

Multimodal feedback is not always clearer, more useful or satisfying

Michael Phillips
Faculty of Education
Monash University

Michael Henderson
Faculty of Education
Monash University

Tracii Ryan
Faculty of Education
Monash University

Feedback comments on summative assessment tasks are an important part of students' learning experience. Recently, researchers have noted that digitally recorded comments can be beneficial for both students and educators. This paper compares the clarity, usefulness and satisfaction of digitally recorded and text-based feedback comments produced by 14 tutors in a large Master's level Education unit. A sample of 164 students completed the online survey. Initial analysis of the data reveal mixed results. When secondary variables are accounted for and outliers discounted it is revealed that digitally recorded multimodal feedback processes, in general, can be clearer, more useful and more satisfying. However, it is also clear that using technology such as video is not a silver bullet to improving feedback. Several potential factors are identified and are discussed in terms of micro- and meso-level contextual conditions that need to be further researched.

Keywords: multimodal feedback; assessment; feedback; tutor differences; higher education

Introduction

Feedback is a broad and complex process. It can be understood as a cycle in which performance related information flows between agents, such as between the student and lecturer. A key criterion for any feedback cycle is that the information relates to performance, and that it has an impact on future activity. Despite the deeply embedded discourse within education, it is not a unidirectional communication stream. Indeed, Boud and Molloy (2013) challenge us to reconceive feedback as necessarily requiring some action or change to occur. Feedback that has no impact on learning is simply information. Although this paper focuses on student reaction to comments provided on their assessment, it is useful to note that this is just one of the fundamental elements of the feedback cycle. In fact, it is widely acknowledged that such comments are an essential part of learning (McConnell, 2006), as they enable students to achieve learning objectives and develop the skills necessary to becoming independent learners (Adcroft, 2011).

A growing body of research has demonstrated that performance related comments on assessment tasks can also effect positive outcomes in students, such as enhanced achievement (Adcroft, 2011), motivation (Pitt & Norton, 2016), development (Crisp, 2007; Lizzio & Wilson, 2008), and future performance (Zimbardi et al., 2016). To maximise the potential of engendering such outcomes, comments should be timely, unambiguous, educative (not just evaluative), proportionate to learning criteria/goals, locate student performance (i.e. assess how students performed in relation to the goals of the task, what they did well and not so well, and what they should work on in the future), emphasize task performance, be phrased as an ongoing dialogue rather than an end point, and be sensitive to the individual (a more detailed review of the literature and explanation of these design principles can be found in Henderson & Phillips, 2014).

Achieving the principles above necessitates the timely creation of carefully constructed and detailed comments. Ideally, the comments should reflect an educators' understanding of individual students, and be sensitive to their particular context and needs. Unsurprisingly this balance can be difficult achieve, as many educators are faced with time-pressures that limit the amount of detail that can be presented. Moreover, written comments can be restricting, especially if limited to the margins of essays or through the use of rubrics. In response to these challenges, the authors have experimented with using digitally recorded comments, such as audio, video, and screencast recordings (see Henderson & Phillips, 2015). In general, the response to recorded comments has been positive, in both secondary and higher education environments.

The potential benefits of digitally recorded comments have also been recognised in the academic literature. A number of studies within the higher education context have identified that students enjoy receiving audio visual comments (Luongo, 2015; McCarthy, 2015). In particular, this modality has been reported to deliver comments that are more detailed, clear, individualized and supportive (Henderson & Phillips, 2014). In addition, educators tend to consider recorded comments to be more useful and engaging for students (Crook et al., 2010), and to save significant amounts of time (Anson, 2015; Fawcett & Oldfield, 2016).

Broader research context

The research presented in the current paper is part of a larger mixed methods study aimed with assessing the impact and design of digitally recorded comments on assessment tasks in a range of diverse contexts. That research project focuses on six units of study from five disciplines: one from Business and Economics, two from Education, one from Engineering, one from Law, and one from Pharmacy. All units are delivered at Melbourne based campuses of a large international university. At the time of writing this paper, data had only been collected from two of the six units (one from Education and one from Engineering).

