



2nd International Conference on Higher Education Advances, HEAd'16, 21-23 June 2016,
València, Spain

Higher Education Marking in the Electronic Age: Quantitative and Qualitative Student Insight

Michael Hast^{a*}, Caroline Healy^a

^a*St Mary's University, Twickenham, Waldegrave Road, Twickenham TW1 4SX, United Kingdom*

Abstract

Assessments play a key role in university student experiences. Reflecting the continuing change in higher education student experiences in particular consideration of the electronic age, this paper reports quantitative and qualitative findings from a survey given to undergraduate social science students ($N = 99$) on comparing their experiences of submitting and accessing work online versus doing so in hard copy. The obtained survey results show an increasing trend in preference for both submitting assignments and accessing feedback electronically, which is partly in line with the current literature scope but also establishes new trends. Additional qualitative data further help identify key barriers in this process, particular the depersonalization of feedback. These contribute to evaluating the usefulness of the electronic assignment approach. Further in-depth data from focus groups will be used to supplement these discussions. Overall, the present research adds to the discussion around electronic marking by making particular use of the student voice in the decision making process.

© 2016 The Authors. Published by Elsevier Ltd.

Peer-review under responsibility of the organizing committee of HEAd'16.

Keywords: Assessment; online marking; student voice.

1. Introduction

Higher education institutions across the globe are increasingly engaging with a student body that forms part of the so-called net generation (Manuguerra & Petocz, 2011) and universities are increasingly dealing with students who

* Corresponding author. Tel.: +44-208-240-4366.

E-mail address: michael.hast@stmarys.ac.uk

“expect to be able to work, learn, and study whenever and wherever they want to” (Gosper, Malfroy, & McKenzie, 2013, p. 278). Staff and institutions need to seize opportunities to reflect this changing demographic and rely on more strategies that enhance the student experiences. A key element of the higher education experience is assessments, which are integral to student achievement of educational goals and motivation (e.g. Grieve, Padgett, & Moffitt, 2016; Heinrich, Milne, & Granshaw, 2012).

Technology has increasingly found a solid place within higher education, which is also reflected in the assessment process in particular (Ambler, Breyer, & Young, 2014; Hepplestone, Holden, Irwin, Parkin, & Thorpe, 2011). One particular tool is Grademark®, embedded within the plagiarism software Turnitin®. This has already been recognized to be an “innovative assessment and feedback tool [...] which benefits both academics and students pedagogically” (Chew & Price, 2010, p. 687). Research indicates that online marking is just as valid as marking hard copies (Shaw, 2008). Particularly from the staff viewpoint, technology is seen as beneficial in the process of assignments as it helps to reduce plagiarism (Baker, Thornton, & Adams, 2008; Batane, 2010), since software such as Turnitin® provides this information whilst also allowing to mark the work. It is seen as easier to use, allows for faster marking and therefore reduces the overall workload (Buckley & Cowap, 2013). However, staff also see benefits for students, indicating that the quality of feedback provided to students is more targeted and more effective (Ambler et al., 2014).

Yet a top-down approach in higher education is not always beneficial. It is crucial to actively involve students in the decision making process around learning, curriculum and change, and to make use of their insight into whether approaches are appropriate – this call is increasing (e.g. Dunne & Zandstra, 2011; Hast, 2015; Kay, Dunne, & Hutchinson, 2010; McCulloch, 2009; O’Neill & McMahan, 2012; Robinson, 2012). In giving students a stronger voice in order to identify issues and needs the sense of community in achieving success can become a more realistic and much needed goal (Sandover, Partridge, Dunne, & Burkill, 2012). Therefore, although universities prefer electronic submissions from an administrative and from a pedagogical perspective, how do students respond to such an approach? This is particularly important since student engagement is impacted by feedback format preferences (Ferguson, 2011).

Preferences for using electronic means of submitting assignments vary throughout the literature but appear to have been increasing over time, from less than a quarter (Bridge & Appleyard, 2005) to one half (Bridge & Appleyard, 2008) and then up to two thirds (Ambler et al., 2014) of students. This change in student views requires a continual examination of whether there is still room for improvement to encapsulate the remaining one third of students. Numbers for preferences regarding electronic feedback, on the other hand, seem to have remained stable over time, at around half of students (Ambler et al., 2014; Bridge & Appleyard, 2008). Again, this is not a particularly large proportion and cannot serve as sufficient argument for implementing an electronic marking approach. In particular the barriers are not sufficiently examined; there are various indicators around the benefits such as ease of access (Grieve et al., 2016), legibility of comments (Ambler et al., 2014; Bridge & Appleyard, 2005) and saving travel and printing costs (Bridge & Appleyard, 2008). However, with improved technology services, are technical issues still a problem (Bridge & Appleyard, 2005; Buckley & Cowap, 2013), and how significant are issues around depersonalization (McCabe, Doerflinger, & Fox, 2011; Parkin, Hepplestone, Holden, Irwin, & Thorpe, 2012)?

