

2019 Final Report Summary

Textbook Transformation Grants Rounds 12, 13, & 14
with Scaling Up OER / G2C Pilots

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# Highlights

Students affected by the Textbook Transformation Grants were mostly positive about the savings and access they provide, while instructors found that their projects were important experiences in informing their instructional knowledge and methods.

* Teams reported mostly **positive student opinions of the new materials (81.82% positive, 18.18% neutral)** implemented in Textbook Transformation Grants projects.
* Teams reported largely **positive (52.38%) or neutral (33.33%) comparative student learning outcomes** compared to previous semesters, control groups, and/or instructor and departmental averages with a commercial textbook.
* Teams reported largely **positive (61.90%) or neutral (23.81%) comparative course-level retention and completion rates** compared to previous semesters, control groups, and/or instructor and departmental averages with a commercial textbook.
* Teams saved **12,000+ students over $1.5 million** just within the time of the project, and mostly within only the final semester of instruction.
* Many teams in this round remarked on the benefits of customizing and creating OER to fit the exact needs of the course and their students.
* A common benefit reported from teams was the chance to reflect on and transform pedagogy as a result of the project.
* Mentions of the amount of engagement with materials were split between students still not reading enough post-implementation and students reading more post-implementation.
* A common issue with implementation was the usability of either free and open-sourced or low-cost homework systems to supplement OER.
* A common issue reported from teams was a lack of time, whether it was due to team turnover, the lack of a course release option at the institution, or the project requiring more work than originally planned.

# Background

Affordable Learning Georgia (ALG) Textbook Transformation Grants are intended to pilot different approaches in University System of Georgia (USG) courses for textbook transformation. Approaches include adoption, adaptation, and creation of open educational resources (OER) and/or identification and adoption of materials already available through GALILEO and USG libraries. The grants support release time or salary/overload, materials, instructional design, library research and materials identification, and professional development needed for faculty to transform their use of learning materials.

This report summarizes the findings of all grantees in grant rounds ending in calendar year 2019. Three rounds (spanning rounds 12 through 14) resulted in 27 projects from teams of USG faculty and staff at USG institutions.

NOTE: In order to give faculty teams in fall and spring semester rounds sufficient time to complete their projects, ALG transitioned to a deadline maximum of no less than one year from the originating semester per each round of grants in mid-2018. Because of this transition, less grant projects ended in Calendar 2019 than in previous years, but report numbers should return to their normal rate in 2020.

All grant projects, along with a collection of their proposals, syllabi, and Final Reports, are included in the Lists of Rounds 12-14 Grantees:
[Round 12 Grantees](https://www.affordablelearninggeorgia.org/about/r12_grantees/)
[Round 13 Grantees](http://www.affordablelearninggeorgia.org/about/r13_grantees)
[Round 14 Grantees](http://www.affordablelearninggeorgia.org/about/r14_grantees)

The summary below addresses the perceptions and efficacy of OER and no-cost/low-cost implementations to students in Standard-Scale and Large-Scale Textbook Transformation Grants. Mini-Grants for OER Revisions and Ancillary Materials Creation are not included in this report, as the goal of the mini-grant program is the creation and revision of open educational resources—those results are visible in the [GALILEO Open Learning Materials](https://oer.galileo.usg.edu/) repository as well as the Mini-Grant Final Reports on each round’s webpage.

As required for compliance, all project teams submitted final reports at the end of their final semester, during which all implemented materials were taught within the course. Final reports included quotes from students and professors, data on student performance, drop/fail/withdrawal rates, and measures of student perceptions of course materials. Including savings estimates, this data meets all four requirements of the Open Education Group’s [COUP Framework](http://openedgroup.org/coup), measuring cost, outcomes, usage, and perceptions in each implementation.

# Savings

During the course of the projects, grant-supported courses were taught to 12,179 students, and projects saved these students an estimated $1,492,385 in student textbook costs in relation to their commercial equivalent—the purchase of a new commercial textbook as previously required within the course.

With nearly all teams indicating that these materials or other affordable materials will be used in future semesters, a high sustainability of these student savings is anticipated over at least the next academic year.

# Grantee Experiences

Reporting project teams had positive experiences overall in implementation processes and teaching with affordable materials. All reporting teams are planning to use the same or new/revised affordable materials in the future, as indicated in the Sustainability Plan or Future Plans sections of the final reports.

These final reports continue to support the idea that grants for OER and alternative low-cost material adoption activities are valuable tools in building sustainable low-cost learning materials practices among faculty.

"We enjoyed the experience of collaborative work and we were also able to participate in the professional development of new teaching pedagogy and best practices." – Dr. Shreyas Desai, Atlanta Metropolitan State College

Many teams saw the grant project experience as enhancing their teaching and learning skills and pedagogy. Project Leads indicated in reports that the activity of redesigning their courses with affordable resources enhanced their teaching and learning experiences. These experiences have led to the current or future production of scholarship around implementing affordable materials in the classroom.

" Importantly, the fact that the courses were redesigned with the OERs in mind meant that most instructors redesigned their classes in meaningful ways as opposed to simply substituting one reading for another." – Dr. Rebecca Gerdes-McClain, Columbus State University

# Student Satisfaction

Teams reported that students were highly satisfied with the affordability and ease of access with open textbooks and affordable materials, with 18 out of 22 teams with these measures (81.82%) reporting students having an overall positive perception of the new resources in comparison to a traditional commercial textbook.

"I enjoyed always having access to a free lab manual rather than having to save up money to purchase a lab manual I would only use for one or two classes." – Student of Dr. Sue Mastrario, Abraham Baldwin Agricultural College

# Student Learning Outcomes

11 of 21 (52.38%) teams with learning outcomes measures reported positive significant changes to student achievement of learning outcomes in comparison to control groups, previous semesters, faculty averages, and/or departmental averages, while 7 teams (33.33%) saw no significant changes to outcomes. This is a combined 85% of teams who experienced either a significantly positive or neutral effect on learning outcomes while using free and/or affordable materials.

