



UNIVERSITY OF
CENTRAL
ARKANSAS™

Webinar 3

Assessment and Mindset for Corequisite Courses

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Webinar Structure & Content

- ▶ **Webinar 1- Corequisite for Beginners**
 - ▶ Background
 - ▶ What is Corequisite and why we adopted it.
 - ▶ Placement Policies
 - ▶ Corequisite Content
- ▶ **Webinar 2 – Corequisite; A More in Depth Look**
 - ▶ Logistics of Designing and Scheduling corequisite courses
 - ▶ Attendance and Grade Policies
 - ▶ Class Assessment
- ▶ **Webinar 3 – Assessing your Corequisite design**

By the Numbers

University of Central Arkansas

- ▶ 11,350 total enrollment
- ▶ 1,937 first-time freshmen
- ▶ 24.3 Average ACT
- ▶ 362 students in remedial math

Department of Student Transitions

- ▶ 13 full-time faculty
- ▶ 6 full-time math faculty
- ▶ 0-1 adjunct faculty for math
- ▶ Over 75 years teaching experience

The background of the slide is a dark purple rectangle with a curved bottom edge. It is decorated with several abstract shapes: a large teal semi-circle on the left, a large teal circle on the right, a smaller teal circle in the upper right, and a vertical purple rectangle in the top right corner.

ASSESSMENT



GOAL

Provide examples of how to assess your courses, design, and program.

Assessment Prior to Pilot

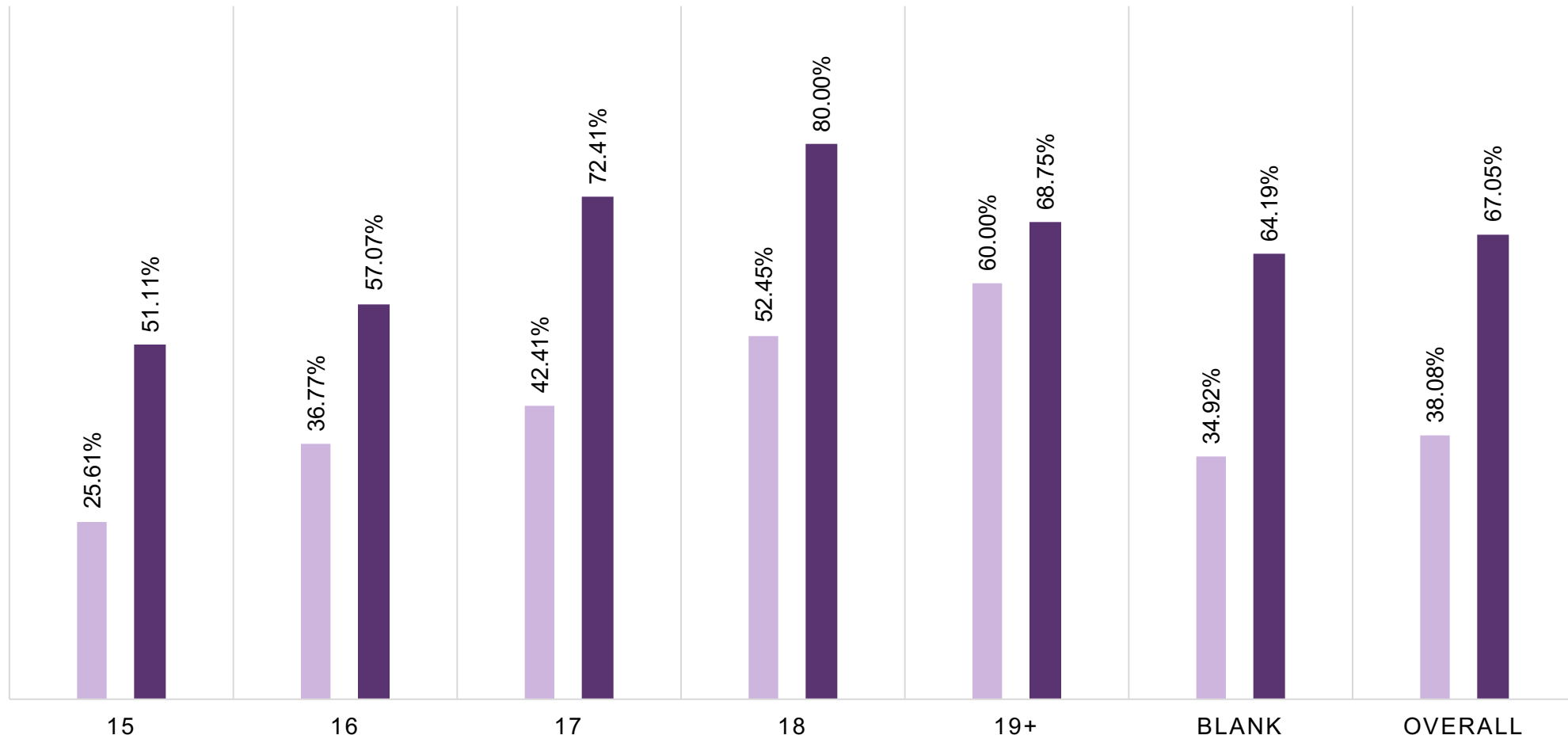
Having the following data will help give a sense of how successful you have been at meeting your students' needs for remediation:

