

Grants Collection

Kennesaw State University



UNIVERSITY SYSTEM
OF GEORGIA

Sharon Pearcey, Beth Kirsner, Christopher Randall,
Jen Willard, Adrienne Williamson, Tricia Downtain

Experimental Design and Analysis





Grants Collection

Affordable Learning Georgia Grants Collections are intended to provide faculty with the frameworks to quickly implement or revise the same materials as a Textbook Transformation Grants team, along with the aims and lessons learned from project teams during the implementation process.

Each collection contains the following materials:

- **Linked Syllabus**
 - The syllabus should provide the framework for both direct implementation of the grant team's selected and created materials and the adaptation/transformation of these materials.
- **Initial Proposal**
 - The initial proposal describes the grant project's aims in detail.
- **Final Report**
 - The final report describes the outcomes of the project and any lessons learned.



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Initial Proposal

Application Details

Manage Application: ALG Textbook Transformation Grant

Award Cycle: Round 4

Internal Submission Deadline: Monday, September 7, 2015

Application Title: 182

Submitter First Name: Sharon

Submitter Last Name: Pearcey

Submitter Title: Associate Professor

Submitter Email Address: spearcey@kennesaw.edu

Submitter Phone Number: 470-578-3635

Submitter Campus Role: Proposal Investigator (Primary or additional)

Applicant First Name: Sharon

Applicant Last Name: Pearcey

Applicant Email Address: spearcey@kennesaw.edu

Applicant Phone Number: 470-578-3635

Primary Appointment Title: Associate Professor

Institution Name(s): Kennesaw State University

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

Christopher K. Randall, PhD, Associate Professor of Psychology, Department of Psychology, crandal2@kennesaw.edu

Jen Willard, PhD, Associate Professor of Psychology, Department of Psychology, Jwillar3@kennesaw.edu

Beth Kirsner, PhD, Associate Professor of Psychology, Department of Psychology, bkirsner@kennesaw.edu

Adrienne Williamson, PhD, Associate Professor of Psychology, Department of Psychology, awill176@kennesaw.edu

Tricia Mahaffey, Administrative Associate I, Department of Psychology, tmahaff1@kennesaw.edu

Sponsor, (Name, Title, Department, Institution):

Dr. Keisha Love, Professor and Chair, Department of Psychology, Kennesaw State University

Proposal Title: 182

Course Names, Course Numbers and Semesters Offered:

The Science of Psychology - PSYC 2000. Offered Fall, Spring, Summer;

Research Methods and Statistics - PSYC 2300. Offered Fall, Spring, Summer;

Experimental Design and Analysis - PSYC 3301. Offered Fall, Spring, Summer.

Final Semester of Instruction: Fall 2016

Average Number of Students per Course Section: 32

Number of Course Sections Affected by Implementation in Academic Year: 36

Total Number of Students Affected by Implementation in Academic Year: 1160

List the original course materials for students (including title, whether optional or required, & cost for each item):

PSYC 2000:
(1) Morling, B. (2015). Research Methods in Psychology (2e), Required, ISBN #9780393936933, \$122.50 (new)

PSYC 2300:
(1) Publication Manual of the American Psychological Association, Required, ISBN 9781433805615, \$29.95 (new);
(2) Jackson, S. (2016). Research Methods and Statistics (5e), Required, ISBN 9781305257795, \$236.90 (new);

PSYC 3301:
(1) Publication Manual of the American Psychological Association, Required, ISBN 9781433805615, \$29.95 (new);
(2) Gravetter, F., & Wallnau, L. (2013). Essentials of Statistics for the Behavioral Sciences (8e), Required, ISBN 9781133956570, \$ 245.00 (new);
(3) Gravetter, F., & Forzano, L. (2015). Research Methods for the Behavioral Sciences (5e), Required, ISBN 9781305104136, \$230.30 (new).

