



COREQUISITE WORKS- Student Success Models at the Lone Star College

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Purpose

- Previous Research corequisite success models
(The University of Georgia & Complete College America, 2021)

- The analysis aims to replicate the following results:

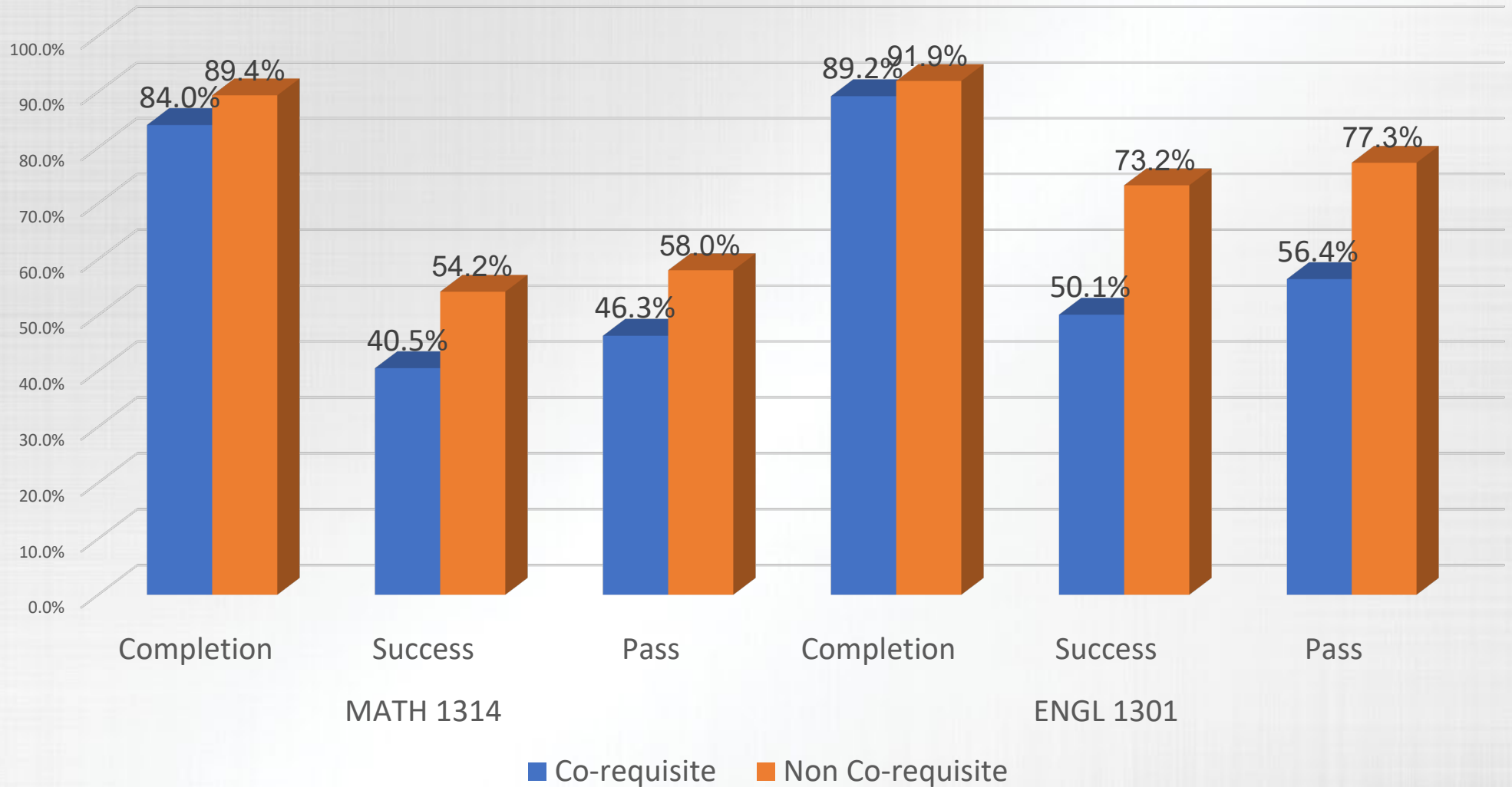
Corequisite students received the most benefit from:

- ✓ Only having corequisite students in the college-level course.
- ✓ Having the same instructor for both the corequisite support and college-level courses.
- ✓ At least two credit hours per week for the corequisite DEV ENGL course and at least three credit hours per week for the corequisite DEV MATH course.



