

# Assessment Feedback for Learning

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digitalfeedback.org



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# **Executive Summary**

Feedback is critical for effectively promoting student learning, both during and after the completion of assessment tasks. Without feedback, students are limited in their ability to make and act upon judgments about their current and future performance.

One of the major challenges associated with feedback is a misconception, commonly held by both teachers and students alike, that feedback is enacted through commentary and/or grades provided by markers on a submitted piece of summative assessment. This limited understanding of feedback is widely criticised by researchers and leading educators. Feedback as a learning mechanism is not limited in time or agency. For instance, feedback can occur between student peers, a student and a parent or partner, a student and a computer, as well as various others. Also, feedback can arguably even more effectively be implemented prior to assessment submission.

Furthermore, feedback should be viewed as a participatory process. It includes the process by which students, through their assessment, provide teachers with information that influences subsequent pedagogical decisions. It can also be seen as a process in which students actively seek specific information (from their teacher or other source) to help them judge their performance in relation to the goals so they can better achieve their desired outcome.

The significance of this is that effective feedback processes are intimately related to the ability of the learner to understand, judge and act on the information. Consequently a significant challenge for higher education is revealed: how can institutions, educators and students develop their ability to seek, give, receive and act on feedback?

This 12 month exploratory project was designed to offer useful resources and advice for Monash University colleagues, but also to provide a foundation for a larger strategic initiative that seeks to improve teaching, learning, and student experience institution-wide through effective feedback practices. The project involved four strands, as illustrated in Figure 1.

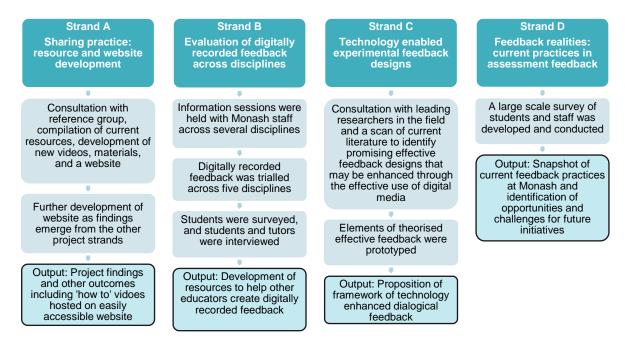


Figure 1. Activities and outputs in each project strand.

Essentially, Strand A involved the development of a website offering resources and instructions regarding digitally recorded feedback practices, while Strand B trialled the use of digitally recorded feedback across five disciplines. Strand C explored how technologies could be used to develop and deliver effective feedback practices, and Strand D uncovered effective and efficient practices in assessment feedback, while highlighting institutional challenges and strategic opportunities.

Together, the four strands of this project has already reached, and potentially impacted upon, 13,913 people, as illustrated in Figure 2.

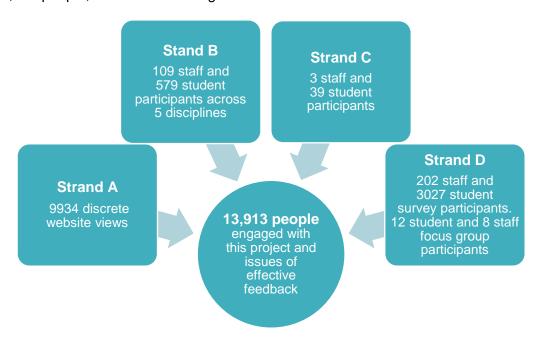


Figure 2. Number of people engaged with the project strands and outcomes.

As part of Strands B and D, data were collected from staff and students through online surveys and focus group interviews. The results of the Strand B survey revealed that the majority of students positively rated the clarity, usefulness, and quality of the text-based and digitally recorded feedback they had received. In addition, most students were satisfied with the feedback they received, regardless of whether it was created using digital recording or text.

However, when drilling down further into the data, it became clear that satisfaction was higher for students who had received digitally recorded feedback: a higher proportion of these were extremely satisfied (26%) when compared to students receiving text feedback alone (7.9%). Furthermore, students were most satisfied when they received digitally recorded feedback that included audio and visual components (i.e. video or screencast feedback). Compared to students receiving text feedback alone, students who received digitally recorded feedback were also more likely to recognise its impact. For example, more students who received digitally recorded feedback strongly agreed that the feedback was useful, a source of constructive comments, and able to prompt them to reflect on the quality of their work.

Figure 3 highlights some of the student reported benefits of digitally recorded feedback.

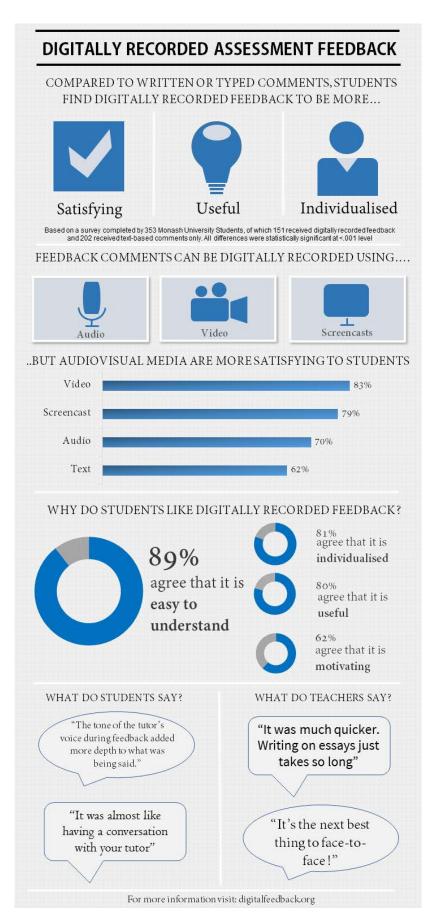


Figure 3. Benefits of digitally recorded assessment feedback, as reported by students and staff.

With regard to the Strand D survey data, which looked at feedback provided at Monash University more broadly, the majority of students agreed or strongly agreed that the feedback they received was understandable (81.2%), personalised (69%), and specific (79.4%). Most students (70.8%) also reported that they will use, or have used, the feedback they received.

On the other hand, some data revealed certain challenges for the University, particularly with regard to the timeliness and usefulness of feedback. For instance, 40.8% of students reported receiving feedback on only one or two assessment tasks by Week 7 of Semester 2, 2016. Furthermore, 12.9% of students reported not receiving any feedback at all by this point in the semester. This raises a significant challenge for students, as the absence of actionable information can impede students' confidence to proceed with subsequent assessment tasks.

The deficiency of actionable feedback is also evident in the assessment practices in many faculties. For example, exams were the most common form of assessment task used at the end of semester, however, most students reported not receiving any individual feedback comments about their performance on these exams. This is not only a challenge for individual students when looking to enhance their performance on subsequent tasks, but also for staff who may be teaching a student in subsequent units.

Another key issue for the University is that 31.3% of students approached teaching staff for feedback prior to assessment submission. Of these, 46.3% reported that the information they received from staff was only moderately helpful, slightly helpful, or not helpful at all. It is somewhat unsurprising, therefore, to find that up to 28.8% of students sought feedback from sources outside the University (e.g., family, friends, online) on their assessment task.

In addition to creating a website (Strand A), and collecting data on current practices and digitally recorded feedback (Strands B and D), this project also investigated the potential of digital inking and feedback designs that increase dialogical processes to strengthen student evaluative judgment (Strand C). With regards to the latter, this report proposes a model for an efficient and effective approach to dialogic feedback supported by the use of digital technologies. This student-involved approach provides a model by which sustainable, dialogic assessment and feedback practices could be implemented for an individual assessment task, across a unit, or across an entire degree. This model thereby offers a glimpse of one potentially valuable way we can address the question: how can institutions, educators and students effectively and sustainably develop their ability to seek, give, receive and act on feedback?

This project has also revealed several important areas for future strategic work – particularly around research informed practice. Key recommendations include:

- **#1: Using technologies to enhance feedback practices.** Digital recordings can be used to provide feedback to students, and, in most cases, students find feedback presented in this way to be useful, clear, and satisfying. Student's ability to take the comments on board and use them in future assessment tasks may be enhanced when using audiovisual media in comparison to text or audio alone.
- **#2: Improving timeliness of feedback.** Students are unable to use feedback if it is not provided in a timely manner. This report explores means by which teaching staff can use digital technologies to support sustainable, timely feedback.
- **#3:** Offering students quality feedback opportunities prior to assessment submission. The data clearly indicate that students desire feedback before, as well as after, submission. It is arguable that feedback before submission is more important, since the point of feedback is to have an impact on future performance. This report presents a dialogical feedback model that may assist educators and students to engage in dialogue about assessment tasks before submission in a sustainable way.

**#4.** Offering students feedback opportunities at the end of semester. There is a lack of feedback at the end of a unit for most students, particularly those in undergraduate degrees who have end-of-semester examinations. Students' ability to improve is limited when they don't receive detailed feedback. Considering the significant engagement and effort from both the student and lecturer in relation to this assessment, it is clear that there is a lost opportunity for learning. This report proposes a student-involved model by which sustainable, dialogic assessment and feedback practices could be implemented across an entire degree.

# **Project Rationale**

This 12 month exploratory project was designed to offer useful resources and advice for Monash colleagues but also to provide a foundation for a larger strategic initiative that seeks to improve teaching, learning, and student experience institution-wide through effective feedback practices.

The current project adds to our understanding by identifying or developing assessment feedback practices that:

- (a) positively impact on student learning and experience
- (b) are sustainable and can be 'scaled-up' (for example, practices that are time efficient and easy enough for sessional educators to engage with)

More specifically, this project was driven by three exploratory research questions designed to lay a foundation for future strategic initiatives.

- 1. When and how should digitally recorded assessment feedback (i.e. audio, video and screencast recordings) be implemented?
- 2. What other new or emerging technology enabled feedback designs may provide opportunities for efficient and effective feedback practices?
- 3. What are the current assessment feedback practices across disciplines and when are they effective?

# **Project Background**

Feedback (during and after) assessment tasks is critical for effectively promoting student learning. Without feedback, students are deprived of essential information they need to make judgments about their progress, and how they can change their future performance. Feedback is central to students' orientation to learning, and contributes to the quality of student experience (a particular concern for the Higher Education sector). Feedback also improves motivation, and facilitates students' development and future performance. However, despite these benefits, feedback tends to be poorly understood and executed across the sector.

One of the major challenges associated with feedback is the misconception that it is primarily limited to the commentary and/or grades provided by markers on a submitted piece of summative assessment. In this conceptualisations, teachers drive the feedback process. This burdens students with a "lowly status with little volition, limited agency and dependence on teachers or a teaching system" (Boud & Molloy, 2013, p.703). If students are afforded a more active role in the feedback process, then conceptions of feedback need to shift from a teacher-driven mechanistic process to a student-involved responsive one. Rethinking feedback for learning repositions feedback:

- From an act of teachers to an act of students in which teachers are part (from unilateral to co-constructed; from monologue to dialogue).
- From the almost exclusive use of teachers to that of many others (from single source to multiple sources).
- From an act of students as individuals to one that necessarily implicates peers (from individualistic to collectivist).
- From a collection of isolated acts to a designed sequence of development over time (from unitary items to curriculum). (Boud and Molloy, 2013, p. 710)

Notable researchers in the field argue that **feedback inherently must have an impact. If feedback is provided and does not have impact, then it is merely information**. Boud and Molloy (2013) state that, "if there is no discernible effect, then feedback has not occurred. This places the onus on the teacher, or the person otherwise providing the information, to do what is needed to have an effect and to notice the effect" (p. 702). The issue here is that in order to demonstrate quality feedback, we need to find methods, instruments, or other mechanisms to support students to understand and use the information, but also to observe that use and its impact on performance.

Similarly, Carless et al. (2011), and Sadler (2010) define feedback as a participatory process. This argument is relatively simple if we accept that students are active participants in their learning. For example, when students explore a concept or practise a skill as they work towards an assessment goal, it is argued that they can benefit from feedback mechanisms that help them make judgments about their performance.

Feedback as a participatory process can occur in a variety of ways. It includes the process by which students, through their assessment, provide teachers with information that influences subsequent pedagogical decisions. It can also be seen as a process in which students actively seek specific information (from their teacher or other source) to help them judge their performance in relation to the goals so they can better achieve their desired outcome. The significance of this is that effective feedback processes are intimately related to the ability of the learner to understand, judge, and act on the information. A problem then arises: how do institutions, educators and students develop their ability to seek, give, receive and act on feedback?

This problem is made even more complex in an age of increasingly massified and computer mediated higher education where there are reduced opportunities for personal and individualized rich communication between students and educators. Nicol (2010) argues that the widespread dissatisfaction with written feedback from both students and teachers is a symptom of "impoverished dialogue." Clearly, we are also then tasked with the challenge of discovering ways in which to enrich our feedback practices in a digital context, in ways that are sustainable for small and large classes.

