

# Empowering Student Support Programs Through Data Analytics: A Collaborative Approach at CSUSB

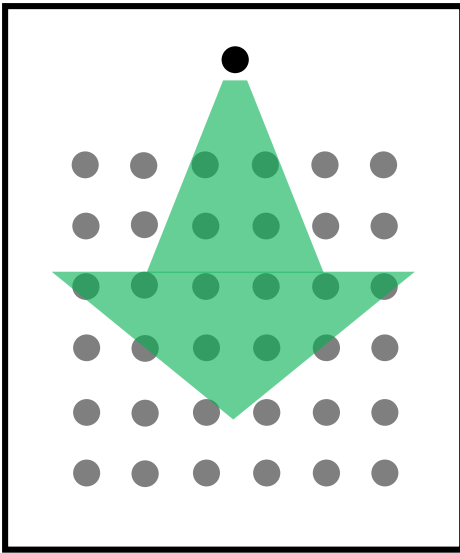
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# Who are we?



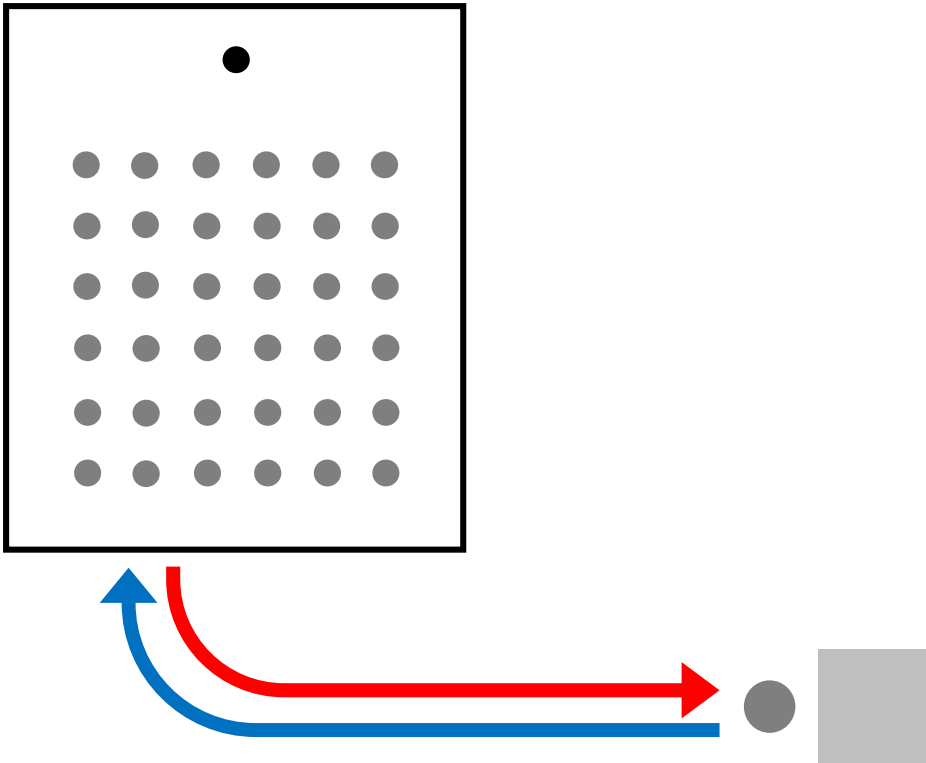
# What is SI?

