

Principles of Accounting I (ACCT 2310) Course Redesign at the University of Central Arkansas

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Prompted by Gateways to Completion, and in response to a 42.2% DFWI rate, the accounting faculty at the University of Central Arkansas along with faculty from the College of Education and the Department of Finance, redesigned the Principles of Accounting I course. There were 13 redesign elements in the following three categories: messaging to students, helping students succeed, and faculty coordination. Without reducing rigor, the DFWI rate was reduced to 32.3%. This case study outlines the redesign and outcomes.

STATEMENT OF THE PROBLEM

Accounting I is a gateway course for business majors at the University of Central Arkansas (UCA), but for the 2017-2018 academic year, 42.2% of students enrolled in Principles of Accounting I (Accounting I) received a course grade of D, F, Incomplete, or withdrew (i.e., DFWI rate). Students seeking a Bachelor of Business Administration (BBA) must meet progression requirements of a 2.0+ GPA both overall and cumulatively in five business courses including Accounting I and II. Grades of F or W in any of these courses must be repeated to pursue a BBA. A minimum grade of D in Accounting I is required for Accounting II. Students receiving a D in Accounting I typically do not score as well as other students in Accounting II. Therefore, a grade of D in Accounting I makes meeting the progression requirements less likely.

Many students, in Arkansas, qualify for the Arkansas Challenge Scholarship, which renews with completion of 30 credit hours with a minimum 2.5 GPA. UCA also offers academic scholarships requiring higher GPAs. Losing scholarship funding can negatively impact retention rates, especially with UCA's many first-generation college students from families with modest earnings.

The UCA Accounting Department faculty believe strongly in maintaining the appropriate level of rigor in Accounting I. UCA has a good reputation among employers of producing quality graduates and ranks second in Arkansas in the number of alumni passing the CPA exam. Our challenge was to redesign the course to improve the DFWI rate without reducing the course's rigor.

UCA administration funded participation in the Gardner Institute's Gateways to Completion program (G2C). Accounting was asked to participate as Accounting I had experienced the highest campus DFWI rate of 42.2%. A redesign committee was formed, which included all faculty who taught the course plus a representative from Education and Finance. Participating occasionally were the Associate Provost for Academic Success and staff from the Center for Teaching Excellence. This committee met once or twice a month during 2018-2019 and developed three areas of focus.

METHODS

As we investigated why students in general and specific groups of students were not successful in Accounting I, the committee kept a list of ideas that could help our students. Near the end of the 2018-2019, the self-study year, the committee discovered that its ideas fell into three broad categories of purpose: 1) Messaging to the students about the importance of the early course material, 2) Course modifications that help students succeed, and 3) Ways for the faculty to coordinate that would improve overall course delivery. Each of these three categories is described below with the specific methods, 13 in total, that were implemented.

Messages to Students

The first issue the committee identified is that students do not understand the importance of developing accounting skills early to apply later in the course, instead relying on chapter memorization. The committee developed four ways to message to students the importance of early skill development.

1. A syllabus section was added indicating the breakdown of skills in the course.

Writing Journal Entries	40%
Preparing Financial Statements	30%
Calculations	15%
Concepts	15%
Total	100%

2. An introduction video was created and shown in class in week one; it examined the importance of learning accounting rules rather than memorizing journal entries. The video begins with a game that seems to require significant memorization to play until the secret rule is revealed at the end of the video.
3. A study skills video was created using concepts from the book, *Teach Students to Learn*, by Dr. Sandra Yancy McGuire (2015). The video emphasizes the importance of the study cycle (preview, attend, daily review, intense study, and weekly review). The video recommends how to spend six to nine hours weekly outside of class and that students use a calendar to schedule their study time. The video included real-life examples of students who improved their grades using these techniques.
4. One-page chapter introductions were developed to demonstrate how chapter's concepts apply to accounting, other business majors, or daily life. This was intended to help mitigate when non-accounting majors feel that they do not need to learn accounting.

Student Success Modifications

1. The building blocks of accounting are the journal entries. A series of practice quizzes were developed to address three elements of journal entries: account types, debits and credits, and changing account balances. Quiz retakes were unlimited, so with repetition, students could assess deficiencies, get help, and get a perfect score.
2. To prevent overreliance on homework system aids, faculty required students to complete an ongoing paper-and-pencil cycle project in four parts, taking students the entire accounting cycle (first four chapters). Students were encouraged to meet with the free tutors provided by the department for assistance and could rework each part with a tutor after grading to earn back partial credit.
3. Historically, most sections were designed with four exams and a comprehensive final. If students performed poorly on the first exam, it was often difficult for them to recover. To mitigate this problem and emphasize the accounting cycle, an additional exam was added at the beginning of the semester. This allowed the first exam to count for less of the total grade and to cover only two chapters. If a student had not learned journal entry essentials, they would receive an early warning to change their approach to the course.
4. Faculty scheduled two interventions or interactions with students during the semester. These meetings or emails were meant to encourage successful students or express concern to those scoring low on exams.
5. UCA's Office of Student Success funded Supplemental Instructors (SIs) for Accounting I. An SI was assigned to each Accounting I section to attend the class and offer supplemental learning sessions (three different times each week). Faculty required attendance at a minimum number of sessions throughout the semester. The SIs