Proposal Categories: No-Cost-to-Students Learning Materials

Requested Amount of Funding: \$30,000

Original per Student Cost: PSYC 2000: \$122.50/student; PSYC 2300: \$266.85/student; PSYC 3301: \$505.25/student

Post-Proposal Projected Student Cost: \$0/student for all courses

Projected Per Student Savings: PSYC 2000: \$122.50/student; PSYC 2300: \$266.85/student; PSYC 3301: \$505.25/student

Plan for Hosting Materials: Other

Project Goals:

This project involves the creation of course materials to enable faculty to teach the three required research methodology and statistics courses in our curriculum using no cost to student materials.

In order to achieve this goal, we intend to:

- * Create a course shell for PSYC 2000 - The Science of Psychology in D2L Brightspace (this course is required for all Psychology minors)
- * Create course shells for PSYC 2300 - Research Methods in Psychology and PSYC 3301 - Experimental Design and Analysis in D2L Brightspace (both courses are required for all Psychology majors)
- * Develop lectures for all three courses
- * Develop activities for all three courses
- * Develop instructor resource and test bank materials for all three courses
- * Adopt the course materials (all team members), thereby eliminating textbook costs for our students in these required courses
- * Assess our courses with pre- and post-test assessments comparing classes using no cost resources to those requiring textbooks
- * Disseminate our project successes to other institutions by presenting our findings at state (i.e., SoTL Commons Conference), and national teaching conferences (i.e., APS Teaching Institute, APA Convention)
- * Create a website and host the course materials there, making them available for adoption worldwide

Statement of Transformation:

Background on Courses:

Our project will impact both students majoring and students minoring in Psychology at Kennesaw State University (KSU). All students majoring in Psychology at KSU are required to take a sequence of research courses – PSYC 2300 (Research Methods and Statistics) and PSYC 3301 (Experimental Design and Analysis). The two sequence courses each combine research methods and statistics. Although there are a few books that combine these topics, some instructors teaching in the sequence use two separate textbooks to teach the course – one for research methods and one for statistics. In addition, because of the heavy writing component in the sequence courses, the APA publication manual is also required. Although some students may be able to reuse their textbooks as they advance from PSYC 2300 to

PSYC 3301, multiple factors make it difficult to do so (e.g., instructor preference in textbooks, student schedules). Thus, within the two sequence courses, students are required to purchase a minimum of two textbooks but may be burdened with purchasing up to four separate textbooks. All students minoring in Psychology at KSU are required to take PSYC 2000 (The Science of Psychology), which currently requires one textbook.

This transformation will involve replacing one textbook in PSYC 2000 and up to four textbooks in the sequence consisting of PSYC 2300 and PSYC 3301 with no-cost-to-students materials. These materials will include instructor-created lectures, tutorials, testing materials, and problem sets; open-access articles, chapters, and statistical tutorials; open-access information on plagiarism and APA style; open-access textbooks and other free instructional websites.

Stakeholders:

Both faculty and students are the stakeholders in this project. First, this transformation will reduce the cost of purchasing textbooks for students, both those minoring and those majoring in psychology. Text book prices continue to soar. Affordable Learning Georgia estimates that textbook prices have increased 82% in the last decade and will continue to rise 6% annually (<http://www.affordablelearninggeorgia.org/about/numbers>).

Because the courses we are transforming are foundational, required courses for all Psychology majors and minors, the amount saved per student will be substantial: Based on current pricing, students will save \$122.50 (PSYC 2000), \$266.85 (PSYC 2300), and \$505.25 (PSYC 3301) as a result of this initiative. Overall, including all sections of all three courses transformed, we estimate that the total savings could be as much as \$380,804 annually. Clearly students will benefit financially. Because students often choose not to purchase textbooks due to the expense (see above), we can guarantee that all students will have equal access to the resources needed to ensure success in these courses by providing these comprehensive learning materials at no cost to them.

Faculty members will also be stakeholders in this project. In any given semester, 10-15 different instructors teach one of the three courses (i.e., PSYC 2000, PSYC 2300, and PSYC 3301). Our materials, including the Brightspace D2L shell courses, will be available to other instructors within the department. Although not required, other full-time and part-time faculty members who teach these courses may choose to adopt our no-cost-to-students materials. These resources will be of particular benefit to new faculty who will have a wealth of materials available to them. Last, because we plan to disseminate our project ideas to other institutions by placing them on a website and presenting our research findings at national teaching conferences, faculty and students outside KSU will benefit from this transformation.

