Final Report Summary

Textbook Transformation Grants Rounds Six, Seven, and Eight

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 starting in Academic Year 2016-2017. Three rounds (rounds Six, Seven, and Eight) resulted in 35 projects from teams of USG faculty and staff at 18 institutions.

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

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.

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. 34 out of 35 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, all while saving 11,064 students over $2.1 million just within the time of the project, and mostly within only the final semester of instruction.

Savings

During the course of the projects, 59 grant-supported courses were taught to 11,064 students and saved these students an estimated $2,189,376 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 Six, Seven, and Eight project teams had nearly unanimous positive experiences in implementation processes and teaching with affordable materials. 34 out of 35 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 are an indicator that grants to support OER and alternative low-cost material adoption activities are valuable tools in building sustainable low-cost learning materials practices among faculty.

"The process of writing and rewriting [the textbook] led us to explore a more proficiency based language teaching approach that is guided by a resource [heavier] on tasks and lighter on grammar. Another positive side effect of this project was the conversation it encouraged among the faculty in terms of teaching approaches." –Dr. Mariana Stone, University of North Georgia

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.
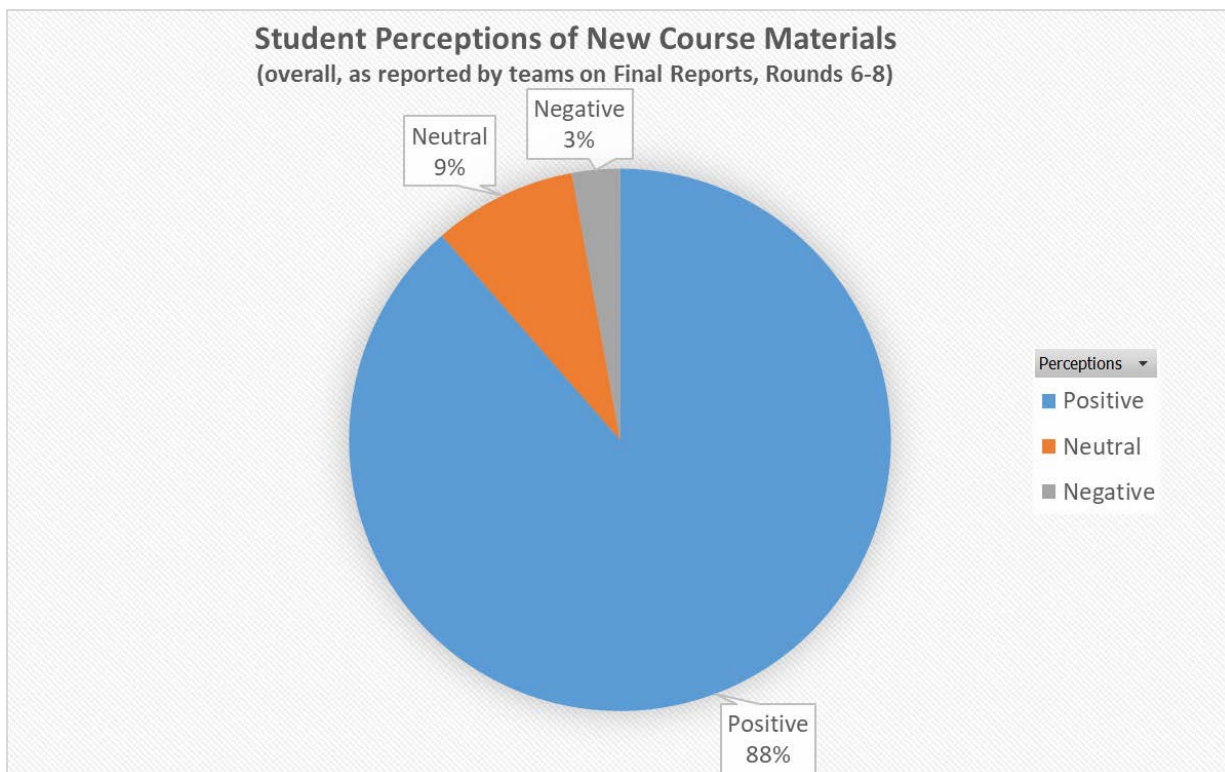
These experiences have led to the current or future production of scholarship around implementing affordable materials in the classroom. 18 grant teams have already conducted or will conduct scholarly work, such as writing articles and presenting at state, national, and international conferences, sharing their experiences within the grant project with colleagues in their fields of expertise.

