Affordable Learning Georgia Textbook Transformation Grants

Final Report

To submit your Final Report, go to the Final Report submission page on the ALG website:
http://affordablelearninggeorgia.org/site/final_report_submission

Final report submission requires four files:

- *This completed narrative document*
- *Syllabus or syllabi*
    - *(if multiple files, compress into one .zip folder)*
- *Qualitative/Quantitative Measures data files*
    - *(if multiple files, compress into one .zip folder)*
- *Photo of your team or a class of your students w/ at least one team member, minimum resolution 800x600px*
    - *(nearly all smartphones take photos larger than this size by default)*

Follow the instructions on the webpage for uploading your documents. Based on receipt of this report, ALG will process the final payment for your grant. ALG will follow up in the future with post-project grantee surveys and may also request your participation in a publication, presentation, or other event.

General Information

Date: December 21, 2018

Grant Round: Round 11

Grant Number: Proposal 360

Institution Name(s): Kennesaw State University

Project Lead: Charity Bryan

Team Members (Name, Title, Department, Institutions if different, and email address for each):

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Course Name(s) and Course Numbers:

<u>Course #1:</u>
Behavioral and Psychological Aspects of Physical Education and Coaching
HPE 3100

<u>Course #2:</u>
Service as Leadership
LDRS 3400

<u>Course #3:</u>
Programming and Problem Solving 1
CSE 1321
Programming and Problem Solving 1 Lab
CSE 1321L

Semester Project Began:
Fall 2018 was the first time the three courses were offered with OERs.

Final Semester of Implementation:
Fall 2018

Total Number of Students Affected During Project:
Fall 2018:
HPE 3100 – 76 students
LDRS 3400 – 67 students
CSE 1321 - 506 students
CSE 1321L - 542 students

1. Narrative

A. Describe the key outcomes, whether positive, negative, or interesting, of your project. Include:

- Summary of your transformation experience, including challenges and accomplishments
    - HPE 3100: While the transformation for HPE 3100 was labor intensive on the front end, once my class started, it really was very worthwhile. I spent most of the summer collecting the OERs and removing parts of my class that were affiliated with the textbook (assignments, etc.) and sending my course back through QM (Quality Matters) review here at KSU. Once fall classes started, my students were able to engage immediately and that was a plus. One challenge was trying to "recreate" certain resources I really wanted my students to have (i.e. sport psych self-assessments, quizzes, etc.) that I had to find online and try to come as close as possible to the resources I had been using through the textbook. As far as an accomplishment, I was blown away by the positive comments in the student evaluation. I did not dream their comments would be as positive as they were.
    - LDRS 3400: Several courses in our Leadership Studies curriculum include supplemental OER content, including videos and additional readings. However, we have consistently relied on a core textbook adoption for each course. This project supported me in re-imagining the design of our curriculum delivery without a core textbook. I anticipated finding additional OER content similar to what my colleagues and I have adopted in other courses. What I didn't anticipate was finding the entire textbook we had adopted for the course being available as a free e-text through our University library. Sadly, it had never occured to me to look for such an option, and I didn't realize entire texts, including current editions would be available in this format. I worked with our library team to ensure we had a sufficient subscription, after learning some e-texts have limits on the number of users who can access the material simultaneously. Students were able to read the text via their browser from a variety of devices and could also download chapters as PDFs. Overwhelmingly, students appreciated the free text option. Most importantly, the few students who prefer a hard copy text still had the option to purchase the textbook.
    - CSE 1321 and CSE 1321L: This project was a complete redesign and re-development of the way that programming courses were taught in the past at KSU. Formerly, the courses were taught as a single 4-hour course, that included a 1 hour for lab. The redesign was to serve multiple purposes: to have a consistent course taught across all departments (CS, SWE, and SWEGD), to create a dedicated team of professors and teaching assistants to ensure consistent delivery, and to improve student success by focusing on

problem-solving and algorithmic design in lecture and writing code in lab. In the process, we split apart the lecture/lab to allow students to take or re-take only one component, as needed. When I started researching OER's, I wanted to find not only a textbook to support reading/writing learners, but also resources to help visual, auditory, and kinesthetic learners. I searched for visualizations of code flow, online lectures, and code samples to support each, respectively. A variety of OER's is offered in the lecture and all three labs. I believe that attempting to satisfy ALL learners' needs resulted in an improvement in overall success; survey feedback appears to support this.