Transformation Action Plan:

Organization:

We will survey students regarding textbook usage and attitudes toward textbooks to establish a baseline by which to compare usage and satisfaction with the new, open resources.

We will identify and review appropriate course materials that are readily available at no cost. We will identify areas with deficits (e.g., test bank items, active learning) and assign responsibilities across team members.

Content Creation:

Using established course learning outcomes as a guide, we will create the content needed for each of the courses. We will collaborate and share materials and ideas in order to maintain continuity among the related courses. During this phase, we will seek suggestions from other faculty about the content.

Creating D2L Brightspace Course Shells and Website:

Although this a collaborative process, four faculty team members will be focusing their time on specific courses and one team member will act as the lead for organization and continuity of the materials (in addition to creating shared course materials). We will upload completed materials to shared course shells on D2L Brightspace for use by other full-time and part-time faculty. We will also upload completed materials to a website for use by faculty and students at other institutions.

Implementation and Evaluation:

Each faculty team member will teach at least one of these courses during the Fall 2016 semester. We will utilize our current extensive assessment plan to assess student achievement of course learning objectives. We will compare the assessment scores between courses using no cost resources to those requiring texts and/or to past course data. In addition, we will augment our current assessment of these courses by surveying enrolled students about their learning experiences, including opinions about which of the materials were most beneficial to their mastery of the material and suggestions for modifications.

Revisions and Updates:

Immediately after the fall 2016 semester, we will revise the course materials based on our experience implementing them in the classroom and in response to feedback from students. In the long term, we plan to update the materials (and invite others to contribute) by adding and modifying materials when warranted and as often as necessary.

Quantitative & Qualitative Measures: * Currently, our department uses pre- and posttests to assess student achievement of learning objectives in PSYC 2300 and PSYC 3301. We will develop pre- and posttests for PSYC 2000 to assess achievement of learning objectives in that course. We will compare the assessment scores between courses using no cost resources to those requiring texts and archival assessment data. We will continue to use these metrics to make sure that the transformed courses are providing appropriate support for student learning.

* Detailed student surveys will be distributed at the end of each semester asking for feedback (e.g., usefulness of the PowerPoint lectures in learning the material, helpfulness of the in-class activities for understanding the materials). We will compare this information with results of student surveys regarding usage of and attitudes toward current textbooks.

* We will track grades in the courses and compare them to other comparable/related courses. In addition, we will track grades in subsequent courses for which PSYC 2000, PSYC 2300, and PSYC 3301 are prerequisites. This adds another level of ensuring student success.

Timeline:

1 Attend Kick-off / Implementation Meeting

Pearcey, Randall, & Kirsner

Start date: October 12, 2015

End date: October 12, 2015

2 Review of Course Learning Outcomes; Identification of Shared Course Resources; Assignment of Responsibilities across Team Members

Pearcey, Randall, Willard, Kirsner, Williamson, & Mahaffey

Start date: October 13, 2015

End date: October 30, 2015

3 Content Creation I: Shared Resources

Pearcey, Randall, Willard, Kirsner, & Williamson

Start date: November 1, 2015

End date: November 30, 2015

4 Write & Submit Fall 2015 Status Report

Pearcey & Mahaffey

Start date: December 1, 2015
End date: December 14, 2015

5 Identify Faculty To Produce Supplemental Instructor Resources & Assessment Instruments
Pearcey, Randall, Willard, Kirsner, & Williamson
Start date: December 15, 2015
End date: January 11, 2016

6 Content Creation II: Specialized Course Resources
Pearcey, Randall, Willard, Kirsner, & Williamson
Start date: January 11, 2016
End date: March 31, 2016

7 Collect and Integrate Instructor Resources and Assessment Instruments into D2L Course Shells. Upload Resources onto Open Website.
Mahaffey
Start date: April 1, 2016
End date: April 17, 2016

