Providing timely assignment feedback to large online student cohorts

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The strong market demand for psychology to be taught online has seen a rapid growth in enrolments in psychology units delivered by Open Universities Australia. Students studying in the online environment have expectations of a fast turnaround of their assignments along with an individual critique of their work. Such expectations can prove difficult to fulfill and the challenge will only be exacerbated as student numbers increase. This paper outlines four different models of assignment marking, adopted in an online Introductory Psychology unit with a high student enrolment and a correspondingly large teaching team. The first model of assignment marking focused on transitioning experienced on-campus teaching staff to the online environment. Subsequent models aimed to reduce inefficiencies in the assignment marking process, without a reduction in pedagogical effectiveness. The current model (Model 4) no longer includes the time-consuming process of annotating student's assignments with embedded comments. This change, while originally motivated purely by efficiency and budgetary constraints, has proved to be pedagogically effective. The faster return of grades accompanied by a brief individual comment on the overall quality of the work (rather than more extensive comments embedded as annotations within the assignment document) meets student expectations with respect to feedback, and when used in conjunction with more focused 'feedforward' through use of tutor teams and stronger tutor-student relationships, appears to provide a more effective teaching and learning outcome.

Keywords: online learning, feedback, introductory psychology, large cohorts, feedforward

Background

In 2007, Swinburne University of Technology was approached by Open Universities Australia (OUA) to develop an undergraduate degree program incorporating a major in psychology. OUA's market research suggested a strong demand for such a program, irrespective of whether it was accredited by the Australian Psychology Accreditation Council (APAC) as part of a professional pathway towards registration as a practising psychologist. In response to OUA's approach, Swinburne University developed the Bachelor of Behavioural Studies (BBS) with the objective to provide a diverse and flexible offering in psychological studies for online students. Students from anywhere in Australia or overseas may enrol in single units in psychology or in the degree program itself. The BBS course is delivered off-campus through OUA with students able to self-pace their study in terms of the number of units undertaken each study period. Each psychology unit within the BBS program has a dedicated online site delivered via Swinburne University's Blackboard Learning Management System (LMS) which provides downloadable and interactive resources for students, as well as facilities for discussion and online chat.

OUA's market research has proved to be correct, and enrolments in Swinburne University's Introduction to Psychology 1 unit, which is the first of the online psychology units in the BBS to be delivered through OUA, have risen rapidly. The approximately 700 student enrolments in 2009 has risen to around 2500 students in 2010, with the first study period of 2009 having around 250 enrolments, leveling out to around 750 enrolments for each study period of 2010. Such large student cohorts involve a substantial pool of teaching and administrative staff located both on- and off-campus, and the significant challenge is to provide an equivalent level of individual academic feedback to students, commensurate with the level of staff-student interaction available in an on-campus university program.

Managing student expectations in the online environment

While students are, in general, positive about studying in an online environment, particularly with regards to its convenience in terms of independence of location and time (see LaBay & Comm, 2004 and Li & Irby, 2008 for a review of the literature), they have high expectations regarding interaction with teaching staff. One such expectation is for a rapid turnaround of assignments along with feedback incorporating individual critiques of their work (Lyons, 2004; Taylor, 2003). This particular expectation is proving difficult to meet for the teaching staff in psychology. This difficulty will only be exacerbated as student numbers across other units in the program increase due to flow-on effects from the high number of Introductory Psychology students.

The role that feedback plays in the learning process is a contentious issue in the educational literature (e.g. see Hattie & Timperley, 2007). On one hand, feedback is said to be important to the learning experience (Heinrich, Milne, Ramsay & Morrison, 2009). When coupled with formative assessment, individualised feedback enables students to actively construct their learning (Nicol & Macfarlane-Dick, 2006). On the other hand, it has also been reported that many students fail to read comments on their work for summative assessments and are only interested in feedback that will improve their grades on future assessments (Jollands, McCallum & Bondy, 2009). Motivation levels are also known to affect expectations regarding feedback, with intrinsically-motivated students (evidenced by their degree of interest in the subject area) seeking more meaningful feedback than is provided by grades alone, in order to facilitate a deeper level of engagement with the subject material (Higgins, Hartley & Skelton, 2002).