## Lecture

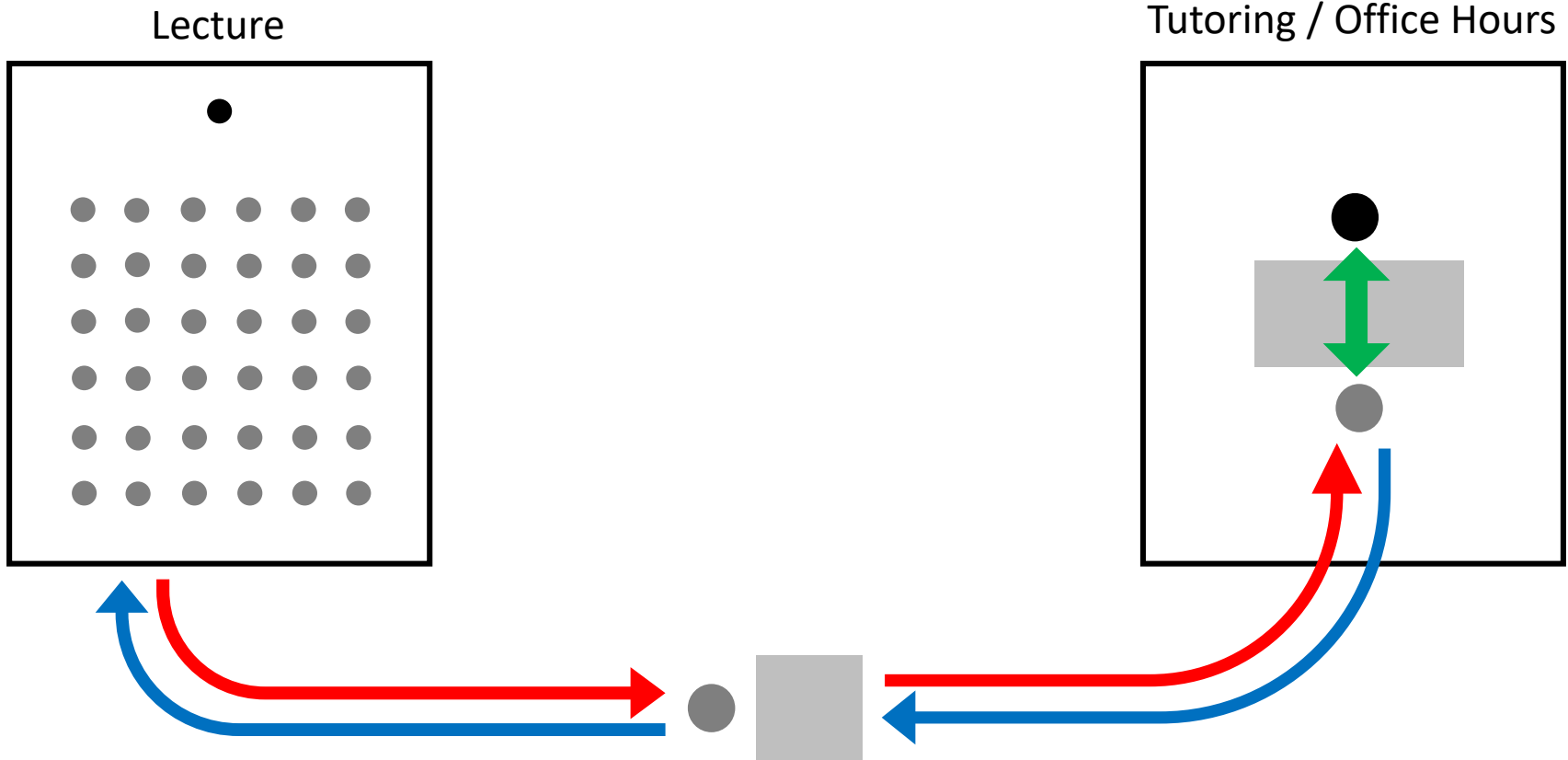


# What is SI?

Lecture

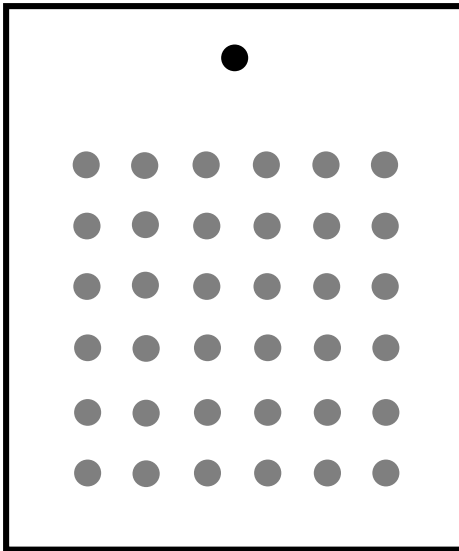


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