- Transformative impacts on your instruction
  - HPE 3100: My instruction was transformed in that the critical information I want my students to have (and the course outcomes) were all still able to be achieved without a textbook. Granted, having a textbook makes it easier on me as an instructor (for example, when grading a discussion board, I can give feedback and refer students to page 34 to learn more about a topic on which they may not have gone into enough depth), however, I do not think the fact that a textbook makes my life easier outweighs the benefit to students of essentially receiving the same material, but at no cost. My instruction was much the same, because it was important to me that the OER course be "equivalent" (or even better than) my former textbook based course. The true transformation was probably in my own journey as a faculty member realizing that free and high quality resources really are out there if you know where to look.
  - LDRS 3400: The OER content, including the e-text, allowed me to leverage existing instructional materials used in our curriculum while adding a variety of additional required and optional supplemental materials. These additional OER materials strengthen my lessons by diversifying the voices and perspectives presented in the course. Leadership Studies has a complexity of multi- and interdisciplinary perspectives that enrichens student learning; however, this depth of learning is weakened when single text are adopted. We know from research that learners benefit from seeing themselves in their professors; similarly, I find students are receptive to reading materials that include diverse perspectives.

- CSE 1321 and CSE 1321

  My role in the redesign of the programming sequence at KSU was developer and support for the new faculty team assigned to the courses; I did not actually teach the courses in the fall, but maintained close contact with all of the faculty during the semester. As I mentioned earlier, the college hired a new faculty team to provide a fresh perspective for their new approach. In other words, the addition of the OER's is not the only radical change in the delivery of material.

  I have taught programming courses for many years, and my approach for finding OER's was very similar to what I used to try to provide my students. I think that in a way, my not teaching the courses in the fall gave me a greater sense of responsibility to provide the students with what I would give them if I were teaching: quality lectures, visualizations, coding activities and reading materials via a textbook (this time for free). I feel as though I truly delivered in this area and the survey results support this.

- Transformative impacts on your students and their performance
  - HPE 3100: Student performance was essentially the same as in previous courses when a textbook was used. However, what was different, were all of the positive comments made in the evaluation about not having to purchase a textbook.
  - LDRS 3400: Overall performance in the course was fairly consistent. I did notice more frequent use of citations, which are required in weekly discussion, the term paper, and essays embedded in the final exam. This observation is relevant because I often notice students who appear to not have access to the textbook due to their lack of citations from the text and use of web-based references. The OER content provided access to all students regardless of their ability to purchase a text.
  - CSE 1321: Introductory programming is a historically difficult course, with high failure rates; this is a statistic that is pervasive across institutions. The addition of OER's may be credited with an improvement of student performance. The number of final A/B grades increased, and a reduction of lower grades was realized. Student comments suggest that they did appreciate the variety of resources offered to them in these courses.

B. Describe lessons learned, including any things you would do differently next time.

- o HPE 3100: Next time, I would probably start earlier and transition my course over an academic year, instead of a ½ spring semester and summer. I felt a little rushed, but in the end, it all worked out. In addition, I feel like I have a much better grasp on where to start looking for resources and how to efficiently determine if a resource is going to be a good fit or not.
- o LDRS 3400: During the semester, it was brought to my attention that multiple OER resources were not working properly with screen reading software and were therefore not accessible. I worked with our fantastic team for Academic Web Accessibility to find solutions and correct the course for future semesters. I was very fortunate in having access to these institutional resources, and imagine it would have been difficult to find solutions without their help. Had I worked for a smaller, access institution, for example, it would be helpful to partner with a larger institution or a central resource within the USG system office to identify solutions.
- o CSE 1321: In hindsight, because I was removed from the classroom, I wish that I would have arranged to visit each section of lab and lecture to inform the students of the OER's. In addition to creating "self-explanatory" modules that contained the materials, I also talked with the professors and impressed upon them the availability of them. I know that the students found and used them, but I wonder how many went in search of on Google when resources had already been vetted for them.