So even though students may demand prompt feedback on their assignments and intrinsically-motivated students appear to benefit from it, the feedback for many students is not read, acted upon or even understood (Duncan, 2007; Jollands et al., 2009; Price, Handley, Millar & O'Donovan, 2010). While there is general consensus that providing feedback is a resource intensive process, has to be delivered in a timely fashion and should be consistent across markers (Heinrich et al., 2009), the effectiveness of feedback is brought into question if students do not use it to understand the reason for their numerical grade, and to facilitate their performance on future assignments (Duncan, 2007; Gibbs & Simpson, 2004).

Overview of the study

Aims

This paper reports on an ongoing research project aimed at evaluating different marking and feedback processes in a first year undergraduate online Introduction to Psychology unit. Given the importance of providing timely but effective feedback on student assignments, the original aim of this project was to develop an efficient administrative process for the collection, grading and return of papers in large online cohorts. A further aim was to transition teaching staff from the traditional model of grading printed copies of assignments to a new model, making optimal use of the LMS, for the grading of papers electronically. This paper evaluates successive iterations of the new process from a student, teaching staff, and management perspective.

In order to comply with the constraint that feedback processes need to be efficient both from a student and administrative perspective, this study undertook to evaluate the factors contributing to its effectiveness (Duncan, 2007; Heinrich et al., 2009) so as to identify what factors could be manipulated to improve efficiency without compromising effectiveness. Is feedback more effective when it is delivered promptly to the student? Is feedback more effective when there is a lot written on the

student's work by the marker? Is feedback more effective when it can be used by students to improve on their next assignment? Although the primary aim of the original study was to improve administrative efficiency, this has led to an examination of the role of feedback overall. The most time-consuming aspect of grading papers is the task of embedding comments in students' work – it is on the basis of these comments that final grades are assigned. The ease of writing comments on paper, and the individual evolved practices with respect to sorting and comparing hard-copy assignments has been a major hurdle in terms of experienced teaching staff shifting from paper-based to electronic marking.

Outline of paper

In the following sections of the paper, we will begin by describing our first feedback model (Model 1), which was an attempt to replicate the traditional on-campus model as closely as possible in the online environment, and serves as a baseline for the current study. We will next outline the research project aimed at developing a more efficient model specifically for the online environment. Models 2 and 3 are the next two iterations of our feedback model, implemented in successive study periods. Model 4 is the most recent model of feedback and focuses much more strongly on providing effective 'feedforward' interactions with tutors prior to assignment submission, and more focused feedback in terms of timely assignment return, a numerical grade, a brief individual comment, and a generic feedback sheet. The strong drivers for efficiency motivated us to adopt what we considered to be a sub-optimal feedback model pedagogically. In the original design of this study, we did not even consider the possibility that marking assignments without embedding comments might not only be more efficient, but might actually also be more pedagogically effective. Surprisingly, the requirement to reflect on what is important in our practice has resulted in a feedback model that is not only efficient, but also very effective in terms of teaching and learning. Model 4 recognises the importance of feedforward regarding expectations and level of attainment, of feedback in terms of overall standard and position within class (provided by numerical grade, individual comment and generic comments) brought together through an individual student-tutor relationship.

The feedback models

Model 1 (Baseline): Electronic submission, paper-based marking process

Although the teaching team for the first iteration of the online psychology unit was very experienced with on-campus face-to-face teaching, many were relatively new to the online environment. Therefore, the marking and return of assignments in Study Period 1, 2009 was based on the on-campus paper-based system to facilitate the transition to online teaching. Students submitted their assignments electronically, and casual staff were employed to download and print the assignments from the LMS (Blackboard) to distribute to tutors. In addition, due to the unexpectedly large cohort, off-campus sessional markers, who did not teach into the unit or elsewhere in the program, were employed to try to ensure a fast turn-around time.

