.**

Feedback is successful when…

Capacity for feedback	1. Learners and educators understand and value feedback 2. Learners are active in the feedback process 3. Educators seek and use evidence to plan and judge effectiveness 4. Learners and educators have access to appropriate space and technology
Designs for feedback	5. Information provided is usable and learners know how to use it 6. It is tailored to meet the different needs of learners 7. A variety of sources and modes are used as appropriate 8. Learning outcomes of multiple tasks are aligned
Culture for feedback	9. It is a valued and visible enterprise at all levels 10. There are processes in place to ensure consistency and quality 11. Leaders and educators ensure continuity of vision and commitment 12. Educators have flexibility to deploy resources to best effect

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Strategies for enacting the conditions for success

The following information expands on each of the conditions for success, and provides suggested strategies for enacting each condition. While these strategies were observed in seven case studies of effective feedback, they are certainly not the only ways that effective feedback processes can be enacted.

1. Learners and educators understand and value feedback

Feedback is not an artefact (e.g., comments), nor is it an attempt to justify a grade. It is a process in which learners need to make sense of information about their performance and use it to enhance the quality of their work or learning strategies. Comments given by an educator are part of the process, and need to be constructed so that they can be easily understood (made sense of) and enacted (used). Feedback uses past performance to inform future activity.

- **Embed opportunities for learners to develop feedback literacy.** In this project, all of the cases had diverse approaches in working towards this condition. Most obvious were the iterative attempts by staff to improve learner awareness and skills of how feedback information can be used in subsequent tasks. This was felt to be particularly critical for first year learners, as cultural expectations established early would flow through to subsequent years. An example of embedding feedback literacy in the curriculum can be seen in Case study 1, in which learners were challenged with assessment tasks that incrementally built their skills around seeking and using feedback. Another example can be found in Case study 4, in which a gamification approach was used to encourage learners to seek and action feedback information.
- **Recognise feedback as an educative process, which has a place in the classroom and needs to be instructionally designed.** In Case studies 1, 3, and 7, teaching time was used to explicitly describe the design and purpose of the feedback. For example, educators in Case study 7 acknowledged that effective feedback design involves orientation of learners to what feedback is, and why it is important. This sort of orientation does not need to be reserved for day one, year one, of programs. Instead, learners are likely to benefit from engaging in ongoing discussions throughout their program about mechanisms that are designed to improve their performance for the next task, and beyond.

2. Learners are active in the feedback process

By the time learners complete their studies, they should have developed strategies to evaluate their own performance, as well as being able to engage in feedback processes independently. It is critical that educators foster this independence by assisting learners in understanding feedback processes, including how to seek, generate, and use feedback comments themselves. Educators could consider giving learners opportunities to judge their own work along with others, and encourage them to talk with their peers about the quality of their work.

- **Learners need support to seek feedback.** It is beneficial for learners to engage in the feedback process with multiple diverse sources, both before and after submission of a task or performance of an activity. Oftentimes, learners will need to start this feedback process themselves, such as by seeking out comments from educators, peers, or clients. Learners were supported to do so in Case study 1, through task design that encouraged them to obtain feedback comments from peers, automated online sources, and librarians. Similarly, in Case study 4, learners posted their work to the hashtag with the express purpose of obtaining feedback. They were incentivised to do this through gamification.
- **Learners should be able to evaluate their own performance.** Evaluative judgement is an important part of learning, in which learners develop self-regulation through the ability to

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make judgements about their own performance. Case study 1 provides two examples of how this could be enacted in a subject, as learners were given the opportunity to appraise their own learning through a self-assessment rubric and by completing reflective writing tasks.

- **Learners need to learn to generate feedback.** Another aspect of developing evaluative judgement and feedback independence is the ability to critically evaluate the work of others. This was evidenced in Case study 7 where learners were required to provide feedback comments to their peers. Being both the 'provider' of feedback comments to a peer, and acting as the recipient of peer commentary, generates engagement of learners with standards of work, and develops capabilities of evaluative judgement, which is important for future work. In this case, peer evaluations were supported by guidelines for peer review.

3. Educators seek and use evidence to plan and judge effectiveness

Effective feedback design involves continually challenging and improving one's own practice. This necessitates a degree of self-reflection on the part of educators, along with an inquiry mindset. In this project, all of the cases of effective feedback practices were the result of iterative improvements. It worked because the educators and leaders sought evidence of the success of their practices, and researched new ideas and alternative models.

