**Affordable Learning Georgia Textbook Transformation Grants**

**Final Report**

# General Information

**Date: 12/20/19**

**Grant Round: 12**

**Grant Number: 377**

**Institution Name(s): Kennesaw State University**

**Project Lead: Dawn Michelle Baunach, PhD**

**Team Members (Name, Title, Department, Institutions if different, and email address for each): Tamara Powell (instructional designer), Professor of English, Director of the Office of Digital Education for the College of Humanities and Social Sciences, tpowel25@kennesaw.edu**

**Course Name(s) and Course Numbers: SOCI 3303, Statistics for Sociology**

**Semester Project Began: Fall 2018**

**Final Semester of Implementation: Fall 2019**

**Total Number of Students Affected During Project: 26**

# Narrative

The all-online course had previously been set up with numerous, short lecture videos that instruct students on most of the concepts and provide examples. In the past, the textbook has been chosen to support the lecture videos. There were several challenges during the semester of implementation. The most important was choosing an appropriate OER for a sociology course on statistics. In the end, I chose a general social statistics text and relied on the homework assignments to add the “sociology” to the content. I also found a few topics that I used to teach in previous semesters that weren’t covered in the new text, but that was easily overcome. The biggest challenge for me was time. I had grand goals of creating new soft-chalk lectures to accompany the video lectures. But as a department chair, I just wasn’t able to carve out the needed time to do so. If I could recommend anything, it would be to seriously counsel administrators about trying to do a lot for this program. I was able to implement the OER, but that’s about it. I would have liked to do more by this date. I will continue to work on the soft-chalk elements so that I can provide them for future courses.

In comparing grades across the two semesters (Fall 2018 with traditional text and Fall 2019 with OER), there was little change in the final course averages. The final course grades increased by 2.5 points from Fall 2018 to Fall 2019 (among the students who successfully completed the course). Although grades did not show marked improvement by incorporating the OER, they also did not indicate any problems with the OER text. And in the meantime, students saved a lot of money.

# 2. Quotes

“The textbook was helpful in some areas throughout the semester. I did have trouble navigating through the text to find the material I needed to study.”

“It was a decent book, but it did not go very in depth with the material.”

“It did not contain some material that was seen on quizzes and exams.”

“Needs to have less examples and more info on the terms.”

“It was good.”

# 3. Quantitative and Qualitative Measures

## 3a. Uniform Measurements Questions

**Student Opinion of Materials**

**Was the overall student opinion about the materials used in the course positive, neutral, or negative?**

Total number of students affected in this project: \_26 students in the course (but only 11 completed the survey on the OER materials)\_\_\_\_\_\_\_\_\_

* Positive: \_\_\_27%\_\_\_\_ % of \_\_11\_\_\_\_\_\_ number of respondents
* Neutral: \_\_\_73%\_\_\_\_ % of \_\_11\_\_\_\_\_\_ number of respondents
* Negative: \_\_0%\_\_\_\_\_ % of \_\_11\_\_\_\_\_\_ number of respondents

**Student Learning Outcomes and Grades**

**Was the overall comparative impact on student performance in terms of learning outcomes and grades in the semester(s) of implementation over previous semesters positive, neutral, or negative?**

Generally neutral. The final course grades improved by 2.5 points after implementation, which is not a significant change.

Choose One:

* \_\_\_ Positive: Higher performance outcomes measured over previous semester(s)
* \_X\_\_ Neutral: Same performance outcomes over previous semester(s)
* \_\_\_ Negative: Lower performance outcomes over previous semester(s)

**Student Drop/Fail/Withdraw (DFW) Rates**

**Was the overall comparative impact on Drop/Fail/Withdraw (DFW) rates in the semester(s) of implementation over previous semesters positive, neutral, or negative?**

The rate increased very slightly, from about 27% to 30%. I would categorize this as generally neutral.

**Drop/Fail/Withdraw Rate:**\_\_\_30\_\_\_\_% of students, out of a total \_\_30\_\_\_\_\_ students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

* \_\_\_ Positive: This is a lower percentage of students with D/F/W than previous semester(s)
* \_X\_\_ Neutral: This is the same percentage of students with D/F/W than previous semester(s)
* \_\_\_ Negative: This is a higher percentage of students with D/F/W than previous semester(s)

## 3b. Measures Narrative

In the proposal I described a number of measures of student success and experience, including: students’ textbook usage (did students purchase/access/read the texts); student success (quiz grades, exam grades, SPSS assignments); course retention (DFWI rates); and student satisfaction (texts’ ease of understanding, texts’ applicability to studies, texts’ helpfulness in learning material, texts’ ease of purchase/access). Each of these measures will be compared for Fall 2018 (the pretest without OER) and Fall 2019 (the posttest with OER). 10 students completed the survey in the Fall 2018 semester, and 11 students completed the survey in the Fall 2019 semester.

