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# The OER Project @SHU: 5 Factors Driving Institutional Change

Jaya Kannan  
*Sacred Heart University*

Zachariah Claybaugh  
*Sacred Heart University, claybaughz@sacredheart.edu*

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# The OER Project @SHU

## 5 Factors Driving INSTITUTIONAL CHANGE

**by Jaya Kannan and Zach Claybaugh**  
**April 19, 2018**



Sacred Heart  
UNIVERSITY



# Sacred Heart University: Quick Facts

2

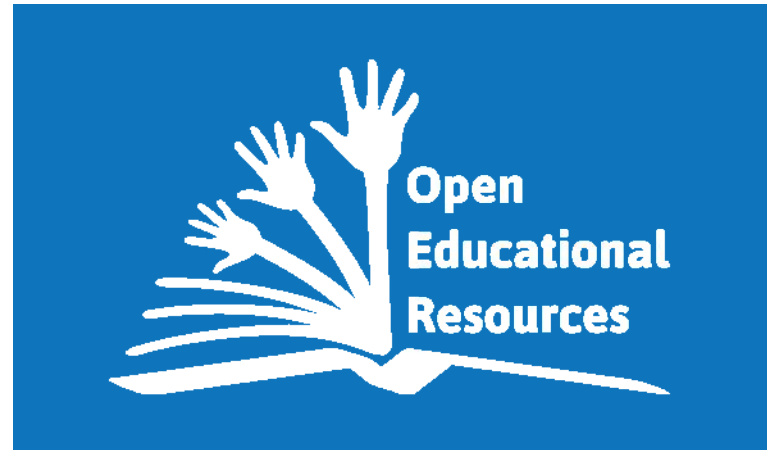
- Private institution located in Fairfield, CT
- Total enrollment = 8,500+ students (UG & Grad)
- On-campus and online degree programs
- Dramatic growth over the past 5 years, in enrollment and the university's physical size



# The OER Project: Goals

3

- Increase access to and usage of textbooks in class
- Lower/eliminate textbook costs for students
- Increase faculty control over instructional resources
- Enhance pedagogical practices





*The OER Project @ SHU*  
*5 Factors*  
*Driving Change*

# The 5 Factors

5

**Factor 1- Strategic Action**

**Factor 2 - Collaborative Network**

**Factor 3 - Awareness Building**

**Factor 4 - Pedagogy Focus**

**Factor 5 - Measuring Impact**



# 1.

## Strategic Action

# Strategic Action

- Clarity in Vision
- Needs Analysis
- Plan of Action
- Targeting Disciplines w/ potential high-impact
- Funding





# Establishing a Baseline: US Higher-Ed

8

## Opening the textbook: Educational Resources in U.S. Higher Education by Babson Survey Research

more than 3,000 full-time and part-time professors

### 2015-2016:

- » only 6.6 percent of faculty members are "very aware" of openly licensed educational resources (textbooks and other materials)
- » about 5 percent of those professors had assigned a free or openly licensed textbook.
- » 87% said cost is important, but only 5% assigned free or open text

### 2016-2017:

the number of faculty members at two- and four-year institutions using OER as textbooks has nearly doubled in the last year -- from 5 percent in 2015-16 to 9 percent in 2016-17.

**Awareness of OER is still low.**

## ZERO COST DEGREE

1. University of Maryland University College
2. The Virginia Community College System
3. California Community College system

# Establishing a Baseline: at Sacred Heart University

9

## Spring 2016 Faculty Survey Results (144 Reponses)

### Faculty knowledge of OER

Didn't know the term OER,  
but seemed to be using OER in  
designing their courses and in  
their teaching

If You Use OER, Please Share an Example From  
Your Teaching Experience?