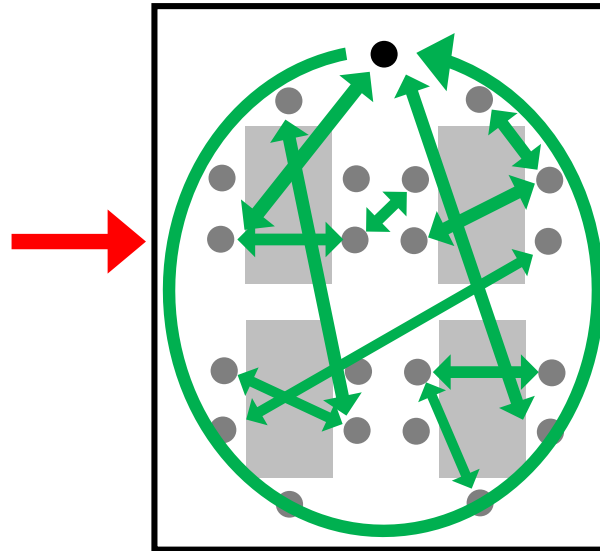


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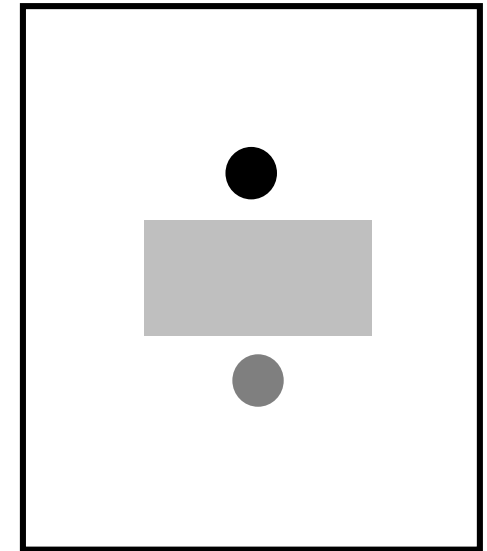
Lecture