had recently completed Accounting I with an A or B. With SI leaders closer to the learning experience, students are often more comfortable approaching the SI for questions or help. SIs were often called on in class to help explain a difficult concept in their own words.

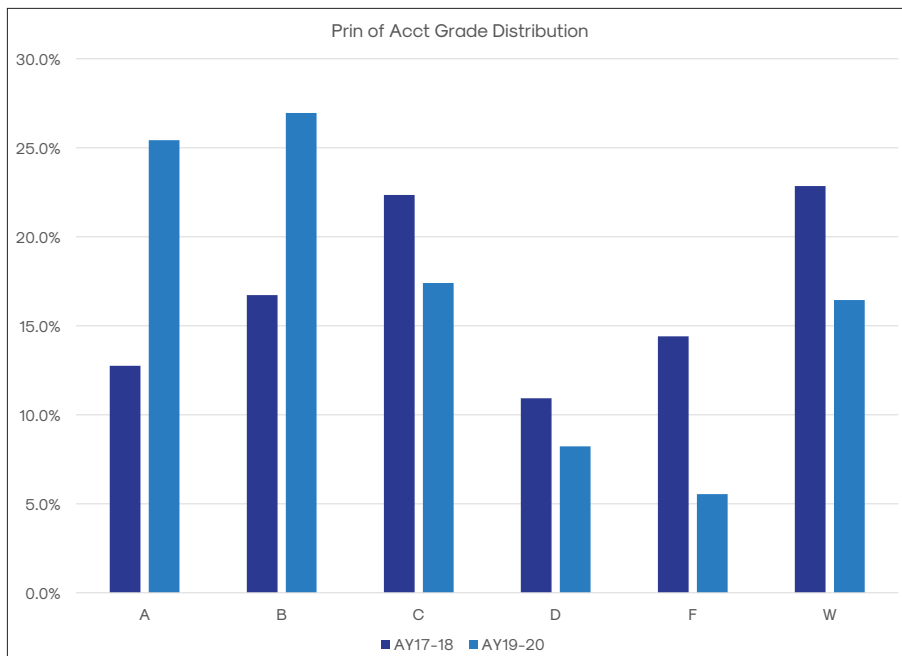
Faculty Coordination

1. Use of a common course calendar aided in tutoring and SI coordination and any needed faculty substitutions. The committee selected material in each chapter to cover. For example, only one of two methods for accounting for inventory will be covered in all sections.
2. A senior lecturer served as the course coordinator in exchange for teaching one less course per year beginning in the Fall 2019. Her duties include developing a suggested syllabus and calendar; creating a Blackboard shell with resources; creating suggested assignments in the textbook’s homework system; and orienting new faculty to the course.
3. The suggested homework assignments focused on preview, practice, and review for each chapter and emphasized open response questions rather than the use of drop-down menus.
4. Professional development opportunities were provided to faculty regarding pedagogy and understanding students.

OUTCOMES

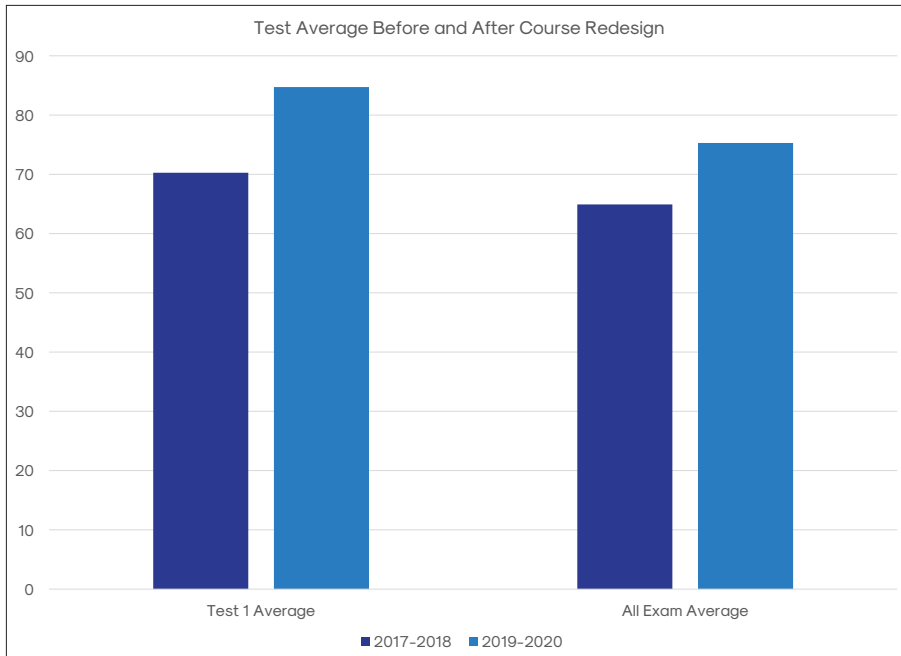
The course redesign was successful in the overall reduction in the DFWI rate, while the rigor of the program was not reduced. The DFWI rate improved 23.5% from the rate of 42.2% in 2017-2018 to 32.3% in 2019-2020. In addition, the percentage of A and B grades increased significantly.