#### Currently Using OER Materials

- Open Textbooks
- Open source Video Materials
- Websites and Web Resources
- Social Media and Blogs
- Google Analytics,
- Academic Articles,
- Gamification

#### OER Materials (Non-Use)

- Don't Know What Is Available
- Not Available In My Field
- Not Currently Using OER  
Materials

# Establishing Baseline: Faculty Perceptions

10

## Faculty Survey Results, 144 respondents

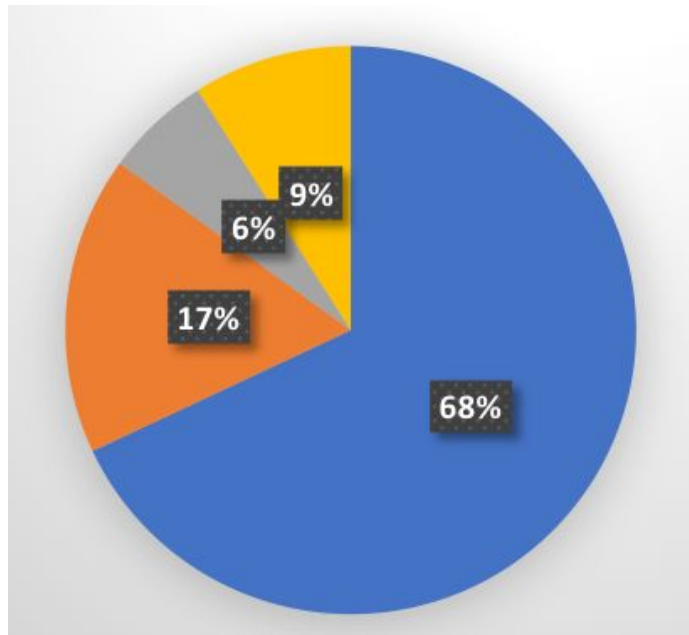
- Cost to students
- Easy to Find
- Recommended by fellow faculty
- works with LMS
- includes supplementary materials
- accessible/editable

**When Selecting Required Course Materials, How Important are the following factors in your selection?**

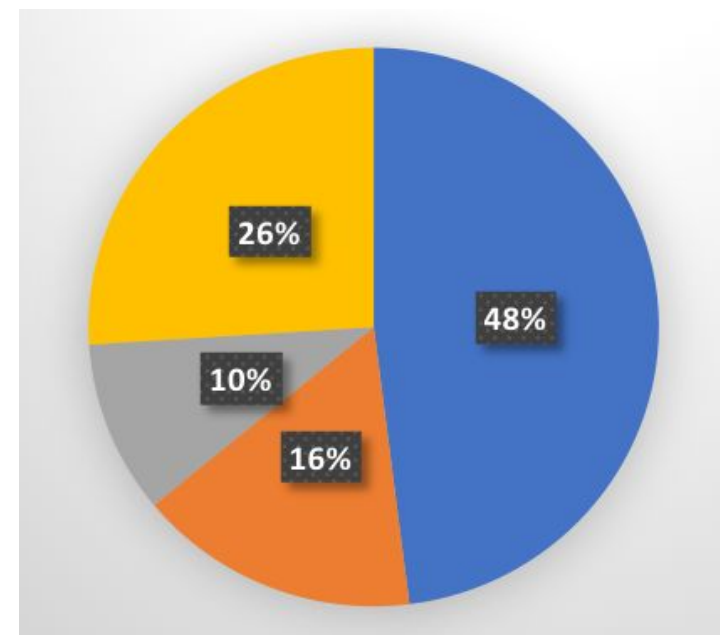
# Establishing a Baseline - at Sacred Heart University