- ▶ What are your success rates in your current offerings?
- ▶ How many go on to complete a Credit bearing course?
- ▶ How many get the Credit bearing course done in the next semester?

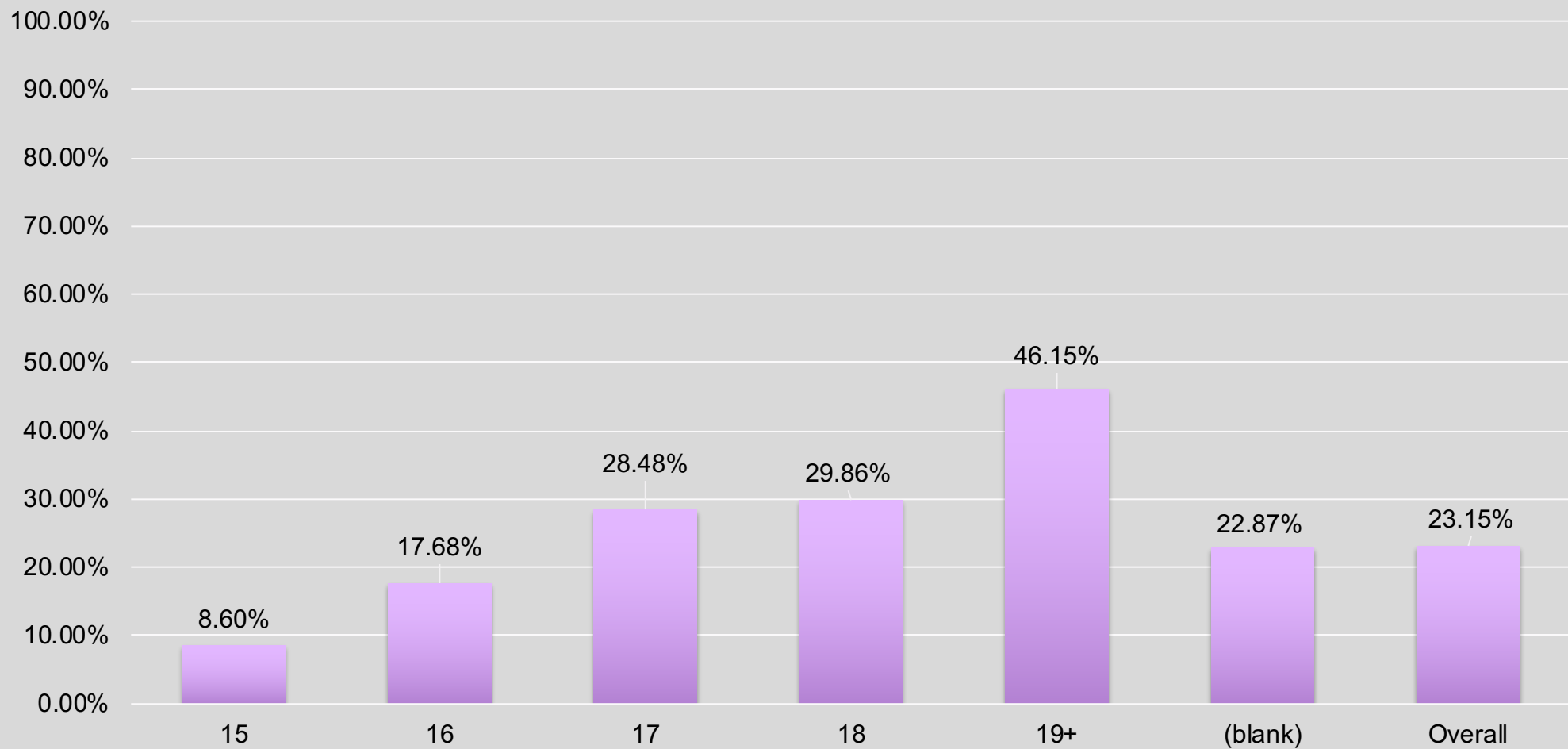


Developmental Mathematics Success Rates Prior to Corequisite

PM VERSUS IA PASS RATES



1 year success Rates before Corequisite





Transitional Writing One Year Completion Rates

Fall 2008 thru Spring 2012

| Semester | Students | Trans. Writing C or Higher | Writing the next semester | Composition I C or Higher | 1 year Rate |
|--------------|------------|-------------------------------|------------------------------|------------------------------|-------------------------|
| Fall 2008 | 105 | 81% (85/105) | 41 | 66% (27/41) | 26% (27/105) |
| Spring 2009 | 30 | 67% (20/30) | 14 | 43% (6/14) | 20% (6/30) |
| Fall 2009 | 70 | 84% (59/70) | 25 | 64% (16/25) | 23% (16/70) |
| Spring 2010 | 25 | 60% (15/25) | 11 | 55% (6/11) | 24% (6/25) |
| Fall 2010 | 288 | 73% (211/288) | 97 | 55% (53/97) | 18% (53/288) |
| Spring 2011 | 74 | 45% (33/74) | 18 | 39% (7/18) | 10% (7/74) |
| Fall 2011 | 256 | 66% (169/256) | 89 | 73% (65/89) | 25% (65/256) |
| Spring 2012 | 89 | 58% (52/89) | 34 | 53% (18/34) | 20% (18/89) |
| TOTAL | 937 | 77% (717/937) | 329 | 60% (198/329) | 21% (198/937) |