The first phase of the larger study involves a selection of tutors from each unit creating digitally recorded comments on assessment tasks while the remainder continue to use text-based comments. After all comments have been returned to students, a 26-item online survey is used to assess attitudes toward the modality of comments students have received.

The online survey used in the larger study comprises 26 items. It should be noted that the word ‘feedback’ was used in the survey rather than ‘comments’, as it aligns with the vernacular typically used by students. The items are based upon previous research by Henderson and Phillips (2015), and include five demographic questions, four questions related to the modality of comments received, and Likert-type items (5-point) designed to assess students’ perceptions of the clarity and usefulness of the comments, their level of satisfaction with the comments, and the degree to which the comments made them feel motivated, prompted them to reflect on the quality of their work, and improved their confidence for completing future assessment tasks. An additional seven items were presented to students who received digitally recorded comments. Five of these items measure preferences and attitudes toward digitally recorded comments in comparison with text-based comments (Likert scale), and two collect open ended responses detailing what students liked and disliked about the comments. The second phase of the broader study involves semi-structured interviews with the tutors who created the digitally recorded comments, and focus groups with students who received those comments. Tutors are asked questions relating to their teaching experience, their context for understanding feedback, the workflow and processes used to create the digitally recorded comments, their perceptions of how students felt about receiving recorded comments, and their thoughts about the appropriateness of digitally recorded comments. Students are asked questions focusing on the impact of the digitally recorded comments, whether the comments changed their perception of their tutor, and their thoughts regarding whether digitally recorded comments are more appropriate in certain circumstances.

The current paper

Through the process of analysing the initial survey data, it became apparent that there was not a clear-cut relationship between student’s perceptions of the impact of the comments and the modality (i.e., text-based vs digitally recorded comments). In the interests of investigating this result further, this paper presents a subset of the data and explores some of the potential factors that may influence student’s perceptions of whether digitally recorded comments are more clear, useful, and satisfying than text-based comments.

The data subset is drawn from a cohort of Education students enrolled in the first semester of a Masters of Teaching unit. The unit was delivered both on-campus (at three Melbourne-based campuses) and off-campus (in an online format). The majority of the 624 students (59%) were enrolled at Campus 1, while the remainder were split between Campus 2 (26%), Campus 3 (4%) and online (11%). The unit focused on effective learning models, and the ways in which cultural and socio-economic contexts influence learning. The unit was held in the first semester of 2016, and classes ran for 9 weeks.

On-campus students were expected to attend a one-hour lecture and two-hour face-to-face workshops each week. Off-campus students were also expected to watch the one-hour lecture online, and spend two-hours per week engaging with online workshop materials and completing hands-on activities. Due to the size of the cohort, and the fact that the unit was run across three campuses, there were 23 workshops held weekly by 14 tutors. The feedback comments rated by students in this study were provided on the first assessment task of the unit; an essay in which students were asked to compare and contrast learning theorists. Although this was a postgraduate course, it was designed for students who had been out of the higher education system for some time. As such, the comments on this assessment task were likely to have been the first many students had received in a higher education context in several years.

Method

Participants

All of the 624 students enrolled in the unit were invited to complete an online survey. Overall, 193 students (31%) began the survey but only 85% of these completed the survey. The final sample consisted of 164 students, of which 78% ($n = 128$) were women and 59% ($n = 96$) identified as English as their first language. The across-campus representativeness of the final sample was similar to the overall cohort: 67% were enrolled at Campus 1, 20% were enrolled at Campus 2, 6% were enrolled at Campus 3, and 7% were enrolled in the online version of the unit.

