Final Report Summary

Textbook Transformation Grants Rounds Nine, Ten, and Eleven

Contents

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.

- **100%** of reporting teams plan on using and/or improving the same open, no-cost, and low-cost materials implemented in the project.
- Teams reported largely **positive or neutral comparative student learning outcomes and course-level retention data** compared to previous semesters, control groups, and/or instructor and departmental averages with a commercial textbook.
- Teams **saved 16,054 students over $1.85 million** just within the time of the project, and mostly within only the final semester of instruction.
- Positive student learning outcomes changes in 2018 were above the average of all rounds, tentatively suggesting that faculty teams are becoming more experienced and effective in implementing OER and other no-cost/low-cost resources.
- More time for OER implementation may be required of the project team than what the grant can support through funding.
- A reliance on third-party proprietary platforms or linked Web resources may lead to sustainability issues during and after the project.
- Multiple students reported the lower cost of materials leading to a lower level of stress, ultimately yielding further success in the classroom.

Background

The Affordable Learning Georgia (ALG) Textbook Transformation Grants are intended to pilot different approaches in University System of Georgia (USG) courses for textbook transformation including 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, 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 2018. Three rounds (rounds Nine, Ten, and Eleven) resulted in 47 projects from teams of USG faculty and staff at 18 institutions. Two of these projects have a delay in their Final Report data and will not be included below.

All grant projects, along with a collection of their proposal, syllabi, and Final Reports, are included in the Lists of Rounds Nine, Ten, and Eleven Grantees:
Round Nine Grantees
Round Ten Grantees
Round Eleven 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

Rounds Nine, Ten, and Eleven:

$859,782
awarded to grantees

16,054
students affected during projects

$1,852,571
student savings during projects

the mini-grant program is the creation and revision of open educational resources – those results are visible in the GALILEO Open Learning Materials 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, where all implemented materials were taught within the course. Final reports included quotes from students and professors, data on student performance, drop/fail/withdraw 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, measuring cost, outcomes, usage, and perceptions in each implementation.

Savings

During the course of the projects, grant-supported courses were taught to 16,054 students and saved these students an estimated $1,852,571 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, leading to a higher return per dollar awarded as time passes.

Grantee Experiences

Rounds Nine, Ten, and Eleven project teams had entirely 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 findings 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.

"This Affordable Learning Georgia Textbook Transformation Grant for College Algebra availed us the opportunity to become more focused and deliberate in our pedagogical practices and assessment of student learning outcomes of the course." – Dr. Zephyrinus Okonkwo, Albany State University

Most 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. 27 grant teams (60%) have already conducted or will conduct scholarly work, such as writing articles and presenting at state, national, and international conferences, sharing their experiences within the grant project with colleagues in their fields of expertise.

"I was very apprehensive coming on board this grant initiative; however, I was pleasantly surprised with how the use of OERs allowed for so much pedagogical freedom. Therefore, I will continue to pursue OERs both for entire courses and/or supplemental resources."
*–Dr. Bridget Doss, Kennesaw 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 42 out of 45 teams (93%) reporting students having an overall positive perception of the new resources in comparison to a traditional commercial textbook.

"It absolutely affected my grade. Higher costs simply means more pressure. It is extremely obvious that less stress means better performance." – Student of Dr. April Abbott, Abraham Baldwin Agricultural College

The all-rounds percentage (2015-2018) of teams experiencing positive perceptions of materials is 90%, meaning 2018 was slightly above average for positive student perceptions.

