

Supplemental Instruction and Course Redesign

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In this Session:

Course Redesign Initiative

Types of Redesigned Courses

Data from Past Semesters

Success Factors

Limitations

Future Goals

University of Houston-Downtown



- Founded in 1974
- ~15,000 enrolled students
- Commuter campus
- Hispanic-serving institution
- Average student age: 28
- Average class size: 26
- Five colleges

UHD Supplemental Instruction



20 SI Leaders
9 courses
27 sections

39 SI Leaders
22 courses
54 sections

The Bricks: SI Leaders

2-day mandatory
training

Monthly
professional
development
meetings

Observations

Communities of
Practice

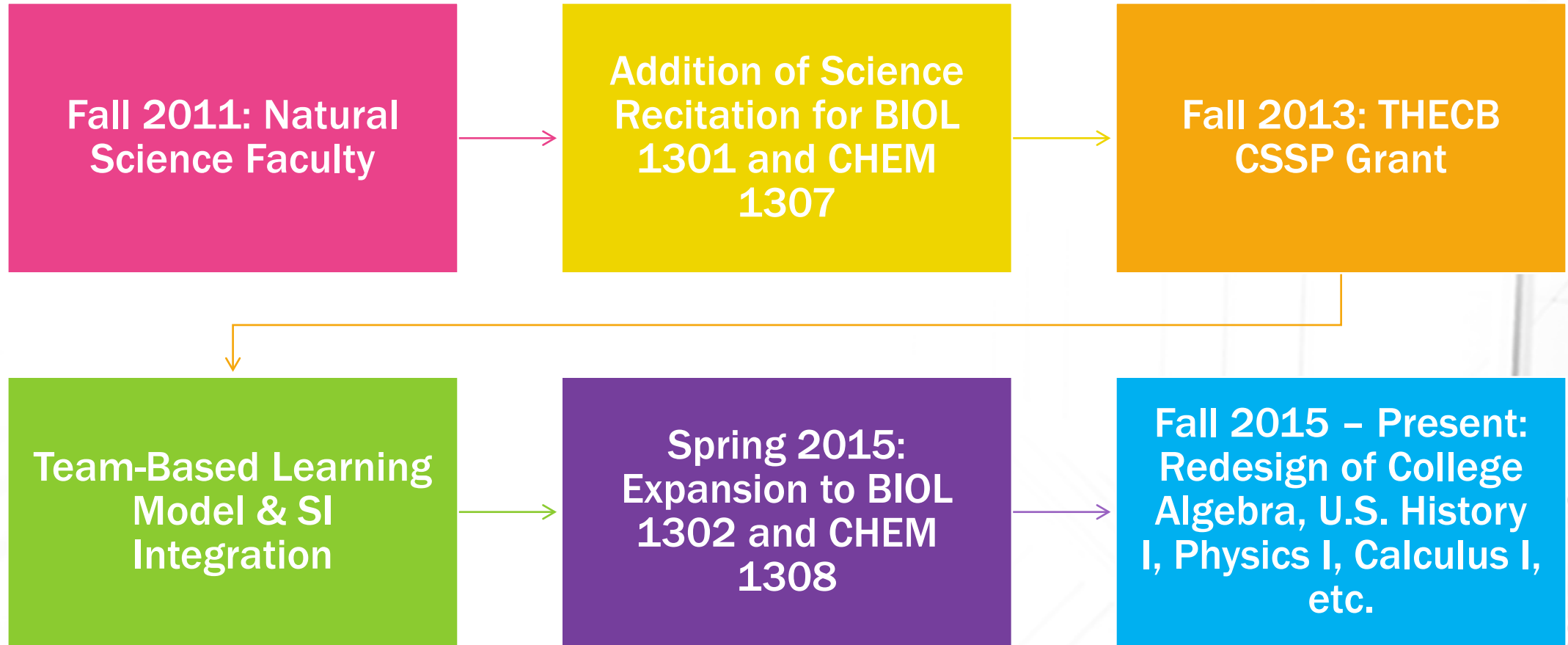
Mentors

Performance
Evaluations

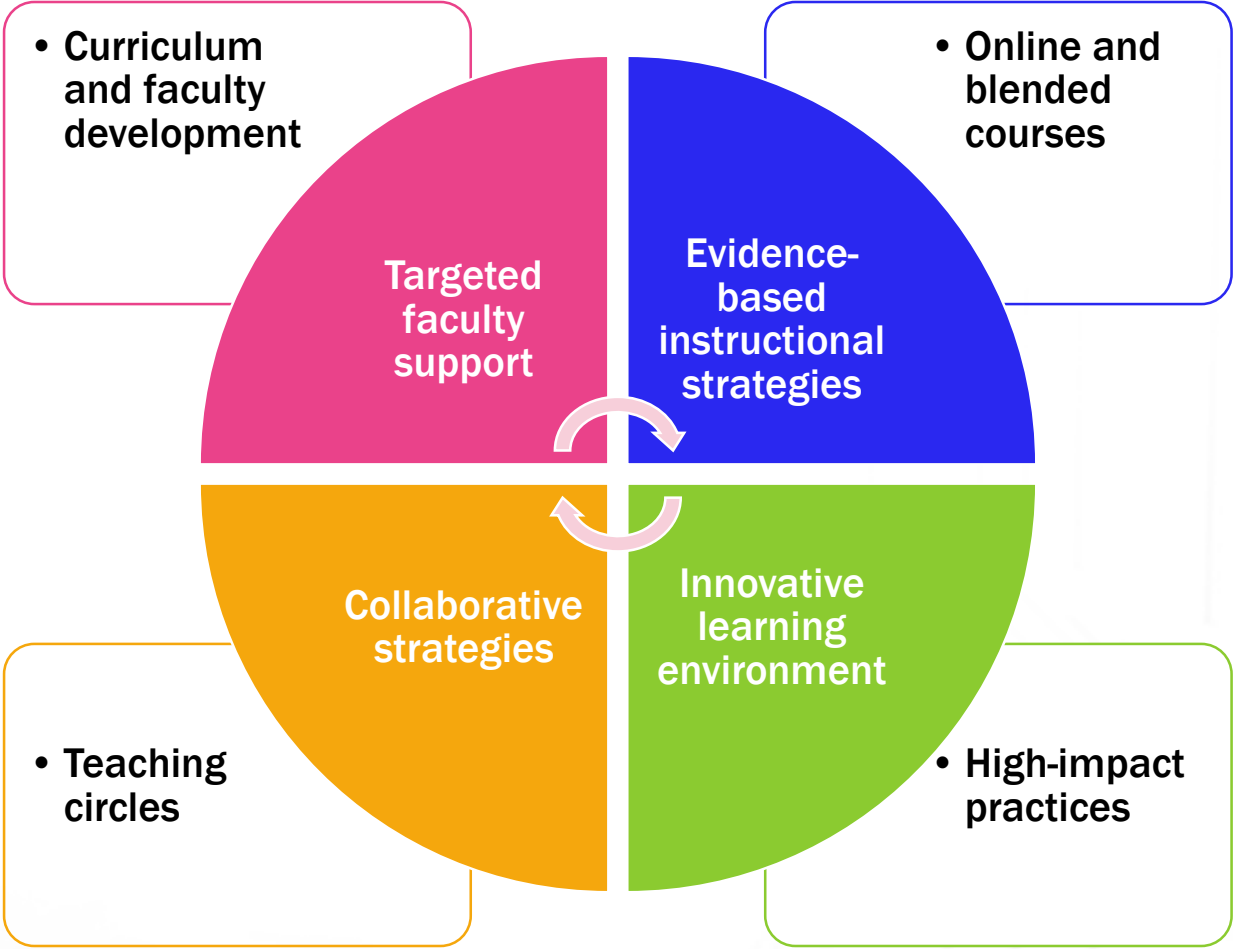
The Idea



How It All Started



Center for Teaching and Learning Excellence



The Snowball Effect of Course Redesign



The Blueprints

INCREASING IN-CLASS ACTIVE LEARNING COMPONENT

Traditional

- Class held 2x/week
- Instruction-heavy
- Little-to-no active classroom learning

