Web Page Discussion Contributions and Course Performance

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Introduction

- Technology can provide many exciting, new possibilities for course design and material integration. The Internet has significantly changed how material can be presented and how students can interact as part of the learning experience. One such important technology for instructors to consider is the incorporation of discussion web pages into curriculum.
- Discussion web pages allow students to share thoughts and experiences outside the physical classroom. This innovation is especially useful to students who may be somewhat timid to participate during class time and is also useful to extend discussions when time constraints and large class size are concerns.
- Although discussion web pages can enhance the student learning experience, little is known about the relationship between web discussion page usage and course performance.

Hypothesis

- Researchers predicted significant positive relationships between discussion web page contributions and course performance
  - Specifically, we predicted that course point total earned would be positively related to the number of web discussion contributions posted during the term, the total word count, and the average word count of submissions

Method

- Participants
  - 178 total students enrolled in four separate Introductory Psychology courses, one Cross-Cultural Psychology course, and one Advanced Social Psychology course from a large, public university and a small, private college.
- Materials and Procedure
  - Students were instructed that at least one significant contribution to a discussion web page every week/two weeks was required with no minimum word count. Students were also invited to contribute as much as they desired, but without additional class credit. Instructors recorded the total number of posting contributions, the total number of words written, and the average word count per contribution for each student at the end of the term. Total number of points earned in each class (not including any points earned for web page discussions) were also used in analyses.

Discussion Page Contribution and Course Performance Correlations

Class (N)	Frequency	Total Words	Average Words
Intro Psych 1 (47)	.527**	.546**	.425**
Intro Psych 2 (35)	.378*	.287*	.039
Intro Psych 3 (32)	.651**	.617**	.412**
Intro Psych 4 (34)	.556**	.487**	.259[a]
Cross-Cultural (15)	.405[a]	.496[a]	.367
Advanced Social (15)	.587**	.505*	.153

a=$p<.10$, *=$p<.05$, **=$p<.01$
All tests were one-tailed.

Discussion Page Contribution Mean Descriptive Statistics

Class	Frequency	Total Words	Average Words
Intro Psych 1	3.45	151.15	36.02
Intro Psych 2	4.51	335.11	72.60
Intro Psych 3	3.56	264.50	59.56
Intro Psych 4	4.62	396.85	78.56
Cross-Cultural	8.47	1094.0	126.04
Advanced Social	9.67	1181.93	123.33

Results Summary

- As predicted, there were statistically significant, positive correlations between discussion web page contributions and course point total for each of the classes investigated.
    - The correlational relationship between frequency of discussion page postings and course grade ranged from .38 ($p = .012$) to .65 ($p < .001$) for the various classes.
    - The correlational relationship between total number of words written and course grade ranged from .29 ($p = .048$) to .62 ($p < .001$) for the various classes.
    - The correlational relationship between average number of words written in each posting and course grade ranged from .04 ($p = ns$) to .43 ($p < .001$) for the various classes.
- Students in advanced courses ($M = 124.68$) wrote significantly more words per contribution than students in introductory courses ($M = 59.53$), $t(176) = 8.86$, $p < .001$.

Discussion

- Although this data does not indicate why student web discussion page contribution was related to course performance, the relationships are quite strong and stable across several different classes.
- We recognize the likelihood that good students are the ones contributing to discussion pages the most and that discussion page contributions are not the only factor affecting course outcomes. However, we also recognize that students who contributed more may have increased their learning in their respective courses using this alternative medium.
- Professors may choose to incorporate discussion web pages to add an additional dimension of interaction and sharing to enhance learning in introductory and advanced psychology classes.