Pass or Fail: A Case Study on Mandatory SI Attendance

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FINANCIAL ACCOUNTING: AN ORIGIN STORY

- Fall 2015: 64% DFW
- Spring 2016: 46% DFW
- One intrepid SI makes a heroic journey from the Chemistry Lab to the Business Leadership Building.
- Piloted SI for ACCT 2010 during the summer sessions of 2016.
- Runyan: A Man and His Vision.
- SI and Accounting alliance in full effect by Fall 2016.
# ACCOUNTING 2010
## PRE ATTENDANCE POLICY

### FALL 2016
- 34% (263 out of 775) students attended SI sessions
- .39 GPA differential
- 2.26 (SI) vs. 1.88 (Non SI)
- 27% DFW Rate (SI attendees)
- 46% DFW Rate (non attendees)
- Mean size of sessions = 3.95

### SPRING 2017
- 60% (318 out of 527) students attended SI sessions
- .38 GPA differential
- 1.92 (SI) vs. 1.54 (Non SI)
- 45% DWF Rate (SI attendees)
- 63% DWF Rate (non attendees)
- Mean size of sessions = 7.11
ATTENDANCE POLICY

- Failed exam triggers attendance policy.
- Must attend at least 4 sessions before the next test.
- 2.5 points deducted for each missed session.
- Deductions come from a possible 100 Engagement points.
- Attendance reports for faculty after each exam.
## ACCOUNTING 2010
### POST ATTENDANCE POLICY

<table>
<thead>
<tr>
<th><strong>FALL 2017</strong></th>
<th><strong>SPRING 2018</strong></th>
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</thead>
<tbody>
<tr>
<td>• 73% (534 out of 736) of students attended SI sessions</td>
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<tr>
<td>• 4,243 Contact Hours</td>
<td></td>
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<tr>
<td>• Mean session size = 10.48</td>
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<tr>
<td>• .06 GPA differential</td>
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<tr>
<td>• 2.14 (SI) vs. 2.08 (Non SI)</td>
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<tr>
<td>• 30% DWF rate for SI attendees</td>
<td></td>
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<tr>
<td>• 44% DWF rate for non attendees</td>
<td></td>
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<tr>
<td>• To be continued…</td>
<td></td>
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</tbody>
</table>
SI SURVEY RESPONSES

SPRING 2018
Average session attendance prior to the first exam of the semester.

- 63% of sessions had 1 to 5 students.
- 25% of sessions had 6 to 10 students.
- 13% of sessions had 10+ students.
How did the average session attendance change after the first exam?

- 38% Slight Increase. (1-2 students)
- 63% Significant Increase. (5+ students)

Legend:
- Blue: No Noticeable Change.
- Green: Slight Decrease. (1-2 students)
- Yellow: Slight Increase. (1-2 students)
- Red: Significant Decrease. (5+ students)
- Gray: Significant Increase. (5+ students)
Have you heard students comment on the required attendance policy?
What is the typical student response to the attendance policy?

50% Somewhat Negative.
50% Neither Negative nor Positive.
Do you most frequently notice the positive or negative effects of the required attendance policy?
What affect has the required attendance policy had on your job?

- 38% Made Your Job Harder.
- 25% Made Your Job Easier.
- 38% Had No Noticeable Impact On Your Job.
What impact has the required attendance policy had on the learning environment in your sessions?
ATTENDANCE POLICY BENEFITS:

- Students almost always leave sessions with the ability to do better on the next exam.
- SI sessions prevent cramming.
- Assured study time.
- Exposure to high quality session content.
- Students discover how helpful SI really is.
- Bigger groups make sessions run more smoothly.
- Makes my attendance look good.
ATTENDANCE POLICY NEGATIVES:

- Poor participation
- Lack of Interest
- Bad attitudes are contagious
- Pessimism may creep in
- Negative tension
- Student complaints
- Unrealistic expectations
STUDENT SURVEY RESPONSES

SPRING 2018
Approximately how many weeks into the semester did you attend your first SI session?
Approximately how many sessions did you attend prior to the first exam?
Approximately how many sessions did you attend after the first exam?

- 19% 0 Sessions
- 21% 1-3 Sessions
- 30% 4-6 Sessions
- 22% 10+ Sessions
Approximately how many SI sessions did you attend this semester?