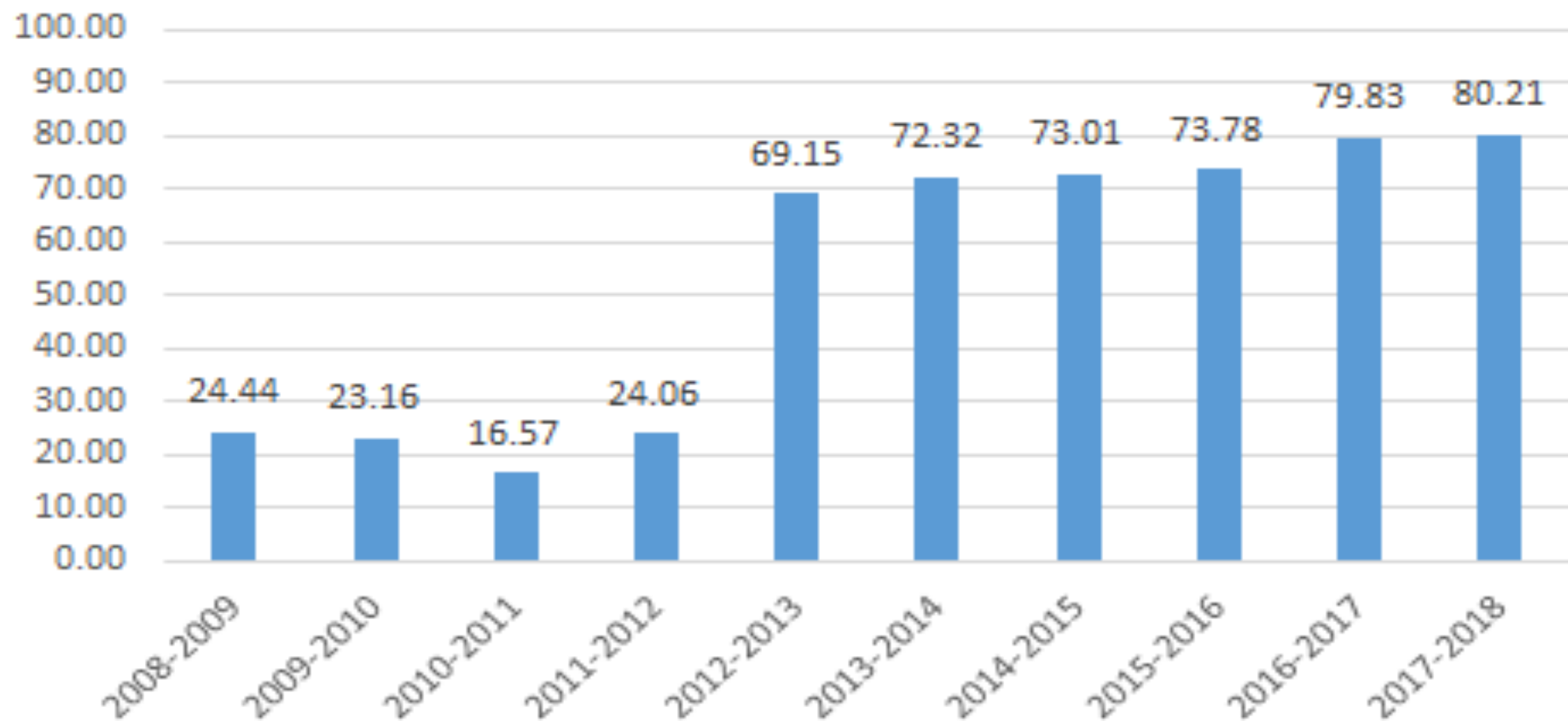
Assessment after Implementation

- ▶ Course Completion
- ▶ Are there differences in small nuances of your design?
- ▶ Are there differences in semesters?
- ▶ GPA, SAP, Repeaters, and Retention
- ▶ Content Assessment between Transitional Students in Credit bearing vs. non Transitional Students

Overall Completion Rates (to date)

| Course | Total Enrollment | Number Passing C or Higher | C Rate | Number Passing D or Higher | D Rate |
|-------------------------|------------------|----------------------------|--------|----------------------------|--------|
| Foundations of CA | 1297 | 976 | 75% | 1067 | 82% |
| Foundations of QL | 403 | 294 | 73% | 326 | 81% |
| Foundations of Writing | 816 | 685 | 84% | 713 | 87% |
| Foundations of Literacy | 797 | 597 | 75% | 656 | 82% |