"As a result of this transformation, instruction in the classroom is now more focused on activities that promote active learning, rather than standard lecture." -Dr. Shana Kerr, Georgia Institute of Technology

Student Satisfaction

Teams reported that students were highly satisfied with the affordability and ease of access with open textbooks and affordable materials, with 31 out of 35 teams (88%) reporting students having an overall positive perception of the new resources in comparison to a traditional commercial textbook.

"The [WeBWorK open-source] homework being free, as well as allowing multiple attempts, taught me how to solve problems more confidently. The layout of the notes was extremely neat and made focusing on the main points a breeze!" -Student of Dr. Scott Kersey, Georgia Southern University

Student Perceptions of New Course Materials
(overall, as reported by teams on Final Reports, Rounds 6-8)

Neutral 9%

Negative 3%

Perceptions
- Positive
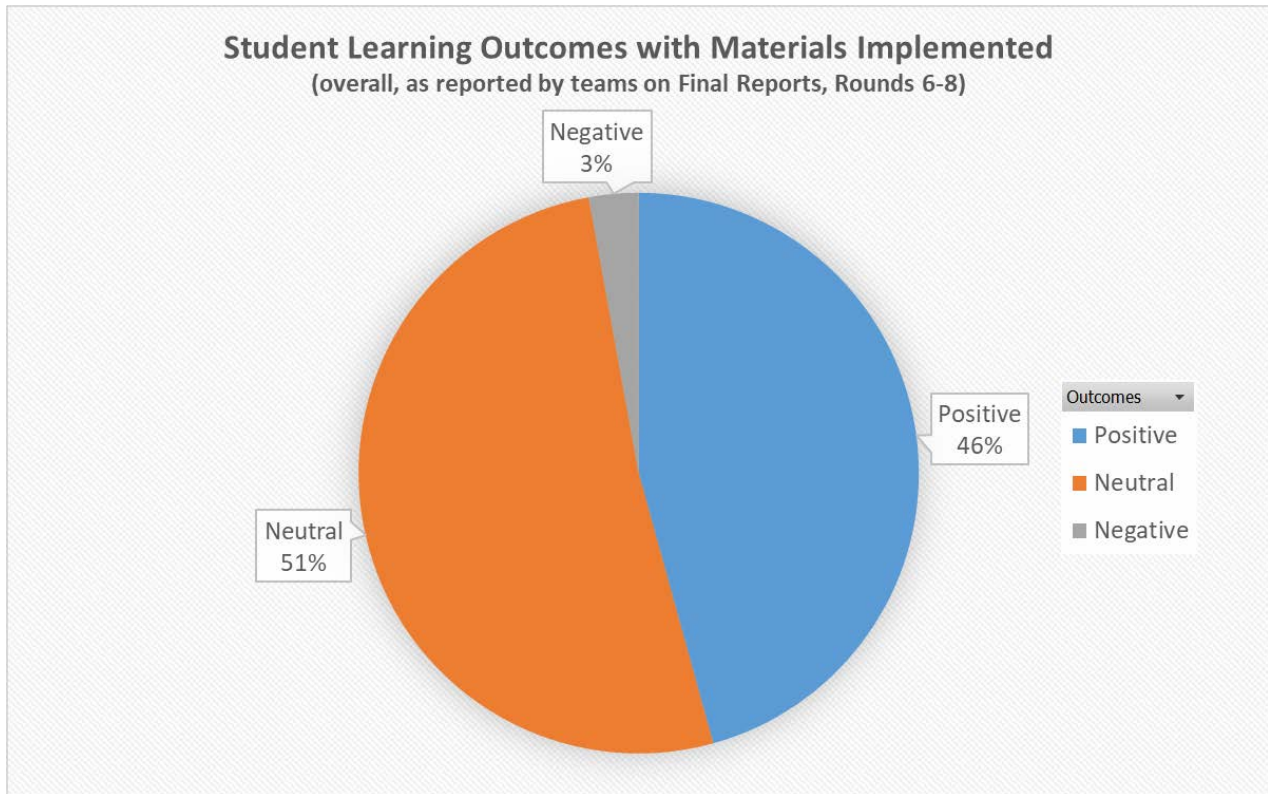- Neutral
- Negative

Positive 88%

The one team which received overall negative perceptions of the materials had implemented a low-cost, non-OER proprietary platform, TopHat, which required offsite technical support when glitches occurred.