- 13% 0 Sessions
- 16% 4-6 Sessions
- 20% 7-10 Sessions
- 41% 10+ Sessions
Why did you decide to attend SI sessions?

- Score higher on exams: 40.63%
- Other students said SI sessions helped them better understand course content: 21.88%
- Needed help with specific concepts from the course: 7.29%
- Professor recommended attending: 12.50%
- I was required to attend: 17.71%
Do you think attending SI sessions helped your grade?

- Definitely yes: 65.66%
- Probably yes: 20.20%
- Might or might not: 10.10%
- Probably not: 4.04%
- Definitely not: 0%
Rate your level of participation in SI Sessions on a scale of 1 to 5.
Was your attendance of SI sessions mandatory at any point?
Should students be required to attend SI sessions based on exam grades?
MOST HELPFUL: REVIEWS, EXTRA PRACTICE, SI GENERATED MATERIALS.

- “The access to reviews.”
- “Working hard problems so the test feels like a breeze.”
- “Going through the problem step by step.”
- “Going over the specifics we are struggling with.”
- “Test examples or test reviews.”
- “Going over the topics more in depth.”
- “Extra study time.”
- “More practice problems.”
- “Hearing the material again.”
MOST HELPFUL: ANSWERS DIRECTLY RELATED TO THE SI LEADER.

• “SI Leaders are much easier to talk to and better at explaining what will be on exams.”

• “The teaching is different from the professor, so it helps to know different methods.”

• “The SI giving us small tips and ways to remember concepts.”

• “They are students with experience.”

• “They’re readily available for any potential question you might have.”

• “Very helpful and understanding.”

• “Probably that the SI personnel was in the class with us and therefore knows exactly what is going on in the class.”

• “The SI Leader!!!”
MOST HELPFUL: RESPONSES THAT REFLECT THE TRADEMARK BENEFITS OF SI.

• “The ability to be more vocal about things that are confusing and the relaxed nature of it.”
• “Feeling comfortable to make mistakes and learning from them.”
• “The peer-to-peer interaction really helps understand the concepts from a student level.”
• “Getting to discuss lecture material in more depth and detail.”
• “Slower pace.”
• “Getting the chance to ask more questions.”
• “Learning the content through a variety of approaches and explanations.”
• “The extra time spent on the subject and a different way of presenting the subject.”
LEAST HELPFUL: WHAT STUDENTS DID NOT APPRECIATE ABOUT SI SESSIONS.

• Some variation of “nothing”.
• “Icebreakers.”
• “Limited time to learn lengthy concepts or chapters.”
• Crowded sessions.
• Sessions times or locations that did not fit students’ schedules.
• Required attendance. (Only two responses).
GET INVOLVED: HOW SI LEADERS CAN ENCOURAGE PARTICIPATION.

- Group Activities.
- Board Work.
- Calling on specific students.
- Encouraging session atmosphere. (Music, jokes, and positive vibes).
- Incentives. (review packets).
- Kahoot.
- Encourage students to ask questions.
- “Yelling and saying it was a dictatorship.”
CHANGES REQUESTED: WHAT STUDENTS WANT FROM SI SESSIONS.

• Not broke. Don’t fix it. (Some variation of “nothing”).

• Fix the logistical problems. (Nights, weekends, favorite buildings).

• Make sessions longer.

• Ditch the Icebreakers.

• More 1-on-1 interaction with the SI.

• Eliminate the attendance policy.
DATA ANALYSIS

2017-2018 ACADEMIC YEAR
ACCOUNTING 2010
2017-2018 ACADEMIC YEAR

FALL 2017

• 73% (534 out of 736) of students attended SI sessions.
• 4,243 Contact Hours.
• Mean session size = 10.48
• .06 GPA differential.
• 2.14 (SI) vs. 2.08 (Non SI).
• 30% DWF rate for SI attendees.
• 44% DWF rate for non attendees.

SPRING 2018

• 66% (338 out of 511) students attended SI sessions.
• 3,254 Contact Hours.
• Mean session size = 8.96
• .07 GPA differential.
• 2.41 (SI) vs. 2.34 (Non SI).
• 22% DWF rate for attendees.
• 42% DWF rate for non attendees.
How did students who failed the first exam perform in the course based on their compliance with mandatory SI attendance between the first and second exam?