8 Write & Submit Spring 2016 Status Report
Pearcey & Mahaffey
Start date: April 18, 2016
End date: May 1, 2016

9 Solicit Peer Review of Content from Departmental Colleagues (Sequence Faculty)
Pearcey, Randall, Willard, Kirsner, Williamson, & Mahaffey
Start date: May 16, 2016
End date: June 30, 2016

10 Revise Course Content, Instructor Resources, & Assessment Instruments Based on Peer Feedback Received
Pearcey, Randall, Willard, Kirsner, Williamson, & Mahaffey
Start date: July 1, 2016
End date: July 31, 2016

11 Pilot PSYC 2000, 2300, & 3301 courses in Fall 2016
Pearcey, Randall, Willard, Kirsner, & Williamson
Start date: August 15, 2016
End date: December 12, 2016

12 Write & Submit Final Grant Report (Fall 2017)
Pearcey & Mahaffey
Start date: December 1, 2017
End date: December 15, 2017

13 Evaluate Assessment Data and Prepare Conference Presentation / Symposium Proposals for Submission in Spring 2017
Pearcey, Randall, Willard, Kirsner, & Williamson

Start date: December 15, 2016

End date: December 30, 2016

Budget:

TEAM MEMBER Sharon Pearcey

PURPOSE Overload for Grant Project Management, Development of Shared Course Content & Instructor Resources, Assessment of Course & Project Outcomes

AMOUNT (\$) 5000

TEAM MEMBER Chris Randall

PURPOSE Overload for Development of PSYC 2000, Shared Course Content, & Instructor Resources

AMOUNT (\$)5000

TEAM MEMBER Jen Willard

PURPOSE Overload for Development of PSYC 2300, Shared Course Content, & Instructor Resources

AMOUNT (\$)5000

TEAM MEMBER Beth Kirsner

PURPOSE Overload for Development of PSYC 3301, Shared Course Content, & Instructor Resources

AMOUNT (\$)5000

TEAM MEMBER Adrienne Williamson

PURPOSE Overload for Development of PSYC 3301, Shared Course Content, & Instructor Resources

AMOUNT (\$)5000

TEAM MEMBER Tricia Mahaffey

PURPOSE Overload for Integration of Instructor Resources and Assessment Instruments in D2L-Brightspace LMS and for Preparation of Interim and Final Grant Reports

AMOUNT (\$)1000

TEAM MEMBER 2 PSYC Faculty

(to be identified)

PURPOSE Overload Compensation for Producing Supplemental Instructor Resources & Assessment Instruments @ \$500 each

AMOUNT (\$)1000

TEAM MEMBER 2-3 Team Members

PURPOSE Partial Support for Project Symposium Presentations at the SoTL Commons Conference and a National Conference: 2017 APS Teaching Institute (Boston MA) or 2017 APA Convention (Washington, DC); 2 Team Members / Conference Symposium

AMOUNT (\$)2200

TEAM MEMBER 2-3 Team Members

PURPOSE Travel to Kick-off Training / Implementation Meeting
AMOUNT (\$)800

TOTAL \$30,000

Sustainability Plan:

As noted above, the psychology department offers numerous sections of all three courses (PSYC 2000, 2300, & 3301) every semester. Moreover, we have every reason to believe that enrollment in PSYC 2000 will increase dramatically over the next several years because it is a required course in the new Psychology minor at KSU that has not yet been advertised across campus. Thus, we believe the potential savings for students will also increase markedly in the near future.

In addition to the sections taught by each team member, all departmental faculty and part-time instructors will have access to these materials, can contribute to the revisions of these resources, and may adapt these materials to meet their needs and preferences at any time. Although the classes do ultimately cover quite different material, there exists considerable overlap with respect to the foundational concepts that all students are expected to master. Having the materials available within each class - for PSYC 2000 as primary learning materials and for both PSYC 2300 and PSYC 3301 as primary and/or review learning materials - will benefit all students in these courses. Because these materials will also be available on an open access website, students will be able to access and review these resources whenever they need them.

Finally, the standing research sequence committee in the department will be able to oversee the implementation and future development of these materials for the benefit of our students and faculty as the curriculum continues to evolve.