These problems cannot be answered easily, and require a significant longitudinal program of work. Within this context, this 12 month exploratory project lays a foundation for future strategic activity by providing a snapshot of current practices and challenges, trialling the diffusion of research-proven technology-mediated feedback mechanisms, and piloting a potentially sustainable approach to feedback as a participatory process. In doing so, this pilot breaks new ground in the field and offers glimpses of how a sustained dialogical feedback approach can be facilitated by digital media.

# **Project Approach**

To answer the research questions, the overall project was originally conceived as four discrete and concurrent activities (originally described as three sub-projects, with the first having two phases). Over the course of the project, changes were made to the planned activities in response to emerging data. As a result of these changes, and in an attempt to present a clear account of the project activities and outcomes, this report will not linger on the initial project structure but instead describe the four core project activities as Strands A to D. Figure 4 provides an overview of the relevant activities and outputs associated with each strand.

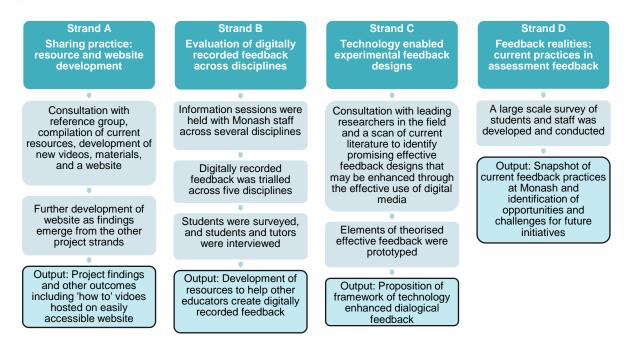


Figure 4. Activities and outputs in each project strand.

# Strand A: Sharing practice – resource and website development

The first project strand involved the development of a website offering resources and instructions relating to digitally recorded feedback practices. In negotiation with the Office of the Vice-Provost (Learning and Teaching) (OVPLT), an online staff resource (i.e. website) was designed, incorporating the existing 'conversational' materials, with newly created 'how to' materials. This resource was conceptually organised around four key questions:

- 1. Why do assessment feedback this way?
- 2. What should effective feedback include?
- 3. How can I create my own?
- 4. Where can I find out more?

# Strand B: Evaluation of digitally recorded feedback across disciplines

Strand B was guided by research question one, and the goal was to investigate if and how digitally recorded feedback could be efficiently and effectively implemented across disciplines and assessment types (including technologies, structure, etc.). In previous research studies, we have found audio, video and screencast based assessment feedback to offer advantages over typical text-based feedback. However, this research and experience has been limited to

the discipline of Education. While anecdotal evidence from Monash colleagues suggested that these methods may work in other contexts, this project aimed to empirically investigate all three digitally recorded feedback practices across multiple disciplines. As part of this, teaching staff from five disciplines were trained in the use of digitally recorded assessment feedback. Staff from six units then volunteered to provide feedback recordings to students in units that they were teaching. Once feedback had been returned, students were invited to complete an online survey. Interviews and focus groups were then held with both students and staff to seek evidence of impact on learning and learning outcomes.

A key output of this strand was materials that were added to the staff resource website developed in Strand A, including videos, examples, and additional 'how to' and workflow processes from disciplines other than Education.

## Strand C: Technology enabled experimental feedback designs

Strand C was guided by research question two, and assessed how technologies could be used to develop and deliver emerging feedback practices. Due to the relatively small scale of this project, only three new or emerging practices were identified as promising avenues of exploration:

- 1. Digital inking: annotations performed using a digital pen/stylus and touch screen/tablet technologies
- 2. Dialogical feedback: rich digital media enhancing dialogical experiences of feedback post assessment submission
- 3. Evaluative judgment: rich digital media enhancing student evaluative judgment prior to assessment submission

**Digital inking**: The emerging practice of inking was first identified as an extension to established practices of using digital text annotations. It addresses a concern raised in previous research by Henderson and Phillips (2014) that students preferred rich media feedback but also appreciated annotations on specific parts of the assignment to help make connections between the recorded comments and the document itself. As a result of the exploration of inking, lecturer experiences and advice have been gathered from the disciplines of Education and Pharmacology. Guidance has been added to the project website regarding when and how inking may be used as a mechanism for assessment feedback.

Dialogical feedback and evaluative judgment: The remaining two emerging practices were developed through literature reviews and discussions with leading experts in the field of higher education. Dialogical feedback is considered to provide students and teachers with greater opportunity for clarity through multiple opportunities of turn taking to develop better understanding of specific issues of concern (Nicol, 2010). Evaluative judgment is considered to be a fundamental skill required by students to enable self-regulation and improve their performance (Sadler, 1989). Both of these practices were implemented in the same unit as a holistic approach to engaging students more actively in feedback processes. As such, they are discussed within this project together. As with the rest of project, this strand is exploratory and consequently sought to identify if these practices might lead to promising outcomes, thereby indicating if further research of an experimental nature should be conducted.

This sub-project built on Boud and Molloy's (2013) ideas of a sustainable assessment model, and aimed to empower learners by employing a feedback cycle that allowed them to drive their feedback and learning dialogically with their lecturer. This involved a series of multimodal conversations (involving audio, video, screencasts, and text) designed to engender evaluative judgment through the use of exemplars prior to the submission of an assessment task.

After submission, the conversation between lecturers and students continued: lecturers provided video feedback on the assessment task itself with a specific challenge issued to students. This involved inviting them to create their own video recording to enter into a series of dialogic (turn taking) multi-modal conversations. The purpose of these conversations were to build on the last assessment task with a view to strengthening the next task.

The outcome of Strand C is the further development of the resource website including advice on the use of digital inking, dialogical processes, and the development of evaluative judgment using exemplars. In addition, at a more strategic level this strand has led to the proposal of a model by which sustainable, dialogic assessment and feedback practices could be implemented for an individual assessment task, across a unit, or across an entire degree.

## Strand D: Feedback realities - current practices in assessment feedback

Strand D was guided by research question three. It involved an institution-wide survey of staff and students, followed by five focus groups with students and two focus groups with staff. The purpose of the survey and focus groups was to seek out reported effective and efficient practices in assessment feedback, and identify institutional challenges and strategic opportunities. These research activities were also performed in conjunction with an Australian Government Office for Learning and Teaching funded project, and the large-scale survey acts as a launch site for further research across institutions.

The outcome of Strand D was the identification of challenges and opportunities facing staff and students when considering effective, sustainable feedback practices across the University.

# **Project Reach**

As shown in Figure 5, the four strands of this project have had a potential direct impact on 13,913 people.

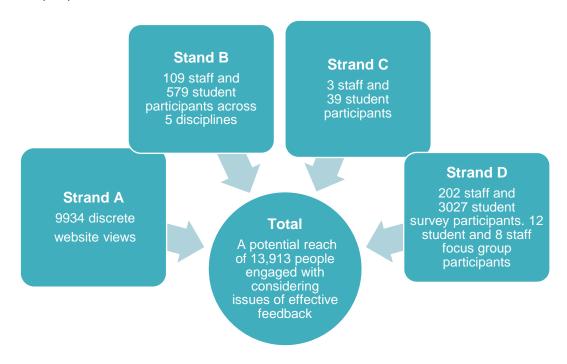


Figure 5. Number of people engaged with the project strands and outcomes.

As of March 10 2017, there have been 9934 discrete views of the project website, which was the output for Strand A. Furthermore, 688 Monash University staff and students either attended information sessions or were involved in the research activities for Strand B.



Figure 6. Mike Phillips speaks about digitally recorded feedback at an information session attended by 64 Faculty of Business and Economics staff.

It should be noted that, although 109 staff attended information sessions relating to the creation of digitally recorded feedback, not all of these staff participated in the Strand B research study. As such, we are unable to report the exact numbers of staff who went on to use digitally recorded feedback in their teaching practice. Nevertheless we are confident that there has been a wider impact of the project based on our ongoing communications with Monash colleagues. For instance, the Senior Education Designer in Faculty of Law has championed multimodal feedback, and has already reported some adoption by staff:

Over the past six months we have introduced the idea of [digitally recorded feedback] to law academics here at Monash. There has been reasonable interest and several CEs have begun experimenting with the method in their units. The main impetus for use has been reduction in time taken to give substantive feedback to students. (Tammy Smith, Senior Education Designer, Faculty of Law)

Strand C involved 51 participants, and included the implementation of sustainable, dialogic assessment and feedback practices in a postgraduate Education unit held in Semester Two, 2016. Both Master of Education and Master of Teaching students were enrolled in this unit, which focused on the instructional design of online learning environments.

The large scale survey used in Strand D was completed by a total of 3229 participants, including 202 staff and 3027 students. Of the staff participants, 61% were female, 68% work at Clayton, and 98% currently reside in Australia. Of the student participants, 68% were female, 50% study at Clayton, and 92% currently reside in Australia. Further details about Strand D survey participants is provided in the section titled 'Feedback Realities (Strand D)'. Seven focus groups were also conducted with small groups of staff and students.

# **Project Outcomes**

## Sharing practice – resource and website development (Strand A)

A staff resource website was developed in order to share information and practice regarding digitally recorded assessment feedback practices. The website (<a href="www.digitalfeedback.org">www.digitalfeedback.org</a>) has already been visited more than 9900 times.

The website contains the following sections:

#### **Home Page**

Provides an overview of the benefits of digitally recorded assessment feedback, including quotes and videos from various Monash staff and students.

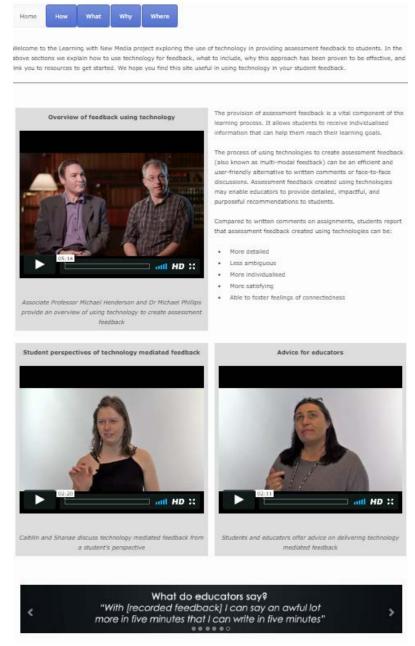


Figure 7. Screenshot of home page.

## **How Page**

Outlines
considerations when
creating digitally
recorded
assessment
feedback and
includes video
resources featuring
multiple Monash
teaching staff. This
also includes advice
from a tutor who
overcame a lack of
confidence using
technology.

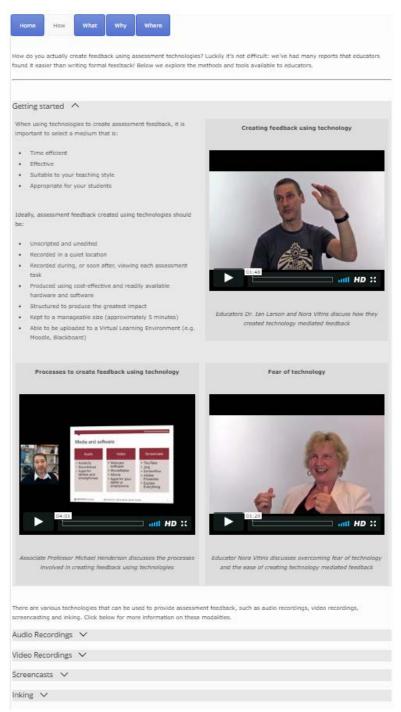


Figure 8. Screenshot of How page.

The How page also includes four collapsible subsections with advice about creating audio recordings, video recordings, screencasts, and inking. This information includes the types of software and considerations for use.



Figure 9. Screenshot of collapsible screencast section on the How page.

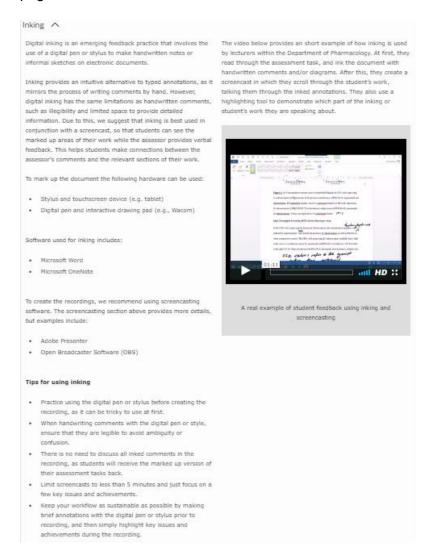


Figure 10. Screenshot of collapsible inking section on the How page.

#### **What Page**

Offers information about what to include when structuring feedback recordings. This page includes various instructional videos and a downloadable printbased resource, as well as two collapsible sections featuring instructional videos, advice, and information about structuring a dialogic approach to feedback.

