

Continuous Improvement in Accounting Information Systems (AIS) Course

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ABSTRACT

This paper describes how assessment can be used to continuously improve an accounting information systems course. Results from direct measurements are used to improve the course. Specifically, two semester results are compared for student performance. Results show some improvement; however, the course requires continuous improvement to meet benchmarks. This paper should provide invaluable insight to other instructors and universities that are considering launching assessment programs.

INTRODUCTION

As more and more regulations (SOX, HIPPA etc.) are enacted, compliance with these regulations is becoming important. This requires students understand the data, processes and technology that can generate desired reports to satisfy or validate compliance. Accounting information systems are becoming a critical part of businesses. Accounting firm are stressing that an organization in the digital age cannot survive without information and support systems. This necessitates that accounting student must learn information systems. Accounting information system (AIS) course is becoming part of many universities curriculum. AIS courses require multiple skills in the areas of accounting, management information systems, computer sciences, law and sociology. Given the complexity of the course the question arises: Are students learning what is required in this course? How can the course be continually improved to meet learning objectives? The present study addresses the continuous improvement (CI) approach to improve quality of student learning for an AIS course. The study measured students' performance from one semester to the next. Direct measures were used to study deficiencies, and treatments were identified, and used to enhance performance for the second semester. This study should be beneficial to faculty planning to improve their AIS course.

The next section describes the AIS course and the following section compares the delivery modes and the experiment.

ACCOUNTING INFORMATION SYSTEMS (AIS)

AIS is defined as a course that, "...combines the study and practice of accounting with the design, implementation, and monitoring of information systems. Such systems use modern information technology resources together with traditional accounting controls and methods to provide users the financial information necessary to manage their organizations" [7]. Many authors [8,9] have provided similar definitions. Given these definitions, the AIS course currently has the following learning objectives:

- Identify the three primary methods of collecting and processing data about an organization's business activities (i.e., manual accounting systems, computerized accounting software, and

- database management systems)
- Illustrate the use of a database management system
 - Describe and apply accounting for payroll
 - Identify and illustrate system development and documentation techniques
 - Explain computer based information systems control
 - Identify system development and system analysis techniques
 - Understand the XBRL importance

As evidenced by the course objective, AIS includes information systems with accounting applications. The next section describes the methodology and the hypothesis.

Methodology and Hypothesis

Though many assessment approaches have been taken in accounting courses [1,2,3,4] but not many have studied continuous improvement of accounting courses, especially AIS courses. This paper is an attempt in that direction. We compare students competency from semester to semester to compare if treatments have had intended effect.

It is expected that once treatments are used students should perform better in the follow up course. Hence, the following hypothesis was developed.

H1: Students in second semester perform better than first semester

Student learning was measured by their score in the database assignment and a difference in means test was used to test this hypothesis. The next section describes the experiment.

THE EXPERIMENT & RESULTS

The study involves an undergraduate class in accounting information systems that is required of all accounting majors at a mid-eastern university. Results revealed database software competency (4.34 in summer of 2010 and 5.017 in summer of 2011 indicating both group were below or at the mean level in terms of database efficiency. SPSS was used to study summary statistics for student performance. Results from first semester showed that almost 48% of students scored “C” or less than a “C” and almost 23% did not pass the assignment. We analyzed the results further and discovered that students performed well in the ACCESS part but did not do as well in the other parts (PK, FK and ERD) of the problem implying students needed some reinforcement in that area.

We reinforced by using following treatments: Provide more hands on exercise; Give group in-class exercises; use synchronous chat rooms. A t-test was used to measure difference in student performance from one semester to the next. The results were statistically significant implying the treatment did have some impact on student performance. Our efforts will continue.

CONCLUSIONS

As companies come under scrutiny for fraud, embezzlement of funds, information gaps, etc., they are committed to using information technologies to solve them and take actions. A sound knowledge of data processing is essential for students to detect fraud and ethical violations. As the Internet continues to grow, so do remote students. Teaching on line student can be challenging but we must find ways to teach these students ways to understand databases to prevent fraud and even XBRL. This paper is an attempt in that direction.

REFERENCES

provided on request