Co-requisite vs. Non-Co-requisite

Completion, Success, and Pass Rate





Corequisite Performance Tracking

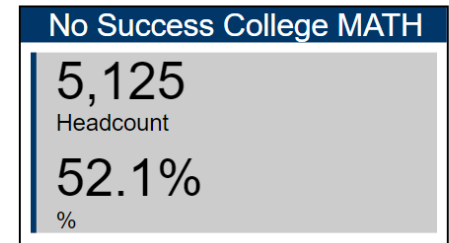
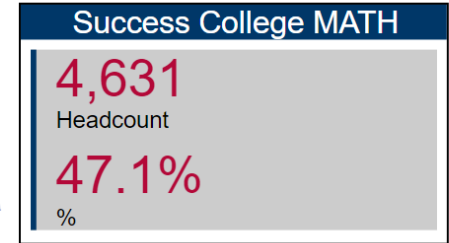
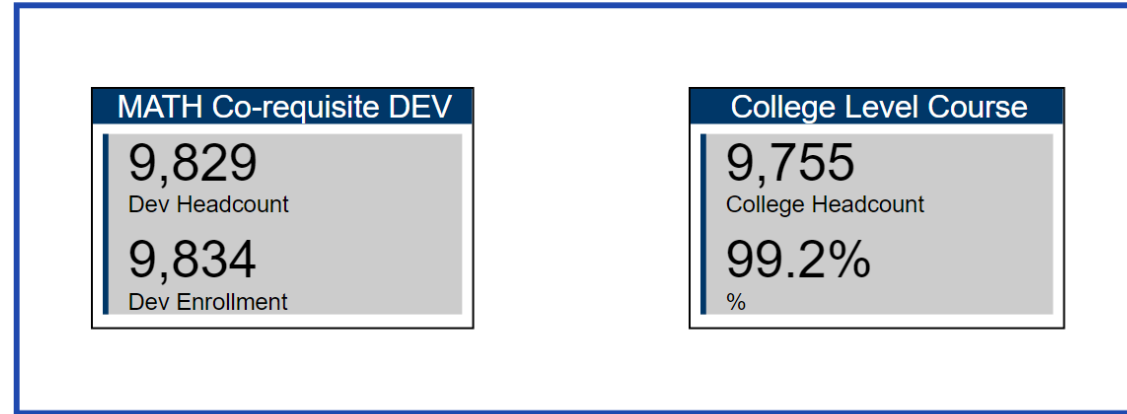