SI



Tutoring / Office Hours

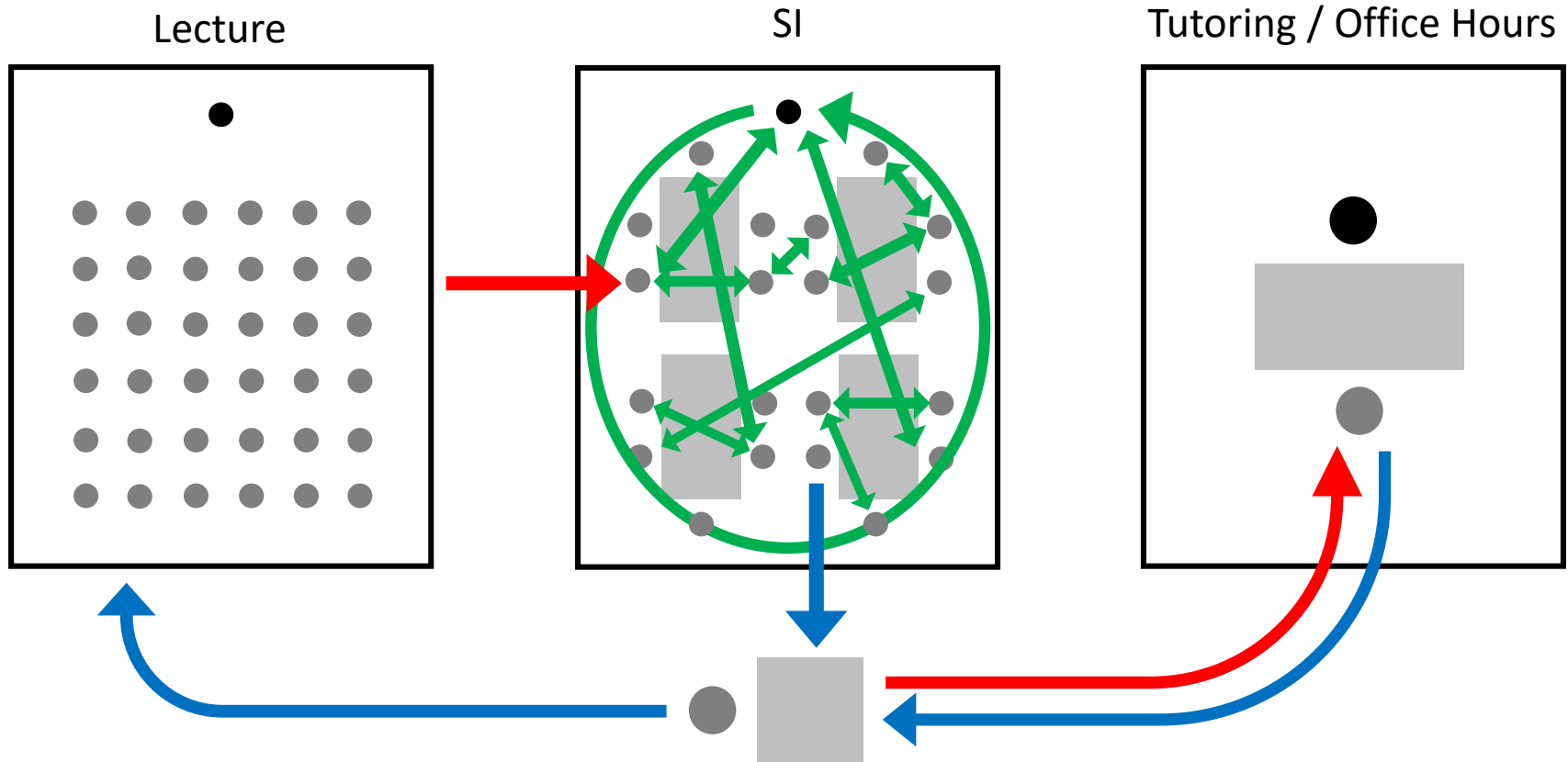


# What is SI?

## *Learning strategies typically used in SI sessions:*

- Identifying Key Concepts
- Paired Problem Solving
- Teaching to Learn
- Visual Mapping
- Informal Quizzes
- Note Processing
- Sequencing
- Jigsaw Text Review
- Interactive Games
- Study Planning and Techniques
- Practical Application and Associative Learning

# What is SI?





# What is SI?

## Course Lecture

- Presentation of course content
- All course concepts addressed
- Up to 4 hours per week
- Assignments and evaluation
- Large group environment often limits collaborative learning opportunities

## Professor / Instructor

- Content Expert
- Master Educator
- Office hours for student support

## Supplemental Instruction

- Strategic review of course content
- Key / challenging concepts addressed
- 2 hours per week
- Study strategies and exam prep
- Small group environment supports collaborative learning opportunities

## SI Leader

- Study / Learning Specialist
- Content Knowledgeable
- Works closely with course instructor and SI Senior Leader

# What is SI?

## Qualifying courses may be characterized by:

- High D, F, W, and I rates (especially those 30% or higher)
- Infrequent examinations that focus on higher cognitive levels
- High student to instructor ratio (student has little opportunity for interaction with the professor or the other students)
- Those serving as a gateway or key sequence course
- Large amounts of weekly readings from both difficult textbooks and secondary library reference works
- Faculty or academic department identification as exceptionally challenging within a major course of study