College of Humanities

Department of

Psychology

August 31, 2015

Dear Selection Committee Members:

It is my pleasure to write this letter of support for Drs. Sharon Pearcey, Christopher Randall, Jennifer Willard, Beth Kirsner, Adrienne Williamson, and Ms. Tricia Mahaffey, who are applying for an Affordable Learning Georgia Textbook Transformation Grant. Their project titled, "Giving it Away: Teaching Research Methods and Psychological Statistics, APA Style, & Experimental Design and Analysis Without a Text," will offer psychology majors and minors at Kennesaw State University enrolled in research courses considerable cost-savings through the development and utilization of high-quality, free resources. Please allow me a brief moment to elaborate on the investigators' plan.

All students majoring in psychology complete a research sequence that consists of two courses – PSYC 2300 (Research Methods and Statistics) and PSYC 3301 (Experimental Design and Analysis). In addition, all students minoring in psychology are required to take one research course, PSYC 2000 (The Science of Psychology). The current total cost of textbooks across the three courses ranges from \$122.50 to \$505.25, which is substantial for many students. An extremely limited number of textbooks adequately integrate methods and statistics. In most cases, the textbooks cover too much of one topic and not enough of the other; therefore, most faculty require students to purchase multiple textbooks to get a comprehensive review of the material. The investigators will transform textbooks from the research courses by developing lectures, tutorials, testing materials, and problem sets, and by providing links to open-access articles, chapters, and statistical tutorials that meet our high quality standards at no cost to students. Students will be able to redirect savings from these courses to other areas such as tuition and fees, meals, parking, and/or supplies, to name a few. To assess and demonstrate the quality of the products, the investigators have developed a strong assessment plan that will examine student-learning outcomes for students using the free resources. The investigators will modify the materials as needed based on student performance and feedback.

All the investigators, except for the administrative associate, teach PSYC 2000, 2300 or 3301; all have agreed to use the transformed products in their courses. The department offers these courses every semester (fall, spring, and summer), so there will be many opportunities to utilize the new resources. In fact, the investigators were hired specifically to teach these courses given their disciplines in psychology and training; therefore, the long-term plan is for these instructors to routinely contribute to our research courses. An addition, it is my intent to incentivize other faculty to teach these courses so that we may offer additional sections. More

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Phone: 470-578-7776 · Fax: 470-578-9146 · www.kennesaw.edu

sections would facilitate student progression, and the free resources may contribute to student retention.

In sum, I wholeheartedly support the investigators' plan to transform textbooks for the research and statistics courses for psychology majors and minors. I believe that the benefits will be substantial for students financially, and I believe that the resources will enhance retention and progression. I sincerely hope that you will give the team in the Department of Psychology at Kennesaw State University your strongest consideration for an award.

Regards,

A handwritten signature in black ink, appearing to be 'Keisha Love', with a stylized flourish at the end.

Dr. Keisha Love
Professor and Chair
Department of Psychology
402 Bartow Ave. NE., MD 2202
Kennesaw, GA 30144
470-578-6225

Syllabus

[Psychology Science](#) / [Design/Statistics](#) / [Descriptive](#)

Descriptive

Learning Outcomes

- [Descriptive Statistics](#)

Lectures and Worksheets

1. Frequency Distributions

- [Frequency \(lecture\)](#)
- [Frequency Distributions \(worksheet\)](#)

2. Central Tendency

- [Central Tendency \(lecture\)](#)
- [Central Tendency \(worksheet\)](#)

3. Variability

- [Variability \(lecture\)](#)
- [Variance \(worksheet\)](#)
- [Sums of Squares \(worksheet\)](#)

[Psychology Science](#) / [Design/Statistics](#) / [Inferential](#)

Inferential

Testing Key

- [Z-scores, Probability, Hypothesis](#)

Worksheets and Lectures

Correlations

- [Correlation \(Lecture\)](#)

Z-test

Coming soon...