- **Innovation stems from a sense of evaluative restlessness.** One notable aspect of Case study 3 is the self-critical nature of educators involved in the development and improvement of the subject. While they were clearly proud of their accomplishments, they endeavoured to continually improve the feedback and assessment design and practice. This was evidenced through the fact that they had clear plans for future designs, and were collecting empirical data from learning analytics to conduct pre- and post-testing. A similar approach was evident in Case study 2, with the educators-in-charge continually reflecting on and planning improvements to the subject several trimesters in advance. Furthermore, in Case study 4, the design was the result of many iterations, where the educator's dissatisfaction with what was happening spurred him on to try new things.
- **Educators should take influence from literature on effective feedback practice.** Educators and instructional designers who wish to improve feedback practices can draw on empirical research focusing on educational designs. The teaching team and educational designer in Case study 3 were influenced by literature which indicated that assessment and feedback cycles are most effective if they are aligned so that each cycle builds on the previous, allowing learners to develop their abilities. This approach can help educators develop confidence in their approaches.
- **Educators can learn from learners.** In Case study 6, the subject co-ordinators sought feedback from learners to improve feedback processes in subsequent years. This information was regularly acted upon, leading to a subject that was continually improving over time.

4. Learners and educators have access to appropriate space and technology

Both technology and novel learning environments can facilitate innovation of teaching practice in ways that can be highly engaging for learners. It is also possible for physical and virtual spaces to enable multiplicity and diversity of feedback sources and modalities.

- **Collaborative learning spaces can support immediate feedback.** In Case study 3, the School of Physics and Astronomy invested in a purpose-built collaborative learning environment, which provided group seating for 120 learners, with screens and whiteboards spread around the room for easy viewing and access. This environment enabled the educators to move around the room and work with groups of learners to provide immediate

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feedback. Similarly, educators in Case study 5 felt that they could provide more detailed verbal feedback when working with learners in laboratory settings.

- **A permissive operating environment allows educators to explore approaches outside of learning management systems.** In Case study 4, the educator-in-charge had tried to get feedback conversations going inside the institutional learning management system, but found the tools did not support the immediate, rich conversations he wanted. Instead, he used a Twitter hashtag where learners could tweet links to their work-in-progress assignments (blog posts and online videos) and engage in brief feedback interactions with other learners in the subject, as well as members of the public, businesses, and university social media accounts.
- **Technologies can enhance the richness of feedback information.** Written comments, and rubrics, can be limited in detail as well as specificity. Other media, such as audio, video and screencast recordings can include more details, with richer cues that can help learners sense-making. For example, in Case study 2, educators created five-minute audio recordings to create feedback comments that were considered by educators and learners to be detailed, meaningful, personal, and motivating. The educator-in-charge suggested that this would not have possible in the same amount time using written comments.
- **Technologies can enable options for immediate and distributed feedback mechanisms**. Feedback information does not need to always come from the educator. Polls, quizzes, simulators, and other technologies can provide mechanisms for immediate feedback. Social and collaborative technologies, such as forums, Twitter, YouTube, wikis, and shared documents can open opportunities for peers and others to provide feedback information. In Case study 5, learners were encouraged to post and answer questions on an online discussion forum. This helped lessen the workload for educators, and encouraged learners to become engaged with problem solving.

5. Information provided is usable and learners know how to use it

One of the key elements of effective feedback is the ability for learners to use performance related comments in order to improve in a subsequent task. For the feedback process to be successful, it is therefore critical that educators consider what learners will do with the feedback comments, and how usable they are. This necessarily requires that educator-provided feedback comments are clearly interpretable by the learner, and provided in time to be used on a subsequent task.

- **Feedback comments need to be both forward and backward looking.** Case study 3 demonstrated that feedback comments could look back at how the learner performed in their previous assignment, as well as looking forward to what they could most usefully improve as they face their next hurdles.
- **Feedback comments need to be provided at a time that learners are best able to use them.** In Case study 6, feedback information was provided to learners rapidly: learners received immediate responses to multiple choice questions, detailed group comments on observations of clinical simulations at the next meeting, and one-to-one discussion of clinical performance on the same day. In Case study 4, learners received feedback comments via social media constantly throughout the semester as they completed their work.
- **The timing of feedback comments may need to be anchored to a subsequent related task.** Feedback comments in Case study 2 were scheduled to occur seventeen days after the due date of each assessment task, which meant that learners received their feedback comments seven days before their next assignment was due. This element of the feedback design was closely linked with in-class activities to maximise the impact of forward-looking feedback on learners' preparation for the next assessment.