Foundations Students who Pass Writing 1310

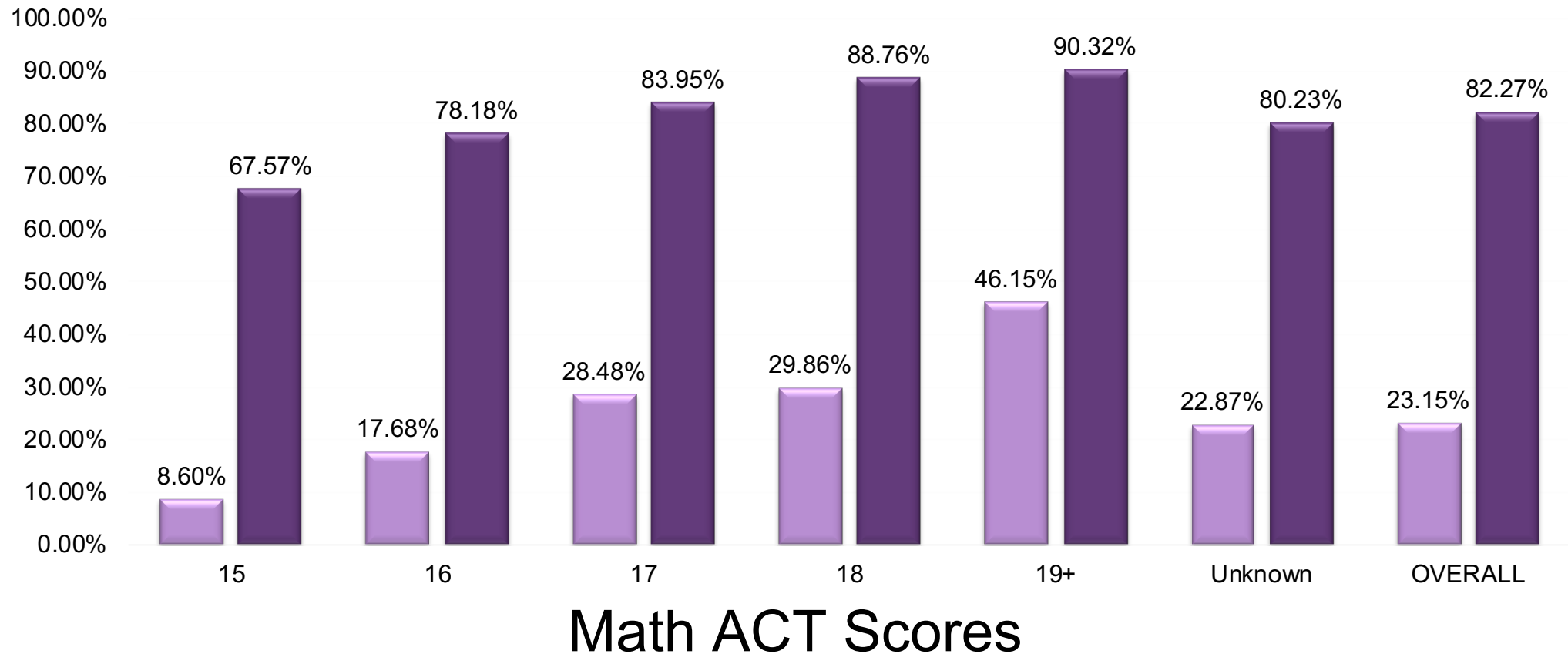


Data After Co-requisite Design

1-Year College Algebra Completion Versus FCA

Fall 2015 – Fall 2018

(Success is a D in College Algebra)



Foundations of CA Success by number of days in course each week

| FCA Type | C rate | D rate |
|----------|------------------|-------------------|
| Overall | 75.3% (976/1297) | 82.3% (1067/1297) |
| 2 day | 64% (159/249) | 71% (177/249) |
| 3 day | 78% (122/157) | 82% (129/157) |
| 4 day | 68% (82/120) | 81% (97/120) |
| 5 day | 80% (613/771) | 86% (664/771) |

FALL vs SPRING Completion Rates

Fall 2015 to Fall 2018

| Course | Fall C rate | Fall D rate | Spring C rate | Spring D rate |
|--------|----------------|----------------|---------------|---------------|
| FCA | 78% (846/1088) | 85% (922/1088) | 62% (130/209) | 69% (145/209) |
| FQL | 75% (248/329) | 84% (278/329) | 62% (46/74) | 65% (48/74) |
| FCW | 85% (490/578) | 87% (505/578) | 81% (196/241) | 86% (208/241) |
| FCL | 78% (510/657) | 84% (555/657) | 62% (87/140) | 72% (101/140) |

Spring Semester Repeater Data Fall 2015 to Fall 2018

| Corequisite Course | Repeaters | C rate | D rate |
|--------------------|--------------|-------------|-------------|
| FCA | 27% (57/209) | 56% (32/57) | 63% (36/57) |
| FQL | 22% (16/74) | 44% (7/16) | 50% (8/16) |
| FCW | 11% (26/241) | 38% (10/26) | 50% (13/26) |
| FCL | 46% (65/140) | 48% (31/65) | 65% (42/65) |

Other Assessment Ideas

Fall to Spring Retention

| Cohort | Students | Number | Percent |
|-----------|----------|--------|---------|
| Fall 2016 | 610 | 521 | 85.4% |