Materials

For the scope of this paper, data from nine of the 26 survey items are explored: the two open-ended questions, and seven of the closed Likert-type questions. The closed questions, referred to here as the *Feedback Attitudes Scale*, comprised three items related to the clarity of the comments, three items related to the comment's usefulness for future work, and one item measuring satisfaction with the comments. There was one negatively worded item in the survey, *'The feedback was confusing'* and this was reverse-coded and changed to *'The feedback was not confusing'* for the purposes of reporting. The total *Feedback Attitudes Scale* had high internal consistency ($\alpha = .89$), as did the two subscales of clarity ($\alpha = .72$) and usefulness ($\alpha = .87$).

Procedure

At the beginning of the semester, one of the researchers (who was the chief examiner of the unit) contacted all of the unit tutors to identify which of them might be interested in creating digitally recorded comments for Assessment Task 1. Five tutors volunteered (henceforth referred to as Tutor 1, Tutor 2, Tutor 3, Tutor 4, and Tutor 5), and each selected their preferred mode of digital recording (one of the benefits of digitally recording comments is the potential to create them more quickly than text-based comments, therefore it was important that tutors selected a modality that they felt most comfortable with). Tutor 1 and Tutor 2 selected audio recordings, Tutor 2 and 3 selected screencast recordings, and Tutor 5 selected inking. The remaining nine tutors elected to create comments using text.

All 14 tutors were informed by the chief examiner about the importance of timely and effective comments on assessment tasks. They were asked to return comments and a grading rubric to students three weeks after the submission deadline. In addition, the five tutors who volunteered to create digitally recorded comments were shown a diagram illustrating a recommended structure for the recordings (see Figure 1). In past studies, both students and teachers have commented on the positive benefits of recorded comments when this structure has been used (for more information, see Henderson & Phillips, 2015). However, in the interests of making the medium work for the individual, tutors were advised to follow the structure that worked best for them.

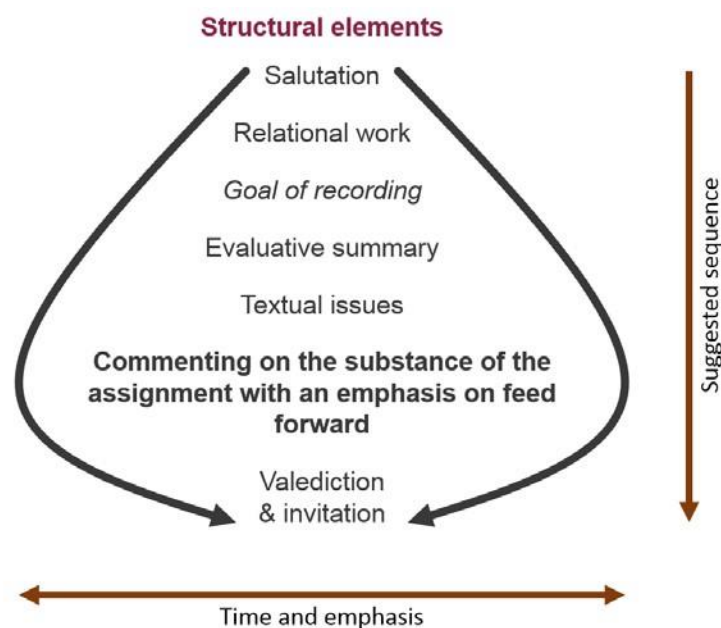


Figure 1: Recommended sequence and emphasis of digitally recorded comments on assessment tasks

In April 2016, students submitted Assessment Task 1 electronically via the online learning platform *Moodle*. Most of the tutors created comments using the modality that they had selected; however, two tutors had technical difficulties which altered their choice of modality. Tutor 3 had difficulties using the screencast software and created audio recordings instead, while Tutor 5 had difficulties using the inking process and elected to provide text-based comments to all students. As a result, Tutor 5 is henceforth considered to be part of the group of tutors who provided text-based comments (n = 10).