What do we need to include in our technology assisted feedback? Below we explore a design to work with to structure your feedback to ensure it provides the greatest benefit. Regardless of which technologies are used, the structure of the recording can remain the same. In general, the elements shown below are recommended. For more information download a printable version with more detail and exam Structural Elements of Feedback Recordings **Salutation** A conversational and informal greeting. "Hi John, thanks for your assignment" Relational work
Recognising and valuing the student, including
their personal circumstances and history.
"I can see you've made a lot of changes to your Explanation that the feedback will focus on a few key issues to help students continue to strengthen their work.

'I will use this time to focus on some key issues that I think could **Evaluative summary** "Your essay is very strong in its theoretical approach..." <u>Textual issues</u> tterns and extend of textual issues in the assig the nature, patterns and extend of textual issues in to occasionally with one or two specific examples. "Your referencing is not compliant with APA style..." Substantive feedback Engage with the conclusions, arguments, logic, justification, and literature included in the assignment.

Try to think about what this might mean in the broader context. Valediction & invitation Congratulations or commiserations over the result, or other interpersonal validation.

"I'm looking forward to seeing what you do next..." Henderson and Phillips, 2014 Advice for structuring recordings 🗸 Structuring a dialogic approach 🗸

Figure 11. Screenshot of the What page.

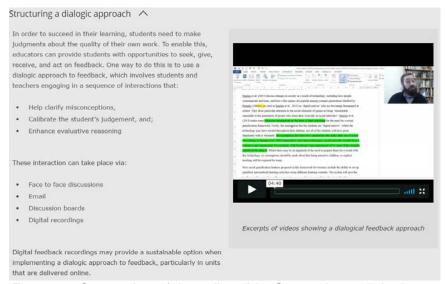
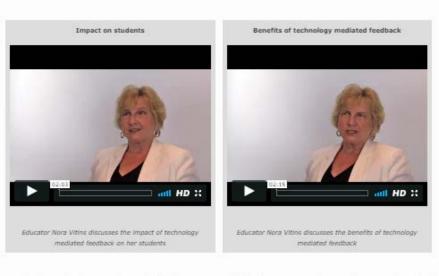


Figure 12. Screenshot of the collapsible 'Structuring a dialogic approach' subsection on the What page.

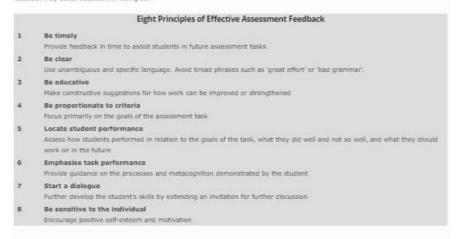
#### **Why Page**

Presents information regarding the eight principles of effective feedback, and how the use of technology can facilitate the creation process. Includes detailed videos that provide an empirical basis for the use of digitally recorded assessment feedback.

Using technology to provide assessment feedback has many benefits for both students and educators. Below we explore how use of technology enables educators to implement the principles of effective feedback.



Research indicates that there are eight principles of effective assessment feedback. Trying to meet these principles using only text-based feedback can be complicated and time-consuming, particularly in large class contexts. However, using technologies to create assessment feedback may assist educators in doing so.



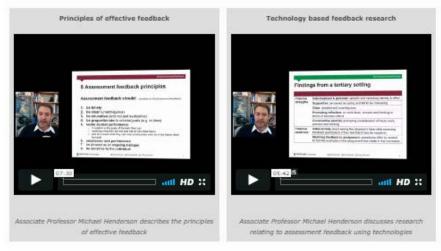


Figure 13. Screenshot of Why page.

#### **Where Page**

Presents links and references for further resources relating to digitally recorded assessment feedback. Includes collapsible sections for quick reference guides, peerreviewed research, presentations and media, and contact information.

Below we have linked resources for you to learn more about creating assessment feedback using technology. More will be added over time.

#### Quick Reference Guides ^

Click on the links below to download

- · Structuring your feedback
- . The eight principles of effective feedback

#### Peer-reviewed Research ∨

#### Presentations ^

- . Monash Law Faculty (August, 2015).
- CRADLE, Deakin University, "Scarily personal: assessment feedback via video, audio, and screencast technologies" (May, 2015)
- Monash Education Academy, Learning Lunch Box, "Video assessment feedback: simple, fast and effective" (May, 2015)
- Educational Computing Association of Western Australia (ECAWA) 2015 State Conference, "Using digital technology to provide powerful assessment feedback", 2015
- . Deakin University School of Exercise and Nutrition Sciences February, 2015
- . University of Sydney Faculties of Business, IT and Engineering, February 2015
- Avila Secondary College, 2014
- ICT in Education Victoria Conference 2013: http://ictev.vic.edu.au/proposal/6743/multimedia-feedback-students-free-easy-and-entrophile
- . Monash Educational Excellence Research Group 2013
- . Monash Gippsland Faculty Day 2013
- . Monash Faculty of Education Innovation series 2012
- Australian Computers in Education Conference 2012: http://acce.2012.acce.edu.au/video-feedback-student-assessment-scarily-personal-powerfully-clear

#### Media ^

- Kolowich, S. (26 January, 2015). Could Video Feedback Replace the Red Fen? The Chronicle of Higher Education.
- Anon. (27 January, 2015). Filmer tilbakemeldinger: Faglærere ved australsk universitet gir hver enkelt student tilbakemeldinger form av filmsnutter. Universitetsavisa.
- Maiolo, A. (19 January, 2015). Video gives valuable feedback [Podcast]. Campus Review.
- Malolo, A. (19 January, 2015), Video gives valuable feesback [Podcast]. Education Review. Same name as the one above but this is
  a different interview this time focusing on our ongoing research in schools.
- Ross, J. (14 Jan, 2015). Video critiques work for tutors and students. The Australian, p. 28. [links: The Australian, PDF available]
- A rather cheeky news article published in Monash News: Snapchat-style teacher-to-student feedback gets thumbs up
- Hosking, W. (25 April, 2014). Visionary feedback: Teachers 'mark' essays with videos to students. Herald Sun p.18.
   Our work with teachers at Avila College featured on Channel 7 News (Broadcast 07/04/2014, 6pm)
- Interviewed by Faday's Schools for Channel 31

Our work with University Students (broadcast 28/03/14, 6pm) https://www.youtube.com/watch?v=18cVKII7JMg
Our work with the fantastic teachers and students at Aviia College (broadcast 02/05/14, 6pm) https://www.youtube.com/watch?v=9XxL8cZpleg

Contact the research team 💙

Figure 14. Screenshot of Where page.

## Evaluation of digitally recorded feedback across disciplines (Strand B)

The use of digitally recorded assessment feedback was trialled across six units in 2016. An online survey and focus groups were used to gauge students' perceptions of the feedback, and the impact that it had. Interviews were also held with educators to assess the sustainability and usefulness of the feedback process.

Prior to presenting the results of these trials, it is important to acknowledge these trials were seen as situated and exploratory. Rather than assuming the methods of multimodal feedback previously tested in one context should be replicated elsewhere, this project adopted a point of view that each lecturer/assessor in each discipline should be empowered and encouraged to adapt the methods to best meet their context. As such, it should be noted that each of the six units involved in the trial had its own unique contextual factors. Likely variables included choices of hardware, software, structure of content and applicability to assessment, student learning needs, and teaching style.

The exploratory nature of these trials, and differences in contextual details, should be kept in mind when considering the results. Table 1 presents some of the key contextual information regarding the assessment tasks and feedback provided in each unit.

Table 1
Overview of key contextual factors between cases

Case identifier	Discipline	Student Level	Type of ass	sessment	Modes of feedback	Single / multiple assessors
EDF-I-VS	Education	Postgrad	Individual	Written	Video Screencast	Multiple
EDF-I-VSATR	Education	Postgrad	Individual	Written	Video Screencast Audio Text Rubric	Multiple
ENG-G-STR	Engineering	Postgrad	Group	Design	Screencast Text Rubric	Multiple
PSC-G-VR	Pharmacy	Undergrad	Group	Written	Video Rubric	Single
LAW-I-VR	Law	Undergrad	Individual	Oral	Video Rubric	Single
MGF-I-VATR	Management	Postgrad	Individual	Written	Video Audio Text Rubric	Multiple

As illustrated in Table 1, each case has been given an identifier, such as 'EDF-I-VS'. This identifier was derived from the first three letters of the unit code (indicating the unit discipline, i.e., **EDF** for Education), the target for the assessment (i.e., **I** for individual students) and the type of feedback provided (i.e. **V** for video and **S** for Screencast).

#### **Participants**

The survey was completed by 372 students in total; however, data from 19 EDF-I-VSTAR students were removed as their tutor failed to accurately follow the research procedure. Figure 15 provides a breakdown of the final sample by case, including demographic information for gender and language.

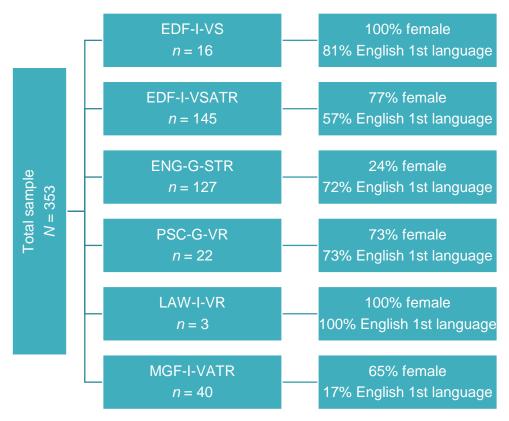


Figure 15. Breakdown of final sample by case.

Table 2 presents demographic data for the total sample, as well as a breakdown by feedback type. In all conditions, the percentage of males and females is comparable to overall university enrolments (i.e., 56% female vs 44% male).

Table 2
Demographic data for student survey respondents, broken down by feedback type

Feedback type	N	Gender		English as first language	
		Female	Male	Yes	No
Text-only	202	59%	41%	67%	33%
Digitally recorded	151	56%	44%	52%	48%
Total	353	58%	42%	61%	39%

All staff involved in trialling the digitally recorded feedback were invited to participate in an interview at the conclusion of the semester. In addition, the survey invited students to participate in a focus group. Across the cases, interviews were conducted with 16 staff and focus groups were held with 9 students. The low participation rate from students is potentially attributable to their busy schedules, as the focus groups were generally held at the end of semester when students may have been preparing for exams.

#### Findings

Selected descriptive results from the student survey are presented below as graphs, and are triangulated with the qualitative data from the focus groups and interviews with staff and students. To demonstrate associations between the survey results and key variables, the graphs represented below may be organised to either show associations between case, feedback type (i.e., text-only vs digitally recorded), or feedback modality (i.e., text vs audio vs video vs screencast).

Although there were several cases in which some students received text feedback alone, these data are removed in graphs showing a breakdown by case. This omission was for the purpose of trying to create consistency between cases (i.e. comparing data from students who received digitally recorded feedback only). In addition, due to the low sample size, the LAW-I-VR case was omitted for between case analyses. Therefore, in graphs where between case analyses are shown, the reduced sample size is reported in the figure caption.

Overall, the survey and focus group findings indicate that students find recorded feedback to be more satisfying, more useful, and more engaging than text-based feedback alone. These results tend to be elevated when rich audiovisual modalities are used.

### Students' engagement with digitally recorded feedback

Overall, students' survey responses indicated that they found the digitally recorded feedback that they received to be engaging. Furthermore, students in the focus groups indicated that they:

- Played the feedback multiple times
- Took the comments and used them in future assignments
- Showed the feedback to others as an exemplar of how well Monash University provides feedback
- Made an effort to understand the comments on a deeper level

In the survey, students were asked how many times they looked at or played the feedback they received. As shown in Figure 16 below, students in the majority of cases tended to play the digitally recorded feedback either once or twice. However, in certain cases, a high proportion of students played the recordings two (see EDF-I-VSATR and PSC-G-VR) or three times (see EDF-I-VS).

It should be noted that students who had not played the feedback at all were screened out of the survey, as the remaining questions were not relevant to them. As such, data from these students (n = 10) is not represented in subsequent graphs.

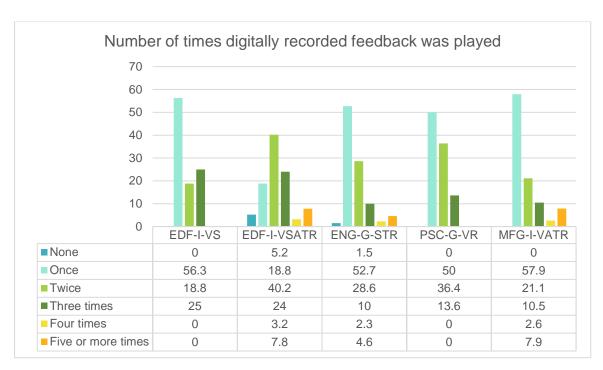


Figure 16. Percentage breakdown of the number of times students played the digitally recorded feedback they received, split by case (n = 158).

