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Assignments 2.0: The role of social presence and computer attitudes in student preferences for online versus offline marking

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ABSTRACT

This study provided the first empirical and direct comparison of preferences for online versus offline assignment marking in higher education. University students ($N = 140$) reported their attitudes towards assignment marking and feedback both online and offline, perceptions of social presence in each modality, and attitudes towards computers. The students also ranked their preferences for receiving feedback in terms of three binary characteristics: modality (online or offline), valence (positive or negative), and scope of feedback (general or specific). Although attitudes towards online and offline marking did not significantly differ, positive attitudes towards one modality were strongly correlated with negative attitudes towards the other modality. Greater perceptions of social presence within a modality were associated with more positive attitudes towards that modality. Binary characteristics were roughly equally weighted. Findings suggest that the online feedback modality will most effectively maximise student engagement if online assignment marking and feedback tools facilitate perceptions of social presence.

1. Introduction

Feedback on written assignments is considered by many students and educators to be the most valuable tool in learning (Higgins, Hartley, & Skelton, 2002; Richardson & Swan, 2003). Traditionally, assignment submission, grading, and feedback for written assignments have been in hard-copy format. However, increasingly these processes are performed online, particularly at the university level (Hepplestone, Holden, Irwin, Parkin, & Thorpe, 2011). Although some research has investigated factors associated with preference for online or offline modes of delivery of teaching (e.g., Artino, 2010; Dermo, 2009; Drennan, Kennedy, & Pisarski, 2005; Hewson, Charlton, & Brosnan, 2007; Liaw, 2008; Lu & Lemonde, 2013; Paechter & Maier, 2010; Sun, Tsai, Finger, Chen, & Yeh, 2008; Wong & Fong, 2014), little research has explored factors specifically underlying mode preference for written assignment marking and feedback. This represents a substantial issue for educators given that preferences for a particular modality may influence engagement with assignment feedback, and consequently, the effectiveness of formative assessment pieces.

In many respects, written assignment feedback is comparable whether it is provided online or offline. For example, in both modes of delivery the assignment is typically submitted and then later collected via a third party (e.g., assignment drop-box or administration staff for the traditional approach, and electronic drop-box or email for the online approach). In both contexts marking occurs in the absence of the student, and written feedback is provided using in-text annotations, a summary, and the allocation of a final grade. Despite these similarities, there is some evidence that the two delivery modalities are not equally valued by students.

Early research in this area has indicated that students prefer online submission of assignments and release of grades and feedback (Bridge & Appleyard, 2005, 2008; Palmer, 2005-2006). Predominantly, this seems to be due to pragmatic reasons, such as ease of access and timeliness (Palmer, 2005-2006). Although convenience appears to be a key factor in students' perceptions of online grading and feedback (Palmer, 2005-2006), student-centred approaches indicate that other variables may also play a role. In their investigation of the usefulness of computers for improving engagement with assignment feedback, Parkin, Hepplestone, Holden, Irwin, and Thorpe (2012) reported that many students felt that online feedback was more considered as the marker would be able to more easily modify comments and award an appropriate grade. Students also felt there was increased privacy when viewing feedback online (as they may be with fellow students when collecting paper copies), and that this allowed them to independently reflect on comments and grades (Hepplestone et al., 2011; Parkin et al., 2012). However, Parkin et al. (2012) also revealed some disadvantages to online feedback, with some students reporting that online feedback was less personal than offline feedback. Impersonal

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experiences with online feedback were also reported by students surveyed by McCabe, Doerflinger, and Fox (2011). These impersonal experiences within the online environment may have serious implications for students. If feelings of depersonalisation and distance result in student constructions of a "faceless" and remote marker, this is likely to impact on the connection and investment they feel with the subject being studied.

Despite these potential implications, to date, no research has systematically explored attitudes towards online assignment submission, grading, and return. Furthermore, the role of social presence also remains unexamined. Therefore, the aim of the current study was to investigate factors which may predict preference for online or offline grading and feedback. In particular, the role of computer attitudes and student perception of social presence in the online or offline settings in guiding these preferences were investigated.

1.1. Does general acceptance of technology translate to preference for online marking?

With the ubiquity of computers in contemporary society, it is not surprising that students, regardless of age or gender, no longer hold negative perceptions of computer use in education (Smith & Oosthuizen, 2006). However, although not directly related to assessment outcomes, attitudes towards technology do still influence student satisfaction with online learning (Drennan et al., 2005; Hewson, 2012; Hewson et al., 2007). Furthermore, as the use of computers to release assignment grades and feedback is a newly emerging tool in education, it is not yet clear whether students find computerised submission and release of grades and feedback comparable with, or preferable to, the offline approach. It is possible that student attitudes towards computers may still affect mode preference and student satisfaction, despite the more general acceptance of computers in education. By extension, receiving grades and feedback in a non-preferred format may reduce student engagement, and consequently, the usefulness of grades and feedback for future application (Ferguson, 2011).