# Was SI at CSUSB effective?

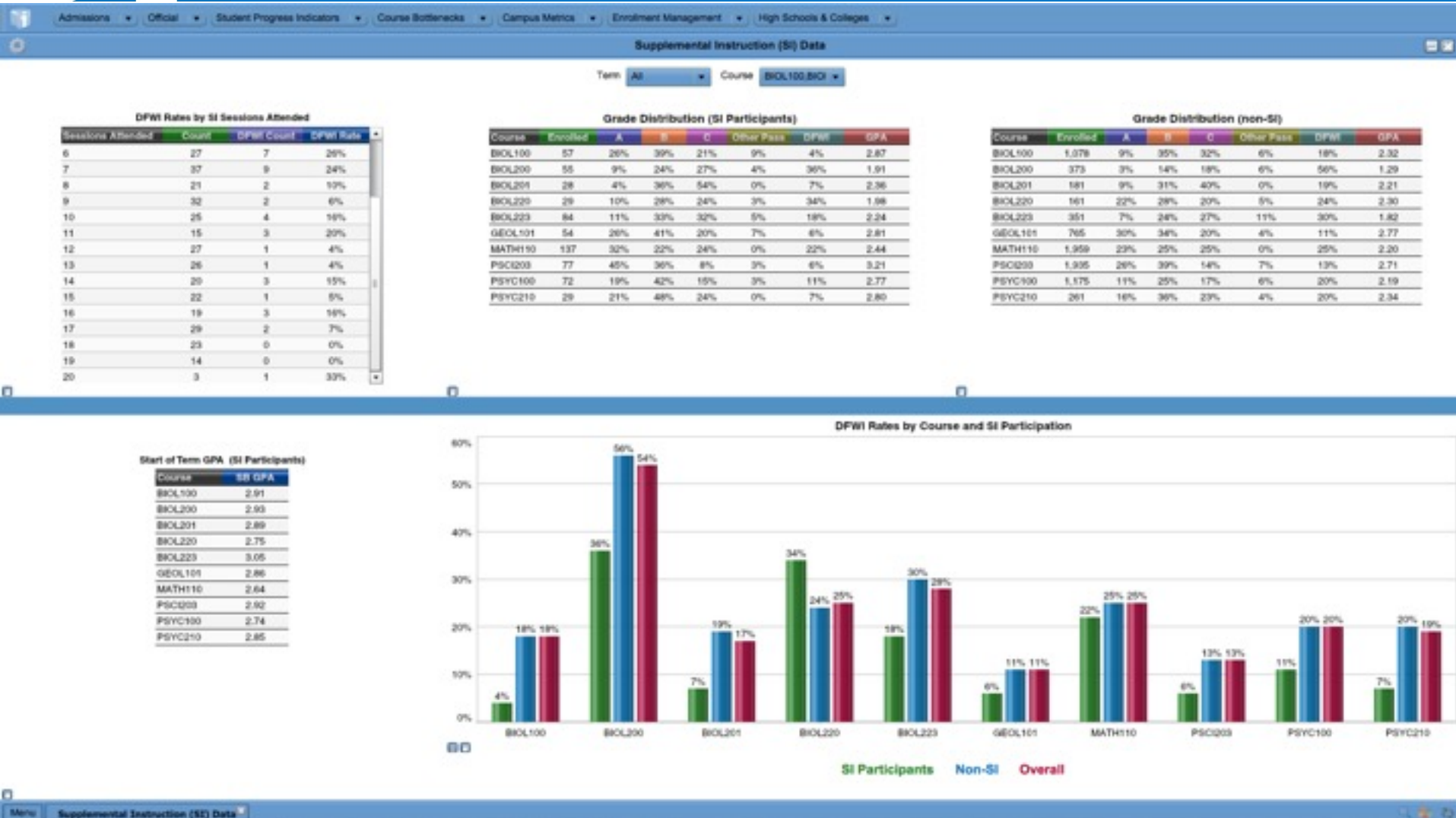
## Common Questions

- Are DFWI rates for SI participants lower than non-SI students?
- Aren't students who participate in SI students who would receive an A or B without the support?
- Is SI more effective for some courses than others?

