

# **BEGINNING ACCOUNTING STUDENTS' ACCESS TO AND FAMILIARITY WITH SPREADSHEET SOFTWARE**

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## **ABSTRACT**

This paper outlines the objectives of a survey that will yield information about beginning accounting students' familiarity with spreadsheet software. After establishing the importance of this issue for accounting education in the principles courses, the paper examines previous research on the topic. The paper concludes with a synthesis of this research applied to the design of a survey form that will yield answers to two main questions. First, do beginning accounting students have access to computing resources that are sufficient to aid them in their study of accounting; and second, do these students have the knowledge and skills to use the computing resources that are available to them.

## **INTRODUCTION**

Over a decade ago, the Bedford Committee [1] charged, among other things, that university accounting programs had failed to recognize the extensive changes taking place in information technology. In response, many accounting programs began emphasizing their students' use of computers in accounting courses. Bean and Medewitz [3] found that accounting graduates felt that facility with spreadsheet software was the most important skill they could have acquired in their university training—even more important than familiarity with accounting software. Borthick and Clark [4] even found that using computers to automate some of the more mundane calculations can help students develop a deeper understanding of the material and can make students less likely to engage in rote memorization.

## **PRIOR RESEARCH**

By 1990, many educators—including Borthick and Clark [5], Kalbers [8], and Salimi [10]—agreed that spreadsheet software had a firm place in accounting

classes although many of them [9] [7] [11] [12] felt it had its best application at the upper-division course level. However, the pressure of accounting education reform (e.g., from the AECC [2]) continued to push the adoption of information technology and electronic spreadsheets down into principles courses. Indeed, it is the rare principles of accounting text that does not have specific problems designed to be solved using spreadsheet software. Many introductory texts also have spreadsheet software or template-based ancillaries. Using spreadsheet software and other computer technology in principles of accounting courses greatly increased the need to have such software accessible to a larger and larger number of students.

Heagy and Gallum [6] provide survey results that argue for inclusion of computing knowledge in the accounting curriculum at all levels. Togo and McNamee [13] note the many benefits of integrating computing into the accounting curriculum, but also discuss the difficulties of ensuring a common level of computer skills in students at each level of courses.

## **THE SURVEY DESIGN**

The accessibility issue can be divided into two separate questions: 1) do principles of accounting students have physical access—on or off campus—to spreadsheet software, and 2) do principles of accounting students have an ability to use the software. We will gather data in the survey to examine both of these questions.

### **Access to Spreadsheet Software**

The physical access issue is important. Educators cannot expect students to use tools they do not have. As more and more courses incorporate computing activities, it will become more difficult for on-campus academic computing facilities to support these activities. The survey instrument will need to address

the issues of requiring students to purchase their own computers and software, rationing on-campus computing resources, and how to handle the lack of compatibility that might exist in spreadsheet products. The increasing age of students and the increasing percentage of non-traditional students may mean that students have access to computing facilities at their part-time or full-time workplace. In pilot studies of the questionnaire design, we have encountered situations in which students possessed a spreadsheet software capability (e.g., Microsoft Works) yet did not know that the software had spreadsheeting capabilities. This will require us to include questions about specific software packages in the survey questionnaire.

### Ability to Use Spreadsheet Software

An equally important issue is students' ability to use available spreadsheet software. Complicating this determination is the possibility that students may have achieved some facility with spreadsheet software, yet not be able to use the software to perform accounting tasks. For example, one common spreadsheet accounting activity is to calculate a graduated-rate tax. Students may need to know how to use LOOKUP functions or nested IF statements to accomplish this task. Since many students might indicate that they know how to use spreadsheet software yet not be familiar with these functions, we will need to construct the survey instrument to make these finer distinctions regarding levels of spreadsheet skill.

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