T-test

One-Sample T Test

- [One-Sample t Test \(Lecture\)](#)
- [One-Sample t Test \(Worksheet 1\)](#)
- [One-Sample t Test \(Worksheet 1\) - ANSWER KEY](#)
- [One-Sample t Test \(Worksheet 2\)](#)
- [One-Sample t Test \(Worksheet 2\) - ANSWER KEY](#)
- [One-Sample t Test \(Worksheet 3\)](#)
- [One-Sample t Test \(Worksheet 3\) - ANSWER KEY](#)

Independent-Samples T Test

- [Independent-Samples t Test \(Lecture\)](#)

- Independent-Samples t Test (Worksheet 1)
- Independent-Samples t Test (Worksheet 1) - ANSWER KEY
- Independent-Samples t Test (Worksheet 2)
- Independent-Samples t Test (Worksheet 2) - ANSWER KEY
- Independent-Samples t Test (Worksheet 3)
- Independent-Samples t Test (Worksheet 3) - ANSWER KEY
- Independent-Samples t Test (Worksheet 4)
- Independent-Samples t Test (Worksheet 4) - ANSWER KEY
- Independent-Samples t Test (SPSS Lab)

Dependent-Samples T Test

- Dependent-Samples t Test (Lecture)
- Dependent-Samples t Test (Worksheet 1)
- Dependent-Samples t Test (Worksheet 1) - ANSWER KEY
- Dependent-Samples t Test (Worksheet 2)
- Dependent-Samples t Test (Worksheet 2) - ANSWER KEY
- Dependent-Samples t Test (Worksheet 3)
- Dependent-Samples t Test (Worksheet 3) - ANSWER KEY
- Dependent-samples t Lab (SPSS Instructions)
- Dependent-Samples t Test (SPSS Lab)

ANOVAs

- One-Way ANOVA (Lecture)
- One-Way ANOVA (Worksheet 1)
- One-Way ANOVA (Worksheet 1) - ANSWER KEY
- One-Way ANOVA (Worksheet 2)
- One-Way ANOVA (Worksheet 2) - ANSWER KEY
- One-Way ANOVA (Worksheet 3)
- One-Way ANOVA (Worksheet 3) - ANSWER KEY
- One Way ANOVA (SPSS instructions)
- One-Way ANOVA (SPSS Lab)

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Final Report

Affordable Learning Georgia Textbook Transformation Grants

Final Report

Instructions:

A. Your final report submission must include four separate component files:

1. *Completed report form. Please complete per inline instructions. The italicized text is provided for your assistance; please delete the italicized text before submitting your report.*
2. *Course Outline document with links to the materials as used per day, week, or unit, organized chronologically. [View Course Outline Example](#)*
 - a. *For each resource, give the title, author, Creative Commons licenses (if appropriate), and freely accessible URL to the material. Include all open-access links to all adopted, adapted, and newly created course materials.*

***We have attached a copy of our website table of contents. We were purposeful in not including a schedule. Our course content spans across a number of courses and our topical organization will allow for flexibility of use.**

3. *Supporting data on the impact of your Textbook Transformation (survey, analyzed data collected, etc.)*

***See a sample of our content assessment and additional questions related to the materials that we created.**

4. *A photograph of your team and/or your students for use in ALG website and materials.*
 - a. *Photograph must be 800x600 pixels at minimum (length x height).*
 - b. *Photograph must be taken together: individual team member photographs and website headshots not accepted.*

B. Go to http://affordablelearninggeorgia.org/site/final_report_submission to submit these four components of your final report. Follow the instructions on the webpage for uploading your documents. You will receive a confirmation email. Based on receipt of this report, ALG will process the final payment for your grant. ALG may follow up with additional questions or to request your participation in a publication, presentation, or other event.