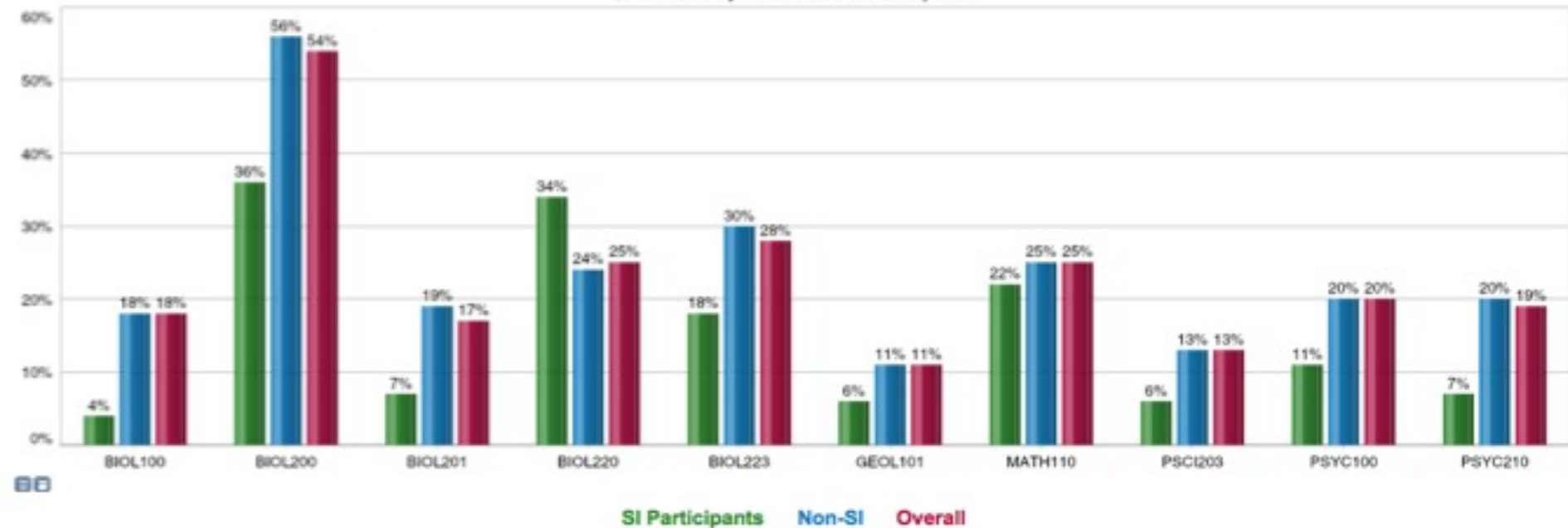
# Was SI at CSUSB effective?

Let's examine the data together and  
see if we can find the answers

# iDashboards



DFWI Rates by Course and SI Participation

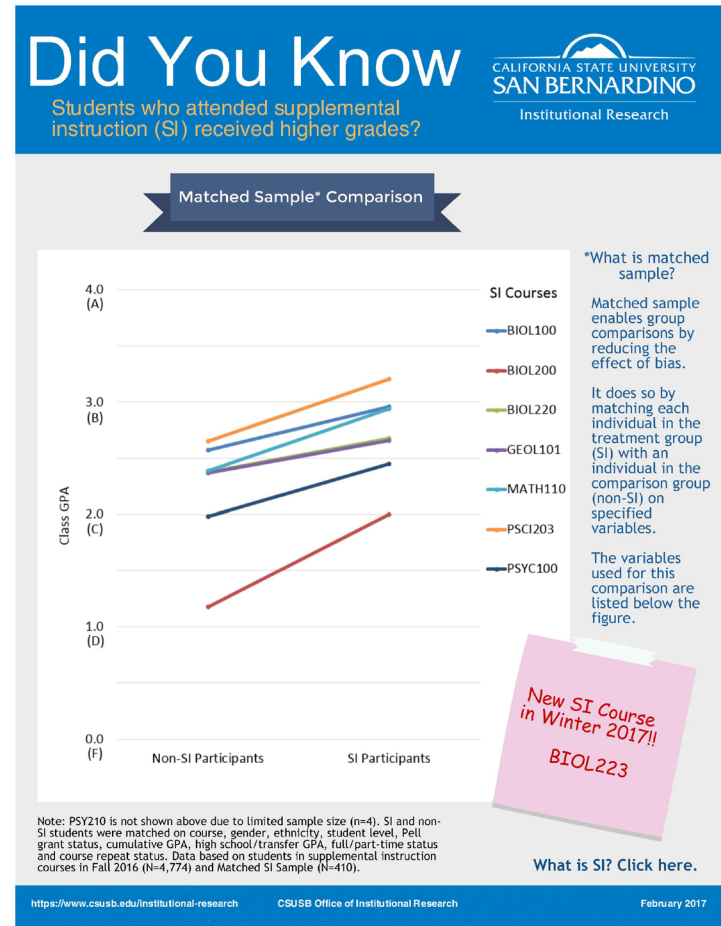


# Was SI at CSUSB effective?

- Were SI participants "better" students?