ANALYTICS & INSTITUTIONAL REPORTING

Corequisite MATH

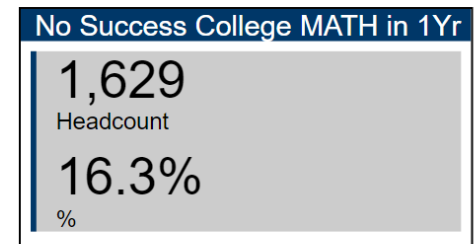
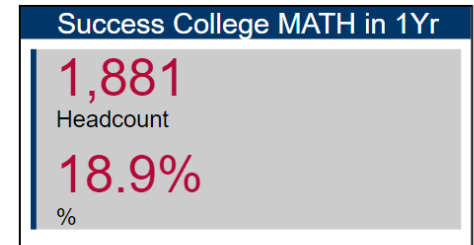
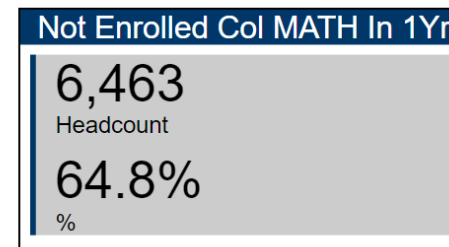
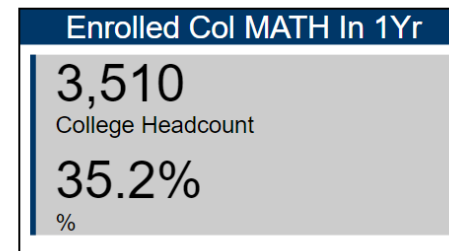
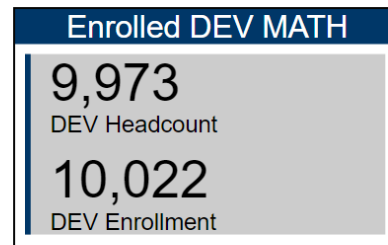
Semester	Course
Multiple selectio... ▾	All ▾
Term	Student Type
Multiple selections ▾	Co-requisite M... ▾
College	
All ▾	
Gender	Race/Ethnicity
All ▾	All ▾



MATH (Previous Three Years)

Semester
Spring ▾
Course
MATH 0310 ▾
College
All ▾

FA15: FA15~SU16 FA16: FA16~SU17 FA17: FA17~SU18
 SP16: SP16~FA16 SP17: SP17~FA17 SP18: SP18~FA18
 SU16: SU16~SP17 SU17: SU17~SP18 SU18: SU18~SP19



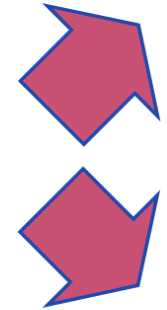


ANALYTICS & INSTITUTIONAL REPORTING

Co-requisite ENGL

Semester	Course
Multiple selections ▾	All ▾
Term	Student Type
Multiple selections ▾	All ▾
College	
All ▾	
Gender	Race/Ethnicity
All ▾	All ▾

ENGL Co-requisite DEV	Enrolled ENGL1301
8,690 DEV Headcount	8,489 College Headcount
8,694 DEV Enrollment	97.7% %



Success ENGL1301
4,149 Headcount
47.7% %
No Success ENGL1301
4,343 Headcount
50.0% %

ENGL (Previous Three Years)

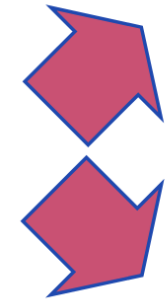
Semester
Multiple selections ▾
Course
All ▾
College
All ▾

FA15: FA15~SU16 FA16: FA16~SU17 FA17: FA17~SU18
 SP16: SP16~FA16 SP17: SP17~FA17 SP18: SP18~FA18
 SU16: SU16~SP17 SU17: SU17~SP18 SU18: SU18~SP19

Enrolled DEV ENGL
22,350 DEV Headcount
24,977 DEV Enrollment



Enrolled ENGL1301 in 1yr
8,950 College Headcount
40.0% %
Not Enrolled ENGL1301 in 1yr
13,400 Headcount
60.0% %



Success ENGL1301 in 1yr
5,515 Headcount
24.7% %
No Success ENGL1301 in 1yr
3,435 Headcount
15.4% %



Lone Star College Data



- From Fall 2018 to Spring 2022
- 15,178 students enrolled in a corequisite ENGL
- 24,966 students enrolled in a corequisite MATH

Lone Star College Data



Dependent Variables are

- Course completion, success, and passing rate (college-level ENGL and MATH)

Independent Variables are

- Whether only corequisite students in the college-level course,
- Whether the same instructor taught in both the corequisite support and college-level courses
- Number of credits hours for corequisite DEV course

Method



- To determine which corequisite mode worked better for students, LSC compared the actual success rate in college-level course
- In this study, Chi-Square and Logistic Regression Analysis were used to test the hypothesis.
- Hypotheses
 - Across LSC, corequisite students received the most benefit from having:
 - Only corequisite students in the college-level course.
 - The same instructor for both the corequisite support and college-level courses.
 - At least two contact hours per week for the corequisite course.

