Engineering Students' Perspectives on Electronic Feedback for Communication Projects

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ABSTRACT

Instructors of technical communication spend a large percentage of their appointment providing feedback to student writing, yet it is unclear how much of that feedback is directly used for student learning. This non-experimental study explored the convenience and efficacy of traditional and electronic feedback to student writing via student survey and informal interviews with technical communication faculty. Survey data suggests students have a slight preference for feedback provided electronically because it is more clear than handwritten comments and more accessible (available via CTools or email inbox and able to be accessed by all students on a project team). Students report this clarity and accessibility leads to an increased likelihood that they will revisit their feedback when writing a later paper for the same instructor, suggesting electronic feedback is more effective. Faculty, however, note that electronic feedback methods often require additional grading time and change the patterns of comments they are likely to make.

FEEDBACK TECHNIQUES

"Traditional" feedback:
•Ink comments in margins (green pen)
•Language- and content-based
•Hard copies returned in class (one copy/team)

"Electronic tablet" feedback:
•Hand-written comments in margins via Tablet PC
•Language- and content-based
•Electronic copies returned via CTools (one copy/ each author)

"Electronic Word" feedback:
•Comments inserted via MS Word "review" functions
•No "track changes" used
•Content-based comments primarily
•Language-based comments separated from actual errors, addressed patterns
•Electronic copies returned via CTools (one copy/each author)

"Electronic PDF" feedback:
•Comments inserted via PDF "post-its"
•No textual edits used (possible in Adobe Pro)
•Content-based comments primarily
•Language-based comments separated from actual errors, addressed patterns
•Electronic copies returned via CTools (one copy/each author)

METHODS

Students from two sections of E100 (n=96) completed a survey soliciting comments on preferences regarding feedback received. All students received both "traditional" and one of the forms of electronic feedback.

Faculty from the Program in Technical Communication (n=4) were informally interviewed regarding experiences providing electronic and traditional feedback.

Quantitative Results

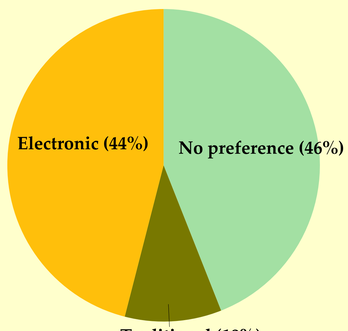

Figure 1. Students have a weak preference for electronic feedback

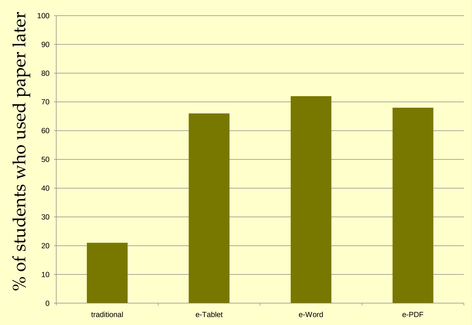

Figure 2. Students who received electronic feedback were more likely to consult the draft when writing another course paper

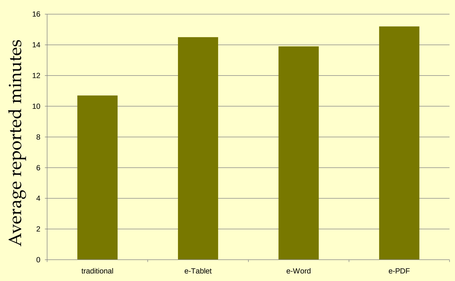

Figure 3. Students spent , on average, slightly more time reading through (and learning from?) feedback provided electronically

Qualitative Results

Common themes in student comments:
•Feedback is sometimes considered for a minute or two, seen only as justification of a grade.
•Electronic feedback is more accessible . Students lose hard copies.
•Electronic feedback is more accessible for student teams (all members can have a copy).
•Font-based feedback is easier to read but less personal.
•PDF feedback doesn't print out well.

Themes in faculty comments:
•Providing feedback electronically takes more time (faculty with more experience grading electronically noted strategies can mediate this).
•Feedback platform changes the nature of the comments (more specific comments when writing in margins).

CONCLUSIONS

Given that a large percent of time for lecturers in the Program in Technical Communication is spent providing feedback, we should do so in a way that maximizes convenience for ourselves and our students. Perhaps most importantly, we want to provide feedback that students learn from, rather than justifications of assigned grades.

Toward that end, it seems promising for instructors to further investigate electronic feedback platforms. The faculty interviewed seemed interested in collaborating to learn "best practices" of electronic feedback, including strategies for decreasing the additional time burden.

This non-experimental study seems to indicate that electronic feedback is preferable to students, and a controlled, experimental study should investigate this further. Additional research should also explore patterns of communication feedback to determine whether particular patterns are more likely to result in student learning, and which feedback platforms encourage such feedback.

ACKNOWLEDGMENTS

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