- Matched Sample Comparison
  - Course
  - Gender
  - Ethnicity
  - Student Level
  - Pell Grant Status
  - Cumulative GPA
  - High School/Transfer GPA
  - Full-/Part-Time Status
  - Course Repeat Status





# Was SI at CSUSB effective?

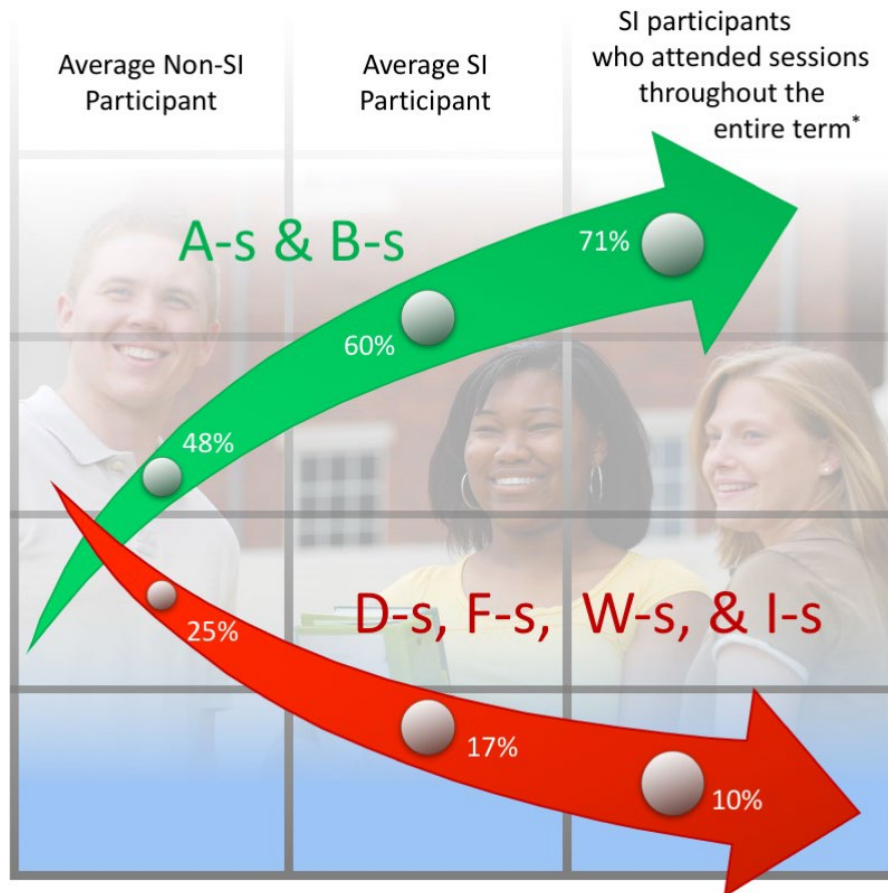
- Fall 2016 SI data
- SI participation pattern
  - Decrease in 2nd half
  - More
    - Female
    - PELL recipient
    - Full-time student
    - Course repeater
    - Sophomore and Junior
  - No ethnic difference
- Impact of SI
  - More As and Bs
  - Less DFWIs
  - Higher average grades
  - Even better outcomes for consistent participation



# How can we continue to use the data?

- Participatory Action Research
  - Discovery: Examined available data from multiple sources
  - Measurable Action: Co-constructed a data infographic that was shared with faculty and students.
  - Reflection: In progress

# How can we continue to use the data?



# What happens next?

- Examine measures of learning
- Map outcomes in course sequences
- Explore with colleagues other variables which are indicators of student success and challenges in SI courses