## Types of Instructional Materials - Faculty Survey Results, 144 respondents

Print Materials



Digital Materials



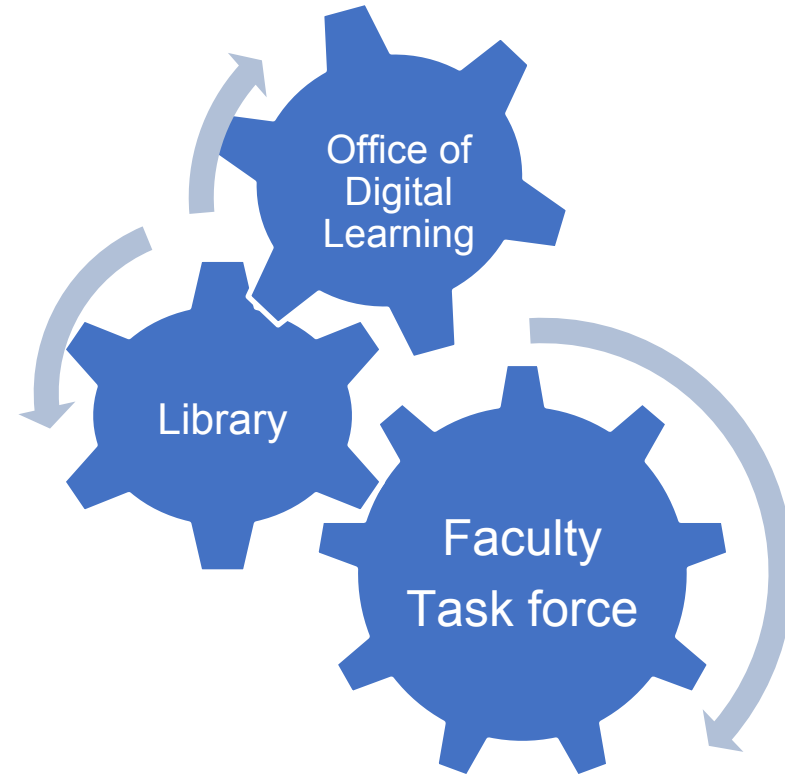
# 2.

## Collaborative Network

## Establishing a Collaborative Network

13

- Defined roles
- Policies & Procedures
- Deliverables



# Policies and Procedures: Open Textbook Review

14

- Review Criteria
- Online Form
- Communication
- Incentives



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## The Open Educational Resources Project @ SHU



### Open Textbook Review - Fall 2016

Please use this form to submit your Open Textbook review at Sacred Heart University.

Evaluation criteria adapted from criteria developed by BCCampus (<https://open.bccampus.ca/bc-open-textbooks-review-criteria/>), licensed under a Creative Commons Attribution 3.0 Unported license (<https://creativecommons.org/licenses/by/3.0/>). Additional content was adapted from the Cool4Ed Faculty Review of Textbooks – Phase II – Accounting rubric (<http://cool4ed.org/docs/Faculty%20Review%20Rubric%20for%20eTextbooks.pdf>).