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- **Feedback information needs to be actionable.** Feedback comments need to provide some insight into what the learner can usefully improve. For this reason, it is most likely that some specificity and detail to feedback comments will be more useful than generic praise or criticism. An example can be found in Case study 2, where educators used audio recordings to explain how learners could use feedback comments in their next assessment task, and incorporated concrete examples drawn from the learner's work for both positive and critical comments.
- **Learners need to be able to make sense of the information.** This point has two implications. First, it means that the educator-provided information needs to be created in a way that is most likely to be readily understood by the learner. Second, it means that learners may need support, resources or explicit teaching in order to gain the skills and knowledge to make sense of the information. For example, alongside the feedback comments, the educator may need to provide additional resources that explain key ideas, exemplars, or study guides. In Case study 1, educators introduced each assessment task to learners, explaining how it would extend their skills from the previous task and prepare them for a subsequent task.

6. It is tailored to meet the different needs of learners

It is unlikely that a single feedback design will be effective for every type of learner, so it is important to try to understand the nature of different cohorts. It can also be worthwhile for educators to pay attention to each learner's individual strengths and weaknesses, and their personal barriers and motivations. Feedback can involve a large emotional investment for both educators and students. Tailoring feedback can involve extra work from educators, but these efforts can foster a relationship of respect and trust, and ultimately increase learners' levels of receptiveness to the feedback comments. Individualised feedback can also help learners feel more engaged and motivated to achieve.

- **Understand that first year learners may need extra support.** There can be dramatic differences between feedback experiences in secondary school and university. First year learners may therefore lack the knowledge of how best to enact feedback comments to enhance their future work. This was recognised in Case study 1, in which the educators worked towards ascertaining individual learners' capabilities, barriers and motivations. In addition, they were assisted in their transition with assessment tasks that aimed to incrementally build their skills around seeking and using feedback.
- **Foster relationships between educators and learners by maintaining consistency of assessors.** In Case study 2, educators were assigned to assess the same cohort of learners across multiple assessment tasks throughout the semester. In this way, assessors were able to monitor learners' progress across multiple assessments, thereby developing an understanding of each learner's strengths and weaknesses, and what sort of information they needed to improve.
- **Ask learners what they want with relation to feedback.** In Case study 6, the subject co-ordinators sought information from learners at the end of each teaching period to ascertain how feedback processes could better meet the needs of learners.
- **Recognise the emotional impact of feedback.** Students can have emotional reactions to feedback comments, particularly those provided by their educators. Comments that are too harsh or overly critical may be ignored by students, or make them feel discouraged. This was recognised in Case study 7, as the educators teaching into that subject were encouraged to use respectful language in feedback comments. Case study 2 also primed educators to recognise the potential emotional impact of feedback by placing markers in their learners' shoes, with educators receiving audio feedback on their own feedback to learners.

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7. A variety of sources and modes are used as appropriate

Effective feedback involves providing information to learners through a range of sources and modes. Multiple sources and modes can be used for the same feedback instance, as well as across feedback instances over time.

- **Learners need opportunities to engage in feedback cycles with a variety of sources.** Feedback comments are often provided by people with whom learners engage regularly in class, such as educators and peers. However, they may also be provided by people in learners' wider personal networks (e.g., family, friends, and educators), as well as from sources that learners have never met (e.g., online support and tutoring services, social media users). There are also a variety of automated feedback sources, such as intelligent tutoring software, online quizzes, grammar checkers, program compilers, and simulators. This was a strong component of Case study 5, as learners were able to regularly receive feedback comments from teaching associates during and after each practical classes, from senior educators in optional weekly drop-in sessions, from peers when developing group presentations, and from software that designed individual revision packages for learners based on results from online test scores.
- **Feedback comments can be provided using various modes.** Written comments and rubrics are not the only way for learners to receive performance information. Different modes of feedback comments can cater for a variety of learner needs in differing contexts. In some contexts, a mixture of modes can complement each other and help learners' sense-making of the information. Feedback comment modes include dialogue (in person or via videoconferencing), audio and video recordings, screencasts, inking, and track-changes. In Case study 2, educators recorded audio files with feedback comments relating to a journaling task, while in Case study 1, students received face to face feedback from educators and peers on multimedia presentations during a Medieval Expo event. In Case study 4, learners received feedback comments through a variety of modes: audio, traditional long-form text, and short-form text (Twitter).
- **Tailor different kinds of feedback to different types of tasks.** The feedback design used in Case study 6 recognised that different activities and forms of feedback were needed for different purposes. For example, for learning outcomes related to clinical skills development, learners undertook practice activities while an educator provided feedback comments based on direct observation of their performance. Likewise, in Case study 2, audio recordings were used to create feedback comments, as the conversational tone complemented the reflective nature of the journal entries that were used as assessment tasks. The subject outlined in Case study 4 was specifically designed to build learners' skills in the kinds of activities that would be required of them in professional practice. As the subject related to digital media use, it was appropriate to use an assessment and feedback design that utilised social media (such as Twitter). This sharpened learners' focus and motivation, as they were fully aware that their learning would be utilised in their future professional settings.