Figure 1
Grade Distribution for ACCT 2310 for 2017-18 and 2019-20



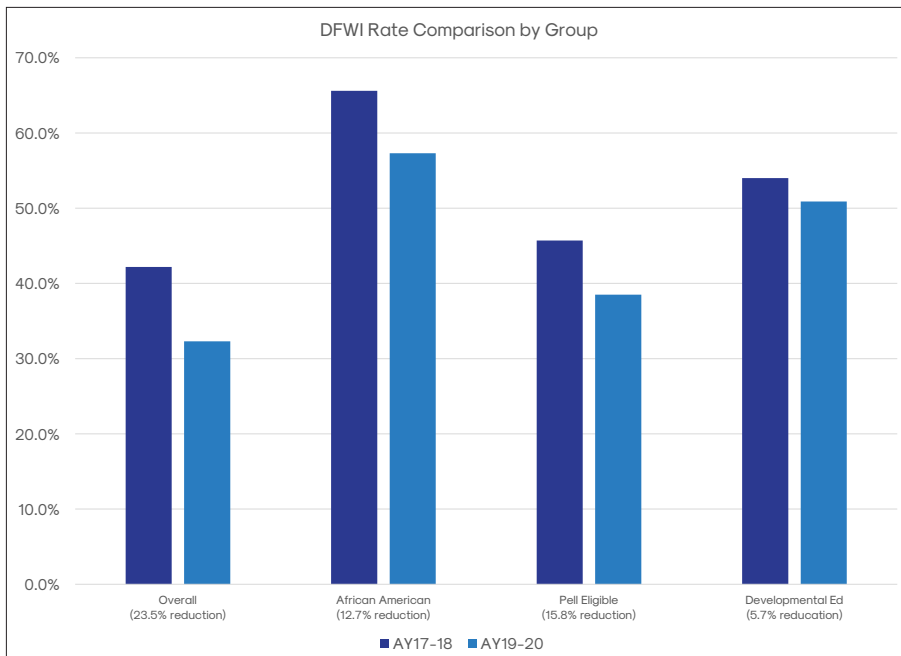
Additionally, scores on test 1 increased from 70.3% before the course redesign to 84.7% after. A similar improvement was seen in overall exam average: 64.9% to 75.3%.

Figure 2
Test Average Comparison After Course Redesign



Since fewer students were required to repeat Accounting I, the department could offer fewer sections and allow faculty to offer more upper-division electives. Unfortunately, the reduction in the DFWI rate was less significant for African American, Pell Eligible, and Developmental Ed students.

Figure 3
DFWI Rate Comparison by Student Group



PLANS FOR CONTINUATION AND EXPANSION

The department plans to continue using the course design changes and to seek ways to provide additional assistance to minority groups to improve their success rates in the course, which continue to lag.

SIs reported that some students did not actively participate in sessions; therefore, ways to encourage, monitor, and measure participation will be explored.

Use of a course coordinator with similar design changes will be considered for Accounting II.

LESSONS LEARNED AND POTENTIAL IMPLICATIONS

Requiring a manually completed cycle project was often cited by students as a key step in their learning. This perception suggests that students may overestimate their understanding of the accounting cycle when receiving aids and multiple attempts with online homework.

In Fall 2019, all students were required to meet with a tutor to turn in the cycle project for immediate feedback. This process overburdened the tutors, so in future semesters students submitted assignments in class and were directed to tutors to improve low scores.

Finally, creating a suggested syllabus and common course calendar helped guide and manage new adjuncts teaching the course.

REFERENCES

McGuire, S. Y. (2015). *Teach students how to learn: Strategies you can incorporate into any course to improve student metacognition, study skills, and motivation*. Stylus Publishing, LLC.