The process for collecting, marking and return of assignments is described below.

1. Students uploaded their assignments electronically into Swinburne's LMS – Blackboard.
2. Casual staff downloaded and printed the assignments and passed these on to teaching and marking-only staff.
3. Staff graded the assignments according to a standardized marking guide, writing their own comments to the hardcopy as they thought appropriate.
4. After marking moderation by senior members of the teaching staff (requiring moderators to receive a hard copy of the assignment with embedded comments), the graded assignments were returned to students by mail and the marks entered into the LMS by casual staff.

There were, not surprisingly, a number of problems identified with this system.

1. Several of the graded assignments were lost in the mail, meaning that additional copies had to be printed and re-marked. The original grades were unaltered, but feedback (in the form of embedded comments) was added by the Unit Convenor (not the original marker), some guesswork was involved on what comments were made when the original grading was done. There was a risk that the original graded work would eventually arrive via mail, but with different comments from the re-marked version, which might be disconcerting to students. (It should be noted that, while the

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marks moderation process ensures a common marking standard in terms of numerical grade, the specific comments made by individual markers to individual students may vary in detail and tone, reflecting individual personalities rather than any lack of consistency in terms of the marking criteria).

2. Although students received individual feedback comments on their assignments, the turn-around time was just on three weeks, a week longer than our stated aim. Students were not happy with long turn-around time and teaching staff were not happy with length of time it took to mark assignments. Management was not happy about the added cost of paying casual staff to download and print assignments. The use of off-campus sessional markers also left some ambiguity in terms of the role of the tutor. Each student was allocated to a specific tutor, but in many instances, the nominated tutor did not mark that student's work, nor was the student obliged to attend the online tutorial given by 'their' tutor, thus weakening any sense of belonging to a specific tutorial group.

Informal evaluation of this marking and feedback process revealed that, from the point of view of the Unit Convenor, teaching staff and Swinburne's management, the marking process was time-consuming, inefficient and wasteful in terms of resources, and the turn-around time from submission to return of marks and feedback was too long. The conclusion was that we needed to develop a different method of marking, providing feedback and returning student's assignments, and was the trigger for the current study.

Iterative implementation of new models

Although there was strong pressure to improve the efficiency of the marking process, we did not want the drive for efficiency to impact negatively on the quality or integrity of the teaching and learning process. In order to monitor the effect of changes to the marking process, we initiated an evaluation process to go hand-in-hand with the implementation of iterative procedural changes. Assessment for the unit being evaluated includes two assignments, with the first assignment providing the background information for the second assignment. Assignment 1 is due in Week 4 or 5, and Assignment 2 is due in Week 9 or 10 (depending on other teaching and marking commitments of students and staff in the specific study period). It is therefore highly desirable for students to receive feedback from Assignment 1 in time to use this feedback effectively in Assignment 2 (i.e., with a minimum of two weeks still available for completion of Assignment 2).

Method
The evaluation was undertaken by asking tutoring staff, unit convenors and students to complete a brief online survey about the marking process for Assignment 1 after feedback had been returned to students, and prior to their submission of Assignment 2. The student survey focused on: timeliness of feedback; quality and quantity of comments; usefulness of comments in completion of the second assignment. The tutor survey focused on administrative issues such as ease of downloading assignments, ease of inserting comments, usefulness of generic comments, appropriateness of timelines. The convenor survey focused on administrative issues and ease of moderation of marking. The formal evaluation via this evaluation project complements the normal evaluation processes undertaken by formal unit teaching panels, formal and informal tutor meetings and email correspondence, and formal and informal student feedback via discussion forums, email and Swinburne quality-of-teaching surveys. The findings reported here are based on preliminary analyses of the surveys undertaken in the formal evaluation project and on formal and informal deliberations of the unit teaching panels that are conducted as a standard component of our reflective teaching practice.