<table>
<thead>
<tr>
<th>Exam 1 – Exam 2 (Sessions Attended)</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4+</th>
</tr>
</thead>
<tbody>
<tr>
<td>A – Course Grade</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>B – Course Grade</td>
<td>6</td>
<td>3</td>
<td>8</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>C – Course Grade</td>
<td>21</td>
<td>9</td>
<td>9</td>
<td>26</td>
<td>76</td>
</tr>
<tr>
<td>A, B, or C – Course Grade</td>
<td>27.5%</td>
<td>31.6%</td>
<td>53.1%</td>
<td>62.3%</td>
<td>66.5%</td>
</tr>
<tr>
<td>D – Course Grade</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>33</td>
</tr>
<tr>
<td>F – Course Grade</td>
<td>36</td>
<td>12</td>
<td>3</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>W – Course Grade</td>
<td>22</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>WF – Course Grade</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Average Course GPA</td>
<td>0.88</td>
<td>1.09</td>
<td>1.55</td>
<td>1.74</td>
<td>1.93</td>
</tr>
</tbody>
</table>

N=415 (61.3% of the total enrollment of 677 failed the first exam)

*Note: Students who did not take a single exam were removed from data set*
How did students who failed the first exam perform in the course based on their compliance with mandatory SI attendance between the first and second exam?

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<tbody>
<tr>
<td>A – Course Grade</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>B – Course Grade</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>C – Course Grade</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>A, B, or C – Course Grade</td>
<td>15.4%</td>
<td>42.9%</td>
<td>33.3%</td>
<td>63.9%</td>
<td>75.4%</td>
</tr>
<tr>
<td>D – Course Grade</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>F – Course Grade</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>W – Course Grade</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>WF – Course Grade</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Average Course GPA</td>
<td>0.63</td>
<td>1.29</td>
<td>1.40</td>
<td>1.71</td>
<td>2.07</td>
</tr>
</tbody>
</table>

N=148 (38.6% of the total enrollment of 383 failed the first exam)
*Note: Students who did not take a single exam were removed from data set, and data was available for 383/511 students for spring
How did **compliance with mandatory SI attendance** affect subsequent exam performance?

<table>
<thead>
<tr>
<th>Sessions Attended</th>
<th>Average Exam 2 Grade</th>
<th>Average Exam 3 Grade</th>
<th>Average Exam 4 Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed Previous Exam</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Attended 4+ sessions</td>
<td>72.0</td>
<td>69.5</td>
<td>58.3</td>
</tr>
<tr>
<td>Failed Previous Exam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended 1-3 sessions</td>
<td>64.9</td>
<td>56.8</td>
<td>53.2</td>
</tr>
<tr>
<td>Failed Previous Exam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended 0 sessions</td>
<td>46.9</td>
<td>39.7</td>
<td>30.7</td>
</tr>
</tbody>
</table>

*Note: Students who did not take a single exam were removed from data set*
How did **compliance with mandatory SI attendance** affect subsequent exam performance?

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<th>Sessions Attended</th>
<th>Average Exam 2 Grade</th>
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<th>Average Exam 4 Grade</th>
</tr>
</thead>
</table>
| Failed Previous Exam  
Attended 4+ sessions | 77.8                 | 66.4                 | 59.7                 |
| Failed Previous Exam  
Attended 1-3 sessions | 68.5                 | 56.2                 | 58.7                 |
| Failed Previous Exam  
Attended 0 sessions   | 48.7                 | 34.4                 | 36.0                 |

*Note: Students who did not take a single exam were removed from data set*
COORDINATOR CONDUCTED OBSERVATION NOTES.

**Problematic Behaviors:**
- Students arrive late to sessions more frequently post Exam 1.
- Phones are a major problem.
- The further back students sit, the less likely they are to actively engage in session activities.
- Moderate reluctance to participate in group work.
- Students attempt to pull vanishing act after signing into session.

**Simple Solutions:**
- Board work early and often.
- Use “friendly-assertive” to engage students who are distracted or disinterested.
- Move students to the front of the class.
- Establish that group work will be a staple of the session from the very beginning.
- Incorporate attendance tracking as part of the conclusion activity.
WHAT COMES NEXT?

- Closer observations of how the attendance policy affects the learning environment.
- Better prepare our ACCT SIs.
- Collect MORE data.
- Nights and Weekends.
- Pilot in courses with underutilized SIs.
QUESTIONS?

COMMENTS?

CONCERNS?

RANDOM INTERJECTIONS?

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