Hypothesis: Using accounting software to help students learn the accounting cycle in a beginning accounting course will enhance learning.

Initial Results

- Exam 1: Significant increase in exam scores for the post-software group, consistent with expectations.
- Exam 2: Significant decrease in exam scores for the post-software group.
- Exam 3: Significant decrease in exam scores for the post-software group.

Exam Score Results

- Exam 1:
  - Before: 64.7
  - After: 68.3 (**) 2.87
- Exam 2:
  - Before: 67.3
  - After: 63.8 (**) 2.69
  - p < .01
- Exam 3:
  - Before: 95.3
  - After: 92.3 (*) 2.52
  - p < .05

Mean Exam Scores

<table>
<thead>
<tr>
<th>Exam 1</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>64.7</td>
<td>68.3</td>
</tr>
<tr>
<td>STDEV</td>
<td>2.87</td>
<td>2.93</td>
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</table>

<table>
<thead>
<tr>
<th>Exam 2</th>
<th>Before</th>
<th>After</th>
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<tbody>
<tr>
<td>Mean</td>
<td>67.3</td>
<td>63.8</td>
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<tr>
<td>STDEV</td>
<td>2.69</td>
<td>2.51</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Exam 3</th>
<th>Before</th>
<th>After</th>
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<tr>
<td>Mean</td>
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<td>92.3</td>
</tr>
<tr>
<td>STDEV</td>
<td>2.52</td>
<td>2.42</td>
</tr>
</tbody>
</table>

Study Limitations

- The significant improvement in student performance for Exam 1 is consistent with predictions, and suggests the accounting software is improving students’ learning outcomes.
- The decrease in exam scores for Exam 2 and Exam 3 may have negatively impacted the learning environment, not simply the student using the software.
- Results may be related to more student time being spent on the topic with the additional text and software resources provided.
- Results may be related to more student time being spent on the topic with the additional text and software resources provided.

Performance Measure: Performance is measured based on raw exam scores and exam grades for three exams that have remained nearly identical for the full period under study.

Results summary:

- Exam 1: Significant increase in exam scores for the post-software group, consistent with expectations.
- Exam 2: Significant decrease in exam scores for the post-software group.
- Exam 3: Significant decrease in exam scores for the post-software group.

Research Question

- Is there a statistical difference in student performance when using software to teach the accounting cycle in our introductory accounting course, versus no software?

Subject:

- This study examines learning outcomes (exam scores and exam grades) for over 1000 undergraduate students in a beginning accounting course at a Midwest liberal arts institution over a period of 13 years and under the direction of the same accounting professor.
- 494 students over the six-year period 2001-2006 (pre-software group)
- 576 students over the seven-year period 2007-2013 (post-software group)

Study Design

- Students use the software program so they read their text to view examples of journal entries, postings, and financial statement preparation.

The Accounting Software

- Solid Footing, a supplemental accounting software program and text by Dan Wiegand, is used in the first third of the class (through Exam 1) to help introduce the accounting cycle.
- Students use Solid Footing to complete their own journal entries, postings, and financial statements as they work through their homework.
- The final project is full preparation of journal entries and financial statements for one accounting cycle, where all student entries are done using Solid Footing.