#### Basic Information

1. Names of Reviewers:
  - a. Names of Reviewer 1:\*
  - b. Name of Reviewer 2:\*
  - c. Name of Reviewer 3:

# 3.

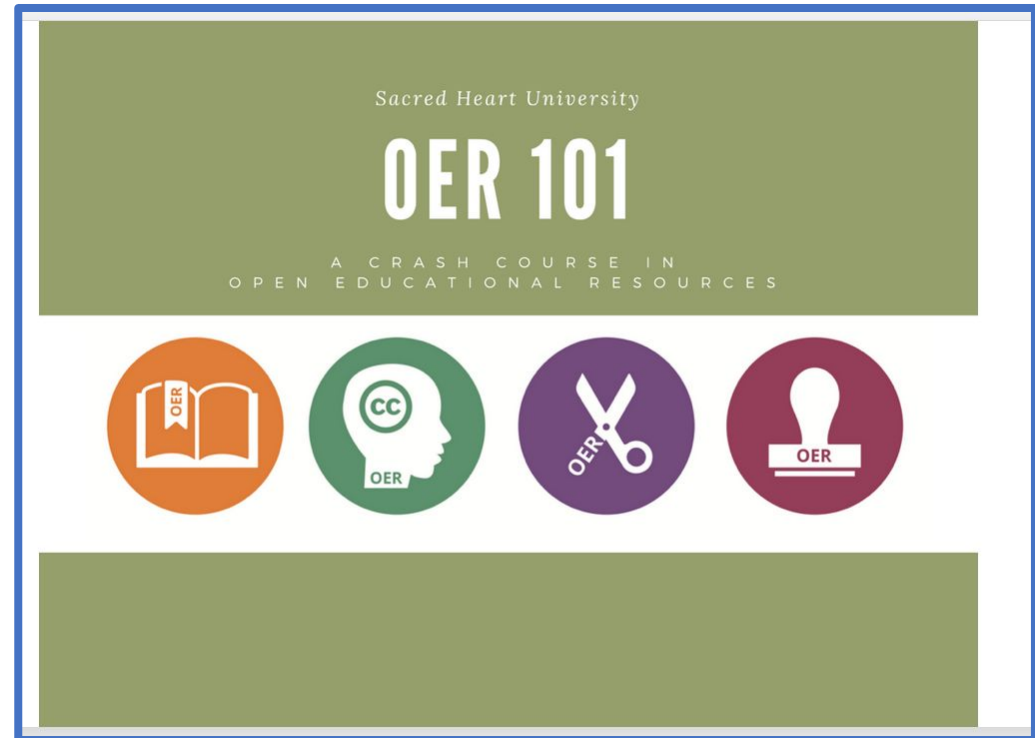
## Awareness Building



# Multi-Pronged Approach

16

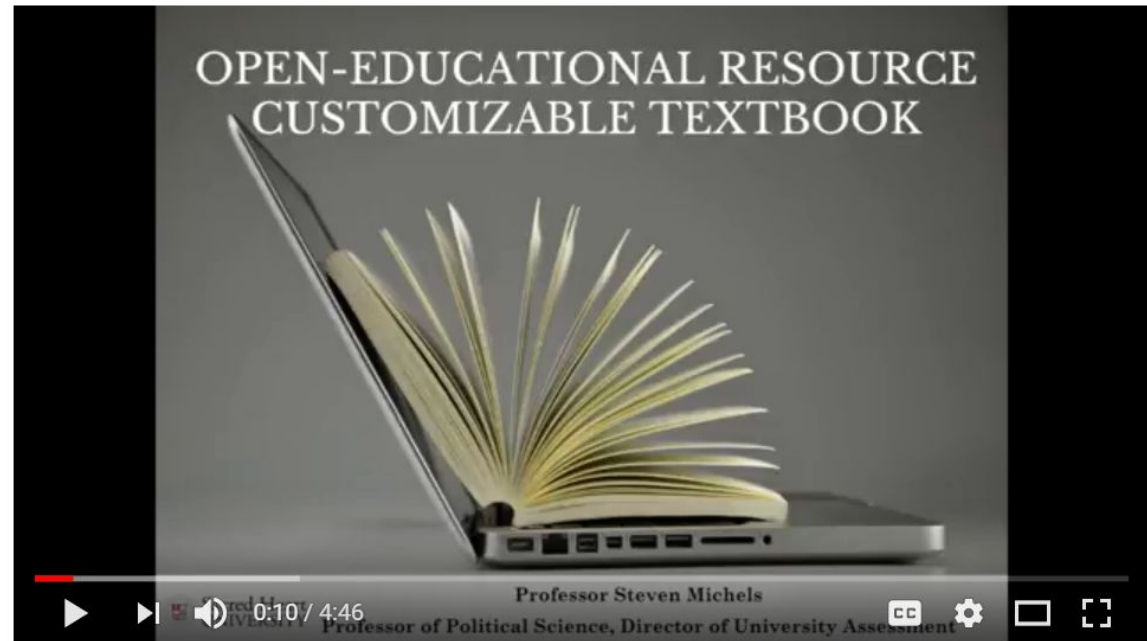
- Webinars
- Workshops
- Consultations
- Panel Discussions
- Summer Institute
- Outreach Materials



# Highlighting Innovative Practices: Example from the Faculty

17

- Open textbook in Political Science published using lulu.com
- Allowed professor to curate his own course content
- Reduced costs for students



[OER Customizable Textbook by Prof. Steven Michels](#)

# 4.

## Pedagogy Focus

# OER enabled Pedagogy - Examples from the SHU Classroom

19

Prof. Frank Robinson  
Discipline - Physics



- » Open text Use
- » Course Design
- » Innovative Pedagogy
- » Open Source on Canvas

## Transforming a Lecture into an OER

The screenshot shows a Canvas LMS dashboard with a grid of OER content tiles. The tiles include:

- Air Resistance (Air)
- Circular Motion (Uniform) (Circular)
- Climate (Climate)
- E&M quizzes (E&M)
- Energy and Work (Energy)
- Friction (Stopping Things) (Friction)
- Gravitation (Gravitation)
- Jumping (Jumping)
- Kinematics (Kinematics)
- math preparation (math)
- Newton's Laws (Newton's)
- Rotation (Rotation)
- test\_climate (test\_climate)
- Throwing (Throwing)