2. Method

2.1. Participants

A total of 99 undergraduate students from a higher education institution in the Greater London area took part in this study. Of these, 55 (87% female) were in their second year and 44 (89% female) were in their final year of a social science degree programme. All had previous experience of submitting work in hard copy and at the time of the survey completion had just completed their first round of electronic submissions and accessing feedback using Grademark® via Turnitin®. Although students had already been required to submit assignments to Turnitin® for plagiarism purposes, feedback had until this first round only been provided on hard copy submissions rather than using Grademark®.

2.2. Design, materials and procedure

Two surveys were developed. The surveys contained identical questions but differed merely in mention of specific module titles to appropriately reflect the relevant student level. The survey consisted of two sections. The first section addressed background questions about the student, including indications which work had been submitted in hard copy and which had been submitted online. The second section of the survey consisted of a range of questions using 4-point Likert scales, closed questions and open-ended response opportunities to elaborate on explanations. Following ethical approval from the host institution paper versions of the surveys were distributed to students during lectures. The surveys took around 10 minutes to complete.

3. Key findings and discussion

A main concern was whether students would find it sufficiently easy to access online feedback. The survey results demonstrate that 82% of students found it fairly or very easy to access their feedback via Grademark®. No significant differences were noted between genders, age groups or student levels. These results are perhaps not particularly surprising, given that the vast majority of respondents are part of the so-called net generation (Manuguerra & Petocz, 2011) and might therefore be expected to be familiar with using new technologies. This also highlights the adequate timing of this intervention of introducing online feedback. A not unsubstantial number of students – 16% – had found it fairly difficult to access their feedback for the first time. However, there were clear indications from the subsequent explanations provided that this was frequently simply due to it having been a new experience and that once they had been able to figure out how to access their assignments they had found it easy: *“The first time I asked some friends for help but after that it was easy”*. This impact through technology as a novelty factor has also been indicated elsewhere (e.g. Bridge & Appleyard, 2005) but seems greatly reduced.

From the open-ended response opportunities two sets of qualitative data were extrapolated. Firstly, students were asked what they liked about using Grademark® and Turnitin® as submission and feedback provision tool. Students mostly commented on the ease of access (42% of comments) and the fact that they could access or submit the work from anywhere without having to travel (19% of comments), which is seen as having a positive impact on the quality of submitted work: *“I commute and it takes me 1h30min to get to university. Turnitin allows me to send off all my assignments without rushing and at home. This allows me to give in a copy which has been proofread a lot of times”*. These are common factors reported in other studies as well (e.g. Bridge & Appleyard, 2008; Grieve et al., 2016). In addition, 10% of comments expressed a liking for the work being saved online where it could not be lost and 9% liked that the work could be accessed at any time (cf. Ambler et al., 2014; Bridge & Appleyard, 2008): *“Very useful to view online, can always access and doesn't get lost”*.

However, students also gave qualitative insight into what they did not like about using this approach to feedback provision. Most concerns (44%) were of a technical nature such as requiring access to the internet or with the Turnitin® system being unreliable for uploading or accessing work: *“If internet is down you can't use it”*. This indicates that technological issues do remain despite innovations (cf. Bridge & Appleyard, 2005; Buckley & Cowap, 2013) and will require further addressing. Several comments (21%) also suggested Grademark® feedback did not have the advantage of directly discussing the work: *“You are not able to talk to the lecturer about the mark unless you book a tutorial to go through it”*. Although students were not actually prohibited from doing so this does appear to reflect concerns relating to depersonalization (cf. McCabe et al., 2011; Parkin et al., 2012).

Students were then asked about their preferences in five different categories. There was large agreement about preferences for 1) *submitting* assignments electronically, with 86% of students preferring it and 8% having no preference. This is an even greater proportion than the two thirds indicated by Ambler et al. (2014) and highlights the continuing trend for such a preference to increase over time. 2) *Accessing* feedback electronically was also preferred by a significant majority; 65% of students selected this option, with 12% having no preference. This is again somewhat larger than previous work has suggested (e.g. Ambler et al., 2014; Bridge & Appleyard, 2008), but the comparative factor towards submitting work appears to remain rather similar. To examine attitudes further, 56% of students showed a preference for 3) *reading* assignments electronically; 33% preferred reading hard copy work. Similarly, in each case 46% of students indicated a preference for 4) *understanding* online feedback and for 5)

acting on feedback, but 33% and 32% respectively preferred these in hard copy. Overall, preference lay with Turnitin in all five categories but statistically significant difference from the other two groups was only obtained in submitting assignments, accessing feedback and reading feedback.

