

Introduction to Financial Accounting (ACCT 2101) Course Redesign at Georgia Gwinnett College

Teaching Intro to Financial Accounting Using a Nontraditional Approach and its Effect on Students' Academic Performance

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Business programs have tried to improve the passing rates of students enrolled in the principles of financial accounting courses with very little success. The purpose of this study was to compare the traditional (preparer) versus the nontraditional (user) approach to teaching the course and its effect on the academic performance of 179 undergraduate students. The results suggest that students performed better at midterm using the traditional method and better overall using the nontraditional approach as confirmed by the Wilcoxon-Mann-Whitney test. These results have implications for how and when students are taught accounting topics and the effect on their academic performance.

STATEMENT OF THE PROBLEM

Over the last three decades, business programs have struggled to redesign the first accounting course to improve its reputation and students' academic performance since the American Accounting Association (AAA) reported that many diverse groups have called for a change in the manner in which accounting is taught. Some researchers suggest that the traditional method of teaching principles of accounting is the problem. Nicol (1968) notes that accounting instructors have long used the traditional method of using the accounting equation to teach beginner accounting students the relationship between transactions, accounts, and the financial statements utilizing debits and credits. According to Penz (2002), it is the shortcoming of the instructor who fails to simplify his presentation, and the merit of the accounting text used that make the mastery of accounting principles difficult. The traditional accounting textbook introduces double-entry accounting at the beginning and uses it throughout the textbook, whereas the nontraditional accounting textbook uses a financial statement analysis model and introduces double-entry accounting at the end of the textbook. The purpose of this study was to investigate the effect of redesigning the first accounting course where double-entry accounting is introduced at the end versus the beginning and throughout the textbook. It has been noted that many students not only fail the course, but many withdraw from the course before the withdrawal penalty deadline. Applying a user approach by delaying the introduction of the double-entry accounting should increase the retention rate of students and enable students to gain their confidence, knowledge, and skills of accounting before introducing double-entry accounting, which is not covered until the last exam. The results of this study demonstrate the effects of a user versus a preparer approach of teaching principles of financial accounting on students' academic performance. Thus, we examine the following hypothesis:

H1: A traditional (preparer) versus nontraditional (user) approach to teaching principles of financial accounting provides different results for students' academic performance.

METHODS

We conducted the study using a causal comparative design method. According to Gall, Borg, and Gall (1996) a comparative design method is the most suited method since it allows for the cause-and-effect relationships under conditions where experimental manipulation is difficult or impossible. The two instructors used identical course materials and assessments to teach the principles of financial accounting course for Spring 2019 using the traditional method (preparer approach) and Spring 2020 using the nontraditional method (user approach). The original sample consisted of 210 students enrolled in both semesters with 87 students enrolled in Spring 2019 and 123 students enrolled in Spring 2020. The final sample consisted of 179 students after eliminating the students who withdrew from the course. The students who failed to complete the final examination were not included in the analysis, although the results were not statistically different if they were included. The first step in redesigning the course involved selection of a user approach (nontraditional) textbook that focused on students learning accounting using a horizontal financial statements model spreadsheet to analyze financial transactions and their effects on various accounts, the accounting equation, and financial statements. The second step was to ensure students were prepared for class by requiring them to listen to short video lectures and complete a quiz at the end of each video, which accounts for 20 percent of the students' overall final course grade. The grade assessments also included in-class assignments and four exams. The authors analyzed the data using descriptive statistics and Wilcoxon-Mann-Whitney tests.

OUTCOMES

Table 1 shows a comparison of the frequency distribution of midterm and final grades for the total sample of 179 students under both the traditional and nontraditional methods. The results show that the midterm grades have a mean of 3.39 and standard deviation of 1.26 versus the final grades with a mean of 3.59 and standard deviation of 1.15. Also, Figures 1 and 2 show that 40 students received failing grades (Ds and Fs) at midterm and 26 students received failing grades (Ds and Fs) for the final semester grade.