Model 2: Fully electronic marking process

The second iteration of this unit, in Study Period 3, 2009, saw the development of a new model of grading, providing feedback and return of assignments. As noted above, the printing of student submissions for marking was costly, time-consuming, but more importantly, not scaleable, and the student enrolment in the unit doubled from that of the first iteration. It was therefore decided to move to a purely electronic marking and feedback process, despite concerns about potential resistance to change from the tutoring staff. The new system aimed at improving not just the efficiency of the administrative process, but also the consistency and quality of feedback comments provided to students through provision of comment templates.

A constraining factor in terms of administrative efficiency was a degree of caution on the part of the Unit Convenor regarding access to the Blackboard LMS's Grade Centre by tutors. The complexity of Grade Centre settings and the difficulty of restricting tutors to specific columns of the Grade Centre invited a certain degree of nervousness for the person with ultimate responsibility for returning correct grades. To avoid tutors requiring direct access to the Grade Centre, assignments were downloaded to a separate Blackboard site for electronic distribution and marking.

An additional change to the unit occurred as a result of the unexpectedly high enrolment. The discussion forums, which in the first iteration of the unit were a shared responsibility of the tutoring team, became the primary role of the Unit Convenor due to the sheer volume of discussion forum traffic. Tutors looked after their weekly online tutorials (implemented as Blackboard live chat sessions) and marking of assignments, but the Unit Convenor had an unexpectedly high profile presence on the asynchronous discussion boards as the senior staff member responsible for the unit, thereby implicitly undermining the direct individual relationships between tutors and "their" students. The Unit Convenor provided the substantive 'feedforward' (e.g., see Carless, 2007; Cathers, 2006; Duncan, 2007 for a discussion of various concepts of feedforward) regarding the Assignment, but feedback was provided by tutors who graded the work, rather than the tutors being in control of the whole feedforward - feedback loop.

The process for collecting, marking and return of assignments is described below.

1. Students uploaded their assignments electronically into Swinburne's LMS – Blackboard.
2. Casual staff transferred the assignments from the unit into a separate LMS area, which was set up as a Blackboard "Organisation" within the LMS to serve as a resource centre for teaching staff away from the Grade Centre. This extra step in the process addressed the Unit Convenor's reluctance to have teaching and casual marking staff accessing the Grade Centre area of Blackboard which stored student's marks. Teaching and marking staff were enrolled into the Psychology Organisation and were provided with their own folder in which the unmarked assignments had been transferred. All relevant marking guides and templates for each assessment task, as well as a Word document containing suggested feedback comments were available from here.
3. Assignments were downloaded by teaching staff from this Organisation to be marked electronically. To facilitate consistency of feedback, a set of commonly used phrases and words was made available for markers to embed in student's papers using the clipboard function of Word with more comments added as markers thought appropriate.
4. Marked assignments were uploaded to the Organisation into separate folders by markers.
5. After marking moderation by senior members of the teaching staff, the graded assignments were transferred by the Unit Convenor to the unit's Blackboard site for students to download and the marks were entered into the LMS. Although it had been anticipated that casual staff would perform this file transfer, the interface of the Grade Centre involved many mouse clicks, and did not make it easy to check that the correct marks and marked files were being uploaded to the correct student, so the Unit Convenor took on the role.
6. Students were still not happy with long turn-around time, which was still around three weeks. Teaching staff were not happy with length of time it took to mark assignments. Management was not happy about paying casual staff to transfer assignments.

Results and evaluation of Model 2
Out of a possible 169 students who submitted a first assignment only 18 students (11%) responded to the online survey. (Note that the enrolment in the unit was more than twice this number and the subsequent drop-out rate is not atypical of OUA units). The majority of respondents found the feedback helpful, with most reporting that they understood why they received their grades, and that they could apply feedback to future assignments. Only one tutor out of five responded to the survey.