Extended

- Extended class time (without increase in tuition)
- Class held 2x/week
- Instruction-heavy
- Active learning/problem-solving segment reserved for end of class

Accelerated

- Class held 4x/week
- Short, group learning component during class
- Weekly exams

Team-Based Learning (TBL)

- Extended class time (without increase in tuition)
- Class held 2x/week
- Short lectures that follow individual & group quiz (RAP)
- Application and group problem-solving activities

Flipped/Inverted

- Normal class time
- Class held 2x/week
- Lecture is held at home via pre-made videos
- Class used primarily for solving problems in groups

Traditional

Most courses
on campus

U.S. History II,
Trigonometry,
Business
Math, Political
Science

Extended

College
Algebra

Calculus I

General
Physics I
(sporadic)

Accelerated

Developmental
math

Economics

TBL

General
Biology

Introduction to
Chemistry

General
Chemistry

Flipped

Organic
Chemistry I

Role of the SI Leader in the Classroom

Traditional

- Model student
- Asks questions
- Actively takes notes

Extended

- Model student
- Asks questions
- Actively takes notes

Accelerated

- Attends class 4 times a week
- Some interaction during or at end of class

TBL

- Largely interactive
- Assist groups with application activities

Flipped

- Extension of instructor
- Facilitates individual and group learning

Brainstorm Break

Do you have redesigned courses at your institution?

What are they?

Why were these courses chosen?

How are your SI/PASS/Peer Leaders utilized in these courses?