Almost all of the comments were returned to students by the predetermined deadline of three weeks after submission. The exception was those created by Tutor 1, who had trouble uploading some of the audio recordings to Moodle. After all comments had been returned, a link to the online survey was placed on the unit's Moodle site, and sent via broadcast email to all students enrolled in the unit. Approval was sought from the university's Human Research Ethics Committee before any data collection occurred. Students who received digitally recorded comments were also given the opportunity to complete the survey in their tutorial workshops using iPads.

Findings

To examine whether students perceived digitally recorded comments to be clearer, more useful, and more satisfying than text-based comments, the mean scores for each of the seven quantitative survey items were compared for the two groups (see Table 1). For all analyses, ranked means were used instead of raw means, as the survey collected ordinal data (Field, 2009). The results of these analyses are presented in Table 1.

Table 1. Comparison of Students' Ranked Means for Survey Items by Comment Modality

Theme	Item	Ranked means for text only comments	Ranked means for digitally recorded comments
Clarity	The feedback used language that was easy to understand	83.75 (n=108)	80.09 (n=56)
	The feedback had a clear message	78.69 (n=108)	89.86 (n=56)
	The feedback was not confusing	84.68 (n=108)	78.29 (n=56)
Usefulness	The feedback provided constructive comments that you could use to improve your work	76.75 (n=108)	93.59 (n=56)
	The feedback was useful	78.01 (n=108)	91.16 (n=56)
	The feedback improved your confidence for completing future assessment tasks	80.53 (n=108)	86.30 (n=56)
Satisfaction	How satisfied were you with the feedback?	80.69 (n=108)	84.56 (n=55)

According to these descriptive results, students who received digitally recorded comments had higher ranked means than students who received text-based comments for all items, except for two of the clarity items. This result was somewhat unexpected; the extant literature generally indicates that students find digitally recorded comments to be clearer than text-based comments. Further analysis was performed to explore this finding: rather than performing inferential procedures based on the initial descriptive results, ranked means of student responses were calculated for each tutor on the three clarity items (see Table 2). As demonstrated, the ranked means of Tutor 1's students are generally lower than those from students of the majority of other tutors (regardless of whether they provided digitally recorded or text-based comments) for all three items. In fact, for the item, 'the feedback was not confusing', Tutor 1 had the lowest ranked mean of all tutors.

Table 2. Comparison of Students' Ranked Means for Clarity Survey Items by Tutor

	Ranked means													
	Digitally recorded comments				Text-based comments									
Tutor	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Student responses (n)	18	9	11	17	5	20	13	15	8	9	10	7	6	12
The feedback used language that was easy to understand	62.2	92.5	86.7	84.3	103.7	56.9	76	84.5	69.5	84.5	108.1	91.4	108.5	78.5
The feedback had a clear message	70.3	95.6	92.7	100.5	100.8	59.4	64	93.2	71.0	96.5	102.1	70.4	75.5	58.3
The feedback was not confusing	50.2	96.4	68.7	98.5	101.5	58.2	88.9	75.5	97.0	102.2	93.5	79.8	90.8	82.2

Note: Four respondents are excluded from this table as they could not recall which tutorial workshop they attended, however their scores were included in the calculation of ranked means in Table 1.

To provide some additional background information to the quantitative results presented above, a random selection of five feedback comment artefacts were analysed from each tutor who provided digitally recorded comments. The results of this analysis are displayed in Table 3, as are several additional details about the context of each tutors' comments. It is apparent that unlike all other tutors, Tutor 1 did not return the grades and comments by the stipulated deadline, nor did the tutor return the publicised rubric to students.