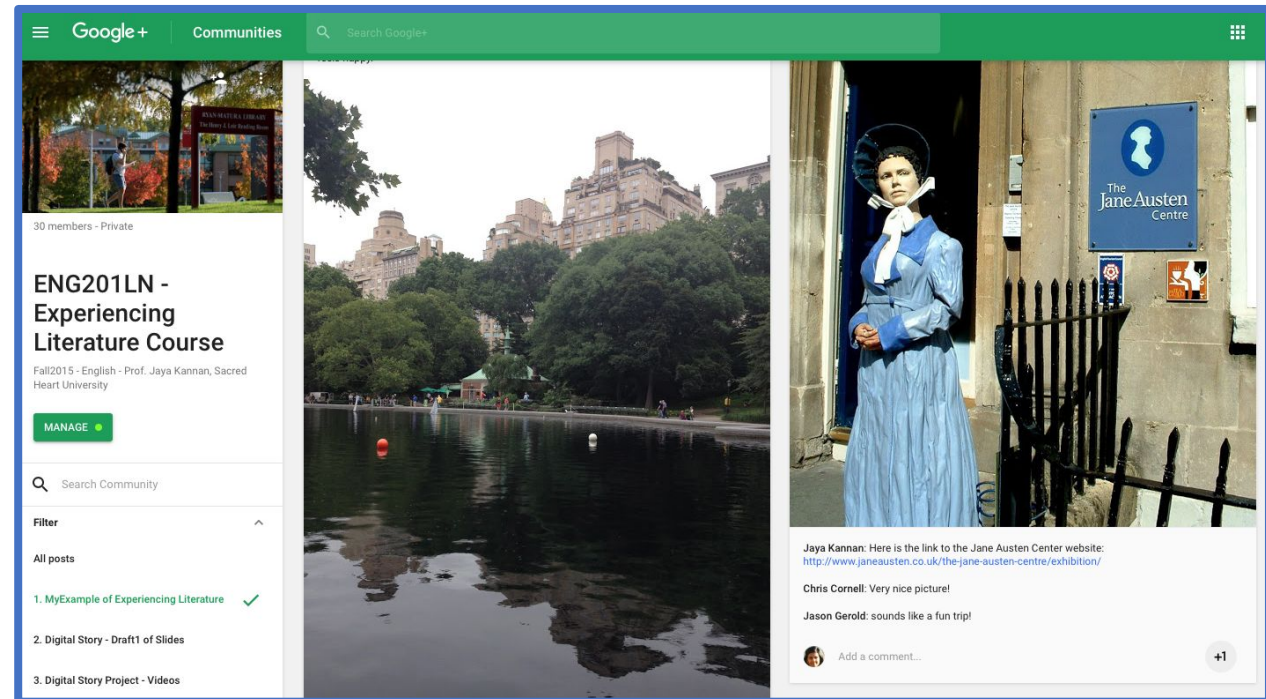
Dr. Frank Robinson  
Sacred Heart  
University

# OER enabled Pedagogy - Examples from the SHU Classroom

20

## What is meant by Experiencing Literature? – ENG 201

- Open Source Materials
- Creative commons use
- Networked learning
- 21st century skills
- Interactivity using Google+ Communities



The screenshot shows a Google+ Community page for 'ENG201LN - Experiencing Literature Course'. The page header includes 'Google+', 'Communities', and a search bar. The community name is 'ENG201LN - Experiencing Literature Course', with '30 members - Private' listed below it. The course is for 'Fall2015 - English - Prof. Jaya Kannan, Sacred Heart University'. A 'MANAGE' button is visible. Below the header is a search bar for the community and a filter dropdown set to 'All posts'. A list of posts is shown, with the first post titled '1. MyExample of Experiencing Literature' marked with a checkmark. The main content area features a large image of a lake in Central Park with buildings in the background. To the right of the image is a post by 'Jaya Kannan' with a link to the Jane Austen Centre website. Below the post are comments from 'Chris Cornell' and 'Jason Gerold', and an 'Add a comment...' field.

30 members - Private

**ENG201LN - Experiencing Literature Course**

Fall2015 - English - Prof. Jaya Kannan, Sacred Heart University

MANAGE

Search Community

Filter

All posts

1. MyExample of Experiencing Literature ✓
2. Digital Story - Draft1 of Slides
3. Digital Story Project - Videos

Jaya Kannan: Here is the link to the Jane Austen Center website:  
<http://www.janeausten.co.uk/the-jane-austen-centre/exhibition/>

Chris Cornell: Very nice picture!