| Fall 2017 | 599 | 509 | 85.0% |

Fall to Fall Retention

| Cohort | Students | Number | Percent |
|-----------|----------|--------|---------|
| Fall 2016 | 610 | 388 | 63.6% |
| Fall 2017 | 599 | 391 | 65.3% |

First Time, First Semester SAP

| Term | Students | Number | Percent |
|-----------|----------|--------|---------|
| Fall 2016 | 610 | 405 | 66.4% |
| Fall 2017 | 599 | 442 | 73.8% |
| Fall 2018 | 611 | 446 | 73.0% |

College Algebra Final Data

Traditional (from MATH Dept) vs. Corequisite (from Dept. of Student Transitions)

| Semester | Traditional (% C or higher) | Co-Requisite (% C or higher) |
|-----------|--------------------------------|---------------------------------|
| Fall 2016 | 52% (n = 584) | 64% (n = 265) |
| Fall 2017 | 56% (n = 531) | 74% (n = 325) |
| Fall 2018 | 50% (n = 533) | 71% (n=312) |

Other assessment options

- ▶ What do students do after they pass your corequisite course?
- ▶ Do the students who complete a corequisite design stay and complete a degree?
- ▶ Ask the students to complete evaluations about your design. For instance, ask them if they like having the same faculty, or would benefit from having two (or vice versa, depending on the option that you pick). Or if your courses are on multiple days, would they like to have the corequisite course on the same day?



Next Steps

Assessing Mindset and Math Anxiety

Why?

- ▶ What beliefs do my students have about themselves and their ability to learn?
- ▶ How do my students feel about math class or mathematics in general?
- ▶ Does the co-requisite design have any sort of impact on my student's beliefs and/or feelings toward mathematics?