Date: 6/28/2017

Grant Number: 182

Institution Name(s): Kennesaw State University

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

Beth Kirsner, PhD, Associate Professor of Psychology, Department of Psychology,
bkirsner@kennesaw.edu

Sharon Pearcey, PhD, Associate Professor of Psychology, Department of Psychology,
spearcey@kennesaw.edu

Christopher K. Randall, PhD, Associate Professor of Psychology, Department of Psychology,
crandal2@kennesaw.edu

Jen Willard, PhD, Associate Professor of Psychology, Department of Psychology, jwillar3@kennesaw.edu

Adrienne Williamson, PhD, Associate Professor of Psychology, Department of Psychology,
awill176@kennesaw.edu

Tricia Downtain, Administrative Associate I, Department of Psychology, tmahaff1@kennesaw.edu

Project Lead:

Sharon Pearcey, PhD

Course Name(s) and Course Numbers:

PSYC 2000 - The Science of Psychology

PSYC 2300 - Research Methods and Statistics

PSYC 3301 - Experimental Design and Analysis

Semester Project Began: Fall 2015

Semester(s) of Implementation: Fall 2016 & Spring 2017

Average Number of Students Per Course Section: 37.5 Students

Number of Course Sections Affected by Implementation: 4

Total Number of Students Affected by Implementation: 150

1. Narrative

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

Our team successfully created course shells in D2L Brightspace for PSYC 2000 (The Science of Psychology; the foundation course for all Psychology minors), PSYC 2300 (Research Methods in Psychology), and PSYC 3301 (Experimental Design and Analysis). The course shells include lecture materials, course activities, and testing materials. Because of scheduling issues, only four of our team members were able to teach using our newly developed course materials. As departmental needs allow, the team members plan on offering these courses using the materials created in future semesters. During this first

phase of the project, we were able to eliminate textbook costs for the 150 students enrolled in our courses. This number will continue to rise in subsequent semesters.

We created the website (<http://grants.kennesaw.edu/psychscience/>) housing all of our materials trying to keep ease and flexibility of use paramount. Through team meetings and discussions of course content, it became clear that we needed to organize the content for these courses with great care. Thus, we organized the website into finite topics so that a faculty member or student could look at the menu and quickly hone in on specific materials that he or she needs. In addition to the methods and statistics materials, we included a section on common writing and grammar errors with both lectures and activities.

Finally, we plan to disseminate our project successes to other institutions by presenting our findings at state and regional teaching conferences. The remaining funds in our grant will allow us to present at one local and one regional conference. This will allow us to describe the process of creating the materials and more importantly, publicize our website.

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

It is difficult to quantify our “lessons learned” through this experience because we feel like this project is just getting started. The creation of the materials extended from Fall 2015 until January 2017. Although one team member taught under this format in Fall 2016, most of us have just completed our first semester “textbook free.” In addition, we have plans to continue creating new content and revise content as necessary based on faculty and student feedback in future semesters.

2. Quotes

“I felt that the notes and powerpoints you provided were definitely sufficient for the course; I prefer learning through lectures as opposed to a textbook, anyway. And it was great not to have to spend money on a book!”

“I never once felt like I needed a textbook to supplement the material you provided.”

“I liked the worksheets and the PowerPoints, but I still wish we had a book to go by. I think that if I had access to the textbook as well, I would've done much better in the class.”

“I enjoyed not having a book. I think the powerpoints were very well detailed and useful. It was easier to understand the material when it was straight to the point like in the powerpoints. Also it made going through the worksheets easier. There were just enough worksheets to not be overwhelming, one for going through with the powerpoint, one for trying without the powerpoint / answers, and then one without the answers. I would not have wanted a textbook, I feel like there is too much extra info in textbooks. I really enjoyed how this class was set up, it was one of the best ways I have taken a class, especially online.”

3. Quantitative and Qualitative Measures

3a. Overall Measurements

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: 150

- Positive: 100 % of 49 number of respondents
- Neutral: _____ % of _____ number of respondents
- Negative: _____ % of _____ number of respondents

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.

Choose One:

- 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?

Drop/Fail/Withdraw Rate:

30.67 % of students, out of a total 150 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)
- Negative: This is a higher percentage of students with D/F/W than previous semester(s)

3b. Narrative

We used the following metrics to assess project outcomes: GPA, DFW rates, student opinions, and a content assessment for PSYC 2300 and PSYC 3301. The table below shows comparison data for the course sections that used text books and the sections that used the materials created for this project. As a caveat, because there are possible confounds with format in which the courses were offered and the limited number of courses in the experimental groups, we must interpret these data with caution.