Although, only a small amount of data has been collected, respondents reported that the feedback received on the first assignments was useful (constructive), however, it took too long to return graded assignments. Anecdotally, tutors found it difficult to move from a paper-based system of marking to electronic marking, and did not find the standard comments file useful. Administratively, the costs involved (in monetary and environmental terms) in either printing out of such large numbers of assignments (Model 1) or in the employment of casual staff in transferring assignment files (Model 2) are not sustainable.

Although not the main focus of the study, it was noted earlier that the discussion boards in this unit were very active, and due to the unanticipated size of the cohort, the Unit Convenor did most of the discussion board monitoring, while the tutors managed online tutorials and assignment marking. The level of response from teaching staff on the discussion boards and online tutorials was very highly rated in terms of content and timeliness. However, despite the positive ratings for the discussion board, it was also very overwhelming due to the sheer volume of posts generated from such a large cohort and students and teaching staff found it difficult to navigate. Also, the authors felt that the high profile of the Unit Convenor (one of the authors) inadvertently undermined the role of the tutors as primary contact point for students. Therefore, a new model of collection, marking and return of assignments was trialled in 2010, along with a new approach to managing interactive forums. These new approaches aimed to address many of the students', tutors' and managers' concerns and at the same time marked a shift in focus of the project from administrative efficiency alone towards consideration of the pedagogy, the role of the tutor, and effectiveness of feedback versus feedforward.

Model 3: Tutoring teams to support feedforward as well as feedback

For the third iteration of this unit, in Study Period 1, 2010, there was yet another doubling of enrolment compared with the previous study period. In response to these issues of scaleability, it was determined that tutors needed to be given more responsibility and autonomy, and tutoring teams seemed to be the most practical way of ensuring that student needs were met and tutors were able to support each other in fulfilling their roles. The cohort was divided into four tutorial groups, with a team of tutors responsible for each group's discussion boards and weekly online tutorials. The development of a new model of grading and dissemination of assignments gave tutoring staff full access to the Grade Centre, despite earlier misgivings on the part of the Unit Convenor, and therefore bypassed the use of a separate Blackboard Organisation and the need to distribute assignments to markers. This was a major step forward in terms of administrative efficiency.

The process for collecting, marking and return of assignments is described below.

1. Students uploaded their assignments electronically into Swinburne's LMS – Blackboard.
2. Assignments were downloaded by teaching staff from Blackboard to be marked electronically without first being transferred to a separate LMS organisational area. Markers used their own method of embedding comments into the papers.
3. Marked assignments were uploaded to Blackboard by tutors who added the marks to Grade Centre – both areas were hidden from students during the marking phase and not released until after marking moderation was been completed.
4. Marking moderation was conducted by senior teaching staff, who made any amendments to student marks through Blackboard. A first phase of moderation was undertaken within the tutor teams on their own initiative, which was an unexpected benefit of instigating tutor teams with increased responsibilities for their section of the student cohort.
5. Turnaround time of marking was still three weeks. Students were not happy with the length of time taken to receive feedback. Anecdotally, tutors reported little use of the feedback given in Assignment 1 to improve on Assignment 2. A number of assignments were being submitted with the tutor's comments given in Assignment 1 still evident in Assignment 2, e.g., "reference list on separate page" appeared as a comment in the submitted assignment, but had not been acted upon. This brings into question the value of providing extensive individual feedback comments. Management was happier with not employing casual staff to print assignments or transfer assignment files but was still concerned with the long turnaround times. Tutoring staff, in general, managed to upload assignments and add marks without major problems arising, and outside markers were not required. Only one tutor turned the Grade Centre into an unreadable version, however, this was soon rectified by Swinburne's Blackboard support staff. It is now part of the Unit Convenor's practice to maintain a weekly copy of Grade Centre and to archive the Blackboard unit as a whole, in addition to the normal backup and archiving services provided by the information technology support services.