Students who participated in the focus groups highlighted some of the reasons why they had played the digitally recorded feedback multiple times:

"I probably reviewed it two or three times relative to the paper to see what she was talking about or where. I interacted with it a bit more." (EDF-I-VASTR student)

"I watched it once at the time I received it and I watched it once prior to starting work on my second assignment when I wanted to go back over the few things that [the tutor] suggested." (EDF-I-VS Student)

"[I watched it] maybe 10 times, and I post on my Facebook as well because I feel how careful, how helpful, how good, how well teacher here help student. So I post on Facebook because I want to share how good Monash give me [feedback]." (MGF-I-VATR student)

"It was just to soak it in at a deeper level. So, I mean, I suppose with written commentary I would go back and look at it a second time but to actually watch it and then you can pause it and you can go backwards and have that again; it's just about soaking it in, embedding it a bit further. (EDF-I-VS Student)

"You want to go back and you want explore it a bit deeper. So, I watched it more than I would have read the comments, absolutely." (EDF-I-VS Student)

#### Clarity of digitally recorded feedback

The majority of students who received digitally recorded feedback either agreed or strongly agreed that it was easy to understand and not confusing<sup>1</sup>.

Notably, there was a high proportion of students who strongly agreed with these statements in EDF-I-VS and PSC-G-VR.

<sup>&</sup>lt;sup>1</sup> This item was worded as a negative in the survey (i.e. 'The feedback was confusing') to triangulate with other items relating to clarity. It was reverse coded prior to analysis.

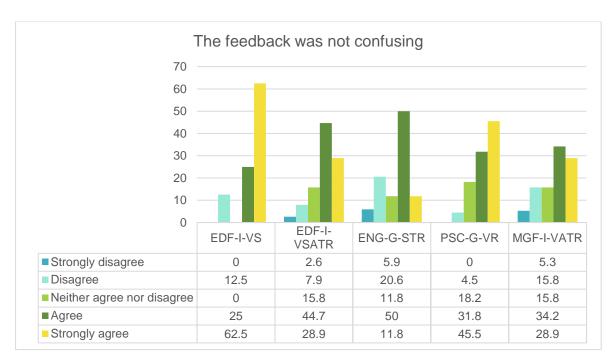
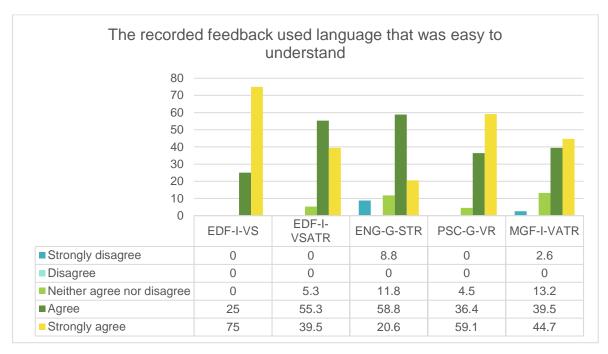


Figure 17. Percentage breakdown of students' levels of agreement that the digitally recorded feedback was not confusing, split by case (n = 148).



*Figure 18.* Percentage breakdown of students' levels of agreement that the digitally recorded feedback used language that was easy to understand, split by case (n = 148).

When comparing across feedback type, students receiving digitally recorded feedback were more likely than students receiving text-only feedback to *strongly agree* that the feedback was easy to understand and not confusing.

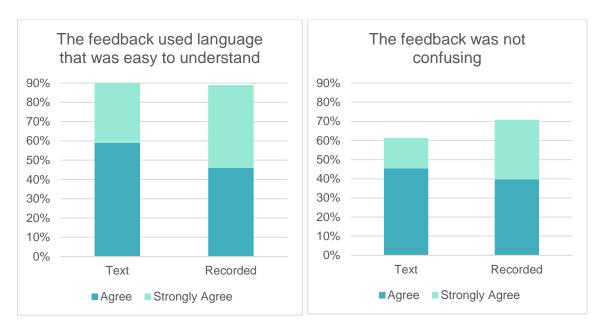


Figure 19. Proportion of students who agreed and strongly agreed that the feedback they received used language that was easy to understand and was not confusing.

The following quote is from a student who mentioned watching their feedback recording multiple times because it was so easy to understand:

I found the whole thing really, really clear, and I watched it maybe four or five times, or possibly even more; I kept watching it because I could understand it so well. So it was really, really useful for me and I'm much more pleased to receive that kind of feedback than written feedback. (EDF-I-VASTR student)

When looking across feedback modalities (see Figure 20), a higher proportion of students who received text-based feedback and audio feedback agreed that it was confusing when compared to students who received video and screencast feedback. In addition, students were more likely to strongly agree that video and screencast feedback were not confusing, when contrasted with audio and text. These results suggest that the richness of the media used to create the feedback is an important factor in aiding understanding and reducing ambiguity.

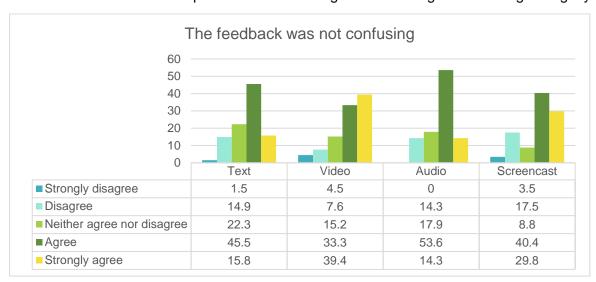


Figure 20. Percentage breakdown of students' levels of agreement that the feedback was not confusing, split by feedback modality.

The focus group interviews confirmed that students valued the rich nature of the digitally recorded feedback:

"And because you have the video feedback, and you're reading the body language and you're reading - you know, all of that's coming through, then you could actually do more with it." (EDF-I-VS Student)

"...because I could follow the essay along as my tutor was reading through the parts, I found - for my style of learning - it was really great, because I really took it in, I think, a lot more. I received, also, for another assignment a written feedback, and I found it actually a lot harder to understand what she'd meant in certain areas." (EDF-I-VASTR student)

I thought it was just great, the parts she pointed out and how she would highlight the words, and she was really precise with what she would say about the essay, and she was really clear and addressed both the rubric and the essay, so it was really helpful. (EDF-I-VASTR student)

#### Usefulness of digitally recorded feedback

The figures below demonstrate that the vast majority of students from all cases either agreed or strongly agreed that the digitally recorded feedback was useful, a source of constructive comments that they could use to improve their work, and that it prompted them to reflect on the quality of their work.

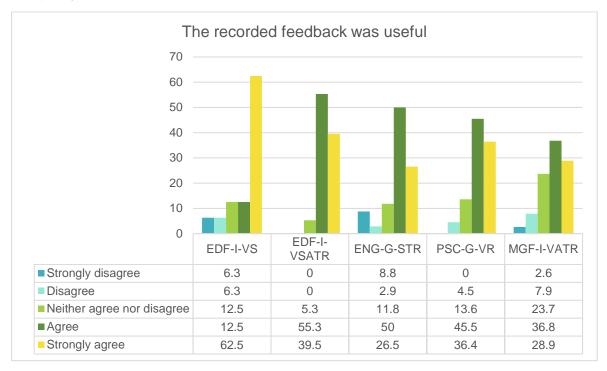


Figure 21. Percentage breakdown of students' levels of agreement that the digitally recorded feedback was useful (n = 148).

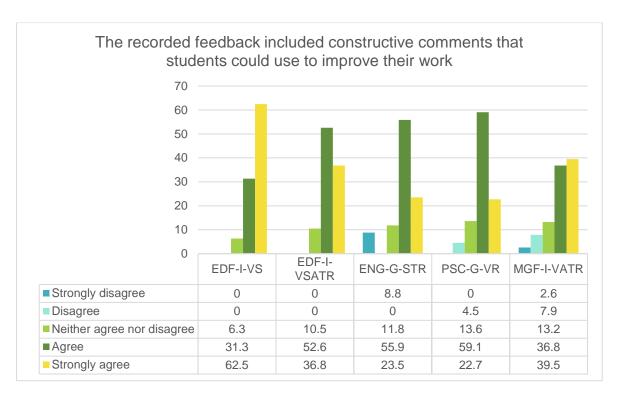


Figure 22. Percentage breakdown of students' levels of agreement that the digitally recorded feedback provided constructive comments that they could use to improve their work (n = 148).

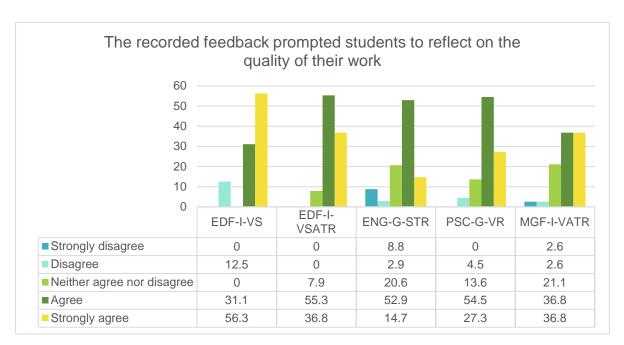


Figure 23. Percentage breakdown of students' levels of agreement that the digitally recorded feedback prompted them to reflect on the quality of their work (n = 148).

These results are likely to have been influenced by the fact that, during training, teaching staff were advised to provide information that students could use in the future.

Students in the focus groups also recognised that the recordings provided content that could be useful in the future:

"One piece of feedback I had was in relation to my use of quotation marks, singular and double, and how they were being used. That piece of information will certainly be taken forward in other assignments, so that improves my writing. But that type of feedback given in that context makes it more digestible." (EDF-I-VS Student)

"There were some comments about my writing and how that could be strengthened and that's going to be a clear advantage too, going and doing other assignments." (EDF-I-VS Student)

These quotes suggest that students were able to gain value from the recorded feedback by considering specific areas in which they could improve their future work. This type of reflection is highly beneficial for learners, as it helps them to develop the ability to self-regulate.

When looking across feedback modalities (see Figures 24 and 25), a higher proportion of students strongly agreed that audiovisual recordings (i.e., video and screencasts) contained feedback that prompted them to reflect on the quality of their work, and constructive comments that they could use to improve their work. These results suggest that audiovisual media may aid students in taking comments on board and using them to improve. Again, this may be due to the richness of the media, which can help reduce ambiguity.

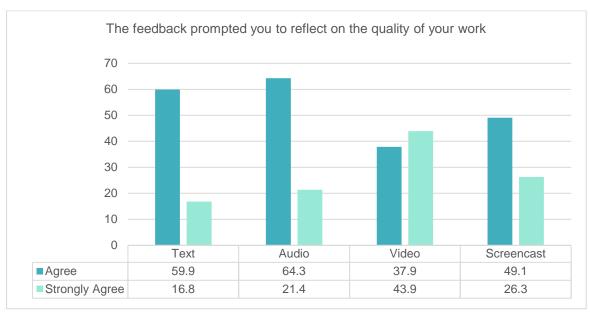


Figure 24. Proportion of students who agreed and strongly agreed that the feedback they received prompted them to reflect on the quality of their work, split by feedback modality.

It is pleasing to note the majority of students from all cases planned to use the digitally recorded feedback they received, as Figure 26 illustrates. As also noted in the clarity subsection, the most positive results were seen in the cases of EDF-I-VS and PSC-G-VR. While there are various factors that may be contributing to the slightly more positive results in EDF-I-VS and PSC-G-VR, there are two distinct commonalities between these units worth noting. The first is that both units had small cohorts, which may enhance opportunities for relationship-building between assessors and the students. The second is that highly experienced educators created the majority of the feedback recordings in both of these units. Due to their experience, they may have been more likely to provide comments that were particularly useful for students.

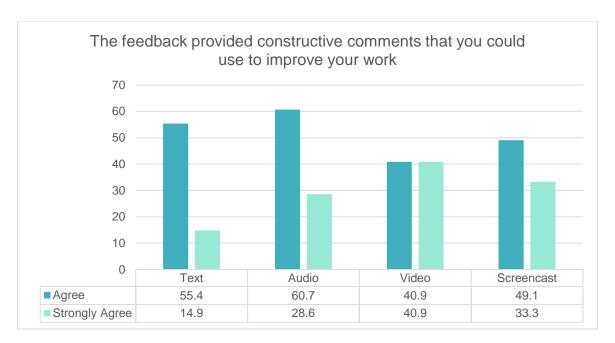


Figure 25. Proportion of students who agreed and strongly agreed that the feedback they received provided constructive comments that they could use to improve their work, split by feedback modality.

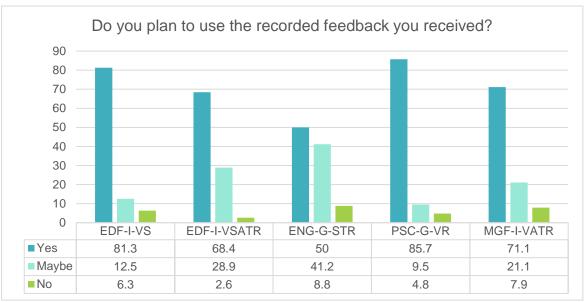


Figure 26. Percentage breakdown of students' intentions to use the digitally recorded feedback they received, split by case (n = 148).