Table 1
Comparison of Frequency Distribution of Midterm and Final Grades

	Sample (N)	Mean	Standard Deviation
Midterm Grade	Traditional (80) Non-traditional (99)	3.39	1.255
Final Grade	Traditional (80) Non-traditional (99)	3.59	1.145

Figure 1
Midterm Grades

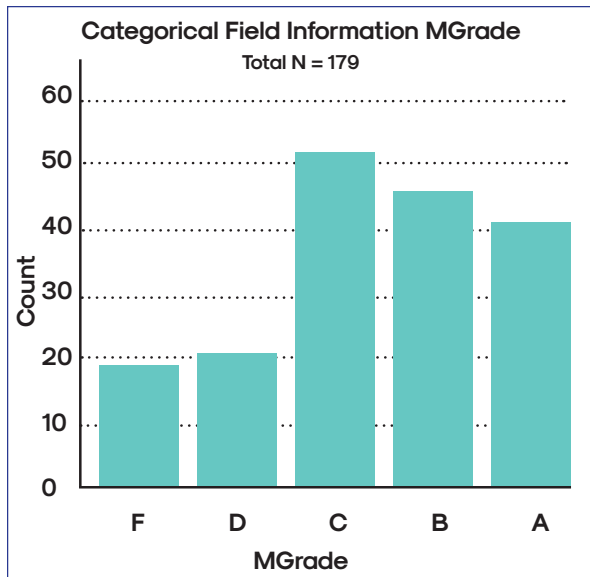
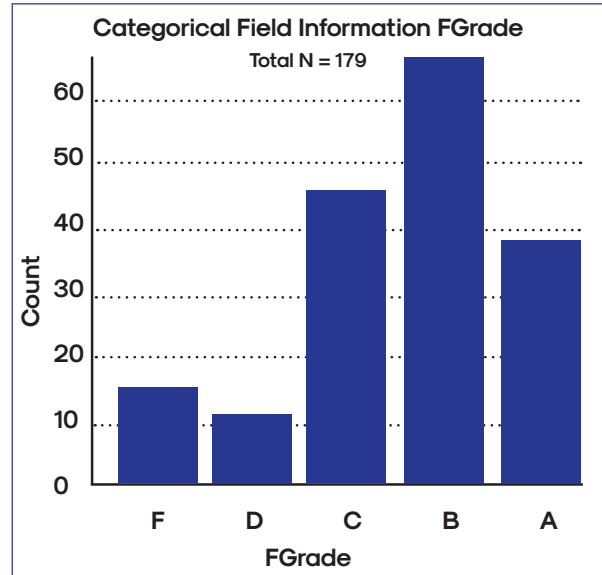


Figure 2
Final Grades



Next, we used the Wilcoxon-Mann-Whitney Test to determine whether there was a significant difference between students' academic performance under the traditional (preparer) versus nontraditional (user) method. This test is most suited for assessing the relationship between independent samples when at least an ordinal variable is used for two independent groups. The results show that H1 is supported. Figures 3 and 4 indicate a significant difference between the grades among students who used the non-traditional method compared to students who used the traditional method with Z statistics of -3.309 and -2.322, and p values of .001 and .020 for midterm and final grades, respectively. The results in Figure 3 indicate that the midterm performance of students was better under the traditional method (mean rank of 103.85) than the nontraditional method (mean rank of 78.81). However, Figure 4 reveals opposite results since the final grade performance of students was better under the nontraditional method (mean rank of 97.74) than the traditional method (mean rank of 80.42).

Figure 3
Midterm Grades from Spring 2019 (Traditional) and Spring 2020 (Non-Traditional)

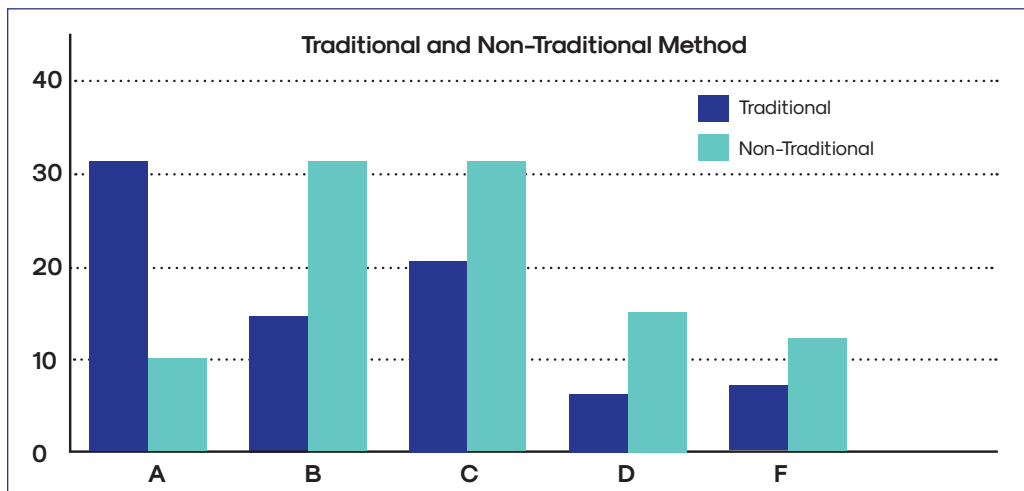
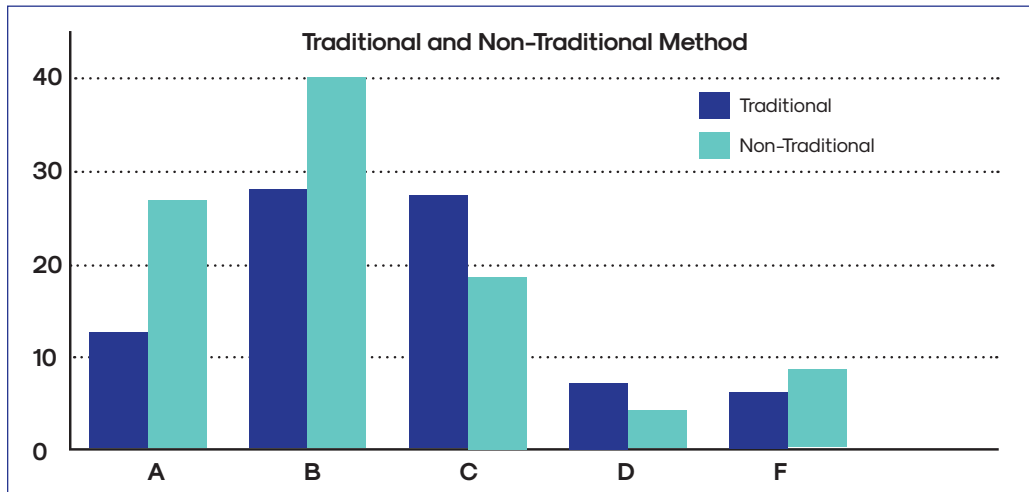