"Top Hat needs work, or to be cut. Find something else, or work with them to iron out the bugs." -Student of Dr. Colleen Knight's team, College of Coastal Georgia

Student Learning Outcomes

16 of 35 reporting project teams on student outcomes (46%) reported positive significant changes to student learning outcomes in comparison to control groups, previous semesters, faculty averages, and/or departmental averages, while 18 teams (51%) saw no significant changes to outcomes. This is a combined 97% of Rounds Six, Seven, and Eight teams who experienced either a significantly positive or neutral effect on learning outcomes while using affordable materials.

Student Learning Outcomes with Materials Implemented
(overall, as reported by teams on Final Reports, Rounds 6-8)

Negative 3%

Positive 46%

Neutral 51%

Outcomes
- Positive
- Neutral
- Negative

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.

"Overall the project was a success. Student outcomes were better than those of prior semesters and consistent with those of non-ALG courses during the implementation period. Based on this project, we have optimism that no-cost course materials can provide significant cost savings to students without diminishing course success rates."
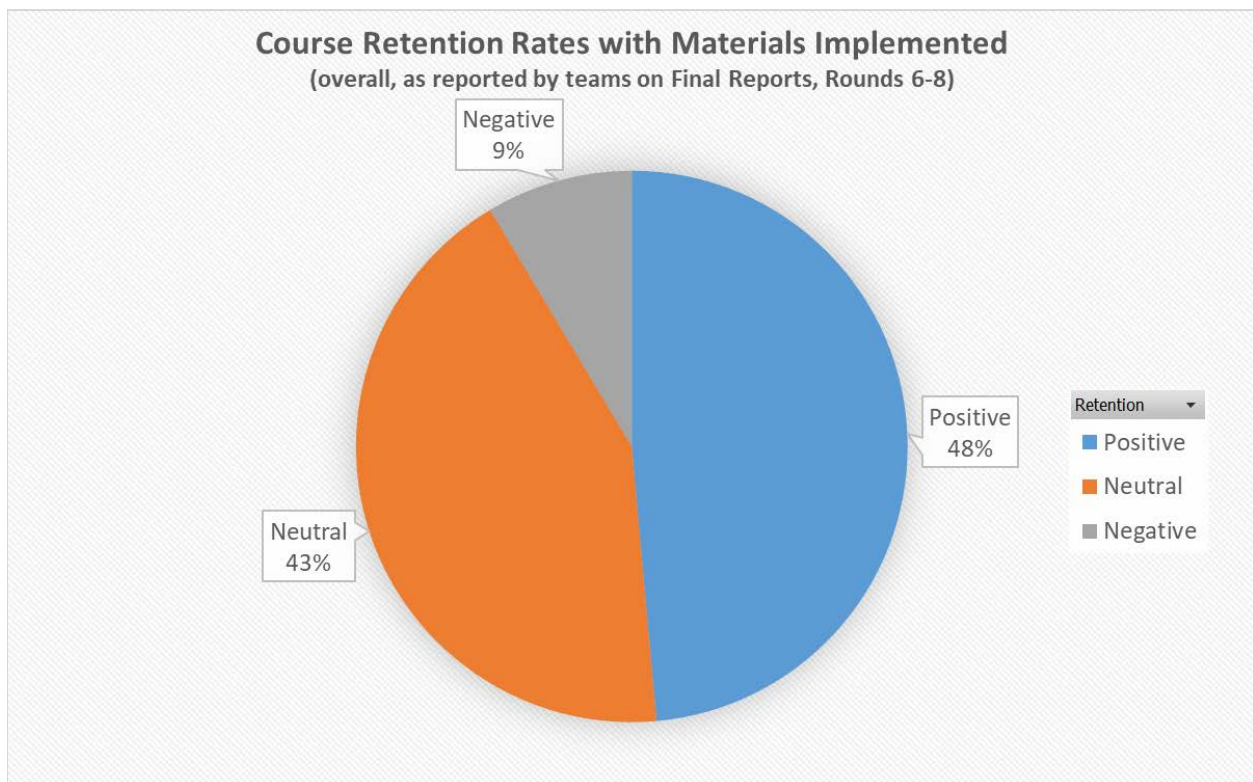*-Dr. Da'Mon Andrews, East Georgia State College*

Drop/Fail/Withdraw (DFW) Delta Rates

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. 17 teams (48%) reported positive significant changes, 15 teams (43%) reported no changes, and 3 teams (9%) reported negative changes.