4. Conclusion

The research, as a whole, acts complementary to existing work on the higher education hard copy to online assignments discussion. It demonstrates an increased preference for incorporating electronic means of feedback to enhance the student experience. At the same time some of the key barriers already identified in previous work still remain, though they may appear reduced. Further analyses from focus groups – currently being conducted with sub-samples from those who completed the survey reported above – will provide additional qualitative insight into the overall findings. These hope to uncover, in particular, reasons for students not accessing electronic feedback. By harnessing technology and identifying barriers in more depth, it is hoped that the overall educational experience can be improved where it is most needed and to enable a more effective provision of higher education in the electronic age.

References

- Ambler, T., Breyer, Y., & Young, S. (2014). Piloting online submission and online assessment with Grademark. In S. Kennedy-Clark, K. Everett & P. Wheeler (Eds.), *Cases on the assessment of scenario and game-based virtual worlds in higher education* (pp. 125-151). Hershey, PA: Information Science Reference.
- Baker, R. K., Thornton, B., & Adams, M. (2011). An evaluation of the effectiveness of Turnitin.com as a tool for reducing plagiarism in graduate student term papers. *College Teaching Methods & Styles Journal*, 4(9), 1-4.
- Batane, T. (2010). Turning to Turnitin to fight plagiarism among university students. *Journal of Educational Technology & Society*, 13(2), 1-12.
- Bridge, P., & Appleyard, R. (2005). System failure: A comparison of electronic and paper-based assignment submission, marking, and feedback. *British Journal of Educational Technology*, 36, 669-671.
- Bridge, P., & Appleyard, R. (2008). A comparison of electronic and paper-based assignment submission and feedback. *British Journal of Educational Technology*, 39, 644-650.
- Buckley, E., & Cowap, L. (2013). An evaluation of the use of Turnitin for electronic submission and marking and as a formative feedback tool from an educator's perspective. *British Journal of Educational Technology*, 44, 562-570.
- Chew, E., & Price, T. (2010). Online originality checking and online assessment – an extension of academics or disruption for academics. In S. L. Wong, S. C. Kong & F.-Y. Yun (Eds.), *Proceedings of the 18th International Conference on Computers in Education* (pp. 683-687). Putrajaya, Malaysia: Asia-Pacific Society for Computers in Education.
- Dunne, E., & Zandstra, R. (2011). *Students as change agents: New ways of engaging with learning and teaching in higher education*. Exeter: University of Exeter.
- Ferguson, P. (2011). Student perceptions of quality feedback in teacher education. *Assessment & Evaluation in Higher Education*, 36, 51-62.
- Gosper, M., Malfroy, J., & McKenzie, J. (2013). Students' experiences and expectations of technologies: An Australian study designed to inform planning and development decisions. *Australasian Journal of Educational Technology*, 29, 268-282.
- Grieve, R., Padgett, C. R., & Moffitt, R. L. (2016). Assignments 2.0: The role of social presence and computer attitudes in student preferences for online versus offline marking. *Internet and Higher Education*, 28, 8-16.
- Hast, M. (2015). From research methods to methodical researcher: Making use of the student voice towards a more comprehensive module evaluation. *Journal of Education and Training*, 2(1), 81-94.
- Heinrich, E., Milne, J., & Granshaw, B. (2012). Pathways for improving support for the electronic management and marking of assignments. *Australasian Journal of Educational Technology*, 28, 279-294.
- Hepplestone, S., Holden, G., Irwin, B., Parkin, H. J., & Thorpe, L. (2011). Using technology to encourage student engagement with feedback: A literature review. *Research in Learning Technology*, 19, 117-127.
- Kay, J., Dunne, E., & Hutchinson, J. (2010). *Rethinking the values of higher education – students as change agents?* Bristol: The Quality Assurance Agency for Higher Education.
- Manuguerra, M., & Petocz, P. (2011). Promoting student engagement by integrating new technology into tertiary education: The role of the iPad. *Asian Social Science*, 7, 61-65.
- McCabe, J., Doerflinger, A., & Fox, R. (2011). Student and faculty perceptions of e-feedback. *Teaching of Psychology*, 38, 173-179.
- McCulloch, A. (2009). The student as co-producer: Learning from public administration about the student-university relationship. *Studies in Higher Education*, 34, 171-183.
- O'Neill, G., & McMahon, S. (2012). Giving student groups a stronger voice: Using participatory research and action (PRA) to initiate change to a curriculum. *Innovations in Education and Teaching International*, 2, 161-171.
- Parkin, H. J., Hepplestone, S., Holden, G., Irwin, B., & Thorpe, L. (2012). A role for technology in enhancing students' engagement with feedback. *Assessment & Evaluation in Higher Education*, 37, 963-973.

- Robinson, C. (2012). Student engagement: What does this mean in practice in the context of higher education institutions? *Journal of Applied Research in Higher Education*, 4, 94-108.
- Sandover, S., Partridge, L., Dunne, E., & Burkill, S. (2012). Undergraduate researchers change learning and teaching: A case study in Australia and the United Kingdom. *CUR Quarterly*, 33, 33-39.
- Shaw, S. (2008). Essay marking on-screen: Implications for assessment validity. *E-Learning and Digital Media*, 5, 256-274.