Sharpening Assessment: Testing Learning Management System Written Feedback Tools

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Introduction

Learning Management Systems (LMS) are utilized by many institutions nationwide for higher education (Jagger & Darko, 2020). As of 2017, there were 100 million users reported across 90 countries utilizing Blackboard, which was the Learning Management System chosen for this evaluation (Cision PR Newswire, 2017). The adoption of LMS have been heavily relied on to continue education during a shift to online learning for many universities (Dias et al., 2020).

Online education – widely mandated during the COVID pandemic – alters every component of learning and assessment in higher education (Kebritchi et al. 2017). When educators cannot assess learning progress face-to-face, feedback and engagement both hold a high value (Tanis, 2020). Prior research has shown feedback is crucial to facilitate students' development as independent learners and encourage self-monitoring (Ferguson, 2011). A 2021 study during the COVID online learning year recommended educators consider implementing more creative feedback tools to support online text and comment assessment in higher education (Hast, 2021).

How it Works

LMS written feedback tools are often displayed on grading screens of individual students' documents. Using a mouse, clicking and dragging on the document leaves marks similar to a pen or pencil, with line thickness and color options available. A stylus pen can be used on a device's touchscreen, allowing the user to physically "write" feedback on documents as if printed.

Program Steps

In the Spring semester of 2021, online learning was a required option due to the aftermath of the COVID pandemic. Through testing these tools, graders were looking to provide detailed, impactful feedback to their students regardless of their choice of in-person or online course delivery. Blackboard's *draw* feature was tested, utilizing the online pencil tool to write comments directly onto students' documents in the LMS as an alternative to printed and hand-written feedback.

A total of 66 undergraduate students ($N = 66$) were enrolled in an agricultural scientific communications course that had a writing focus. The graders utilized the LMS written tools throughout the duration of a 2021 Spring semester course to ensure the opportunity for quality virtual feedback. Students had a written assignment due every week of the course that wasn't an exam or a university holiday. Each grading week was split in half alphabetically between the two graders, with one using Blackboard comments while the other utilized LMS written tools.

During the end of course reviews, students were asked about their perception of feedback throughout the semester with an optional discussion board and Kahoot survey. There were 19 student responses ($n = 19$) pertaining to how often they reviewed feedback given to them by graders, and 39 ($n = 39$) student responses to the preference of feedback mode. Table 1 shows the frequency distribution of the students' responses to feedback preferences and perceptions.

Table 1

*Frequency Distribution of Students' Blackboard Feedback Preferences (*N = *39)*

Question	*f*	*f* (%)	Mode
View Document Feedback (*n* = 19)			Every time
Every time	13	68.0	
Some, if curious	3	16.0	
Only if needed	2	11.0	
Very little	1	5.0	
Feedback Preference			Blackboard comments
Blackboard comments	26	67.0	
Written feedback	10	25.0	
No preference	3	8.0	

Note. Student response was optional.

Results to Date

Results showed 68% of students (*n* = 13) stated they view document feedback every time it's given, while the remaining 32% of students (*n* = 6) view feedback very little, if they're curious or if it's needed. It was found that 67% (*n* = 26) of students prefer Blackboard comments over written feedback, which received 25% (*n* = 10) of student preference. While this was viewed as quantitative information, the following student response to this inquiry supports the findings above. This student, in a Blackboard discussion post, stated:

> "I don't care how I get feedback as long as it is comprehensive. The format is less important to me than the content itself; as long as the information is clear so that I can fix what I've done wrong and improve my work, then the delivery method is irrelevant to me. I value constructive criticism and I can take it either way, the blackboard comments are more readily available but the hand-written feedback is more tangible."

Discussion/Future Plans/Recommendations

Future semesters of this course planned to prioritize LMS written tools as a feedback method; however, the results of this semester have indicated that the quality of feedback holds higher importance to students than the method of feedback. We found that most students check their LMS for feedback on their assignments every time, but based on student response, the quality of feedback given is more important than the mode in which it is given. As educators are considering LMS written feedback tools, we suggest taking the nature of the assignment into consideration. While this concept was not pursued this semester, we predict that assignments such as resumés or visual documents, may see additional benefits from these writing tools. We recommend strategically focusing time spent with these writing tools on visual assignments as well as utilizing written tools on future courses and in different universities and fields of study.

Costs and Resources Needed

The draw tool on LMS can be used cost-free on any computer with an active LMS. However, we found the most efficient use of the draw tool was with a touch-screen device and a stylus pen. One grader owned these devices prior to the semester, purchased for approximately $5 (stylus) and $199 (device), but these items can often be borrowed from departments or universities. Time was also considered a resource. The draw tool on average took 10 minutes more per assignment than comments, with student response not supporting the need for this extra grading time.

References

Cision PR Newswire. (2017, January 27). *Blackboard Delivers Worldwide Growth*. https://www.prnewswire.com/news-releases/blackboard-delivers-worldwide-growth-300398129.html

Darko, C., & Jagger, D. (2020). How can we manage the Blackboard learning management system to enhance student's learning? *ICDLT 2020: Proceedings of the 2020 4th International Conference on Deep Learning Technologies (ICDLT)*. 49–54. https://doi.org/10.1145/3417188.3417205

Dias, S.B., Hadjileontiadou, S.J., Díniz, J., & Leontios, J. H. (2020). DeepLMS: a deep learning predictive model for supporting online learning in the Covid-19 era. *Sci Rep*, *10*(19888), 1-17. https://doi.org/10.1038/s41598-020-76740-9

Ferguson, P. (2011). Student perceptions of quality feedback in teacher education. *Assessment & Evaluation in Higher Education*, *36*, 51–62. https://doi.org/10.1080/02602930903197883

Hast, M. (2021). Higher education in times of Covid-19: Giving online feedback implementation another look. *Higher Education Studies*, *11*(1), 1-7.

Kebritchi, M., Lipschuetz, A., & Santiague, L. (2017). Issues and challenges for teaching successful online courses in higher education: A literature review. *Journal of Educational Technology Systems*, *46*(1), 4–29. https://doi.org/10.1177/0047239516661713

Tanis, J. C. (2020). The seven principles of online learning: Feedback from faculty and alumni on its importance for teaching and learning. *Research in Learning Technology*, *28*, 1-25. https://journal.alt.ac.uk/index.php/rlt/article/view/2319/2664