Textbook Usage

Nearly all of the pretest (Fall 2018) students reported purchasing the non-OER statistics textbook. 9 of 10 (90%) of students purchased Healey’s *The Essentials of Statistics* textbook. By the posttest (Fall 2019), all students reported accessing the fee OER text; 100% (n=11) accessed the OpenStax *Introductory Statistics* OER text.

Student Success

Students’ averages on four main grade elements and the final calculated grade were compared and assessed for significant differences. Students averaged 85.35 across the 13 SPSS assignments in the Fall 2018 pretest and 89.87 in the Fall 2019 posttest. The difference of 4.52 points was not significant according to a t-test of mean differences. Students averaged 81.89 across the 14 module quizzes in the Fall 2018 pretest and 82.47 in the Fall 2019 posttest. The difference of 0.58 was not statistically significant. Students averaged 88.60 on the midterm exam in the Fall 2018 pretest and 88.54 on the Fall 2019 posttest, for no difference. Students averaged 89.13 on the final exam in the Fall 2018 pretest and 90.53 in the Fall 2019 posttest. The difference of 1.4 points was not statistically significant. Finally, students final course averages were 85.85 in the Fall 2018 pretest and 88.35 in the Fall 2019 posttest. The difference of 2.53 was not statistically significant. Although none of the changes were statistically significant, three of the five measures showed some improvement, between 1.4 and 4.5 grade points. The remaining two measures showed no change.

Course Retention

Of the 27 students originally registered for the Fall 2018 pretest course section, 7 students ended up with incompletes, grades of D or F, or a withdrawal, representing 25.93 percent of the originally registered students. For the Fall 2019 posttest course section, 9 of 30 students (30.0%) ended up with incompletes, grades of D or F, or a withdrawal. Even though this change was not significant, it is in the unintended direction. The DFWI rate increased slightly from 25.93 to 30.00 with OER implementation.

Student Satisfaction

For the Fall 2018 pretest, students were asked four questions about the assigned non-OER textbook: how easy it was to understand, how easy it was to purchase, the applicability of the material to their studies, and the helpfulness of the text for learning. Students were asked the same four questions of the OER text during the Fall 2019 posttest. A table summarizes the results below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2018 | | 2019 | |
| N | % | N | % |
| Ease of Understanding |  |  |  |  |
| Very easy to understand | 4 | 40.0 | 3 | 27.3 |
| Somewhat easy to understand | 5 | 50.0 | 5 | 45.5 |
| Somewhat difficult to understand | 0 | 0.0 | 3 | 27.3 |
| Very difficult to understand | 1 | 10.0 | 0 | 0.0 |
| Ease of Purchase/Access |  |  |  |  |
| Very easy to purchase/access | 6 | 66.7 | 2 | 66.7 |
| Somewhat easy to purchase/access | 3 | 33.3 | 1 | 33.3 |
| Somewhat difficult to purchase/access | 0 | 0.0 | 0 | 0.0 |
| Very difficult to purchase/access | 0 | 0.0 | 0 | 0.0 |
| Application of Material |  |  |  |  |
| Very applicable to my studies | 8 | 80.0 | 5 | 45.5 |
| Somewhat applicable to my studies | 1 | 10.0 | 6 | 54.6 |
| Somewhat inapplicable to my studies | 1 | 10.0 | 0 | 0.0 |
| Very inapplicable to my studies | 0 | 0.0 | 0 | 0.0 |
| Helpfulness in Learning |  |  |  |  |
| Very helpful in learning the material | 7 | 70.0 | 1 | 9.0 |
| Somewhat helpful in learning the material | 1 | 10.0 | 7 | 63.6 |
| Somewhat unhelpful in learning the material | 2 | 20.0 | 3 | 27.3 |
| Very unhelpful in learning the material | 0 | 0.0 | 0 | 0.0 |

To summarize the table, students found the non-OER text used in the Fall 2018 pretest to be slightly easier to understand, equally easy to purchase/access, more applicable to their studies, and more helpful in learning the material. I agree with the students’ assessments. The non-OER text is superior in quality; unfortunately it is a lot more expensive.

In conclusion, the switch to an OER-text did not improve student success, improve course retention, or improve student satisfaction. Textbook usage also showed little change (from 90% to 100%). On the other hand, none of these measures evidenced marked worsening, and students did save a lot of money.

# 4. Sustainability Plan

The online shell will be available to other instructors teaching the course. The department also makes sure that online course materials are updated every few years. Once the soft-chalk documents are complete, they will be made available on Galileo for users across the system.

# 5. Future Plans

I was initially unsure whether it would work to use an OER in this specialized course with difficult material. (Teaching statistics to sociology students – who often choose to major in a social science because they don’t like math – is always a challenge.) But it worked fine. Students performed roughly the same in Fall 2019 as they did in Fall 2018.

I have reviewed other OER materials designed for other sociology courses. Most do not pass muster. But I have been convinced that, given quality OER materials, the switch is worth it for students.

At this point I do not have plans for papers, presentation, publications, etc. because of the lack of significant findings. “No real change” does not merit future release.

# 6. Description of Photograph

As an online course, it was not possible to take a photograph of the students.