Jason Gerold: sounds like a fun trip!

Add a comment...

# 5.

## Measuring Impact

# Evidence of Impact

22

## **Open Textbooks List by Discipline by Z. Claybaugh & C. Stone**

5,300 + downloads between two editions  
since July 2016

Downloaded by faculty from SHU & users  
from 20+ countries

## Open Educational Resources Textbook List by Discipline

Compiled by Zachariah Claybaugh and Chelsea Stone  
Sacred Heart University  
Fairfield, CT



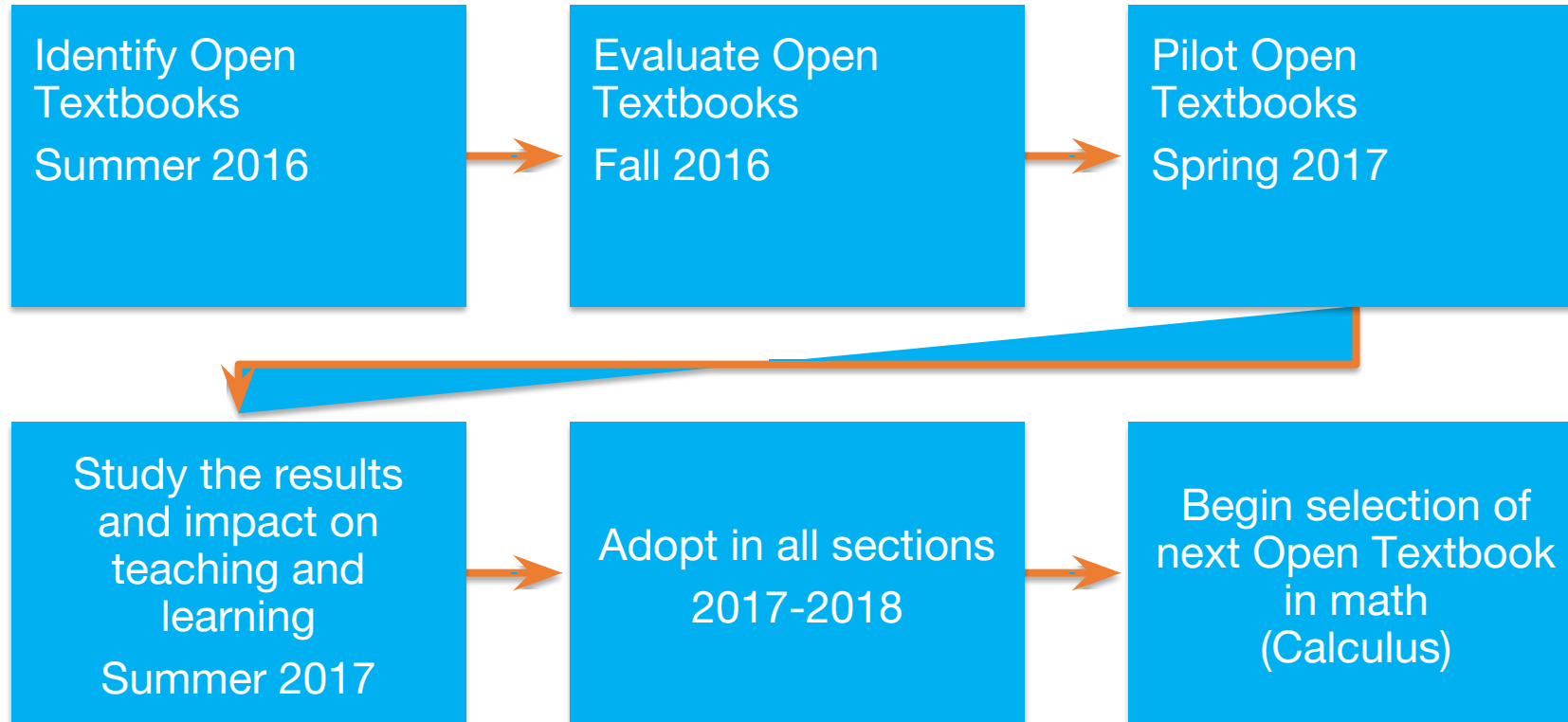
# Math Case Study

How we applied  
factors 1, 2, 3, 4 and 5



# Open textbook Adoption Process

24



Courses - College Algebra and Precalculus

# Impact on Student Learning

25

1. 49% of respondents agreed or strongly agreed that the OpenStax textbooks helped them learn course content\*
2. 58% of respondents agreed or strongly agreed that xyzHomework helped them learn course content
3. Preference for the digital versions of the OpenStax texts
  - free
  - convenience
  - accessibility
  - usability



# Impact on Teaching

26



1. Teaching with the open textbook was comparable to or better than teaching with the previous commercial textbook.