Table 3. Analysis of Digitally Recorded Comments across Tutors

Tutor	Modality	Native English speaker	Range of recording length (mins)	Structural elements (in order of presentation)	Rubric provided	Text comments provided	Grade and comments returned to students on time (3 weeks)
1	Audio	No	2.30 - 5.00	Salutation, goal of recording, substantive comments (including feed forward and textual issues), valediction and invitation	No	No	No (provided after grades and comments were released for all other students)
2	Audio	Yes	5.30 - 7.00	Salutation, relational work, goal of recording, invitation, evaluative summary, textual issues, substantive comments (including feed forward), second invitation (including specific provocation)	Yes	No	Yes
3	Audio	Yes	1.30 - 3.00	Salutation, goal of recording, evaluative summary, substantive comments (including feed forward and textual issues), valediction and invitation	Yes	Yes	Yes
4	Screencast	Yes	2.46 - 11.30	Salutation, goal of recording, evaluative summary, textual issues, substantive comments (including feed forward), invitation, relational work	Yes	No	Yes

Open-ended responses from students of Tutors 1 to 4 were thematically analysed. The data relating to Tutor 1 were striking in comparison with the other three tutors. The main theme that emerged from these comments (seven references), supported the notion of a lack of clarity in the comments. While some responses were generic in nature such as “[I] found it confusing,” others suggested issues relating to clarity of expression such as “I had a hard time understanding [the tutor] sometimes, maybe because of [their] voice.” This may be related to the fact that Tutor 1 had a heavy accent, however, additional data were not collected to confirm this as the cause of the issue. Further comments indicated a complaint around the specificity of commentary, for example, “lacking in specific feedback, whereas the text manages to pin-point and locate specifically and directly on the assignment key errors.” Another prominent theme (five references) in the responses referred to the absence of the rubric, for example, “Though I understand that the recording cannot touch on all aspects of my assignment, it did not refer to the way I did/didn’t score well based on the rubric.” The lack of a rubric stands out as an abnormal practice in this context. All other tutors used the rubric, which was advertised through the official subject guide and learning management system.

Based on the combination of results discussed thus far, it was evident that students who received comments from Tutor 1 had had a different experience to those receiving comments from the other three tutors who used the digital recording modality. As such, the scores of these students were potentially reducing the overall ranked mean scores compared in Table 1, and leading to the unexpected results. To further explore this notion, a series of Kruskal-Wallis tests were performed to compare the ranked means of the three clarity survey items from each of the four tutors who provided digitally recorded comments. The Kruskal-Wallis test is a non-parametric alternative to an independent-samples ANOVA, and it compares ranked means for three or more groups. As shown in Table 3, the ranked means for Tutor 1 were lower than each of the other three tutors for each clarity item. In addition, the item, ‘*the feedback was not confusing*’, showed a statistically significant main effect. To explain this result, a post-hoc Mann-Whitney U test was performed for all pairwise comparisons. To control for Type I error, adjusted significance levels were observed. A significant difference with a close-to-large effect was found between the ranked means of Tutor 1 and Tutor 4 ($p = .02$, $r = .49$). This result implies that students of Tutor 1 were significantly more likely to consider the comments to be confusing than students of Tutor 4.

Table 4. Comparison of Ranked Means for Clarity Survey Items by Students whose Tutors who Provided Digitally Recorded Comments

Variable	<i>N</i>	Ranked means	χ^2	<i>df</i>	<i>p</i>
Clarity					
The feedback used language that was easy to understand			4.44	3	.22
Students of Tutor 1	18	22.28			
Students of Tutor 2	9	32.67			
Students of Tutor 3	11	30.73			
Students of Tutor 4	17	29.82			
The feedback had a clear message			3.65	3	.30
Students of Tutor 1	18	22.89			
Students of Tutor 2	9	30.22			
Students of Tutor 3	11	28.27			
Students of Tutor 4	17	32.06			
The feedback was not confusing			10.98	3	.01
Students of Tutor 1	18	19.56			
Students of Tutor 2	9	34.50			
Students of Tutor 3	11	25.41			
Students of Tutor 4	17	35.18			

The comparison of ranked mean scores from students who received text-based comments and students who received digitally recorded comments (as shown in Table 1) was recalculated with Tutor 1’s results omitted. The results of this analysis are presented in Table 4. As suspected, these results showed that students provided higher ranked means for digitally recorded comments when compared to text-based comments on all items, including the three items measuring clarity. Furthermore, a series of Mann Whitney U tests revealed statistically significant differences, with small-to-medium effects, in the ranked means for three of the items: ‘*The feedback had a clear message*’, $z = 2.50$, $p = .01$, $r = .21$; ‘*The feedback provided constructive comments that you could use to improve your work*’, $z = 2.97$, $p = .003$, $r = .25$; and ‘*The feedback was useful*’, $z = 2.81$, $p = .005$, $r = .23$.