2. Quotes

- Provide three quotes from students evaluating their experience with the no-cost learning materials.
  - o HPE 3100:
    - ▪ "Free resources alleviated the stress of having to buy textbooks and other materials for a class. In addition, i always had what materials i needed right there in order to complete the weekly assignment, rather than potentially losing track of my textbook/any other documents i needed."
    - ▪ "I loved that I didn't have to spend any money on a textbook I would only use once. The layout of the class was really simple and easy to follow. I feel that a textbook would have been unnecessary when all of the information was in PowerPoint (and) videos."
    - ▪ "I really enjoyed using the information in D2l because it is free. Also, I had the convenience of reviewing the information on my cell phone. I did not have carry a book around as well. These are just a few reason why I enjoyed not purchasing a book."

- LDRS 3400:
  - "I personally liked this because i did not have to come out of pocket and pay for a textbook. More importantly all the items we needed for the classes were available through google or through the KSU library. It was actually my first class not being required to have textbooks. It was a overall great experience and i now prefer that style over being required to have textbooks!"
  - "The online textbook was easy to navigate. Even easier than a real textbook, because you could search keywords that it would automatically navigate for you. It also saved me a lot of money. Tuition isn't cheap and in my opinion it would make sense that the school already provides every resource you need for a class."
  - "Having the textbook readily available to me was extremely helpful. Admittedly, buying textbooks for my courses has always put a financial strain on me and my Mom, so I really appreciated the fact that every resource was free. I think it's very considerate of students to have all free resources too!"
  - "I really liked that there was a variety of sources offered. It made the material much more interesting to learn from a video and discussion, and not always just reading from the text."
- CSE 1321 and CSE 1321L
  - "Having to purchase a textbook is often a sticking point, and some more financially challenged students like myself end up not purchasing it even if it is required ostensibly, which makes the course harder. Not having one at all took that decision away, in a good fashion."
  - "If it hadn't been free I probably wouldn't have purchased the book. I would have tried to do everything based off of in class lectures. Having OER is much cheaper and more useful."
  - "Having free resources makes the learning process a lot easier. I never had to worry about finances, but rather just knowing where to access the information. Having the amount of supplemental material available was also really helpful, I never worried about not having enough to help."

3. Quantitative and Qualitative Measures

3a. Uniform Measurements Questions

The following are uniform questions asked to all grant teams. Please answer these to the best of your knowledge.

Student Opinion of Materials

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

HPE 3100:
Total number of students affected in this project: ___76___

- Positive: __97%__ % of __65__ number of respondents
- Neutral: __0%__ % of __65__ number of respondents
- Negative: _3%__ % of __65__ number of respondents

LDRS 3400:
Total number of students affected in this project: ___67 in two courses; only one course surveyed__ (N - 38)_____

- Positive: __97__ % of __38__ number of respondents
- Neutral: __3__ % of __38__ number of respondents
- Negative: __0__ % of __38__ number of respondents

CSE 1321 and CSE 1321L:
Total number of students affected in this project: ___542*___

- Positive: __64%__ % of __87__ number of respondents
- Neutral: __0%__ % of __87__ number of respondents
- Negative: _36%__ % of __87__ number of respondents

*The typical student will take a section of the lecture and a section of the lab at the same time. However, a student may take the lecture without the lab (not typical) or the lab without the lecture. The latter scenario is more likely, as transfer students often come to the school with only a 3 hour credit for programming and they need the last lab hour required by KSU. The number above reflects the total number of unique students across both courses.

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?

Student outcomes should be described in detail in Section 3b.