Results and evaluation of Model 3
This model of marking and feedback is being evaluated using the same set of questionnaires as in Study Period 3, 2009. The response rate of students was better than for the first evaluated unit, with 78

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out of a possible 453 students (17%) who submitted their first assignment completing the survey, but this response rate is still very low. The response rate from the teaching staff's perspective was better than previously with 10 out of 11 tutors responding.

The major success story from this iteration of the unit was the use of tutoring teams. Anecdotal evidence suggests that the higher response rate to the survey from tutors reflects the success of using tutor groups, which gave more responsibility to tutors, and therefore more ownership of their tutoring role and their relationship with students. The tutors were very enthusiastic about the higher level of responsibility assigned to them, despite it not being linked directly to a change in rate of pay. The smaller size of the discussion boards and the increased ownership by the tutors (without the strong online presence of the Unit Convenor) has had the effect of strengthening the 'feedforward' aspects of online interactions with students. The tutors are more actively involved in setting the agenda for discussions, responding to student inquiries regarding marking criteria, facilitating assignment preparation, and then marking the assignments, and are therefore involved in a one-on-one relationship with individual students during the entire feedforward – feedback loop.

However, despite the success of tutoring teams, the original focus of this project was on the efficiency of the marking process not the effectiveness of tutoring teams, and it still took 3 weeks to return assignments. The major bottleneck continued to be the time taken to embed comments into a piece of work, the need for the assignment with embedded comments to be circulated for marks moderation, and the need to return the annotated assignment to the student (either through Blackboard or via email).

Despite the ongoing changes to the marking process aimed at efficiency, the long turnaround times on assignments continued to plague this unit. Although the unit convenor had serious pedagogical misgivings about failing to provide embedded feedback on assignments, there was no compelling evidence to support the efficacy of such feedback, particularly given that the majority of students in the equivalent first year psychology unit on-campus do not collect their annotated assignments if they have already received their mark numerically via Blackboard. Since the most time-consuming aspect of the marking process is, at least anecdotally, the least effective in terms of student learning, the new marking process being trialled abandoned the use of embedded comments. Since there are no individual comments inserted into a student's work, the second most time-consuming aspect of the marking process, that of uploading marked assignments to the Grade Centre, has also been eliminated, as assignments, once downloaded for grading, do not need to be re-uploaded to Blackboard so that students can review the feedback.

Model 4: Feedback comments without embedded annotations – improved efficiency and effectiveness

In the current iteration of the unit (Study Period 2, 2010), which has the same high enrolment as for the previous study period, each tutor was provided with an Excel spreadsheet containing a detailed breakdown of marks to indicate how well the student has accomplished specified tasks, including a column for an overall comment on each individual student's work. The final grade and overall individual comment were the only feedback returned to the student.

The teaching team, despite being overwhelmed with the sheer volume of marking arising from such large student cohorts, was initially very uneasy about the idea of not putting individual comments on assignments. However, at the same time that this option was being considered, a new model of marking payments was adopted as part of the Enterprise Bargaining Agreement at Swinburne University (SUT EBA - Swinburne University of Technology, 2009). The small amount of time allocated to marking of each individual assignment in the SUT EBA made the decision not to embed individual comments in assignments very much easier to adopt, despite pedagogical misgivings!

The process for collecting and marking assignments and return of marks and comments is described below.

1. Students uploaded their assignments electronically into Swinburne's LMS – Blackboard.
2. Assignments were downloaded directly by tutoring staff from Blackboard to be marked electronically.
3. Tutors had a standardized marking spreadsheet to grade assignments and did not embed any individual comments in student's work.