2. Use of open textbook enhanced teaching, indicating a need to create supplementary materials and utilize board work more than with the previous textbook
3. Student use of the textbook was comparable or better than usage of the previous text.

# Estimated Cost Savings: Spring & Fall 2017

Cost of Commercial Textbook from Spring 2016 (Used)

- MA 106: College Algebra - **\$159.25**
- MA 140 Precalculus - **\$154.00**

Cost of OpenStax Print Copies (Digital Access is Free)

- MA 106: College Algebra - **\$52.00**
- MA 140 Precalculus - **\$58.00**

Projected cost for commercial textbook: \$86,136.75

Estimated costs for OpenStax textbook \$4,730.00

Estimated total savings \$81,406.75

**Estimated saving per student \$147.48**

**Total of 554 Students**



# Future Directions

28

Expanding Open text Adoption

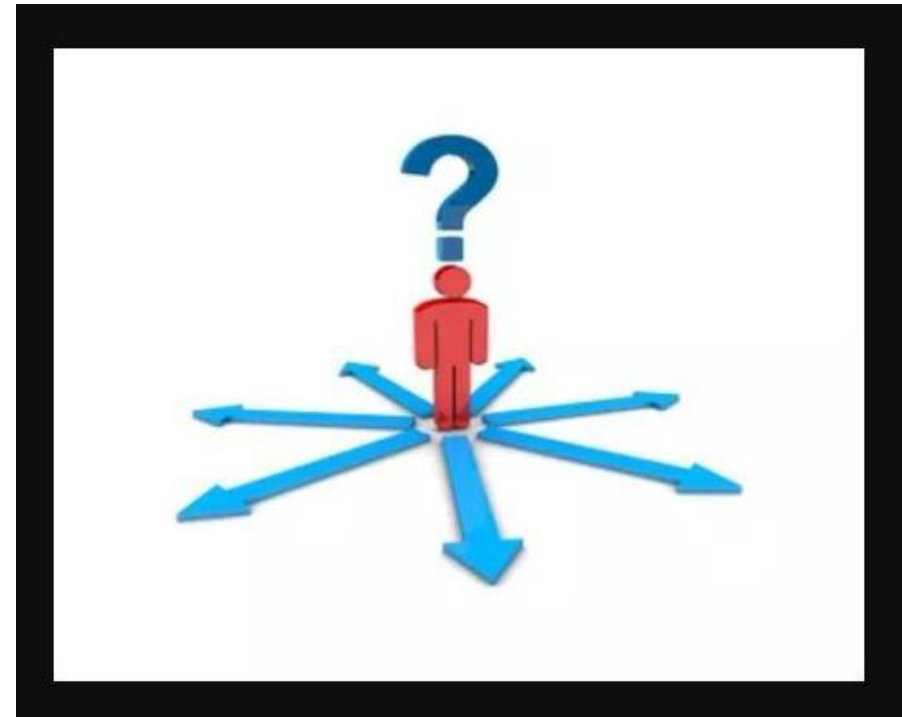
- Media Studies
- Nursing
- Critical Thinking course

Focus on Pedagogical Applications

Grant opportunities for faculty

OER Faculty Fellow

Collaborations at the state level



Thanks to SHU  
Colleagues

Faculty Task force  
Math Department  
Chelsea Stone

Special thanks to all the people who made  
and released these awesome resources for  
free:

- Presentation template by [SlidesCarnival](#)
- Photographs by [Unsplash](#)