Logistics

- ▶ **Mindset survey**
 - ▶ Mindset Assessment Profile Tool (Mindset Works)
- ▶ **Math Anxiety survey**
 - ▶ Do You Have Math Anxiety? A Self Test (Ellen Freedman)
- ▶ Utilized Google Forms to administer
- ▶ Administered to 3 College Algebra classes and 1 Quantitative Literacy class (2 instructors) in Fall 2018

Fixed vs. Growth Mindset

according to Carol Dweck

- ▶ “In a **fixed mindset**, people believe their basic qualities, like intelligence or talent, are simple fixed traits.”
- ▶ “In a **growth mindset**, people believe that their most basic abilities can be developed through dedication and hard work.”

Mindset Survey

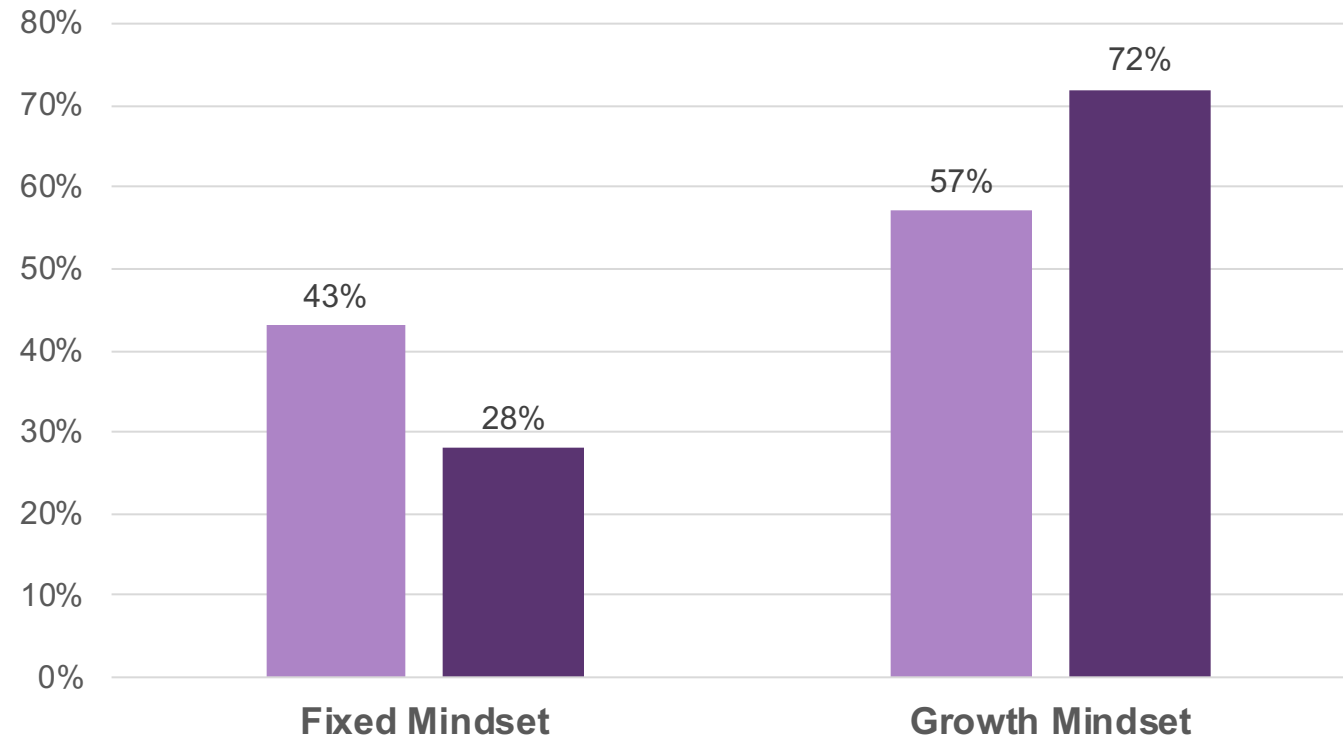
Mindset Assessment Profile Tool (Mindset Works)

| If your profile number falls into this range: | Then your MAP (Mindset Assessment Profile) group is: | People in this MAP group usually believe the following things: |
|---|--|---|
| 8-12 | F5 | You strongly believe that your intelligence is fixed—it doesn't change much. If you can't perform perfectly you would rather not do something. You think smart people don't have to work hard. |
| 13-16 | F4 | |
| 17-20 | F3 | You lean toward thinking that your intelligence doesn't change much. You prefer not to make mistakes if you can help it and you also don't really like to put in a lot of work. You may think that learning should be easy. |
| 21-24 | F2 | |
| 25-28 | F1 | You are unsure about whether you can change your intelligence. You care about your performance and you also want to learn, but you don't really want to have to work too hard for it. |
| 29-32 | G1 | |
| 33-36 | G2 | You believe that your intelligence is something that you can increase. You care about learning and you're willing to work hard. You do want to do well, but you think it's more important to learn than to always perform well. |
| 37-40 | G3 | |
| 41-44 | G4 | You really feel sure that you can increase your intelligence by learning and you like a challenge. You believe that the best way to learn is to work hard, and you don't mind making mistakes while you do it. |
| 45-48 | G5 | |