Students who received digitally recorded feedback tended to be more likely to recognise its impact than students receiving text-based feedback only. For example, when compared to text-only feedback, students were more likely to strongly agree that digitally recorded feedback was useful, a source of constructive comments, and able to prompt them to reflect on the quality of their work (see Figure 27).

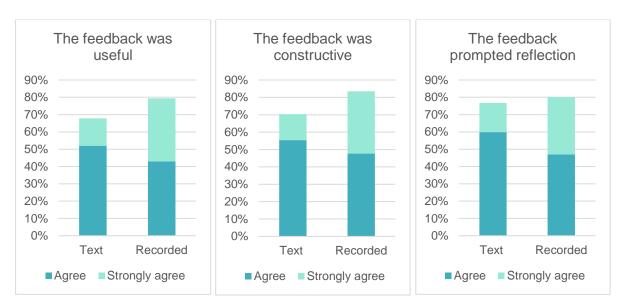


Figure 27. Proportion of students who agreed and strongly agreed that the feedback they received was useful, a source of constructive comments, and able to prompt them to reflect on the quality of their work.

Students in the focus groups provided some interesting examples of why digitally recorded feedback may have more impact than text-only feedback:

"A screencast forces you to connect with the feedback as a student and not just look at the mark and dismiss it and move on. You have to listen to five minutes or three minutes of feedback. So it's not just the mark flashing up at you on the screen, and the feedback's much more powerful in that format I found." (EDF-I-VS Student)

"It's another learning phase. It's not just engaging with your mark and what was thought about the work, it's actually thinking about how the work could've been improved" (EDF-I-VS Student)

#### Satisfaction with digitally recorded feedback

Overall, the majority of students were satisfied with both text-only and digitally recorded feedback (as shown in Figure 28). However, a higher proportion of students who received digitally recorded feedback were extremely satisfied (26%) when compared to those receiving text-only (7.9%).

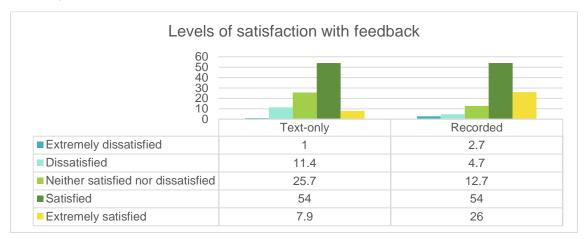


Figure 28. Percentage breakdown of students' levels of satisfaction with the feedback, split by feedback type.

Looking across the cases at students who received digitally recorded feedback, the majority were satisfied or extremely satisfied. In particular, a high proportion of students from EDF-I-VS and MDF-I-VATR were extremely satisfied (see Figure 29).

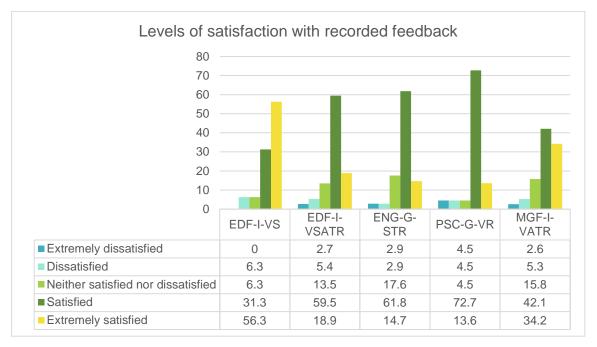


Figure 29. Percentage breakdown of students' levels of satisfaction for the digitally recorded feedback they received, split by case (n = 148).

The following comments from EDF-I-VS students provides some insight as to why students may have been so satisfied with the digitally recorded feedback:

"It was good information, it was helpful information and it sort of really connected to the piece of work which was great, which contextualised it in a more useful way because when you just read comments, they can be interpreted so many different ways. So this, with the video, you could see that he was really concerned about this part or he was really pleased about this part and that really helped." (EDF-I-VS Student)

"I almost felt like when I finished the video like I'd been in [tutor's] office having a chat with him...it felt like I'd had like a connection and something really quite meaningful. And I guess too, I felt that he'd valued us as students because someone had taken the time to really go into my work and talk about it. I felt that it was a really rich experience." (EDF-I-VS Student)

The comments above allude to the richness of the recorded feedback, and suggest that the enhanced content is more satisfying to students. In fact, when the satisfaction data is split out by feedback modality (see Figure 30), it becomes clear that students were most satisfied when they received digitally recorded feedback that included a visual component (i.e. video or screencast feedback). When taken in conjunction with the previous results, it is clear that audiovisual feedback recordings have advantage over text and audio alone.

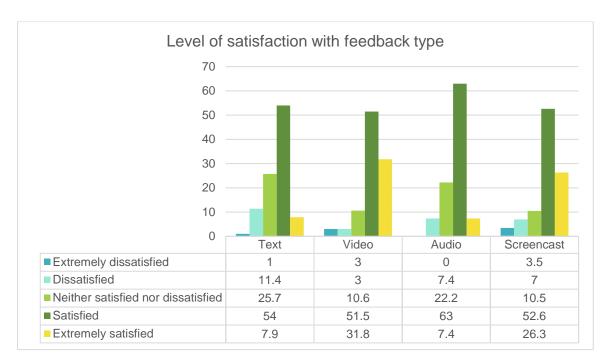


Figure 30. Percentage breakdown of students' level of satisfaction for the feedback, split by feedback modality.

## Technology enabled experimental feedback designs (Strand C)

Strand C assessed how technologies could be used to develop and deliver emerging feedback practices. This part of the project was exploratory in nature and identified three new or emerging digitally recorded practices:

- 1. Digital inking
- 2. Dialogical feedback
- 3. Evaluative judgment

#### **Digital Inking**

Previous research conducted by Henderson and Phillips (2014) indicated that students who completed writing-based assessment tasks (e.g., essays, lab reports) preferred rich media feedback over text feedback alone. However, students also appreciated receiving annotations on specific parts of their assessment task to help them make connections between the recorded comments and the document itself. As such, digital inking was explored to ascertain whether it could be sustainably used as a means of enriching digitally recorded assessment feedback.

Inking presents an alternative to typed annotations, and involves the use of a digital pen or stylus to make hand-written notes or informal sketches on electronic documents. This can be achieved using a touchscreen device (i.e., tablet or touchscreen computer) or through the use of an interactive drawing pad, such as a Wacom.

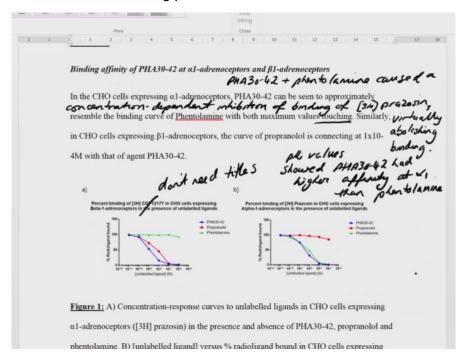


Figure 31. An example of how inking can be used to annotate electronic documents.

When using inking to annotate students' assessment tasks, it might be argued that it would be best to do so in conjunction with a screencast recording. In this way, the student can see their work being marked up by the assessor as they simultaneously provide verbal feedback. However, this requires a degree of staging, since it would not be efficient for the assessor to record for the entire period of time it takes to read an assignment for the first time. Instead, the assessor might first read the assignment and consider the issues that need to be highlighted

in the feedback. Following this, they would record the screencast, pausing to ink sections in order to aid the student's understanding.

In contrast to the above strategy, a team of Pharmacology lecturers (Barbara Kemp-Harper, Eva Patak, Klaudia Budzyn, Elizabeth Davis, and Gerry Rayner) have been exploring a more pragmatic option that also has the promise of a greater degree of sustainability. For example, two of the lecturers have used inking and screencasting in a 3rd year unit with 35 students. These students completed an assessment task which involved producing a final practicum report in the form of a scientific paper. The students had already submitted and received feedback on an assessment task focused on representing results but, for many, the task of creating a paper in which they had to contextualise and explain their results was an unfamiliar approach. As a result, the teaching team needed an effective way to be able to identify issues, demonstrate alternatives, and explain often complex issues within the report. For instance, explaining why a specific argument or phrasing is not as strong as another and providing an example can be guite laborious if provided through text comments alone. As a consequence, the team decided to use inking while they read the work, marking up sections of the assignment where they could demonstrate an alternative phrasing, key misconception, or offer a drawn diagram or formula that would otherwise be difficult to include if only using simple text annotations tools. After inking the work, the lecturers would then create a screencast in which they scrolled through each student's work, talking them through the annotations while also using a highlighting tool to show which part of the text or annotation they were looking at.

Overall, the lecturers found the process to be more time consuming than other methods of recorded feedback, simply due to the time taken to ink the document. Upon reflection, the lecturers have identified that they could make the process more efficient resisting the temptation to discuss all issues within the assessment tasks, and instead limiting the screencast to less than 5 minutes and focusing on just a handful of the inked issues. These conclusions are in line with our advice for creating other forms of recorded feedback (as described on the What page of the website).

A further issue highlighted by the lecturers was that some inking systems, including both hardware and software, were easier to use than others. In addition, the age-old concern of clarity of handwriting was reasserted. However, in regards to the latter, the screencast provided a secondary channel of communication which helped to clarify instances of unclear inked handwriting.

Despite some of the challenges faced by the teachers, the students were clearly appreciative:

"...very personal, and was able to identify each parts they were commenting on. It felt like the marker was there with you going over your work."

"It explained my pro's [sic] & cons more specifically, & it seems to have stuck with me more."

"Extremely comprehensive, easy to follow and clearly highlighted what I needed to improve on."

The use of inking as a mechanism for feedback would be a familiar concept to most assessors who have been marking student work by hand. However, the push for digital submissions of assignments makes digital inking a logical avenue for exploration. This particular case has revealed that, when inking is coupled with screencasts, it can be an effective way of providing complex feedback to students. Nevertheless, the robustness and fidelity of inking technologies, especially those coupled with recording functions, needs to continue to improve if we are to see a dramatic uptake by staff.

## Dialogical Feedback and Evaluative Judgment

This project, along with leading researchers in the field, argues that feedback is not something that is simply done or given to students. If feedback is to be understood and have an impact, students need opportunities to seek, give, receive, and act on feedback – to build their evaluative judgment. In other words, in order to succeed, they need to come to understand the explicit and tacit knowledge surrounding issues of quality. The ability to judge the quality of one's own work and that of others enables students to regulate their learning and improve their outcomes. However, evaluative judgment is not something that can be easily taught. In order to develop evaluative judgment, students need to have opportunities to observe and practice making judgments (e.g., explicit judgments of quality, such as via grading) and, importantly, explain those judgments by engaging in a process of negotiation of meaning with their educators and peers. Such a process of negotiation can help to 'calibrate' students' deep understanding of what is 'good' or appropriate. It is valuable to point out that even highly developed rubrics are founded on tacit understandings that students need to recognise.

Dialogical feedback is a process where students and teachers are engaged in a dialogue or sequence of interactions that are geared to reduce misconceptions, calibrate judgments, and better sensitise evaluative reasoning. Individual student-teacher consultations are often considered to be an optimal form of dialogic feedback. However, very few universities have the resources, including teacher workload, to make this option a frequent experience. Indeed, the trend of massification and online 'delivery' in Higher Education makes this increasingly unlikely. Consequently, we are tasked with the challenge of finding sustainable ways in which to engage students in a dialogic process in support of strengthening evaluative judgment. The pilot study reported below is one such attempt.

## Project Design and Participants

Digitally-mediated, sustainable, dialogic assessment feedback practices were designed and trialled in a postgraduate unit taught by three lecturers in the Faculty of Education in Semester Two, 2016. The unit serviced both Master of Education and Master of Teaching students, and a total of 39 students were enrolled. Approximately half of the students were enrolled online and the other half were enrolled on-campus. The unit adopted a hybrid or flexible learning design in which all of the students were taught together rather than being separated according to degree or location. As a result, half of the lectures were presented on- campus, which allowed all students to either participate or observe (as lectures were both live streamed and recorded). The other half of the lectures were presented as desktop web conferences. These were also recorded, but all students were expected to participate. In addition, throughout the unit, students were expected to engage with the online materials, activities, and tasks, including discussion forums. The unit had two formal assessment tasks: the first (an annotated bibliography) was due in Week 5 of semester, while the second (an essay or negotiated project) was due in Week 9.

Figure 32 depicts the sequence of key activities in the unit. As can be seen, the assessment tasks were scaffolded, allowing students to engage in dialogue that focused on the explicit and tacit understandings that support evaluative judgment. In developing this sequence, we provided multiple and diverse opportunities for students to engage in evaluative judgment; for example, by using exemplars, as well as incorporating rich digital recorded assessment feedback into the discussion.