Table 5. Comparison of Students' Ranked Mean Attitudes by Modality (Excluding Students of Tutor 1)

Theme	Item	Ranked means for text only comments	Ranked means for digitally recorded comments
Clarity	The feedback used language that was easy to understand	72.51 (n=108)	76.30 (n=38)
	The feedback had a clear message	68.75 (n=108)	87.00 (n=38)
	The feedback was not confusing	71.91(n=108)	78.03 (n=38)
Usefulness	The feedback provided constructive comments that you could use to improve your work	67.81 (n=108)	89.68 (n=38)
	The feedback was useful	68.10 (n=108)	88.86 (n=38)
	The feedback improved your confidence for completing future assessment tasks	70.57 (n=108)	81.82 (n=38)
Satisfaction	How satisfied were you with the feedback?	70.21 (n=108)	81.14 (n=37)

Discussion

This paper presents preliminary results from a larger study aimed with assessing the impact of digitally recorded feedback comments. The data explored here suggest that students do tend to perceive digitally recorded comments as more clear, useful, and satisfying than text-based comments. However, it appears that these outcomes can dramatically vary as a result of a number of factors. For example, in this paper, students of Tutor 1 rated the clarity of the digitally recorded comments they received to be lower than the other tutors who provided recorded comments. Moreover, they also indicated that Tutor 1's comments were more confusing than all other tutors, regardless of modality.

In contrast to earlier work examining the modality of comments provided to students (Henderson & Phillips, 2015) the current investigation reveals that there is more to effective feedback than mere considerations of modality. These results may be partly due to contextual factors; as highlighted earlier in this paper, the processes by which Tutor 1 provided comments to students varied from the other three tutors. These included the structure of the comments, the timing of the return of comments to students, the length of audio recordings, the provision of additional written comments or the assessment task rubric. Additionally, there is some evidence to suggest that clarity of the comments was compromised by expression, possibly due to Tutor 1's accent.

In addition to these contextual elements, there are likely to be a myriad of other factors that influenced student perceptions of the clarity, usefulness, and overall satisfaction of the comments. For example, a growing body of research highlights the complex nature of the interplay between technological, pedagogical, and content (TPACK) factors (for a more detailed discussion see Henderson & Phillips, 2014). Some scholars have suggested that the interplay between these factors is a 'wicked problem' (Mishra & Koehler, 2016) that cannot ever be solved due to the incomplete, sometimes contradictory, and ever changing requirements that are often difficult to recognise. When one aspect of a wicked problem is resolved, such as the desire to provide effective comments to students, the complex and interdependent nature of the problem means that the resolution may reveal or create other problems.

This can be further understood by examining research describing the interplay between contextual factors at three different levels: micro, meso, and macro (Porras-Hernández & Salinas-Amescua, 2013; Rosenberg & Koehler, 2015). Micro-level contextual factors are those related to individuals, including preferred learning style, individual relationships within a tutorial group, or the content being taught in one particular tutorial session. Meso-level factors, such as access to technology on University campuses and faculty assessment policy, also have the potential to influence students' understanding of what is considered valuable or important. Finally, macro-level issues, such as national or international policy agendas and cultures of assessment, have also been shown to shape the way individuals value different aspects of their education.