Mindset Changes

Mindset Results Fall 2018

■ AUGUST (N=127) ■ DECEMBER (N=127)



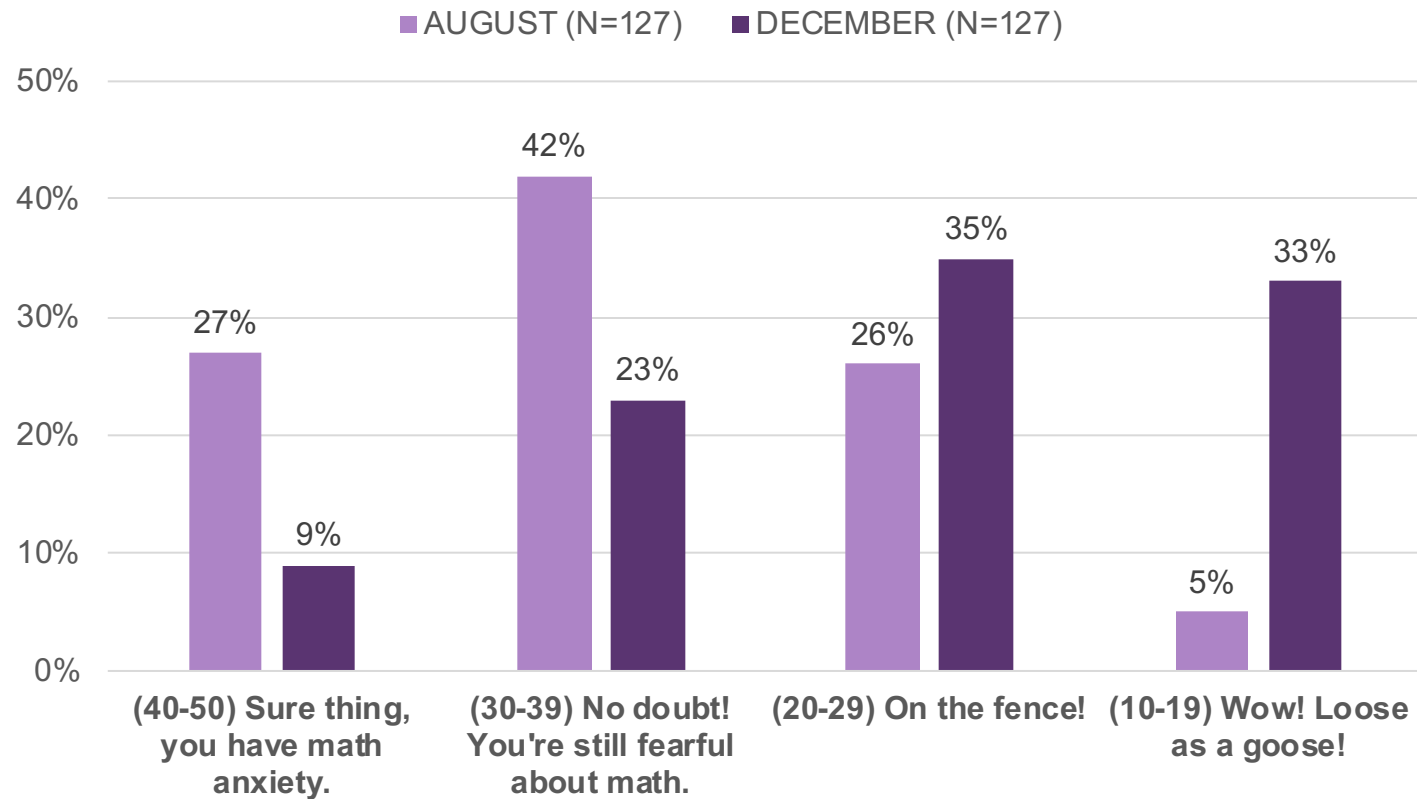
Math Anxiety Survey

Do You Have Math Anxiety? A Self Test (Ellen Freedman)

| SCORE | Math Anxiety Results |
|-------|--|
| 40-50 | Sure thing, you have math anxiety. |
| 30-39 | No doubt! You're still fearful about math. |
| 20-29 | On the fence! |
| 10-19 | Wow! Loose as a goose! |