Student Perceptions of New Materials, Rounds 9-11

Neutral 6.67%

Positive 93.33%
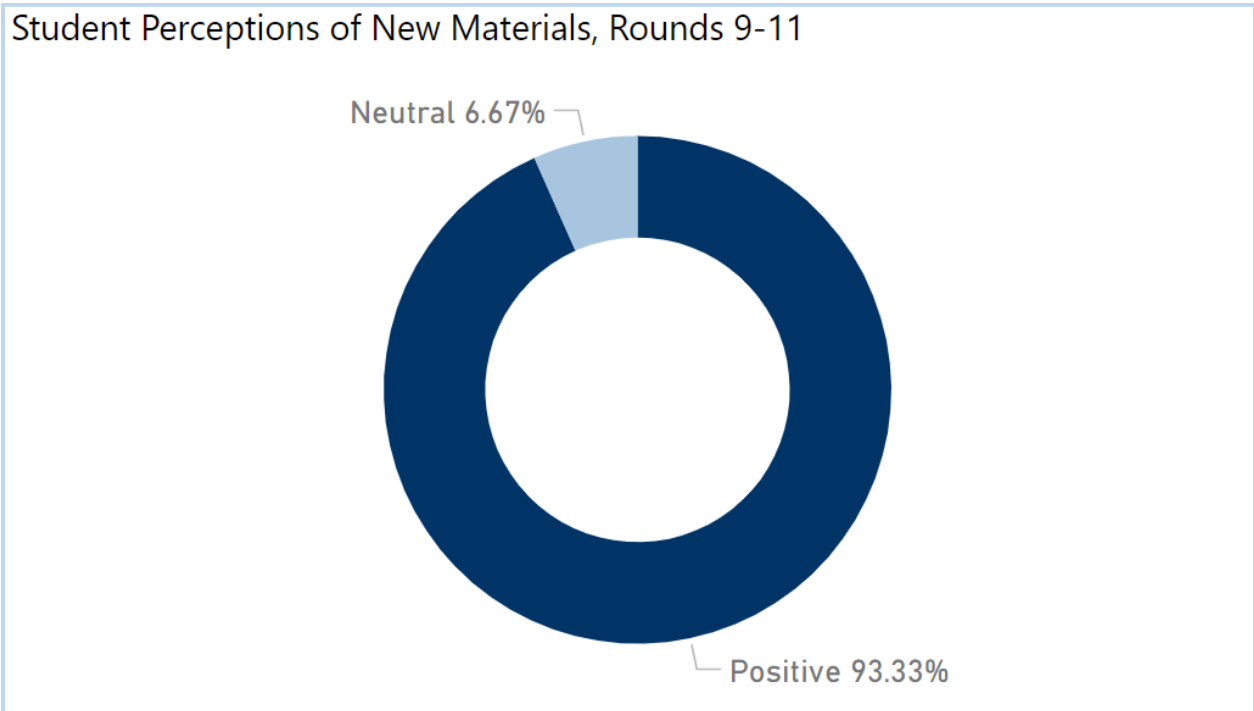
Student Learning Outcomes

26 of 45 (58%) project teams reported positive significant changes to student learning outcomes in comparison to control groups, previous semesters, faculty averages, and/or departmental averages, while 17 teams (38%) saw no significant changes to outcomes. This is a combined 96% of Rounds Nine, Ten, and Eleven teams who experienced either a significantly positive or neutral effect on learning outcomes while using affordable materials.

The all-rounds percentage (2015-2018) of teams experiencing positive learning outcomes is 47%, meaning 2018 was above average for positive learning outcomes.

Changes in Student Learning Outcomes, Rounds 9-11

Negative 4.44%

Neutral 37.78%

Positive 57.78%
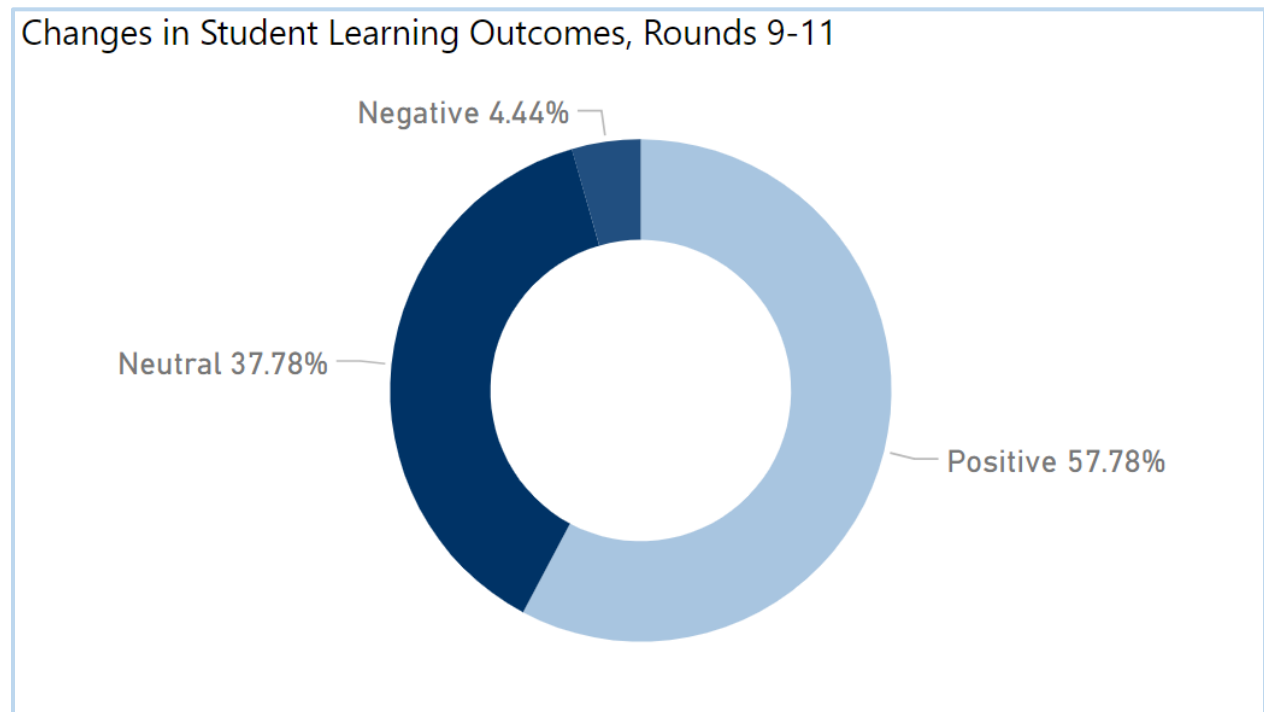
As with previous rounds, repeat student results are not always one-to-one normable with students in the first semester of implementation of the new materials, and some teams experienced a change in the students or instructors within the course.