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4. Comments from the marking sheet were pasted into the web-based window for Instructor's comments in Blackboard's Grade Centre.
5. Marking moderation was conducted within tutoring groups who made any amendments and additional comments in their spreadsheets. Overall moderation between tutor groups was undertaken by senior teaching staff in the unit.
6. Marks and comments from the collated spreadsheet were uploaded to Blackboard by the Unit Convenor from a collated spreadsheet
7. Students consulted with their tutors if they wanted individual feedback.
8. Students should be happier with a faster turnaround but may not have been happy with the level of feedback. Tutors were happier with the reduced time taken for marking and not appear to suffer from additional email and telephone calls regarding assignment marks. Management are happy because the process will be much less resource intensive and will meet the requirements set by the SUT EBA.

Results and evaluation of Model 4
We will be conducting a formal evaluation of this new process in Study Period 2, 2010 using the same method as previously. In addition, the following questions will be asked. How many students request consultation with tutors? What amount of time did teaching staff spend in consultation with each student?

Initial anecdotal evidence is that the speed of marking has been improved dramatically, and this has also improved marking consistency because markers have not been under the same degree of time pressure. The collation of comments within a spreadsheet rather than within individual assignments allows for ease of cross-comparison when marking, which also serves to improve the consistency of marking. The cross-marking and moderation process is also facilitated, as candidate papers for cross-marking are most easily identified by a combination of final mark with the nature of comments from the original marker. Although it was not specifically required of tutoring teams, each team individually prepared generic feedback on the assignment that was distributed to all of their students, identifying common problems and ways of improving the standard on the second assignment. Tutors were able to moderate their own style of feedback and learn from each other, and had a much stronger sense of how other tutors undertook the marking process.

This study period also suggests to us that the optimal size for effective participation and 'feedforward' in tutorial discussion boards is between 150 and 250 students. Too few students means not enough interactions and too many students means too many posts to read so that questions get asked and answered multiple times, exacerbating the problem of information overload even further. The combination of effective feedforward to ensure a solid understanding of the assignment requirements, coupled with timely feedback in terms of a mark (how the assignment compared with an absolute standard), an individual comment (what the student needs to do to improve) and generic feedback (how the whole cohort is travelling, and implicitly where the individual is placed relative to the cohort) appears to have met student expectations, in that there has been no increase in emails to tutors or to the unit convenor asking for further feedback.

Concluding remarks

This paper outlines four different models of assignment marking, adopted in an online Introductory Psychology unit with a high student enrolment and a correspondingly large teaching team. The first model focused on transitioning teaching staff to teaching in the online environment. The subsequent models aimed to reduce inefficiencies in the process, without a reduction in effectiveness. The models were implemented in a changing environment with a doubling of enrolment from expected numbers in each of the first three iterations of the unit. During the third and fourth iteration of the unit, the model of payment for assignment marking changed in accordance with the new SUT EBA.

The formal evaluation of Model 4 (in which student's assignments were no longer annotated with embedded comments), along with reflection on the purpose and use of individual feedback is very timely given constraints on the amount of time allocated per student for assessment of work in the SUT EBA. It should be noted that the focus on specifying hourly rates of pay for different classes of assessment has been primarily a budgetary response to the stipulation that marking of assignments will be paid in addition to standard tutoring rates. The corollary pedagogical implications of these

budgetary decisions are only now being considered and discussed in the appropriate teaching and learning forums.

In the context of reflection on the purpose and effectiveness of feedback, the success of using tutor groups with additional responsibility and autonomy provides some food for thought. The success of tutor groups may have enhanced the 'feedforward' effects of discussion boards and online tutorials, both in terms of student learning, and of tutor mentoring and support. Perhaps more effort should be expended on 'feedforward' rather than feedback, both for supporting student learning, and for the development of tutoring skills. Given the success of the Bachelor of Behavioural Studies in terms of meeting student demand for psychology, the big issue into the future will be to ensure efficient, effective, sustainable and scaleable processes for students to maximise their learning from assignments in the online environment. Although initially driven purely by the need for efficiency, our current model of marking appears to be pedagogically effective and is being adopted in our on-campus units.

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