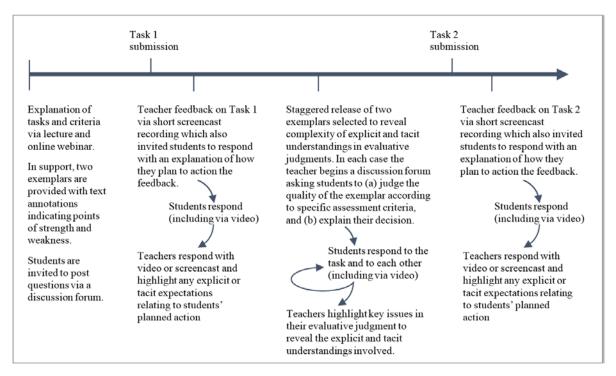


Figure 32. Sequence of dialogic feedback opportunities to support development of evaluative judgment.

## Encouraging dialogue around assessment feedback

A familiar design feature of the feedback in this unit was the use of video and screencast technologies by teachers to provide detailed comments to students after their assignments. This approach builds on previous research (e.g., see Strand B) in which digitally recorded feedback was reported to aid in clarity, reduce ambiguity, and strengthen rapport between students and their teachers who they felt were supportive and caring. The value of using such a sustainable (fast) way of communicating complex ideas (such as tacit understandings of quality) makes such a process ideal for this pilot project.

In providing the digitally recorded feedback, the three lecturers used a content structure that was recommended in our earlier work (see Figure 33, Henderson & Phillips, 2014). Within the recording, students were invited to respond to the feedback, thus continuing the dialogue with their lecturer. This invitation was constructed as a challenge, with the goal of helping students identify a key issue in the feedback that was provided by the lecturer within the Substantive Feedback stage. It was felt that only one particular issue should be the specific focus of the invitation rather than asking students to respond to all feedback comments. The important issue here was to not raise new ideas, but to focus the student on the feedback already provided. The challenge was then re-iterated as an invitation in the Valediction and Invitation stage; students were asked to explain how they will improve their work by acting on this key issue in future assessment tasks. In addition, the lecturers challenged the students to consider responding with their own video, audio, or screencast recording as a way of quickly explaining their ideas and reasoning.

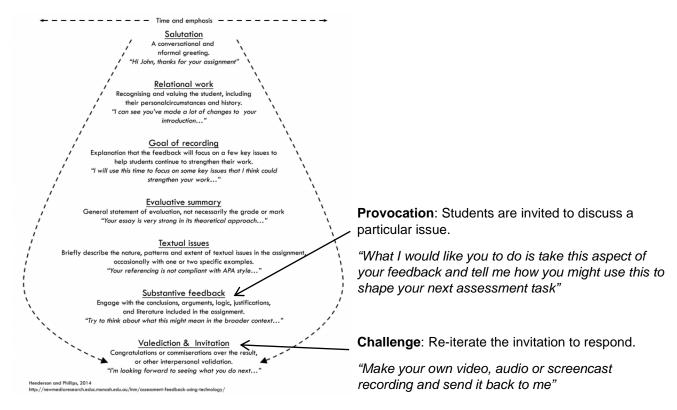


Figure 33: Recommended points to issue the provocation and challenge within the digitally recorded feedback structure.

Of the 39 students provided with screencast feedback, 11 (28%) provided a response to the provocation provided by their lecturer. These multi-modal responses formed the basis of, in 9 cases, ongoing dialogue about the impact of the feedback on the subsequent assessment task. Many students chose to respond using video and text, while others chose to use audio and text. Two students chose to post their responses in a text-based format in a general discussion forum on the Learning Management System website associated with the unit.

## Encouraging dialogue through the use of exemplars

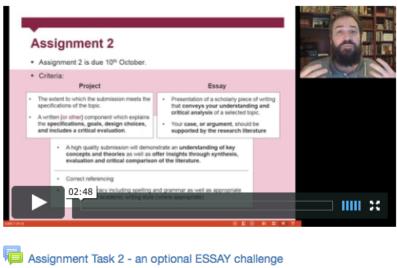
In addition to the individual video feedback and provocation, all students in the unit were invited to participate in a series of activities that involved using exemplars to better understand the assessment criteria, both explicit and tacit.

At the beginning of the course students were provided with exemplars that were annotated by the teacher with regards to strengths and weaknesses. Students were invited to post questions via a discussion forum. Later in the course, exemplars were provided without comments, and students were invited to make and explain their own evaluative judgments with regards to specific assessment criteria. Students were also encouraged to respond and build on each other's explanations. Critically, the lecturer's role was to elicit explanations from students, and then to strengthen their evaluative judgments by identifying how their explicit or tacit understandings differed from the lecturer's, and to explain that difference. In this context, the use of video or screencast technologies by students and lecturers was particularly useful in being able to quickly share complex thinking.

## Assignment 2 challenge (optional - but strongly advised)

Research tells us that evaluative judgment is something that we need to practice. This kind of task is a bit experimental but we think it will really help you hone your thinking around the assignment. It should be fun too!

Watch this 2 minute video and then enter the forum below to access a paper from last year and post your thoughts.





Assignment Task 2 - optional PROJECT challenge

Figure 34: Invitation to participate in an evaluative judgment challenge.

Figure 34 shows a screenshot of the video posted to Moodle in which students were provided with instructions and introduced to the concept of evaluative. Students were then able to access previous examples of student assignment submissions related to each of the options (essay or negotiated project), along with a discussion forum dedicated to each of the options. The opening post in the discussion forum was made by a lecturer and reinforced the instructions contained in the video (see Figure 35).

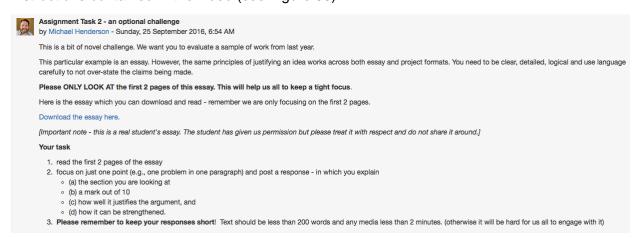


Figure 35: Opening post in evaluative judgment discussion forum.

Of 39 students participating in this unit, 36% (n = 14) students posted to the forum a total of 18 times. However, 92% (n = 36) of students observed the forums, with 72% (n = 28) viewing the forum threads between 2 to 20 times (with an average of 6 times per student). In total, there were 267 views of 18 student posts. The student posts were interspersed with 11 posts from staff, six of which contained text and an embedded video file. The remaining five staff posts were text only. This resulted in 5304 words in the text entries for an optional task. The majority of students reported that they found the exemplar activity to be useful, with one student explaining that it "significantly impacted my understanding towards what's expected from the assignment."

## **Project Outcome**

This project strand aimed to answer research question two, by assessing how technology can be used to develop and deliver emerging feedback practices. Building on Boud and Molloy's (2013) ideas of sustainable assessment models, this project strand empowered learners in a feedback cycle that allowed them to drive their feedback and learning dialogically with their lecturer.

This involved a series of multimodal conversations (involving audio, video, screencasts, and text) designed to engender evaluative judgment through the use of exemplars prior to the submission of an assessment task. After submission, the conversation continued with lecturers providing screencast feedback on the assessment task itself with a specific challenge issued to students. This involved inviting them into a series of dialogic (turn taking), multi-modal conversations building on their last assessment task with a view to strengthening the next task.

The work undertaken in this project strand has resulted in the proposal of a model of dialogic feedback supported by the use of digital technologies. This student-involved approach holds the promise of being a sustainable method of engaging in dialogic assessment and feedback practices. Moreover, it could be implemented for an individual assessment task, across a unit, or across an entire degree.

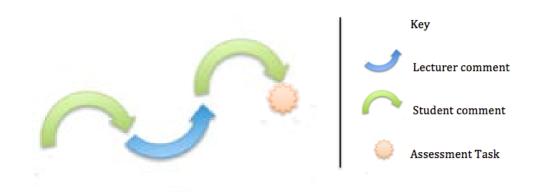


Figure 36: Dialogic feedback model for one assessment task.

For example, Figure 36 illustrates a way that students and staff could engage in a dialogue about an upcoming assessment task. Designing this kind of dialogue requires careful consideration about the elements of each comment. For example, simply asking students to provide teaching staff with an indication of what aspects of the upcoming task they would like to discuss could lead to a very wide range of topics which staff may find difficult to manage or sustain.

In contrast, if staff invite students to respond to specific issues of quality, such as the assessment criteria (and thereby support the development of evaluative judgment), then this is likely to be more focused, and therefore more sustainable. For example, in this case, the

lecturers initiated one of the conversations with students using explicit instructions to focus on the clarity of argument. This can be seen in the following example:

"You need to be clear, detailed, and logical and use language carefully to not overstate the claims being made.

#### Your task

- 1. Read the first 2 pages of the essay
- 2. Focus on just one point (e.g., one problem in one paragraph) and post a response in which you explain:
  - a) the section you are looking at
  - b) a mark out of 10
  - c) how well it justifies the argument, and;
  - d) how it can be strengthened.

Please remember to keep your responses short! Text should be less than 200 words and any media less than 2 minutes (otherwise it will be hard for us all to engage with it)."

## A dialogic model for one unit

Units at Monash University are generally characterised by multiple assessment tasks. The model proposed in Figure 36 can be extended beyond a single assessment task to cover multiple assessment tasks in one unit. We propose that there are three major differences when designing for multiple assessment tasks when compared to single assessment tasks.

For multiple assessment tasks, staff should:

- 1. Be aware that there are increased opportunities for turn taking in between assessments and this can change the detail of the provocations provided to students.
- 2. Construct feedback on assessment tasks in light of the conversations that have preceded the assessment task.
- 3. Link assessment tasks so that conversations and assessment feedback can be actioned by students in subsequent assessment tasks.

These differences are illustrated in Figure 37.

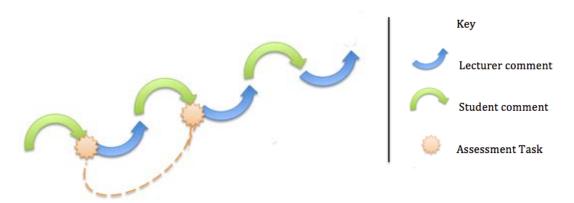


Figure 37. Dialogic feedback model for one unit.

## A dialogic model for a degree

As will be illustrated in the next section (Strand D), assessment tasks set within individual units are often seen in isolation from the assessment tasks set in preceding or subsequent units. While there is evidence of some communication between certain units in relation to their assessment tasks, this appears to be the exception rather than the rule.

To better aid student knowledge and skill development over the course of an entire degree, we propose that a dialogic feedback model involving multiple staff in all units be designed, piloted, and researched. The design of this longer-term model, illustrated in Figure 38, would be a significant development in the conceptualisation and delivery of feedback in Higher Education. Despite our international connections with leaders in the higher education feedback research community, we are not aware of any similar enactment of this feedback model across a cohort experience. This would allow Monash to lead feedback provision in Higher Education on an international stage.

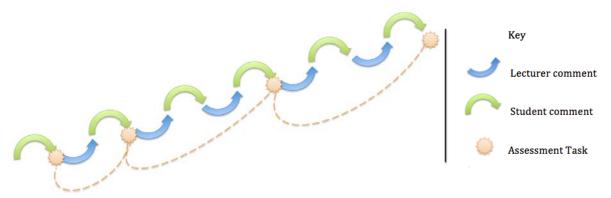


Figure 38. Dialogic feedback model for a degree.

## Feedback realities: current practice in assessment feedback (Strand D)

To assess the diversity of feedback experiences at Monash University, a large-scale online survey was conducted during September and October 2016. This survey targeted staff and coursework students, and included a mix of closed and open-ended questions focusing on the types of assessment and feedback used in Semester 2, 2016.

Survey items were designed through consultation with experts in the field, and by modifying items from existing instruments, including the 15-item Feedback Questionnaire (Adcroft, 2010), the Teachers' Conceptions of Feedback Inventory (Harris & Brown, 2008), the Student Conceptions of Feedback Inventory (Version 3) (Irving & Peterson, 2007), the Assignment Feedback Questionnaire (Lizzio & Wilson, 2008), the Feedback Practices survey (Pereira, Simao, & Barros, 2016) and the Y1Feedback Staff Survey (Y1Feedback, 2016),

The complete survey contained 85 questions for staff and students; however, skip logic and screening were used to avoid instances where participants may have been asked questions that were not relevant to them. This means that a subset of participants (i.e., staff who did not have teaching or assessment responsibilities in Semester 2) completed a much shorter survey (~25 questions).

## **Participants**

Valid survey responses were received from 3,229 Monash staff and students. A comparison of the demographic breakdown of survey respondents and university students and staff is provided in Table 3 and Table 4.

