Examining Two Instructional Methods: Is One More Magnificent than the Other?

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Introduction

Each year, a Librarian teaches PubMed searching to DDS students during two 50-minute class sessions of the one-credit School of Dentistry course, *Information Management for Clinical Practice*.

In spring 2005, both DDS_1 And DDS_2 were required to take the course. Neither group had previous instruction from the Health Sciences Library.

The groups were taught separately using two different instructional methods in order to evaluate which method was most effective.

Hypothesis

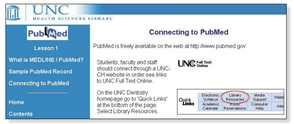
Students can learn basic PubMed searching as well from an online tutorial as from a lecture.

Method

- Tutorial Only Group: 77 DDS _1 students
  - 2 combined class sessions
  - Verbal and written instructions directed students to review the tutorial and complete an assignment in class.
- Lecture With Tutorial Group: 72 DDS_2 students
  - Class session 1: Lecture based on tutorial content was delivered.
  - Class session 2: After the lecture, students were instructed to complete an assignment in class. Tutorial was available for referral.
- Both groups completed the same assignment.
- Two librarians were available for questions.

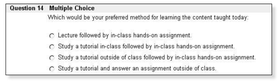
Preparation

- Online tutorial designed for use by any new student in the School of Dentistry was created.



- A Blackboard assignment was created to test whether students knew and could apply basic search concepts presented in the tutorial.

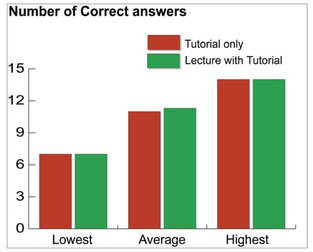
- Students were also asked about previous PubMed experience and preferred learning method.



Results

- **Measure:** Average # correct on the assignment

  Outcome: No significant difference between groups



- **Measure:** Performance on specific questions

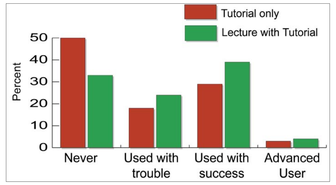
  Outcome: Students in both groups successfully answered the same questions and had problems answering the same questions.

Observed Behaviors

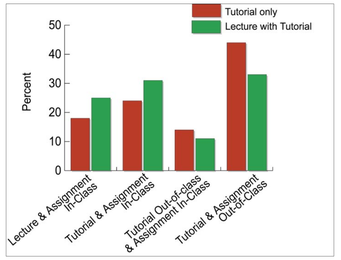
- In the Tutorial Only Group, some students did not spend time reading the tutorial before starting the assignment.
- In the Tutorial Only Group, students asked many more questions than students in the Lecture With Tutorial Group.

Other Discoveries

- Previous PubMed Use



- Preferred Learning Method



Conclusion

- Results of this study indicate that students can learn basic PubMed searching equally well from a tutorial as from a lecture. Decisions about how to teach this content can be based on other criteria.
- Tutorial development and classroom support for students learning from a tutorial are more labor-intensive. However, students indicate a strong preference for learning this way.