8. Learning outcomes of multiple tasks are aligned

Feedback is not an isolated event, but a cyclical process in which learners obtain information related to an initial performance, and use that information to improve their future work. Effective feedback design therefore involves the alignment of multiple assessment tasks with linked competencies, interspersed with opportunities for learners to seek and receive useful information that can influence their next task. In this way, each feedback cycle builds on the previous one, and

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learners have several opportunities to demonstrate their understanding and strengthen their performance.

To enable this, educators should consider designing assessment tasks, assessment criteria, and feedback approaches simultaneously, so that they are all aligned and relevant to the learning outcomes. Mapping out assessment and feedback designs early on will help identify ways in which assessments can be linked or reconfigured, how feedback can best be integrated, and what role the learner will take in the feedback loop. Educators who clearly demonstrate to learners that the assessment, feedback, marking criteria, and learning outcomes are aligned may foster higher levels of learner engagement and motivation. This is because the purpose of the tasks will be clear, as will be the ways in which the feedback comments relate to the learning outcomes.

- **Enable learners to use feedback by explicitly designing connected assessment tasks.** This was demonstrated in several cases in this project. For example, in Case study 4, the two big summative tasks overlapped in terms of learning outcomes, and students used the feedback from one to do better at the next. In Case study 7, assessment tasks were designed so that learners were challenged to meet more difficult learning outcomes over time. The tasks also contained overlapping competencies so that learners had an opportunity to enact new strategies they had gained through engaging with peer and educator evaluative processes. A similar design was evident in Case study 1, where assessment tasks were iterative and comments were provided quickly, allowing learners to improve in related tasks. Strategies for enabling this design involve spacing tasks out, front-end loading tasks at the start of the subject, and providing low-risk tasks. Case study 2 also featured a series of three journaling tasks, with learners directed to build on past tasks through in-class activities and feedback that explicitly referenced directions for the next journal.
- **Plan for interconnectedness of tasks and feedback *across subjects and programs*.** In Case study 3 the team had a long-term development plan for the improved design of the subject, based on best-practice literature. This plan was actively driven and supported by an education manager, and supported by the Faculty and school.
- **Ensure that standards and criteria are clear.** The alignment and interconnectedness of tasks are dependent on teachers and learners understanding of the standards and criteria of those tasks. In Case study 1, learners were explicitly made aware of the standards and criteria for assessment tasks early on. Rubrics were provided for all assessment tasks at the commencement of the subject via the learning management system, and learners were asked to assess their own performance on the major assessment task (the research essay) using the same rubric as the educators.
- **Provide early feedback opportunities.** Feedback influences subsequent work and learning strategies, therefore, learners would benefit from more feedback opportunities earlier in a subject. In other words, feedback should be front-end loaded. An example of this was found in Case study 5 in which learners had the opportunity to understand the

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effectiveness of their study techniques early in the semester through the regular use of clicker quizzes in laboratory sessions, fortnightly in-class short answer tests, and by receiving immediate feedback comments on online quizzes.

- **Feedback should be a regular occurrence.** When learners are provided with the opportunity to experience regular and varied feedback loops, the likelihood of important information being understood and acted upon increases. This was evident in Case study 4, where feedback occurred not just in isolated instances, but comments were provided to learners regularly via social media. Similarly, in Case study 5, the feedback design included face-to-face discussions, clicker questions, written feedback on tests, on line quizzes, and peer assessment, while Case study 6 featured instant responses to multiple-choice questions via scratch cards, and group and one-on-one discussions.