It should be noted that the student university statistics are based on all enrolled students, while the survey statistics only targeted undergraduate and postgraduate coursework students. Likewise, the staff academic statistics are based on teaching and research staff, while the survey was only based on teaching staff.

Table 3
Comparison of staff survey results with university statistics

Characteristic	University	Survey
Staff	n = 7579 <sup>‡</sup>	n = 202 (3% of total staff)
Gender	56% female 44% male	61.4% female 36.6% male 2% unspecified
Classification	43% Academic 57% Professional	88% Academic 12% Professional
Faculty (Academic staff only)	3% Art, Design, Arch 11% Arts 16% Bus & Eco 6% Education 8% Engineering 5% Info Tech 3% Law 31% Med, Nurs, Health Sci. 5% Pharmacy and Pharm Sci. 10% Science	1% Art, Design, Arch 21% Arts 13% Bus & Eco 11% Education 6% Engineering 6% Info Tech 2% Law 30% Med, Nurs, Health Sci. 1% Pharmacy and Pharm Sci. 8% Science 2% Other

Note: University staff statistics taken from Monash University Pocket Statistics 2016

With regard to the focus groups, there were a total of 12 student and 8 staff participants. Of the students, 7 were from non-STEM disciplines (4 postgraduate and 3 undergraduate), 4 were from STEM disciplines (3 postgraduate and 1 undergraduate), and 1 was a postgraduate student from a Medicine and Health Sciences-related discipline. Of the staff, 5 were teachers from non-STEM disciplines and 3 were teachers from Medicine and Health Sciences-related disciplines.

Table 4
Comparison of student survey results with university statistics

Characteristic	University	Survey
Students	n = 73,777*	n = 3,027 (4% of total students)
Gender	57% Female 43% Male	67.5% female 31.5% male 1.1% other/unspecified
Citizenship	60% Domestic 40% International	69% Domestic 31% International
Course type	74% Undergraduate 26% Postgraduate	67% Undergraduate 33% Postgraduate
Campus	47% Clayton 25% Caulfield 10% Malaysia 5% Peninsula 4% South Africa 3% Parkville 2% Berwick 2% Online 1% Gippsland	53% Clayton 20% Caulfield 4% Malaysia 5% Peninsula 1% South Africa 2% Parkville 3% Berwick 9% Online 1% Other
Faculty	3% Art, Design, Arch 11% Arts 27% Bus & Eco 8% Education 10% Engineering 5% Info Tech 5% Law 19% Med, Nurs, Health Sci. 3% Pharmacy and Pharm Sci. 8% Science	3% Art, Design, Arch 16% Arts 17% Bus & Eco 14% Education 7% Engineering 6% Info Tech 5% Law 20% Med, Nurs, Health Sci. 2% Pharmacy and Pharm Sci. 10% Science
Attendance mode	83% Full-time 17% Part-time	87% Full-time 13% Part-time

Note: Student university statistics taken from

www.monash.edu/ data/assets/pdf file/0009/738225/campus-profiles-2016-prelim-jan17.pdf

## Findings

Key findings from the survey and focus groups with staff and students are presented below. Due to the extensive nature of the data, not all survey items or interview questions are reported here. Therefore, these data are not intended to be exhaustive, but rather, to present selected initial findings that offer insight into current practices and possible future initiatives.

## Students' experiences

Data presented below provides an overview of students' experiences with feedback at Monash University. Key indicators were selected including: diversity of assessment types, sources of feedback, timeliness of feedback comments, frequency, and perceptions of usefulness.

## Diversity of assessment and feedback types.

To gauge the diversity of assessment types, staff with assessment responsibilities (i.e. those who were involved with teaching or marking assessment tasks at the time of the survey) were asked what type of assessment tasks were used in their units in Semester 2, 2016. As can be seen in Figure 39, students were generally required to complete written essays, oral / presentations, or short quizzes and tests at mid-semester, and exams or written essays at the end of semester.

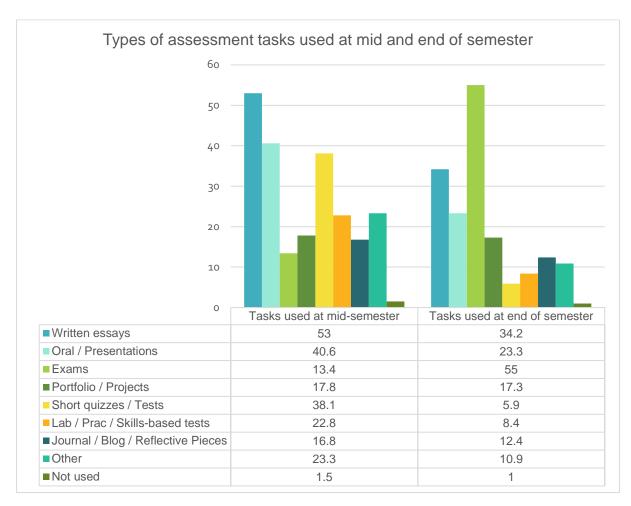


Figure 39. Percentage breakdown of types of assessment tasks used at mid-semester and end of semester, according to staff with assessment responsibilities.

Staff with assessment responsibilities were also asked what types of performance-related information they provided to students after submission on various types of assessment tasks. The results are displayed in Figure 40. As shown, the majority of assessment tasks were assessed using both grades and comments, with the exception of exams, short quizzes and tests.

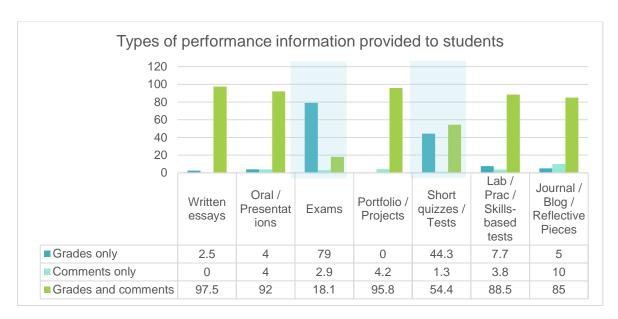


Figure 40. Percentage breakdown of types of performance information provided to students on various assessment tasks, according to staff with assessment responsibilities.

When taken together, these results highlight that many students are completing exams at the end of semester, but are not necessarily receiving feedback that they can then take forward into subsequent units. This is a potential problem, as students are limited in their learning when they are not able to make judgements about their performance.

#### Sources of feedback

Students were asked to indicate who had provided them with comments before and after submission of their assessment tasks. The results are provided in Figure 41. The most common sources for comments, both before and after submission, were university academic staff, friends, peers, and family members. It is interesting to note that, before submission, students seek feedback from friends and peers almost as much as they do from university academic staff.

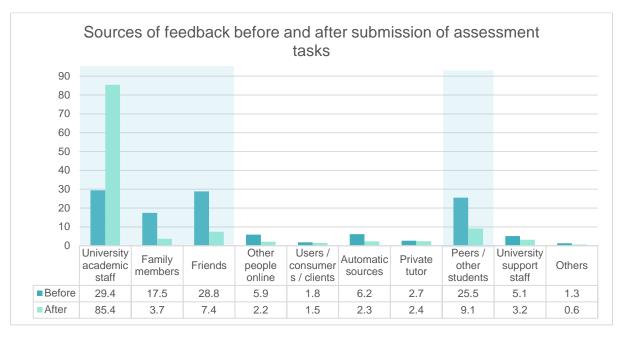


Figure 41. Percentage breakdown of sources of feedback comments before and after submission of assessment tasks, as reported by students.

Students who had sought comments from university academic staff before submission were asked how useful that feedback had been. As shown in Figure 42, over 50% of students found the comments to be 'extremely' or 'very' helpful. However, 48.2% of students also found the comments to be 'moderately helpful', 'slightly helpful', or 'not at all helpful'. These results suggest that teacher staff could be doing more to improve the feedback they provide before submission.

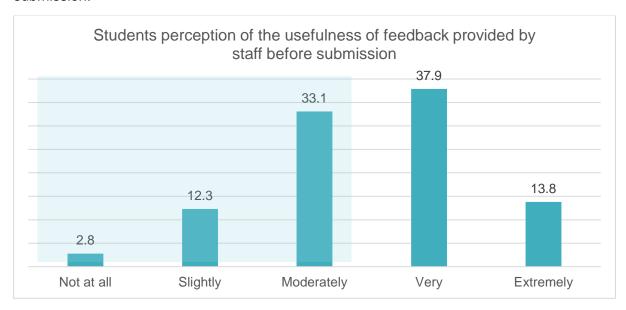


Figure 42. Percentage breakdown of sources of feedback comments before and after submission of assessment tasks, as reported by students.

## Number of assessment tasks on which students had received feedback

Students were asked in the survey how many assessment tasks they had received comments back from the assessor on so far (see Figure 43). As the survey was launched in Week 7 of Semester 2, it was expected that most students would have received comments on at least one task by the time they completed the survey. However, this was not the case: almost 13% of students reported not receiving any feedback at all by this point.

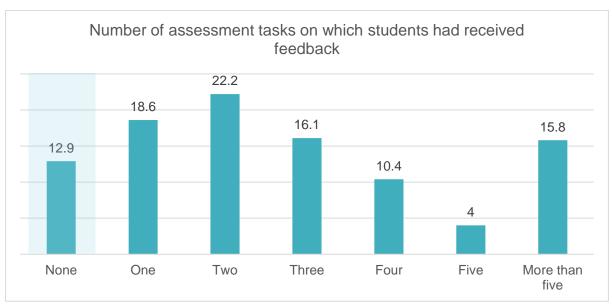


Figure 43. Percentage breakdown of number of assessment tasks that students had received comments back from an assessor on, by at least Week 7 in Semester 2.

The 391 students who indicated that they had not received any comments by at least Week 7 (i.e. those who responded 'none' in the graph above) were mainly comprised of undergraduate (58.3%) or Masters students (29.7%) from the faculties of Medicine, Nursing, and Health Sciences (26.9%), Business and Economics (15.9%), Education (15.3%), and Law (15.1%).

## Perceptions of the feedback

Students who had received comments back on at least one assessment task were asked to think of the most recent comments they had received and rate their level of agreement with various statements. The results are presented in Figure 44.

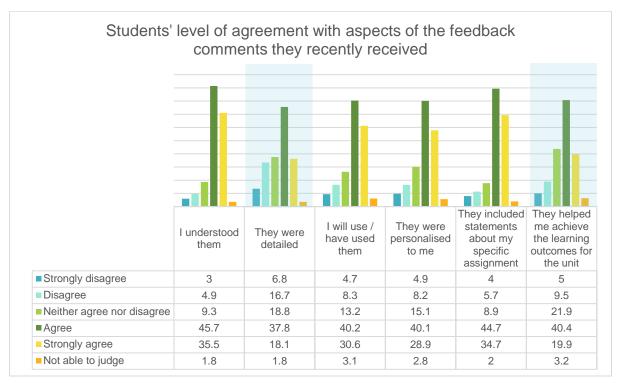


Figure 44. Percentage breakdown of students' level of agreement with various aspects of the feedback comments they received on a recent assessment task.

The majority of students agreed that the feedback comments they received were understandable, personalised, and specific. However between 7% - 13% of students disagreed or strongly disagreed with these three statements. Similarly, most students (70.8%) reported that they will use, or have already used, the feedback comments, but 16.1% (n = 485) disagreed, strongly disagreed, or could not judge with this statement.

It is worrying that 23.5% of students disagreed or strongly disagreed when asked if their feedback was detailed, as feedback should be detailed enough to support students to improve performance. Finally, assessment, and arguably the feedback that relates to the assessment, should be largely shaped by the learning outcomes for the unit. In this survey a large proportion of students (39.7%) were either not able to judge, disagreed or were ambivalent that the feedback helped them achieve the learning outcomes for the unit.

Students were also asked how often the feedback they received during their studies discouraged them (see Figure 45). While the majority (59.9%) said 'never' or 'rarely', 38.8% stated that it discouraged them 'frequently', 'occasionally' or 'always'. The 1175 students who answered this way were mainly comprised of on-campus (91.3%), full-time domestic (55.1%) or international students (32.7%), who were completing undergraduate (67.7%) or Masters

degrees (21.7%) from the faculties of Medicine, Nursing, and Health Sciences (21.1%) and Business and Economics (18.2%).

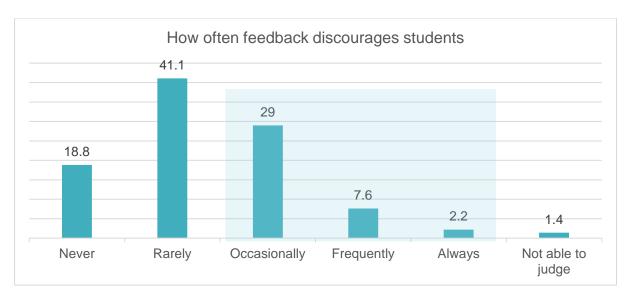


Figure 45. Percentage breakdown of students' opinion regarding how often the feedback they receive in their studies discourages them.