With regard to the present paper, the relationship between the various micro-level contextual factors that impact on the perceived clarity, usefulness, and overall satisfaction with the comments are evident in the practices of the tutors and the students themselves. For example, Tutor 1's accent may have become a greater factor in students' perception of the clarity (and therefore, the usefulness and satisfaction) as a result of that tutor's choice to provide students with audio comments. Had Tutor 1 selected a different technology platform, such as screen casting or video, the influence of the accent may have been reduced, as students may have been able to draw on other cues such as connecting comments with specific sections of their work or the facial expression of the tutor to enhance the clarity of the message. Similarly, if Tutor 1 had made the pedagogical decision to provide some written comments or the rubric to students, it may have been possible for students to gain a clearer understanding of tutor's comments.

Similarly, meso-level factors such as the Universities policy of a three week timeframe in which students are supposed to receive comments on their work may have contributed to the level of satisfaction expressed by students in Tutor 1's class. This factor may also have been amplified as students from Tutor 1's group would have been aware of their peers receiving their comments prior to their audio comments being uploaded as a result of the structure of the learning management system to which they were all enrolled. As such, it is possible to see technological and pedagogical contextual factors woven through both micro- and meso-levels that shape and are shaped by tutors as well as students. This dialogic relationship is a difficult one to unpack and to allow attributions of causality to be made.

While examination of these multifarious factors are outside the scope of this investigation, it is clear that simple examinations of modality are not sufficient to provide satisfactory explanations of student perceptions of these digital artefacts. If the provision of effective feedback commentary to students is an essential part of learning (McConnell, 2006), it is important that the interplay between various contextual factors, including the modality in which comments are provided to students, is more clearly understood.

There are several limitations with the present paper that need to be acknowledged. First, the scope of the paper precluded the ability to present in-depth analyses. For example, while an analysis of the digitally recorded comments was provided in Table 3, there was no similar comparison of the text-based comments. Moreover, there was no exploration of whether student feedback ratings differed as a result of individual differences, such as gender, age, English-language ability, or experience with feedback in higher education. However, these are some areas that the authors would like to address in further research. Second, the fact that only one tutor produced screencasts meant that there was not enough data to support comparisons of recorded feedback based on modality (i.e., audio vs screencast). In defence of this design limitation, it was a feature of this research that the preferences and practices of tutors were supported. Third, the generalisability of the results presented here are limited, given that the data were derived from a small sample of Education students. It is also worth noting that the attitudes of Education students may differ from students from other disciplines; the former are developing their own skills with regarding to feedback processes, and thus may have higher expectations of their tutors. Finally, this paper serves a predominantly descriptive function and, as such, further research is recommended to support the assumptions presented here. Longitudinal research that aims to establish whether feedback modality leads to differences in student performance would be of particular value in this domain.

Conclusions

This paper presents a subset of the data collected from students and tutors in one subject and as a consequence cannot be taken to generalise across all contexts. However, this initial analysis offers a clear caution for overly positive and deterministic claims about the impact of multimodal feedback practices. Our primary, and arguably unsurprising conclusion is that multimodality does not, in itself, guarantee an improved learner experience. In this case, when student responses were considered in terms of individual tutors, it was evident that modality was not the only factor involved. Nevertheless, it was also evident that modality did have a generally positive correlation with improved student experience, for example, when anomalous data was excluded, the students who received digitally recorded assessment comments ranked it as being clearer, more useful and more satisfying than students who received text-based comments. This calls for a qualified approach to claims of impact, and is somewhat contrary to recent literature that lauds the potential of technology enabled assessment feedback practices. However, rather than dissuading us from pursuing multimodality further, we argue that it simply reminds us that educational applications of technologies should be considered in relation to micro, meso, and macro level contextual factors.