HPE 3100 - Choose One:
- ___ Positive: Higher performance outcomes measured over previous semester(s)
- _XX_ Neutral: Same performance outcomes over previous semester(s)
- ___ Negative: Lower performance outcomes over previous semester(s)

LDRS 3400 - Choose One:
- ___ Positive: Higher performance outcomes measured over previous semester(s)
- _XX_ Neutral: Same performance outcomes over previous semester(s)
- ___ Negative: Lower performance outcomes over previous semester(s)

CSE 1321 - Choose One:
- _XX_ Positive: Higher performance outcomes measured over previous semester(s)
- ____ 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?

HPE 3100 - Drop/Fail/Withdraw Rate:
Depending on what you and your institution can measure, this may also be known as a drop/failure rate or a withdraw/failure rate.

_____21__% of students, out of a total ____76_____ 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)
- ___ Neutral: This is the same percentage of students with D/F/W than previous semester(s)
- __XX__ Negative: This is a higher percentage of students with D/F/W than previous semester(s). (Note: in spring 2018 prior to OER implementation, 15% of HPE 3100 students had a grade of D/F/W)

LDRS 3400 - Drop/Fail/Withdraw Rate:
Depending on what you and your institution can measure, this may also be known as a drop/failure rate or a withdraw/failure rate.

___4____% of students, out of a total ___76_____ 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)
- _XX__ 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)

CSE 1321/1321L - Drop/Fail/Withdraw Rate:
Depending on what you and your institution can measure, this may also be known as a drop/failure rate or a withdraw/failure rate.

CSE 1321

___33.9___ % of students, out of a total ___506___ students affected, dropped/failed/withdrew from the course in the final semester of implementation.

CSE 1321L

___34.5___ % of students, out of a total ___542___ students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

- ___XX___ Positive: This is a lower percentage of students with D/F/W than previous semester(s)
- ___ 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 this section, summarize the supporting impact data that you are submitting, including all quantitative and qualitative measures of impact on student success and experience. Include all measures as described in your proposal, along with any measures developed after the proposal submission.

[When submitting your final report, as noted above, you will also need to provide the separate file (or .zip with multiple files) of supporting data on the impact of your Textbook Transformation, such as surveys, analyzed data collected, etc.]

- *Include measures such as:*
  - *Drop, fail, withdraw (DFW) delta rates*
  - *Course retention and completion rates*
  - *Average GPA*
  - *Pre-and post-transformation DFW comparison*
  - *Student success in learning objectives*
  - *Surveys, interviews, and other qualitative measures*
- *Indicate any co-factors that might have influenced the outcomes.*

HPE 3100 Supporting Data (see attached zip file):

- HPE 3100 Course syllabus (including course outcomes)
- HPE 3100 Qualtrics survey to all students (Fall 2018)
- HPE 3100 Grade Data (Fall 2018 vs. Spring 2018)
- HPE 3100 Student Success in Learning Objectives

LDRS 3400 Supporting Data (see attached zip file):

- LDRS 3400 Course syllabus (including course outcomes)
- LDRS 3400 Qualtrics survey to all students (Fall 2018)
- LDRS 3400 Grade Data (Fall 2018 vs. Spring 2018)

CSE 1321 Supporting Data (see attached zip file):

- CSE 1321 and 1321L Course syllabus (including course outcomes)
- CSE 1321/1321L Qualtrics survey to all students (Fall 2018)
- CSE 1321 and CSSE 1321L Grade Data (Fall 2018 vs. Spring 2018*)

*In Spring 2018, the course was the lecture/lab combined in a single 4 hour course.

4. Sustainability Plan

- *Describe how your project team or department will offer the materials in the course(s) in the future, including the maintenance and updating of course materials.*

HPE 3100 Sustainability Plan:

- HPE 3100 is a required course for both HPE majors, as well as Sport Management majors and will be offered at Kennesaw State University indefinitely. In addition, Psychology majors are allowed to take the course as an elective.   Funding for Intellus Learning will not be renewed through KSU. Intellus Learning will, therefore, provide a print out where I can keep my entire course structure as well as the links to the content I have curated for HPE 3100. I will lose access to the LMS integration and analytics provided by Intellus Learning, but I will not lose any of my work or the resources obtained. I will still be able to reintegrate links within D2L even though the institution will not renew the license with Intellus Learning. I will continue to offer HPE 3100 as an OER course and will do so for the indefinite future (I have no plans to return to using a textbook for HPE 3100).