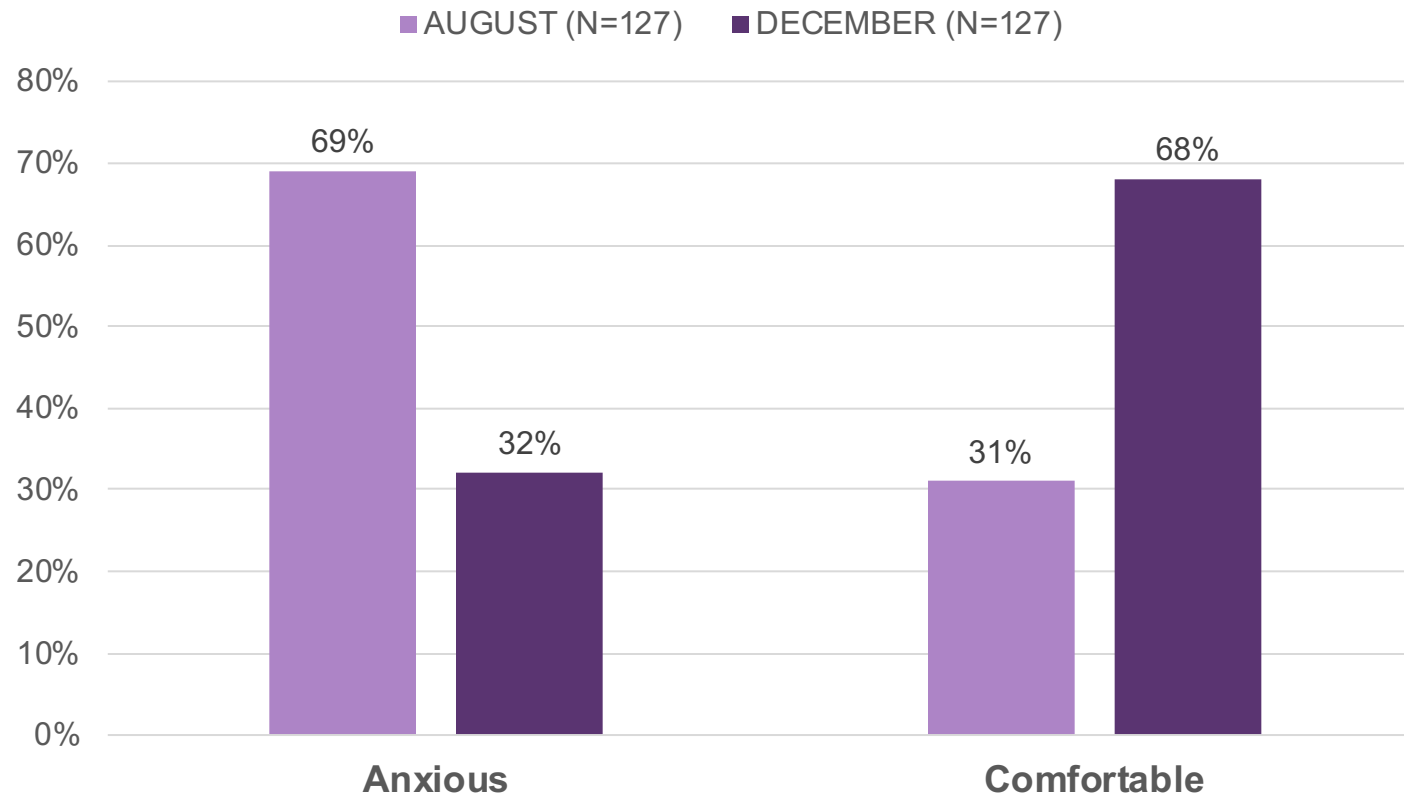
Anxiety Changes

Math Anxiety Results Fall 2018



Anxiety Changes

Math Anxiety Results Fall 2018



Moving Forward with Mindset

- ▶ Strategic interventions embedded within instruction
- ▶ Broaden research to CA and QL students outside of the co-requisite model
- ▶ How does faculty mindset affect student mindset, anxiety, and overall success?



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Thank you!

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