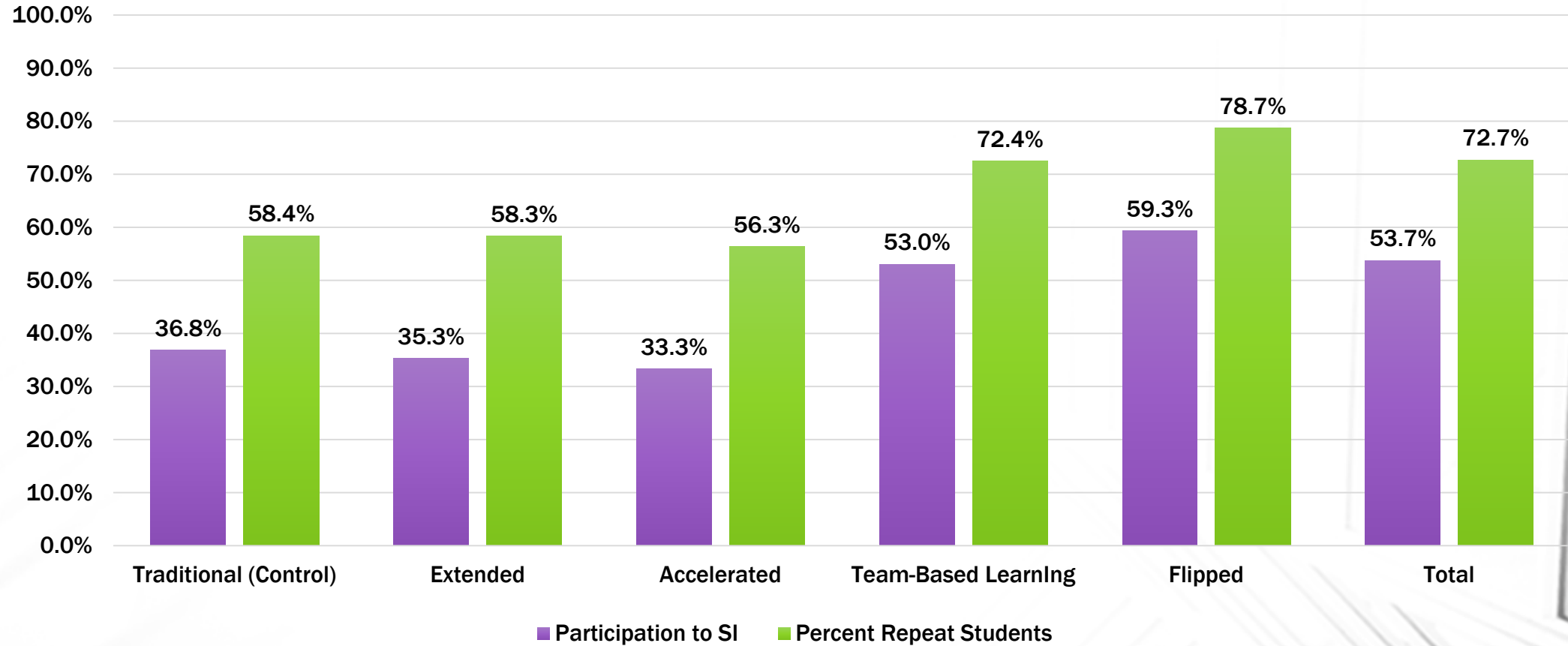


Construction

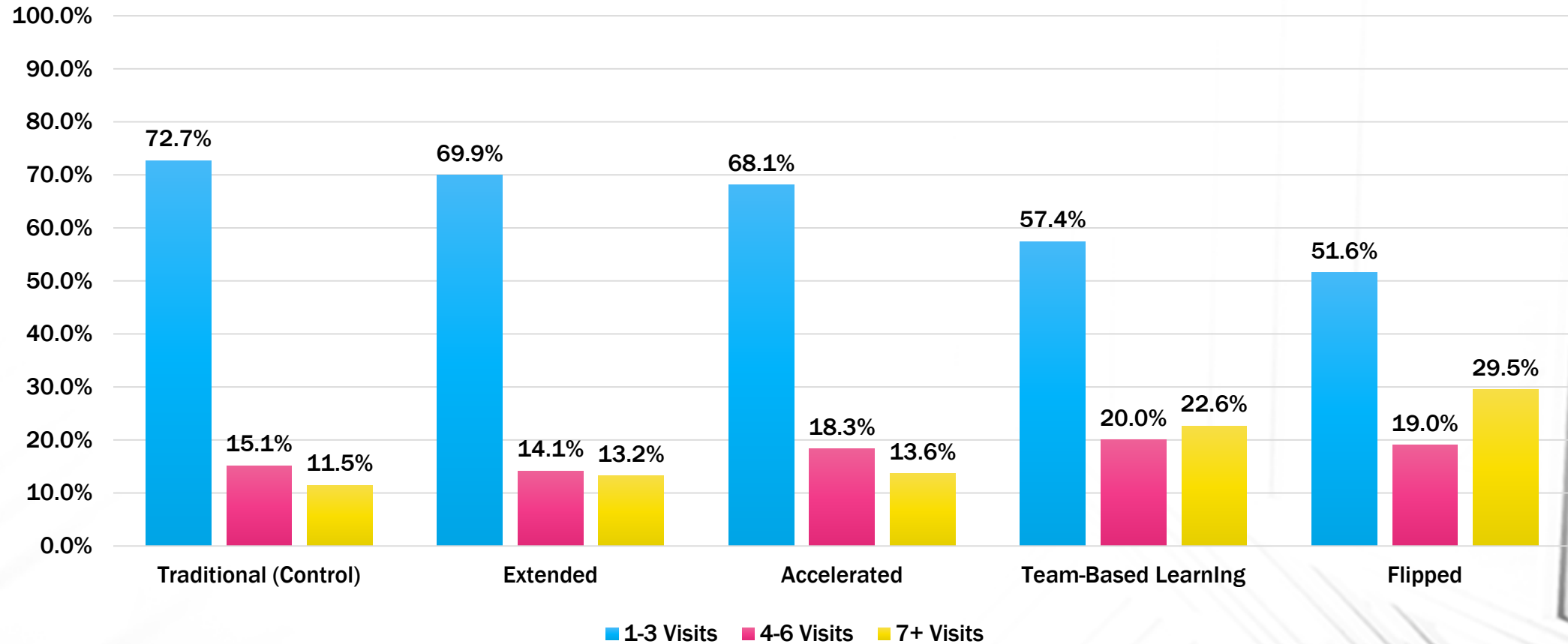
Data Snapshot, Spring 2014 – Fall 2017*



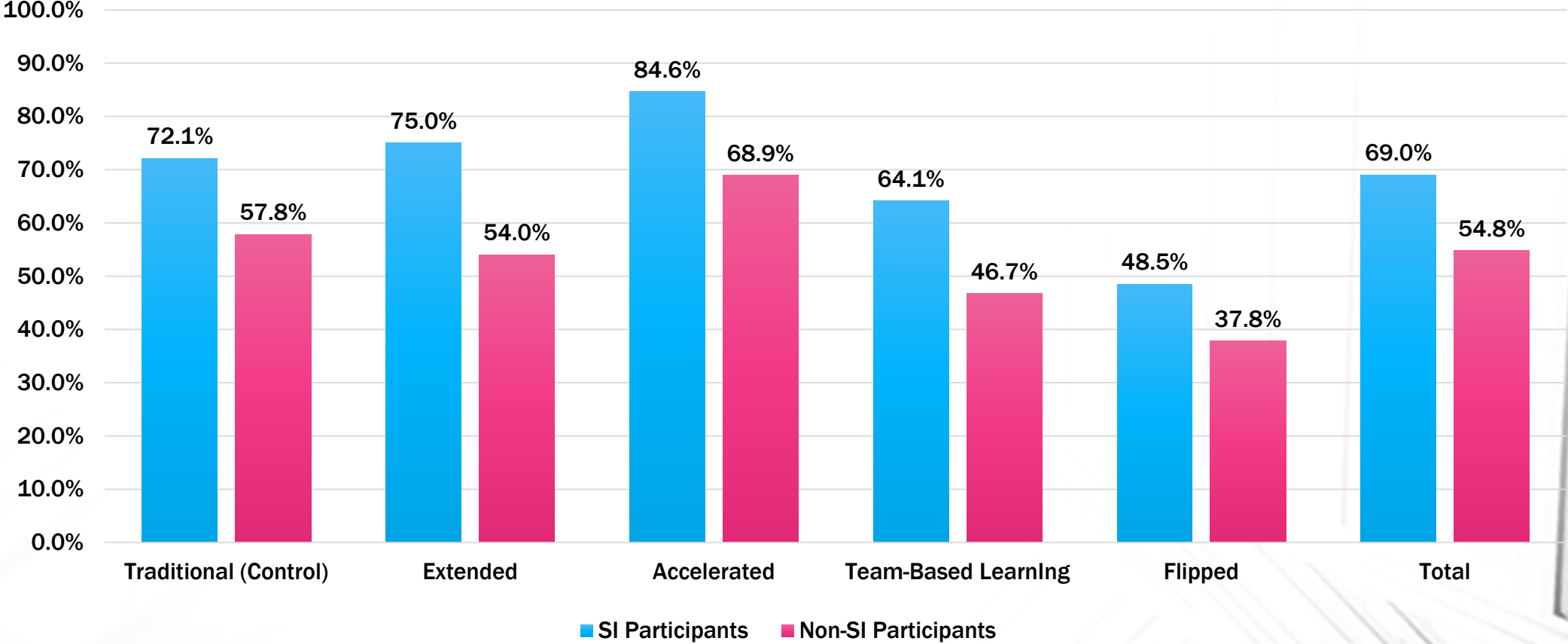
SI Attendance by Class Type



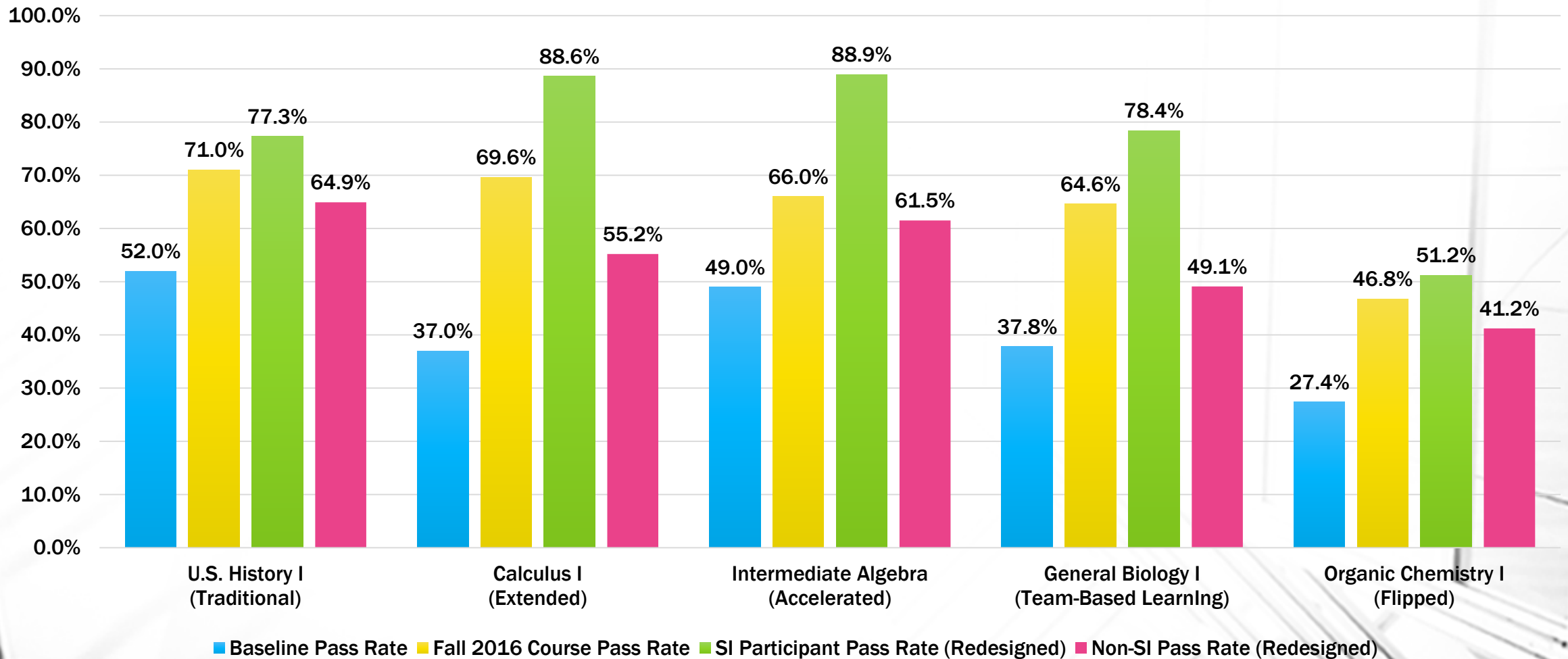
SI Attendance by Class Type



Pass (ABC Rates) by Class Type



Pass (ABC Rates) for Select Courses

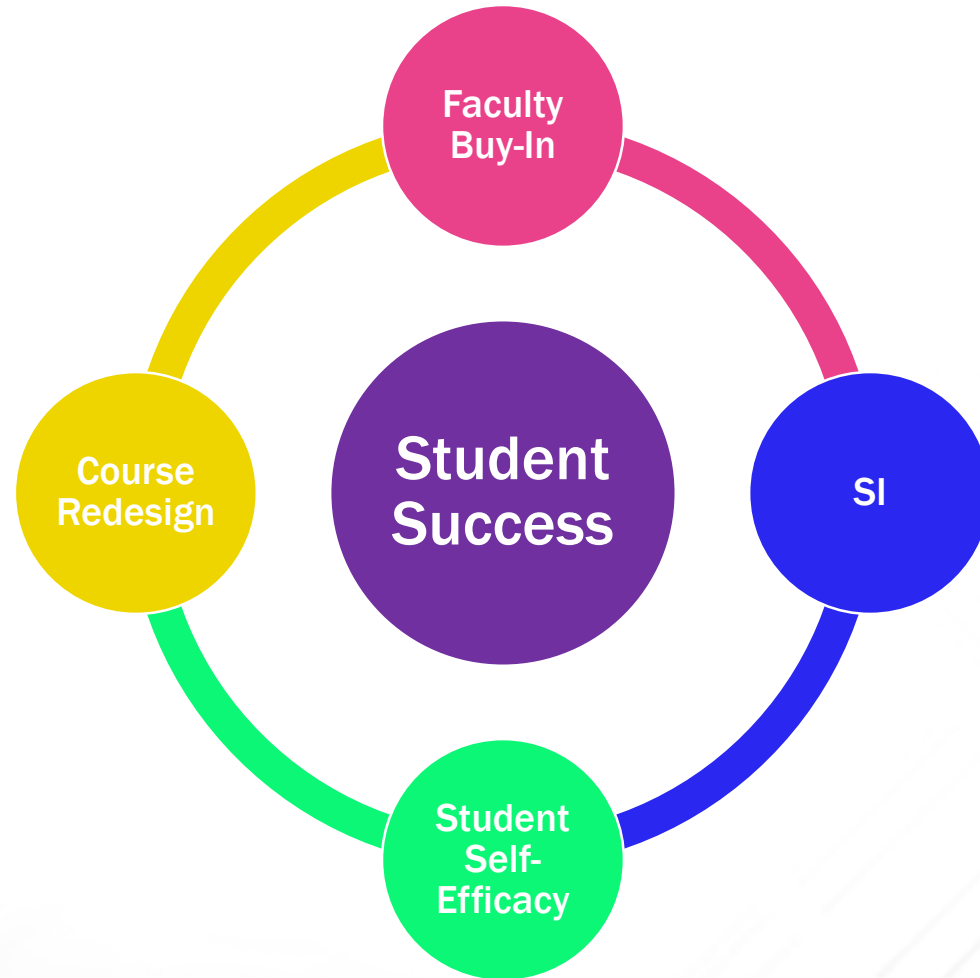


Structural Integrity

Rare photos of me jumping to conclusions



When does SI Work Best (at UHD)?



What We Learned



SI leader Emily Steinman conducts a team-based exam review for General Biology I using Jeopardy (Spring 2018).

- SI attendance is the greatest in classes that have a group learning component **inside** the classroom
- Commuter campuses (such as UHD) benefit greatly from bringing SI into the classrooms
 - Build rapport with students immediately
 - Bypass scheduling conflicts

The Mortar: Faculty Buy-In

Faculty Participation

- Marketing sessions
- Validating “expertise” of SI Leader
- Fostering two-way communication
- Promoting SI to their colleagues

How we got our UHD faculty on board

- Found an advocate in each department
- Data from past semesters
- Pre-semester networking session
- Grant meetings

Limitations

- Student self-efficacy
- Effect of faculty instruction
- Long-term trends
- Redesigned courses
 - Some not comparable
 - Course difficulty



SI leader Carlos Guajardo conducts a team-based exam review for history using Kahoot! (Spring 2017).

Where We Go From Here

- Prioritize staffing to redesigned sections that integrate SI with active learning
- Collaborate with faculty teaching circles
- Faculty liaisons for redesigned courses
- Long-term data analyses



Calculus I in-class SI activity, Fall 2017.

Thank you!

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