9. It is a valued and visible enterprise at all levels

Feedback is reported by the research field as often being misunderstood and poorly enacted. However, it is an institutional enterprise that is complex, resource intensive, and fundamental to the success of learners. The success of feedback is facilitated when institutions are seen to value it in its systems, policies and activities. In other words, effective assessment feedback is a valued and genuine part of the university culture.

- **Institutions need to inspire innovation.** In this project, it was evident that institutionally provided professional learning events, showcases, exemplars, models and resources provided inspiration and encouraged educators to experiment with their feedback designs. For example, in Case studies 1 and 3, the educators-in-charge were inspired and educated about effective feedback practices after attending university learning and teaching events. Institutions would do well to challenge educators to re-imagine feedback and not be tied to disciplinary cultures.
- **Effective feedback principles are featured in policy.** Institutional policy has an influential role in embedding effective feedback principles in processes, systems and culture. For example, several cases included references to assessment policy that explicitly required the implementation of measures to assure feedback quality and consistency. However, it is important that policy distinguishes feedback from marking and reinforces a definition that focuses on enhancing future work and learning strategies. Policy should encourage clarity of standards and learning outcomes which are critical to feedback, and encourage diverse forms of assessment feedback. This was demonstrated in Case study 1, where a policy change meant that the educator-in-charge was no longer required to set an exam at the end of the subject. She was instead able to set up a more authentic assessment and feedback opportunity, where learners presented multimedia projects and received face-to-face feedback, much like a poster session at an academic conference.

10. There are processes in place to ensure consistency and quality

In subjects with high learner enrolments, it can be necessary to employ teams of academic staff for assessment purposes. However, as the processes involved in creating effective feedback comments are complex and contextually dependent, it cannot be assumed that new and sessional staff have broad experiences with effective feedback practices. Diversity in the experience and skill level of educators can raise issues for learners, as they may feel disgruntled and dissatisfied if they do not receive the same level of high-quality feedback as their peers. More importantly, learners may be less receptive to low quality feedback comments, even disregarding them completely. To avoid such scenarios, it is important for teaching staff and leadership in tertiary institutions to recognise that feedback is something that needs to be learned and continually improved upon. Furthermore, educators in charge of teaching teams can employ strategies to ensure consistency

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of feedback structure, content and quality.

- **Educators-in-charge of large subjects could use marking and assessment guidebooks to support feedback consistency.** In Case studies 1, 2, 5, and 7, the educators-in-charge created detailed feedback resources for the teaching team. These resources included guidebooks detailing the purpose of feedback, and advice regarding the expectations for providing comments to learners. In Case study 7, Google Docs were created featuring examples of appropriate feedback comments, while in Case study 2 example scripts were provided to facilitate the audio feedback process for less experienced educators.
- **Educators should hold regular meetings with teaching teams, including sessional staff.** Educators teaching into the subjects highlighted in Case studies 1, 5, 6, and 7 had regular team meetings where they talked about potential problems with marking. This further facilitated consistency with the feedback approach.
- **Moderate feedback comments, not just grades.** The educators-in-charge of Case study 2 developed a rigorous moderation process which not only moderated grading and feedback, but also supported and developed assessors. This process enabled corrective interventions to take place before a large volume of assignments have been marked, reducing the demand for later re-marking procedures. As such, feedback quality and consistency was assured. In Case study 4, peer feedback was implemented, and took the form of very brief messages (140 character Tweets). As these were posted publicly, the educator was able to read all of them and check for any potentially harmful content.
- **Encourage experienced educators to mentor less experienced educators**: In Case study 5, less experienced educators were paired with more experienced educators in order to model feedback provision in face-to-face situations (during laboratory classes). In Case study 2, all educators receive audio feedback on their own feedback artefacts for learners, both modelling the feedback process and providing ongoing professional development for educators.
- **Induct new team members into the feedback practices used within a subject**. In several case studies observed in this project (i.e., 1, 2, 5, 7) the educator-in-charge created a guidebook for the team of educators. These included information about the purpose of feedback, and provided examples of how feedback comments should be structured.

11. Leaders and educators ensure continuity of vision and commitment

Continuity in leadership and membership of teaching teams was evident in a number of cases in this project. Continuity in leadership not only provides connections with past feedback designs but also allows for longer term plans for feedback redesigns to be developed and implemented. Ongoing membership of teaching teams allows educators to contribute to longer-term plans, to develop their own skills which, in turn, improved clarity and consistency of comments provided to learners.

