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Using Freewrites To Increase Learning In Accounting Information Systems Courses

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Abstract

This study reports on the use of short, informal writing activities as a means to improve learning in Accounting Information Systems (AIS) courses. Students in a junior-level AIS course completed 10 short writing activities in class during one academic quarter. Student evaluations of the activities indicate that they found the assignments useful in a variety of ways, but especially in helping them integrate concepts, recognize important points, and retain knowledge learned in the course.

Introduction And Theoretical Background

While the exact content varies significantly in Accounting Information Systems (AIS) courses across campuses, some factors seem to be quite common -- the course covers a wide span of topics, a large volume of information, and some highly technical material. These factors can make the course difficult and frustrating for students. It is important, therefore, to explore pedagogical techniques which might facilitate student learning in AIS courses. One technique that has proven successful in other content courses is using short informal writing assignments. This paper reports on the use of one type of informal writing activity -- freewrites -- in an AIS course. Freewrites are short in-class essays based on instructor-directed questions, open-ended questions, or thought-provoking statements.

Using informal writing assignments to improve learning is called the "writing to learn" approach, as opposed to the "learning to write" approach in which the focus is on improving writing skills. There are several ways in which informal writing activities facilitate learning. Writing activities help students to focus on thinking about and understanding concepts rather than memorizing facts (McLeod 1992). The process of writing about a topic enables students to identify what it is that they do and do not understand (Emig 1977; Zinsser 1988). Reviewing such assignments also provides the instructor with feedback on the students' thought processes and levels of comprehension (Zinsser 1988). Professors can use this feedback to correct misconceptions and deficiencies in a timely manner.

"Learning to write" activities could be incorporated into "writing to learn" activities by assigning short, content-driven writing assignments with more formal style requirements (such as letters to clients discussing a systems issue) and grading those assignments for both content and grammar. This study focusses exclusively on writing to learn activities for several reasons:

- (1) The freewrites (or other writing to learn activities) require much less instructor time for grading, since only content is assessed, while grammar and writing style are ignored.
- (2) Informal activities such as freewrites can be less threatening to students who experience anxiety over their writing skills.
- (3) Informal writing activities require less time from the students, since they allow for free thought flow without editing concerns.
- (4) Learning to write activities are already included in the curriculum at the authors' university in all accounting courses, and the focus of the study was to find new activities to increase learning.

Researchers in non-accounting content areas have reported successful use of informal writing assignments in facilitating higher information recall (Langer and Applebee 1988), increased retention of information (Birken 1989; Henry 1986; Langer and Applebee 1988), more complex thought development and better integration of ideas (Birken 1989; Langer and Applebee 1988; Selfe and Arbabi 1986) and better exam performance (Lesnak 1989; MacDonald and Cooper 1992). In addition, students have rated these activities and the courses they are used in very highly (Lesnak 1989; Selfe et al. 1986).

Few studies in the accounting literature have focused on the effects of writing on learning, and none of these studies have reported on the use of informal writing in AIS courses. However, the evidence does suggest that, in some accounting courses, writing assignments increase student and instructor feedback and student learning (Cunningham 1991; Scofield and Combes 1993; Stout et al. 1991; Wygal and Stout 1989), contribute to high course evaluations (Stout et al. 1990), and reduce student drop rates (Cunningham 1991). This study examines whether the use of freewrites in an AIS course can improve the students' learning in that course.

Methodology

This experiment was conducted at a Midwestern university in two sections of a junior-level Accounting Information Systems (AIS) course required of all accounting majors. Both class sections met four hours per week during Spring Quarter 1996 and were taught by the same instructor. There were a total of 25 students in two classes, including 11 males and 14 females. The students completed 10 freewrite assignments during the quarter. For each assignment, students were asked to either answer a question or react to a statement related to that day's class topic. The writing assignment was given during the last few minutes of the class period. Students were allowed to use their notes to help with the assignment. There were no length restrictions placed on the assignments, but most responses were one paragraph. The instructor evaluated the responses for content, but grades were awarded for participation only, without regard to grammar or the correctness of the answer (the assignments totaled 3 percent of the course grade). Students were given feedback on the content of their responses either in writing or orally in the next class period.

The questions were developed by the instructor. Prior research in other content areas had shown that (1) essays involving summary and analysis were more successful than more limited writing tasks (Langer and Applebee 1988), (2) students had much higher recall for specific content items included in their writing exercises than for other material (Langer and Applebee 1988) and (3) the benefits were greater in conditions in which the content area was more difficult to understand or more unfamiliar for the subjects (Langer and Applebee 1988) and when the writing topics were directed by the instructor (MacDonald and Cooper 1992). Therefore, the questions used in this study were intended to require a synthesis or application of the more important and difficult concepts covered in the course. Examples of the types of questions used were:

- How would you explain to a friend the difference between an AIS and an MIS?

- Which documentation method, dataflow diagrams or systems flowcharts, is easier for you to construct and interpret? Why?

- What concerns do you have as an accountant about information sent over the internet?

- If you had to acquire a computer-based accounting system, which decision-aided software would you use and why?

- Construct an accounting and/or computer fraud scenario. Why would your fraud case be difficult to detect?

At the end of the quarter, the students anonymously evaluated the freewrites by rating the overall usefulness of the assignments on a scale of zero to ten, and by indicating in what ways, if any, the freewrites were useful.

Results And Conclusions

The mean student rating of the freewrites' usefulness in facilitating learning was 7.11, indicating that they felt the assignments helped them to learn. As indicated in Table 1, all of the students indicated that the freewrites were useful, in some way, in enhancing their learning of the concepts covered in the AIS course. The ways in which the freewrites helped the majority of students were in integration of the concepts covered in the course, recognition of important points covered in each lecture, and retention of the concepts learned. Students marking the "other" category indicated the assignments helped them "crystallize the information of the day" and "made you think".

Ways the Freewrites Were Useful	Number of Students	Percent of All Students
Integration of Concepts	18	75
Recognition of Important Points	17	71
Retention of Concepts	13	54
Feedback to the Student	10	42
Awareness of Questions	5	21
Better Note Taking	4	17
Other	2	8
Not at all Useful	0	0

The classes in which the freewrites were used in this study were small in comparison to class sizes at many institutions. It is possible that the positive feedback from the students is, in part, due to the close interaction between the professor and the students. However, freewrites should work well in large classes also. Since the freewrites are not graded or evaluated on the basis of writing style and grammar, much of the time needed for grading of more formal assignments is eliminated. In addition, feedback can be provided to the students as a group in a large class rather than through instructor comments on the individual students' papers. The instructor's time is then limited to reading the papers, which are usually no more than one paragraph long, and compiling a short list of comments to address in class the next day regarding any misconceptions highlighted by the freewrites.

These results indicate that even short, informal writing activities can improve learning in AIS courses. Further research could explore the benefits of other types of informal writing assignments or statistically examine the effects of such assignments on students' exam performance, instructor evaluations, or knowledge retention. While these benefits could also be achieved in other accounting courses, the AIS course is often less structured than other accounting courses, with no calculation or journal entry problems for which there are check figures, but with more analysis and critical-thinking types of applications involved. The course is, therefore, typically one in which students struggle the most to grasp and integrate the concepts, making the discovery of useful learning aids even more critical in that course.

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