"Overwhelmingly, the textbook had positive feedback from the students. This positive feedback goes hand in hand with the positive data that was obtained on student's DFW rate as well as GPA."
*-Dr. Lisa Jellum, Georgia Highlands College*

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). 20 teams (47%) reported positive significant changes, 17 teams (39%) reported no changes, and 6 teams (14%) reported negative changes.

"For those students who stuck with the new material for the duration of the course, Fail rates decreased dramatically from previous semesters. Likewise, Success rates improved during the semester of the full roll-out of the new OER."
-Dr. Tori Kearns, East Georgia State College

The all-rounds percentage (2015-2018) of teams experiencing positive outcomes in retention is 43%, meaning 2018 was slightly above average for positive outcomes in retention.

Changes in Retention / DFW Rate, Rounds 9-11

Negative 13.95%

Positive 46.51%

Neutral 39.53%
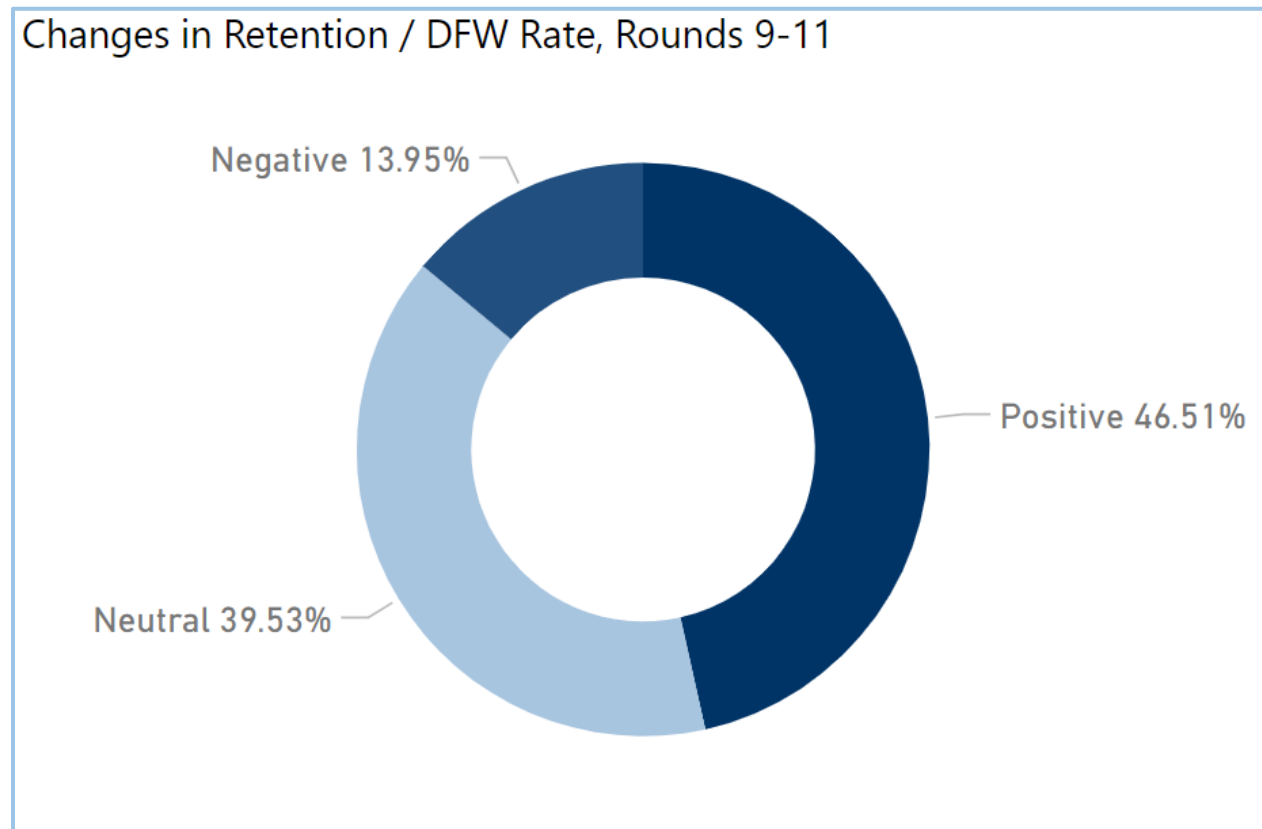
While DFW rates are a standard measure of student retention, the difference between a positive or negative outcome can vary depending on the course and the project. A course with consistently low DFW rates with a small negative effect during implementation may not reflect a large impact on the course.

