

## **Affordable Learning Georgia Textbook Transformation Grants**

### **Final Report**

**Date: May 20, 2016**

**Grant Number: 142**

**Institution Name(s): Albany State University**

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

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**Project Lead: Dr. Shayla D. Williams**

**Course Name(s) and Course Numbers: Introduction to Biology BIOL 1111K**

**Semester Project Began: Fall 2015**

**Semester(s) of Implementation: Fall 2015, Spring 2016**

**Average Number of Students Per Course Section: 27**

**Number of Course Sections Affected by Implementation: 7**

**Total Number of Students Affected by Implementation: 192**

### **1. Narrative**

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

- There was an increase in final exam grades in Dr. Williams' class sections.
- Students were overwhelmingly in favor of the printed textbook despite the price.
- The most common positive response to infographics was that they complemented visual learners.
- The most common negative response to infographics was that they are too simplistic.
- The most common positive response to the online textbook was the convenience of it.
- The most common positive response to printed textbooks was their tangibility.
- The most common negative response to online textbooks was the price.
- The most significant improvement in fail rate was 34% in Fall 2015 to 4% in Spring 2016

B. Despite the cost-saving nature of the online textbook, students still gravitated toward the printed textbook despite the cost. They preferred to have something tangible in their hands. In the future, we encouraged students to purchase the hardcopy version of the online text which is \$28 on Amazon.com for those who prefer a printed text.

## 2. Quotes

- Provide three quotes from students evaluating their experience with the no-cost learning materials.

### Here are three quotes in favor of online textbooks:

“I would be able to print out certain pages and go through them thoroughly with a highlighter and pen. It is a lot less hassle.”

“They are usually cheaper and easy to maintain.”

“I don't have to carry or worry about damage.”

### Here are three quotes against online textbooks:

“I like to physically hold and highlight in my book.”

“The internet does not work all the time”

“I can read and look for my information without the computer or online system crashing”

## 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:   192  

#### Student Opinion of Infographics

- Positive:  100  % of  16  number of respondents
- Neutral:   0  % of  16  number of respondents
- Negative:   0  % of  16  number of respondents

#### Student Opinion of Online Textbook

- Positive:  32  % of  60  number of respondents
- Neutral:   8  % of  60  number of respondents

- Negative: 60 % of 60 number of respondents

### **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?**

Choose One:

- X 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?**

The overall impact of the DW was neutral. However, there was significant decrease in the fail rates of Dr. Nathan Woods, Fall and Spring classes from 34% to 4% respectively.

### **Drop/Fail/Withdraw Rate:**

5% of students, out of a total 110 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)
- X 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**

Participation in all surveys and pre-tests were voluntary.

Table 1 gives a breakdown of the number of students per section for each semester. Table 2 shows the final exam grades in BIOL 1111K previous semesters and in the semesters of implementation. There was an improvement. We will use SPSS to determine statistical significance. Tables 3 & 4 sum up student responses to online and printed textbook preferences. Tables 5 & 6 show the survey questions and raw responses.

#### **4. Sustainability Plan**

- The website will be presented to the Biology Coordinator to be available to all professors teaching BIOL 1111K Introduction to Biology. Additionally, the links to materials will be printed in the syllabus.
- We will incorporate explainer whiteboard videos, which have been proven to be effective, as an aid to the infographics.

#### **5. Future Plans**

- We will repeat the experiment in the 2016-2017 school year to obtain a larger sample size before publication.
- We will use SPSS to assess statistical significance of data.

#### **6. Description of Photograph**

- (left-right) Dr. Lemon, Co-PI, Assistant Professor of Biology; Dr. Shayla D. Williams, PI, Assistant Professor of Biology