#### Turnaround time for students to receive feedback comments

Teaching staff were asked to indicate how long it takes them to provide feedback comments to students on average. This data is represented in Figure 46, along with comparison data representing students' reported experiences with turnaround time for the most recent assessment task that they had received comments on.

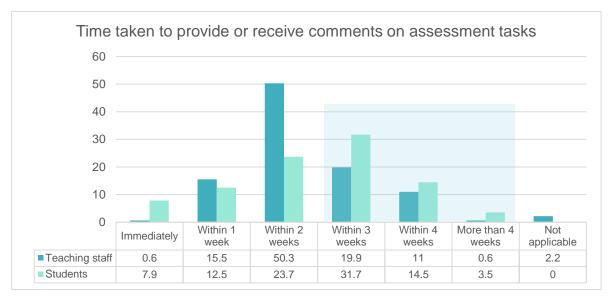


Figure 46. Percentage breakdown of students' and teaching staff members' reported experience of the time it takes to provide/receive comments on assessment tasks.

As can be seen, the majority of teaching staff suggested that they provided comments back within 2 weeks, while only 31.5% suggesting that they take 3 weeks or more. In contrast, only 23.7% of students indicated receiving comments back within 2 weeks, while 49.7% reported that comments were received after 3 weeks or more. These results are slightly concerning, as students maybe more likely to dismiss the feedback if it is not provided in a timely manner.

## Challenges

Within the survey, focus groups, and interviews, staff and students were asked open-ended questions about the challenges associated with feedback at Monash University. Analysis of these open ended responses and the quantitative data has revealed three key challenges.

Challenge #1. We need to find ways to improved feedback opportunities at the end of semester. There is a lack of feedback at the end of a unit for most students, particularly those in undergraduate degrees who have end-of-semester examinations. Students' ability to improve is limited when they don't receive detailed feedback. Considering the significant engagement and effort from both the student and lecturer in relation to this assessment it is clear that there is a lost opportunity for learning.

Challenge #2: We need to find ways to increase feedback opportunities prior to assessment submission. The data clearly indicates that students want feedback before submission as well as after submission. It is arguable that feedback prior to submission is more important since the point of feedback is to have an impact on performance.

Challenge #3: We need to find ways to improve timeliness of feedback. Students are unable to use feedback if it is not provided in a timely manner.

#### Lack of feedback at the end of the unit

The data relating to diversity of assessment tasks (see Figure 39) indicates that many students are expected to complete exams at the end of semester. However, it appears that students rarely receive any feedback other than a grade on exams (see Figure 40). This presents a problem for students, because if teaching staff are not providing comments at this point valuable opportunities for improvement may be lost.

This challenge was noted by many students, as the following quotes reveal:

"They didn't give [me] any feedback for the exam, you just get a grade. Which I partially agree and disagree with that - I mean I think it's fair because like there's 1500 or something students doing this, they can't individually give feedback for all of them, [but] you want to know what you did right and what you did wrong. Also they don't actually give you your exam grade back, so you don't know which you got right and which you got wrong." (First year STEM student)

"Return copies of exam papers with marks, or at the least the marking rubric, to the students. Provide generalized comments on the exam and how it was/should have been answered." (Postgraduate non-STEM student)

"Provide feedback on exams as a matter of course, instead of waiting for students to request it." (Postgraduate non-STEM student)

"After the exam or evaluation is over, put out a sample answer sheet which details an HD answer and what the evaluators look for. As a bonus, also include common

mistakes that were made by candidates in the submission." (Postgraduate non-STEM student)

"Law faculty needs to actually PROVIDE feedback to begin with. It's not good enough to have a 100% exam, and shift students through the system like cattle" (Undergraduate non-STEM student)

#### Students want feedback before submission

Figure 41 showed that many students are looking for feedback before they submit their assessment tasks. In many cases, students will seek comments from staff, but they also tend to rely on friends, family, and other students. Students were asked in the focus groups about their need to seek advice prior to submission, and the following comments were received:

"I think for me it's a bit of a lack of confidence, coming from the English university system to the Australian one. It's quite different, surprisingly. All those things, the expectations, in education, has all been really quite different from my previous faculty in arts. I suppose that is what has made me seek more feedback here than I did in my previous degree." (Postgraduate non-STEM student)

"Yeah, in terms of other students, I think it's nice that sometimes we are like 'I'm so lost on this assignment, are you as well?' and they can be 'yes, I am'. So in that kind of aspect, I've never had anyone read over mine or anything. But getting that kind of clarification or checking different things that you might not be – that you think are stupid questions as well, can sometimes help. Then if they don't know, you can both go to the tutor. I have had – madly – my parents editing one of my essays an hour before it's due – each doing different pages." (Undergraduate non-STEM student)

"I thought that feedback would be the same as what high school teachers used to give but after I saw that it was just very independent learning I realised that the feedback that it gives you is not necessarily important. What is important is that you can actually go and ask them because that's where the real feedback lives." (Undergraduate STEM student)

Of some concern was the finding that a considerable proportion of students who sought feedback from academic staff prior to submission did not consider their comments to be useful (Figure 39). One student provided some context around why this was the case:

"I have only ever really had the opportunity to ask about an essay plan for history. When I asked she said she had no knowledge on the area, so it wasn't really here nor there."

Some students also remarked that there were challenges or obstacles associated with approaching teaching staff for feedback:

"I'd have to walk a long way to the other side to wherever their building is and I didn't think it was worth the effort. Because I could just find some help online and ask friends." (Undergraduate STEM student)

"I think when you've only got 12 weeks to get to know a lecturer or a tutor, within the first five weeks, the last thing you want to do is go bother them – you know nothing about what they are doing, their research – we can't just walk in and go 'oh, the weather's nice today, can I just get some help?' You've got to have tutors that really engage and interact or else it's like you are approaching a stranger that you've never seen before." (Undergraduate non-STEM student)

"You have to have that confidence to go up at the end of a class and maybe some people are still hanging around, and ask questions. Or in a lecture, when there's students that want to talk to the lecturer, and you have to be able to say your question, so everyone can hear you. And also I've found a lot of them get recorded on the lecture. Which is – I think – some of them are quite funny to listen to. That's been a big thing for me, whenever I ask a lecturer a question. I am like – 'can we move away from the microphone because I don't want this to be recorded'. "(Undergraduate non-STEM student)

On the other hand, some students who sought feedback from people outside of the university found this feedback to be of limited use:

"I spoke to one of the consultants that I work with. But what he did was he changed the [assessment task] substantially, and I had to change a lot of it back, because he wasn't aware of the criteria that had to be included in the letter to the editor to address for assessment purposes. Also, he included stuff that was not my original work, which I couldn't submit for an assessment, so I had to take that out." (Postgraduate Health Sciences student)

"I think because at this level, at university, my family's not really much help unless they have studied the same things as me. I guess for assignments there is that issue of collusion – taking ideas from other people." (Undergraduate non-STEM student)

Overall, these results suggest that students like to reach out for guidance before they submit their assessment tasks, and in many cases they seek this guidance from people outside of the university. This raises questions about Monash University's responsibility to provide support to those providing such feedback (i.e. friends, family, and/or peers).

#### Students desire more timely feedback

In Figure 46, it became clear that some students had not received any feedback comments by at least Week 7, and others who had received feedback had to wait up to four week or more.

Students' frustration with the lack of timely feedback was evident in their open-ended survey responses. For example, when asked how the university could support more effective feedback practices, many students suggested that staff need to provide feedback before their second assignment is due, as evidenced by the following quotes:

"Give feedback and results quicker. Assignments I hand in won't be given results until weeks/months later and often I'm not even given feedback." (Undergraduate STEM student)

"Abide by the 4 week turn around, we have due dates so they should too when providing feedback. It should also come before the 2nd assignment is due." (Undergraduate non-STEM student)

"Have a set schedule of receiving feedback a week before the second assignment is due and PLEASE ENFORCE THIS!! Students shouldn't have to shell out even MORE money to repeat a unit just because we didn't receive any feedback or advice on something we have no idea what was wrong to begin with." (Undergraduate non-STEM student)

"The bulk of my postgrad law subjects are intensive and generally have two assessments, a take home exam and a research essay. I've not once received the assessment for the first assessment task before having to hand in the second. It means

that you never know how you are tracking until the end when you just get your mark. The only times I've received feedback apart from one occasion, I've had to request it from the lecturer after the end of the subject." (Postgraduate non-STEM student)

"Get it to the student quicker so that they may incorporate the feedback into their next assessment. Often, feedback is provided too late to be able to used effectively within the same unit of study. Therefore the student is unable to see whether or not they interpreted the feedback as was intended by the educator to improve their work." (Undergraduate non-STEM student)

## Conclusions

The four strands of this study have involved 13,913 people, including 9934 who have viewed the digitally recorded feedback website, and 3979 staff and students at Monash University. The broad cross section of the Monash community involved in this project has allowed for in depth investigations of existing feedback practices.

This project has also enabled staff in five different faculties to trial new and emerging forms of multi-modal feedback. The results from this strand of the project indicated that students from all faculties involved preferred multi-modal assessment feedback when compared to written feedback. In particular, students strongly indicated preference for video and screencast feedback due to the richness of the media and the increased clarity of the feedback.

Staff from six units then volunteered to provide digitally recorded assessment feedback to students in units that they were teaching. The feedback from staff has resulted in the confirmation of some aspects of the previous model of multi-modal feedback provision (Henderson and Phillips, 2014) but provided additional understandings of the influence of various contextual factors on this model. The output of this strand is materials that have been added to the staff resource website developed in Strand A, including videos, examples, additional 'how to' and workflow processes from disciplines other than Education.

Despite the positive nature of much of the data gathered in this study, staff and students also provided data that revealed challenges for the University in the timeliness and usefulness of the feedback provision. The absence of information that can be actioned is a challenge for students as they are often unsure of the best way to proceed with subsequent assessment tasks. The deficiency of actionable feedback is also evident in the assessment practices in many faculties where, for example, end of semester exam marks are provided without individual feedback on the areas of relative strength and weakness. This is not only a challenge for individual students when looking to enhance their performance on subsequent tasks but also for staff who may be teaching a student in subsequent units.

Another key issue for the university is that 31.3% of students reported that they approached teaching staff for feedback prior to assessment submission. Of these, 46.3% reported that the information they received from staff was only moderately helpful, slightly helpful, or not helpful at all. It is somewhat unsurprising therefore to find that up to 28.8% of students sought feedback from sources outside the University (e.g., family, friends, online) on their assessment task. The implication for the University, therefore, is to consider the ways in which staff provide both formal and informal feedback to students and the impact receiving feedback from outside University sources may have on both the student's learning outcomes and the University's reputation as an education institution above world standard.

The final conclusion of this project is in response to the challenges identified in the final strand of this research. The work undertaken in this pilot project has resulted in the proposal of a model of dialogic feedback supported by the use of digital technologies (Strand C). This student-involved approach provides a model by which sustainable, dialogic assessment and feedback practices could be implemented for an individual assessment task, across a unit, or across an entire degree.

To better aid student knowledge and skill development over the course of an entire degree, we propose that a dialogic feedback model that involves multiple staff in all units be designed, piloted, and researched. The design of this longer-term model, illustrated in Figure 47, would be a significant development in the conceptualisation and delivery of feedback for learning in Higher Education. This would allow Monash to lead feedback provision in Higher Education on an international stage.

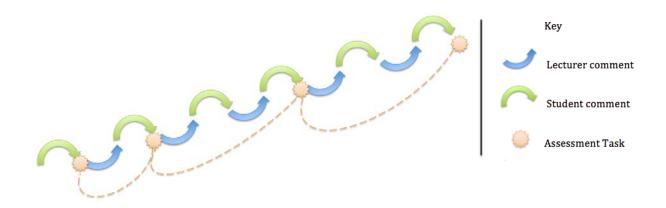


Figure 44. Dialogic Feedback Model for a degree.

# Peer-reviewed publications resulting from this project

- Dawson, P. & Henderson, M. (2017). How Does Technology Enable Scaling Up Assessment for Learning? In Carless, D. et al Scaling up Assessment for Learning in Higher Education
- Phillips, M., Henderson, M., & Ryan, T. (2016). Multimodal feedback is not always clearer, more useful or satisfying. In S. Barker, S. Dawson, A. Pardo, & C. Colvin (Eds.), *Show Me The Learning*. Proceedings ASCILITE 2016 Adelaide, 514-522.
- Ryan. T., Henderson, M., & Phillips, M. (2016). "Written feedback doesn't make sense": Enhancing assessment feedback using technologies. Paper presented at AARE Conference 2016 Melbourne.

## Forthcoming:

Henderson, M., Phillips, M., & Ryan, T. (accepted). Dialogical feedback in the age of massification. In D. Boud, R. Ajjawi, P. Dawson & J. Tai. How good is this? Using assessment to develop evaluative judgment in higher education.

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