LDRS 3400 Sustainability Plan:

- Three sections of LDRS 3400 were offered during Fall 2018; however, only two sections relied solely on the OER content. This decision was made once the accessibility concerns were identified as it provided time to correct the issue and minimize any potential negative impact on students. Moving forward, the OER content will be adopted across all sections for the LDRS 3400 master course. My colleagues and I are also exploring OER content options for our other LDRS courses. Additionally, I have met with colleagues from our Distance Learning Center to develop the course, including the OER content, outside of D2L in order for faculty beyond KSU to adopt the course.

CSE 1321 Sustainability Plan:

- CSE 1321 and 1321L are required courses for all CCSE majors; in fact, students must be successful with a B or higher in both courses before they are allowed to declare a CCSE major. Due to all of the technical problems I experienced, I did not curate resources through Intellus, but by searching for Creative Commons Licensed material on the Web. Due to the high number of high-quality resources that are available online, I am going to recommend to the faculty team that the list of resources continues to be grown and that a brief abstract is provided (as I did in the courses) to provide the highest level of usefulness for all students. Based on the success of the OER's, I do not believe CCSE will revert to using paid materials again.

5. Future Plans

- *Describe any impacts or influences this project has had on your thinking about or selection of learning materials in this and other courses that you will teach in the future.*
- *Describe any planned or actual papers, presentations, publications, or other professional activities that you expect to produce that reflect your work on this project.*

HPE 3100 Future Plans:

- I am now a firm believer that courses can use OERs as effectively as they do a textbook. I am sure that this approach may not work for all courses, but for HPE 3100, it has been a wonderful shift not only in my own thinking, but for the students who no longer have to purchase a textbook. In fact, moving forward, I am completely open to exploring the use of OERs for future courses that I may teach in HPE. I equate the evolution in my own thinking about OERs to a very similar evolution over a decade ago toward online classes. I was a "peripheral supporter" of online classes until 2008 when I had to convert my own course to online in order to meet the needs of a new online program in my department. The OER shift was much the same for me; I was fine with other faculty who wanted to use OERs, I just did not think it would work for me or my classes. However, having been through this process, I now know that it works and that my students can be just as informed and successful with OERs as they are with a textbook.
- I will consider submitting a paper, presentation, or publication related to the use of OERs in HPE 3100. In all honesty, I needed to get through this semester to get a full picture of how the course would work solely relying on OERs before I could consider submitting some kind of professional work related to this topic. Now that I have had a good experience with OERs, and learned a lot in the process, I do believe I will likely submit some kind of professional paper or presentation on this topic in 2019 or 2020.

LDRS 3400 Future Plans:

- Based on my experience with LDRS 3400, I am interested in eliminating the need to purchase texts in all of my courses and throughout our undergraduate certificate program. I am teaching a new graduate course in the spring and will use only OER materials and would like to help transition all of our graduate courses in Leadership and Ethics to OER content. Additionally, I am exploring publication options for a reflective practice essay on transitioning to OER content. Two journals in my field often publish these types of essays, and would therefore be an appropriate means of disseminating my lessons learned and a called to action among fellow leadership educators.

CSE 1321 Future Plans:

- I have always encouraged students to look beyond the classroom and lecture for ways in which to learn. I have had students share high-quality resources with me that I have subsequently shared with other students. I think the big change for me is realizing that this offering of OER's to students can be a formal process that is ultimately transforming. I think that the students appreciate the fact that someone has basically communicated to them, "I want you to succeed and I have searched for things to help support that success."
- I have not seriously thought about a paper or presentation, but I wouldn't rule it out, either.

6. Description of Photograph

- *On the Final Report Submission page, you will be submitting a photo. In this document, list the names of the people shown in this separately uploaded photograph, along with their roles.*

Our classes were online therefore pics of the students were not possible.

Our grant team consisted of:

Dr. Charity Bryan

Dr. Jennifer Purcell

Sandra Jones