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 time – possibly more time than a grant will allow:** Some teams reported that the time it took to implement OER successfully in the classroom required more time than was allowed through grant funding. These teams were often focused on the creation of new materials.

"The turnaround time made it incredibly challenging to create, implement, and assess the project effectively, but it did provide us the impetus and resources needed to get our project off the ground and begin to be more intentional about this aspect of the class."
-Dr. Lacy Hodges, Georgia Institute of Technology

- **Reliance on proprietary software may bring about sustainability issues:** Multiple teams reported difficulties with the usability and reliability of proprietary third-party platforms and linked online resources. While these solutions may assist faculty in the short term to save time, keeping these platforms and links up-to-date creates sustainability issues as the project moves forward.

"This project has shown the importance of producing quality material and resources for students and not relying on third party software and instruments."
-Dr. Camille Pace, Georgia Highlands College

- **Implementing OER or No-Cost Materials alone may not increase student motivation to read:** OER may increase equity in the classroom, but it may not lead more students to read. Multiple teams reported that despite students saving money on textbook purchases, many students continued to not read assigned portions of an OER or open textbook. Teams and students alike were satisfied with student cost savings regardless, but these teams found that not all students will read required materials simply because the materials are now affordable.

"Unfortunately, our survey suggests that a large chunk of students are still not reading their textbook as we would hope."
-Dr. Jacqueline Belwood, Georgia Highlands College

- **Support OER implementations with effective pedagogy:** Multiple teams reported that the success of an OER project was partially due to either a transformation of the instructors' pedagogical practices or a continuation of effective practices. In addition, teams leveraged the power of Open within their practices to enable customization and engagement.

"I think that a big part of the success was due to open, caring communication between everyone involved in the class community."
-Dr. Sarah Hepler, Georgia State University

"The project-based pedagogical transformation better engaged students as they knew every skill they learned in class would be used to build their web sites. This also helped to improve course's attendance and retention."
-Dr. Shuting Xu, Georgia Gwinnett College

- **Department-wide projects may encounter resistance during the project:** While department-wide projects are sponsored and approved by the department and the institution when awarded through Letters of Support, one team indicated some resistance among a select few departmental faculty during the course of the project – possibly once the instructors encountered the new materials and attempted to use them. One possible solution would be to encourage pedagogical freedom and only standardize content as much as needed.

"The common course syllabus was not well-received by some of our more senior faculty as it meant they would have to make changes in the way they were previously teaching their classes. Those in opposition were particularly concerned about the proposed grading system. Once the team was able to show data as to the effectiveness of the proposed grading scheme... those who were initially reticent accepted the changes and adopted the common syllabus."
-Dr. Carol Hoban, Georgia Highlands 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 not only save their students money on textbook costs but also 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 three 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.
- More time for OER implementation may be required of the project team than what the grant can support through funding.
- A reliance on third-party proprietary platforms or linked Web resources may lead to sustainability issues during and after the project.
- Multiple students reported the lower cost of materials leading to a lower level of stress, ultimately yielding further success in the classroom.

"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."
-Student of Dr. Charity Bryan, Kennesaw State University

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.