Figure 4

Final Grades from Spring 2019 (Traditional) and Spring 2020 (Non-Traditional)



Additional tests using Chi-Square statistics also show a significant relationship between the students' performance using the traditional versus nontraditional methods. The Spring 2020 nontraditional method significantly differs from the Spring 2019 traditional method with a p value < .001 for midterm grades, however the differences between the methods for the final grade were insignificant with p value of .067.

DISCUSSION AND CONCLUSION

The purpose of this study was to investigate the effect of redesigning the principles of financial accounting course by introducing debit and credit double-entry accounting at the end of the textbook versus throughout the textbook. Specifically, the study examined students' academic performance using the nontraditional (user) versus the traditional (preparer) approach to teach principles of financial accounting. The timing of when debit and credit double-entry accounting is introduced is one of the major differences between the two approaches. Overall, inconsistent results were found between the two approaches. In particular, the results show differences between the students' midterm and final grades. The Wilcoxon-Mann-Whitney Test indicates that the traditional method of teaching principles of financial accounting improved students' midterm grades, which was also confirmed with Chi-Square statistics. However, the nontraditional method of teaching principles of financial accounting improved students' overall final grade. These findings are important because they show that it does matter when and how accounting topics are introduced in the first financial accounting course. Based on the mixed results between the traditional versus the nontraditional approaches, the authors plan to extend the study next semester.

PLANS FOR CONTINUATION AND EXPANSION

First, the authors will increase the sample size by including students enrolled in traditional courses taught by other professors while adding control variables to help interpret the results. Second, the authors plan to implement an early intervention virtual tutoring policy at the beginning of the semester to identify students who are considered high-risk for failing the course. The results of this study and future studies have implications that are likely to bring forth changes to the accounting curriculum and how and when students are introduced to various accounting topics with the ultimate goal of improving the passing grades for students enrolled in the principles of financial accounting course.

LESSONS LEARNED

One of the main lessons learned from this study is that the traditional way of teaching principles of financial accounting may not yield the best academic performance for students, thus, a change may be needed. Another lesson learned is that other factors could be affecting the students' academic performance based on the mixed results found between the traditional and nontraditional approaches of teaching the course. However, the results do indicate that it does matter when and how accounting topics are introduced to students and other factors should be considered in analyzing students' academic performance. A notable limitation of this study is that the authors did not conduct an actual experiment or control for other variables such as gender, grade point average, number of credits taken (workload), student majors, teaching style, etc., which have been found significant in prior studies on students' academic performance. The limitation of the causal-comparative method is that it may be difficult to establish causality based on the collected data (Gall, Borg & Gall, 1996). Based on the above limitations, there are many opportunities for future research. An expansion of this study in the future may take researchers beyond a causal comparative study and establish stronger associations between the traditional versus nontraditional methods of teaching the principles of financial accounting course. Another avenue for future research may focus on the academic performance of various business majors since all business students are required to take principles of financial accounting.

REFERENCES

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