"Students were more engaged in class and were more likely to attend class lectures because the classes were more interactive (they included activities drawing on Open Educational Resources). Several students commented the activities helped them better understand the material, and kept the material interesting."
-Dr. Dovile Budryte, Georgia Gwinnett College

Course Retention Rates with Materials Implemented
(overall, as reported by teams on Final Reports, Rounds 6-8)

Negative
9%

Positive
48%

Neutral
43%

Retention
- Positive
- Neutral
- Negative

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. The three project teams reporting negative changes to student retention varied in their

challenges, from institutional consolidations to adopting OER which were not well-formatted for customization.

"Most of the difficulties we encountered were directly connected to the consolidation between Armstrong State University and Georgia Southern University that was announced right after we began the project. This consumed enormous amounts of faculty time and significant losses in support staff, such as the instructional designers on campus."
-Dr. Lea Padgett, Armstrong State University (Georgia Southern University)

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:

- **Teach Students How to Use Open Materials and Inform About Print Options:** Teams continue to report that students may only have a prior background in working with expensive printed materials. Ensuring that all students have the knowledge and ability to annotate and highlight digital materials is essential to achieving parity in effective student use between digital and print resources. Students must also be well-informed of any options for print materials, such as the print versions of OpenStax textbooks.

"Several commented they liked it but would have preferred a print version. We then informed them they could access the PDF version, print out the text using their cost savings and create a notebook to serve the same purpose. This suggestion was positively received."
-Dr. Sheryne Southard, Clayton State University

- **Consolidations and Faculty/Staff Turnover Continue to Disrupt or Prevent OER Projects:** Multiple teams reported administrative issues and the loss of faculty and instructional designers within or directly before the project's timeframe. These issues, often arising through institutional consolidations, affected the amount of support and time a team had to successfully implement OER and affordable materials in the classroom or prevented the team from submitting a successful grant application in the past.

"A main challenge that we faced in house was due to administrative hurdles in the first three times we applied for this ALG grant, much of which was due to the consolidation process that was happening in early 2016 between Georgia State University and Georgia Perimeter College (now consolidated)."
-Dr. Barbara Hall, Georgia State University

- **Implementing OER or No-Cost Materials May Not Increase Student Motivation to Read:** Several 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.

"The reality is that much of what is assigned to students is, irrespective of its source, simply not read. If that is going to be the case, at least they shouldn't be impoverished in the process. Perhaps the diffusion of open textbooks will be a force for promoting reading on campus."
-Dr. David Dorrell, Georgia Gwinnett College

- **Use or Create Modular OER, or Break Large Textbooks into Smaller Parts:** Faculty mentioned that students prefer working with smaller-sized OER, whether in the form of modules or breaking up large open textbooks chapter-by-chapter.

"Many students and faculty complained about the pdf file being unwieldy (nearly 1000 pages). As a result, we split the pdf file into multiple files with each section in a separate file."
-Dr. Thomas Gonzalez, Dalton State College

- **Implementing Proprietary Platforms or Non-Open Resources May Cause Unexpected Issues:** When teams included materials which were not open-licensed, from paid platforms such as TopHat to non-open-licensed videos on YouTube, the responsibility to fix issues with these materials or respond quickly to questions fell solely outside of the project team, sometimes delaying a quick question fix or resulting in materials being deleted mid-semester. Resolving these issues may take more involved vendor-team communication, finding alternative resources, or checking to make sure the user uploading a file truly has the copyright to distribute the file, along with frequent and regular link checking.

"We believe that part of the frustration experienced by students is that they expect the instructor to be able to help them, and this was often not the case with Top Hat. Because of this, questions would require several days to answer."
-Dr. Colleen Knight, College of Coastal Georgia

Conclusions

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

- Students continue to be largely positive 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.

- Students prefer to use open and no-cost resources, but still must be taught *how* to use these materials before the course starts and if any print options exist.

- 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.

- Maintaining an adequate amount of faculty and staff within a team for the duration of the project for creation, instruction, and support, is essential to a successful OER implementation.

"Because this class is the first history course taught at Armstrong adopting free online sources, it has served as a replicable model for the rest of the faculty in the History Department. Quite a few faculty expressed interests in adopting affordable [materials] in their own different classes to lower the cost of textbooks and promote classroom teaching."
-Dr. Hongjie Wang, Georgia Southern 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 included 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.