"The no cost textbooks are just as good as traditional textbooks, if not better." -Student of Dr. Brett Larson, East Georgia State College

As with previous rounds, repeat student results are not always one-to-one comparable with students in the first semester of implementation of the new materials, and some teams experienced a change in the students or instructors within the course.

# Course-Level Retention

Along with learning outcomes, a standard measure of student retention and progression is the combined rate of course drops, failures, and withdrawals, or DFW delta rates, with some variations depending on the institution (such as Grade D / Grade F / Withdrawal rates). 13 teams (61.9%) reported positive significant changes, 5 teams (23.81%) reported no changes, and 3 teams (14.29%) reported negative changes.

"Students appreciated the layout of course materials, the way materials are presented, and the quizzes. Course completion rate was very high." – Dr. Antara Dutta, Georgia State University

While DFW rates are a standard measure of student retention, the difference between a positive or negative outcome can vary depending on the course and the project. A course with consistently low DFW rates with a small negative effect during implementation may not reflect a large impact on the course.

# Lessons Learned

Each Final Report contains a section within the narrative document for lessons learned. From the reports, Affordable Learning Georgia has reached the following overall conclusions when implementing open, no-cost, or low-cost materials to replace a commercial textbook in a course:

**OER implementation takes substantial planning in order to achieve goals within the deadline:** More teams than usual reported an issue with a lack of time to complete the project. Some of these issues were attributed to a lack of foreknowledge of the time it would take, one team cited a lack of a course release option at their institution, and other teams reported the issues were due to unforeseen personnel circumstances.

"One of the most difficult aspects of this project was trying to find the time to focus on the project while juggling normal teaching duties. If possible, getting a course release during the project would be extremely helpful." – Dr. Michelle Boyce, Georgia Highlands College

"...the course director for the Clinical Calculations course had an extended illness. This illness put a halt on the writing portion of the text. This impacted the responsibilities of other team members; resulting in inability to meet the defined timelines." – Dr. DeLoris Hesse, University of Georgia

**There is still a lack of usable no-cost and low-cost homework software to support OER:** In previous years, grant teams cited a lack of usability with inflexible proprietary low-cost platforms. In this round, attempts at scaling up the use of open-source software yielded similar usability issues:

"On both campuses, the students (who are mainly business majors) were extremely frustrated with the platform. In previous math classes, they had used paid systems that they felt were easier to navigate." – Dr. Paul Hadavas, Georgia Southern University

**Teams are divided on whether or not equitable access to materials leads to more reading:** In previous years, a few grant teams reported a lack of increased engagement with OER and other no-cost materials despite expanding access. This year, a couple of teams reported this same lack, while others reported an increase in engagement, linking this engagement to an increase in learning outcomes.

"During implementation, it was observed that some students were more prepared, as they had read the textbook chapter and/or summarized lecture notes before class. The survey suggests that a large chunk of students used the text for BIOL 1107 either 2-3 times a week or daily." – Dr. Candice Chatman, Atlanta Metropolitan State College

"Our students were a mix of freshmen to senior students. In general, the freshmen spent more time reading and analyzing the texts than the seniors did.” – Dr. Jia Lu, Valdosta State University

**Even where full open textbooks exist, OER content gaps will happen depending on the needs of each unique course:** Multiple teams who had a plan to adopt a previously existing open textbook encountered content gaps when trying to apply this text to their specific courses. When these gaps are found, the amount of work increases, from adding other existing no-cost resources to creating entirely new resources. In the future, grant applicants should be advised to check the planned adoption’s content against all specific course outcomes and objectives before submitting the application.

“Despite its merits, this text has content gaps… To fill these holes, Larson and Cheek used instructional materials that students can access for free such as 100 percent free textbooks, primary sources, journal articles, book chapters, book excerpts, newspaper articles, videos, and PowerPoints.” – Dr. Brett Larson, East Georgia State College

# Conclusions

The final reports indicate many benefits to participating in and being affected by a Textbook Transformation Grants project:

* Students continue to have positive perceptions about the implementation of free and open materials in the classroom.
* The process of transforming a course allowed instructors to improve their instructional knowledge, methods, and pedagogy.
* Instructors continue to have opportunities to share their transformation experiences and findings through conference presentations, panels, and articles.
* Textbook Transformation Grants projects in these rounds once again resulted in mostly positive or comparable performance and retention data compared to previous semesters, control groups, and/or instructor and departmental averages, all while saving students money on textbook costs during the course of the project.

In addition to these benefits, some lessons were learned:

* Implementation planning needs to include contingencies, such as the addition of extra work or either the temporary or permanent loss of a team member.
* There is still a lack of usable and comprehensive homework systems to support OER.
* OER content gaps should be expected, even with comprehensive open textbooks, due to the varied and unique nature of each instructor’s course.

"Overall, the experience has been very positive! It pushed me to know the course content at a much more intimate level." – Dr. Yan Yang, University of West Georgia

# Analysis Challenges

Variation will occur with the number of semesters of data used and whether averages calculated were department-wide or instructor-specific. Confounding factors when measuring learning outcomes and retention efficacy can include differences in student composition between semesters, enrollment shifts, and organizational complications due to institutional consolidations.

Three uniform questions about student perceptions, student learning outcomes, and drop/fail/withdraw rates are given to all project leads within the final report as supplementary to their summaries of all research conducted. The interpretation of qualitative and quantitative findings, evaluations of statistical significance, and analysis of confounding factors are the responsibility of the faculty teams conducting the research.