Overall, DFW rates are comparable. For PSYC 2000 DFW rates are very similar. For PSYC 2300, the *no text group* was a bit lower, however, for PSYC 3301, the *no text group* was much higher. This may likely have been due to fact that both of the PSYC 3301 *no text* courses were offered 100% online. The comparison data are hybrid or face-to-face courses.

Similarly, the grades for PSYC 2300 and PSYC 2300 are similar for the *no text* and *text* groups, whereas the *no text* group for PSYC 3301 had a much lower course GPA. Again, this is likely due to both *no text* groups being offered in 100% online formats.

	PSYC 2000		PSYC 2300		PSYC 3301	
	No Text	Text	No Text	Text	No Text	Text
# Students	63	75	30	190	57	171
# Sections	1 double*	2	1	6	2*	7
GPA (4 point)	2.20	2.36	2.64	2.55	2.10	2.69
DFW (%)	28.71%	28.57%	20.00%	26.32%	38.85%	18.24%
* 100% online						
Note: All comparison groups were face-to-face or hybrid courses						

For content assessment, we compared the results of our sequence committee's sequence post-test exit exam. At the end of each semester, we administer content knowledge post-tests to all Research Methods in Psychology and Experimental Design and Analysis courses to be used as assessment measures. The Research Methods assessment consists of 20 multiple-choice questions that encompass four broad areas: methodology, ethics, quantitative literacy, and grammatical writing/APA style. Similarly, the Experimental Design and Analysis posttest consists of 28 multiple choice questions that encompass three broad areas: methodology, quantitative literacy, and grammatical writing/APA style. Using independent-samples *t* tests, there were no significant differences between the "no textbook" groups and the "textbook" group in content knowledge at the end of the course. Although we are only comparing three courses (with comparable courses using textbooks), the findings are encouraging. We didn't expect that the "no textbook" group would outperform the "textbook" groups; however, finding no difference between the groups

indicates that students are not losing content knowledge by not having a text book. Again, because we are only comparing a few “no textbook” courses with comparable “textbook” courses for only two semesters, the data should be interpreted with caution.

We also assessed the students concerning the materials used in the courses. Specifically, 87% of the students who completed the survey indicated that the course activities contributed “a lot” to their learning. The remaining 13% reported that the course activities contributed a moderate amount to their learning. No one reported that the course activities contributed a little or not at all. However, 28.6% of the students indicated that they would have preferred a textbook for these courses.

Co-factors

Direct comparisons between “no textbook” course sections and course sections with required textbooks were difficult to interpret because the delivery method acted as a confound. Three out of the four courses taught using the “No Textbook” format during this first data collection phase were taught in 100% online formats. Both PSYC 3301 sections and the PSYC 2000 section were offered in online formats and there were no other online sections requiring textbooks offered to use as more direct comparisons. Traditionally, online courses have higher DWF rates than face-to-face courses and lower overall GPAs.

4. Sustainability Plan

The psychology department offers numerous sections of all three courses (PSYC 2000, 2300, & 3301) every semester. Because of scheduling issues, only four of the five team members were able to offer courses during the project timeline using our newly created materials. As we move forward, all team members will continue to use the materials in their courses. In addition, all faculty in our department who teach these courses are members of the standing research sequence committee. This committee, with the assistance of the team members, will oversee the maintenance of and additions to the materials housed on the website. The materials will continue to be available on our open access website for both faculty and students to access. In addition, we will allow all KSU faculty to export course materials from the D2L shells that we created.

5. Future Plans

Our plans for the project are threefold. First, we will maintain and update materials on the website. We will ask all faculty to contribute additional materials to include and encourage KSU faculty to use the resources that we created. Second, we will continue to assess the outcomes of our project using the metrics described earlier. Finally, we plan to disseminate our findings at local and regional conferences. Specifically, we would like to use local teaching conferences as a means to advertise our website with open access materials.

6. Description of Photograph

From left-right: Dr. Adrienne Williamson (team member), Dr. Beth Kirsner (team member), Dr. Sharon Pearcey (team lead), Dr. Jennifer Willard (team member).