The data collected in this first phase of the study does not allow us to confidently identify all of those factors. However, some tentative propositions can be made through the consideration of the broader context as well as open ended responses. First, careful staff preparation and training needs to occur with regards to the technology. In this case three of the tutors reported technical difficulties with the recording or the uploading of files to the virtual learning environment. In the later example, it impacted on the timing of the return of marking. Second, staff should engage in moderation and/or training for the quality of the feedback comments. The variations among staff in length, structure, content and pedagogic engagement with students are likely to help explain some of the variation of results. Third, staff should be mindful of student expectations with regards to the return of the comments. In this paper it was clear that Tutor 1's late return of marking coupled with the omission of the rubric negatively impacted on the students' perceptions. Fourth, the rich media of audio or video is often thought to be advantageous, however, it can serve to exacerbate issues if the voice or message is inherently unclear.

References

- Adcroft, A. (2011). The mythology of feedback. *Higher Education Research & Development*, 30(4), 405-419.
- Anson, I. G. (2015). Assessment Feedback using Screenshot Technology in Political Science. *Journal of Political Science Education*, 11(4), 375-390.
- Boud, D., & Molloy, E. (2013). *Feedback in Higher and Professional Education*. New York: Routledge.
- Crisp, B. R. (2007). Is it worth the effort? How feedback influences students' subsequent submission of assessable work. *Assessment and Evaluation in Higher Education*, 32(5), 571-581.
- Crook, A., Park, J., Lawson, C., Lundqvist, K., Drinkwater, R., Walsh, J., et al. (2010). *ASSET: Moving Forward Through Feedback*: Univeristy of Reading.
- Fawcett, H., & Oldfield, J. (2016). Investigating expectations and experiences of audio and written assignment feedback in first-year undergraduate students. *Teaching in Higher Education*, 21(1), 79-93.
- Field, A. (2009). *Discovering Statistics using SPSS* (3rd Edition ed.). London: Sage.
- Henderson, M., & Phillips, M. (2014). *Technology enhanced feedback on assessment*. Paper presented at the Australian Computers in Educational Conference 2013. Retrieved from <http://acec2014.acce.edu.au>
- Henderson, M., & Phillips, M. (2015). Video-based feedback on student assessment: scarily personal. *Australasian Journal of Educational Technology*, 31(1), 51-66.
- Lizzio, A., & Wilson, K. (2008). Feedback on assessment: students' perceptions of quality and effectiveness. *Assessment & Evaluation in Higher Education*, 33(3), 263-275.
- Luongo, N. (2015). Missing the Chalkboard: Using Screencasting in the Online Classroom. *Computers in the Schools*, 32(2), 144-151.
- McCarthy, J. (2015). Evaluating written, audio and video feedback in higher education summative assessment tasks. *Issues in Educational Research*, 25(2), 153-169.
- McConnell, D. (2006). Chapter four: Assessing learning in e-groups and communities. In D. McConnell (Ed.), *E-Learning Groups and communities*. Maidenhead: Open University Press.
- Mishra, P., & Koehler, M. J. (2016). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. *Teachers College Record*, 108(6), 1017-1054.
- Pitt, E., & Norton, L. (2016). 'Now that's the feedback I want!' Students' reactions to feedback on graded work and what they do with it. *Assessment & Evaluation in Higher Education*, 1-18.
- Porrás-Hernández, L. H., & Salinas-Amescua, B. (2013). Strengthening TPACK: A Broader Notion of Context and the Use of Teacher's Narratives to Reveal Knowledge Construction. *Journal of Educational Computing Research*, 48(2), 223-244.
- Rosenberg, J., & Koehler, M. J. (2015). *Context and Teaching with Technology in the Digital Age*.
- Zimbardi, K., Colthorpe, K., Dekker, A., Engstrom, C., Bugarcic, A., Worthy, P., et al. (2016). Are they using my feedback? The extent of students' feedback use has a large impact on subsequent academic performance. *Assessment & Evaluation in Higher Education*, 1-20.

Please cite as: 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* (pp. 514-522).

Note: All published papers are refereed, having undergone a double-blind peer-review process.



The author(s) assign a Creative Commons by attribution licence enabling others to distribute, remix, tweak, and build upon their work, even commercially, as long as credit is given to the author(s) for the original creation.