- **Faculties and schools should appoint leadership positions for extended periods of time.** In this project, all of the cases illustrated leadership continuity in different ways. However, the most noteworthy of these cases had, at their core, a commitment at Faculty level to provide this stable working environment. In this case (Case study 3), an education manager was appointed with oversight of the long-term development of the design of the subject, *and importantly*, that of the entire course it sits within. In addition, Case study 5 featured a Senior Tutor who was employed to evaluate, redesign, and implement feedback over a number of years. The critically important point here was not that the leader was in a position for several years, but rather that they knew they would be responsible for the continued improvement of the subject for years to come. This continuity of vision and

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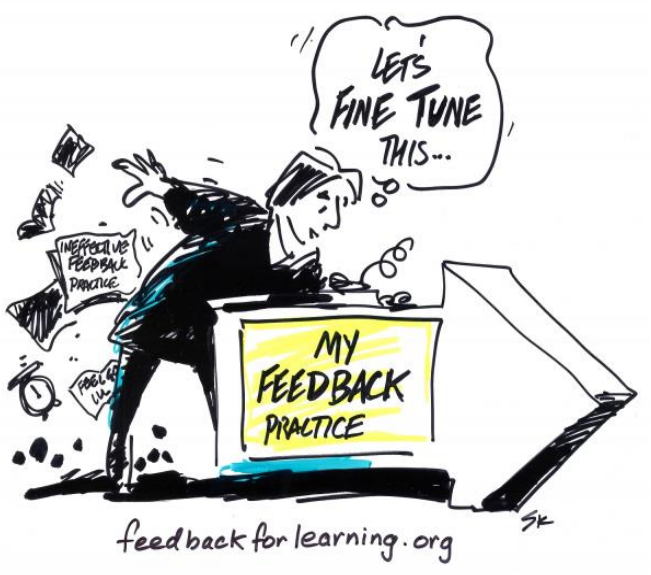
commitment afforded a long-term vision and the implementation of considered and measurable approach to improvement by iteration.

- **Stability within teaching teams enhances capability to iteratively improve feedback practices.** Quality and continuity of teaching teams can result in enhanced feedback designs. For example, the continuity of educators in Case study 2 helped the feedback design evolve in a planned and thoughtful manner over 18 trimesters. In Case study 5, educators were able to work on just one subject, which helped to focus their attention and energy into the design and providing of feedback. The stability of the team providing feedback in this subject allowed for iterative development over a number of years. Similarly, in Case study 6, the educators-in-charge progressively improved feedback practices in response to learner suggestions.



12. Educators have flexibility to deploy resources to best effect

Effective feedback design can be challenging in contexts where workloads, labour models, or subject structures are overly prescriptive. Feedback information needs to be carefully designed, particularly in terms of timeliness, modality, sequence, frequency, and usefulness. It is therefore important to seek feedback designs that do not require educators to resort to heroic, unsustainable workplace practices. In the cases identified in this project, educators were able to modify traditional models of teaching delivery, and explore different labour models in order to distribute leadership in large subjects. They were also able to outsource educators for certain components of a subject, and reallocate marking time to feedback time.

- **Educators should be empowered to re-imagine their workload.** The educators observed in this project succeeded in designing effective feedback processes because they were able to allocate teaching and learning as they wish, rather than being forced to spend set amounts of time on face-to-face teaching, marking, co-ordination, etc. For example, in Case study 4, the educator-in-charge was only able to implement an innovative feedback design by re-imagining his workload – because he did not implement a regular weekly lecture, this freed up his time to monitor the Twitter hashtag and engage with students online. In Case study 7, the educator-in-charge was able to cancel face to face tutorials one week and use online self-directed activities instead, so that the teaching team could use those hours for enhancing their assessment feedback. Institutions should therefore consider if their workload models allow educators to use time as they see fit.
- **Roles within teaching teams could be shaped to ensure sufficient attention is given to achieving effective feedback.** In Case study 5, the day-to-day leadership of the subject was the responsibility of a Senior Tutor, whose sole role was to focus on the development of effective teaching teams and feedback provision in this large subject. While senior educators

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were still involved in leading the subject, they provided direct input on the content to be taught rather than designing and directing feedback.