1.2. Does perception of social presence in the online and offline setting explain student preferences?

The concept of social presence, as related to communication media, was initially described by Short, Williams, and Christie (1976). Short et al. (1976) proposed that two factors work in concert to provide a sense of community and engagement and consequently enhance learning and educator–student interaction. The first of these two factors is intimacy, or the extent to which non-verbal behaviours and discussion foster a sense of closeness. The second factor is immediacy, which is the use of interpersonal and social cues to demonstrate an individual's availability to another. There is strong evidence to suggest that social presence is crucial to learning satisfaction in online study, and that students with higher levels of perceived social presence in the online environment have greater learning satisfaction and engagement. For example, Gunawardena and Zittle (1997) found that social presence accounted for approximately 60% of variation in student satisfaction when participating in an online educational conference. Similarly, Richardson and Swan (2003) reported a strong correlation between social presence and student perception of learning while undertaking an online course. Bangert (2008) compared the level of critical inquiry in three online groups of students enrolled in a graduate course; an enhanced social presence group, an enhanced teaching and social presence group, and a control group. For both the social presence and the social and teaching presence groups, students engaged in more frequent and deeper levels of critical inquiry and peer interaction than the control group. The social-teaching group performed best thus supporting the benefits of perceived social presence for student outcomes.

Hostetter and Busch (2006) assessed the impact of social presence on both learning satisfaction and learning outcomes in an online and face-to-face setting. There was no significant difference between the face-to-face and online groups in terms of level of perceived social presence. However, social presence accounted for approximately 40% of the variance in learner satisfaction. In this study, social presence was not related to actual learning outcomes. In contrast, Zhan and Mei (2013) found that social presence was more strongly predictive of both academic achievement and student satisfaction in online courses than courses delivered face-to-face. These findings suggest that social presence is especially important in the online setting. There is also evidence that social presence is not important for some individuals, with Kim, Kwon, and Cho (2011) reporting that social presence only had an effect on learning satisfaction among those who had a high level of social presence. Learning satisfaction was not influenced by social presence in the low social presence group.

Some limited evidence also indicates that social factors contribute to student perception in the context of written assignment marking and feedback. Therefore, if students consider the offline and online settings to have different levels of social presence, this may in turn influence their preferences for mode of feedback. In support of this suggestion, Price, Handley, Millar, and O'Donovan (2010) argues that staff and student interaction, and student interaction within the academic setting, both influence the levels of student engagement with feedback. In addition, Poulos and Mahony (2008) claim that first-year students use assignment grades and feedback to establish themselves within the academic community. The evidence for a direct relationship between written assignments and social presence comes from research by Richardson and Swan (2003) who reported a significant correlation between level of social presence and perceived learning provided by written assignments. Therefore, student perceptions of social presence in each feedback mode may play an important role in preferences and satisfaction.

1.3. Aims of the current study

With the long-established importance of assignment feedback for student learning and engagement (e.g., Black & Wiliam, 1998; Cohen, 1987), and the exponential increase in electronic marking and feedback in higher education (Hepplestone et al., 2011), an exploration of the nexus between technology and assignment grading and feedback is both timely and imperative. The above findings suggest that social presence may be predictive of student satisfaction, and may even influence learning outcomes, particularly in the online setting. However, there is limited research investigating the role of student perception of social presence in guiding preferences for assignment marking and feedback in either offline or online modes. In addition, while student preferences for offline or online modes of delivery can be influenced by attitude towards computers, these factors have become diminished with the burgeoning use of computers in both work and recreational life, and students generally view computer use favourably. Nevertheless, student preferences for mode of feedback may still be influenced by attitudes towards computers given both the newness of this process and the lack of research evaluating the role of computer attitudes in this context. We hypothesise that the effect of both social presence and computer attitudes on preference for online or offline marking can be conceptualised as presented in Figs. 1 and 2.

Therefore, this study aimed to explore whether preferences for online or offline marking were influenced by student attitudes to computers or student perceptions of social presence in the online or offline setting. Given the demonstrated importance of quality feedback for student satisfaction and engagement, student preferences for online or offline marking of written assignments were also investigated. Specifically, the importance of assignment feedback modality (i.e., online or offline) in guiding student marking preferences, relative to two important and previously identified feedback characteristics,