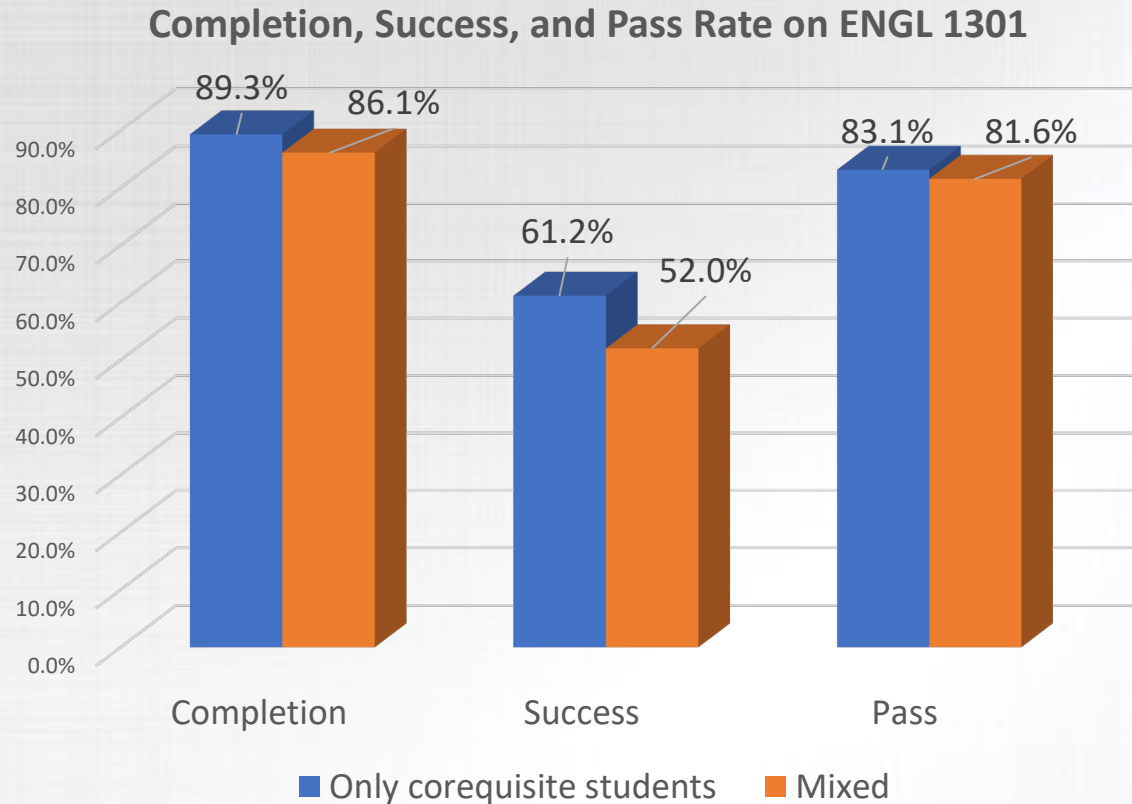
Result



- Regardless of the strategy combination each LSC college uses, more students completed their gateway courses when they received corequisite support.
- In one semester, 56.1% of DEV ENGL students and 54.1% of DEV Math students completed their courses with corequisite support, compared to 28.8% of DEV ENGL students and 12.8% of DEV Math students with traditional prerequisite remediation in one year.

English corequisite students received the most benefit from having: Only corequisite students in the college-level course

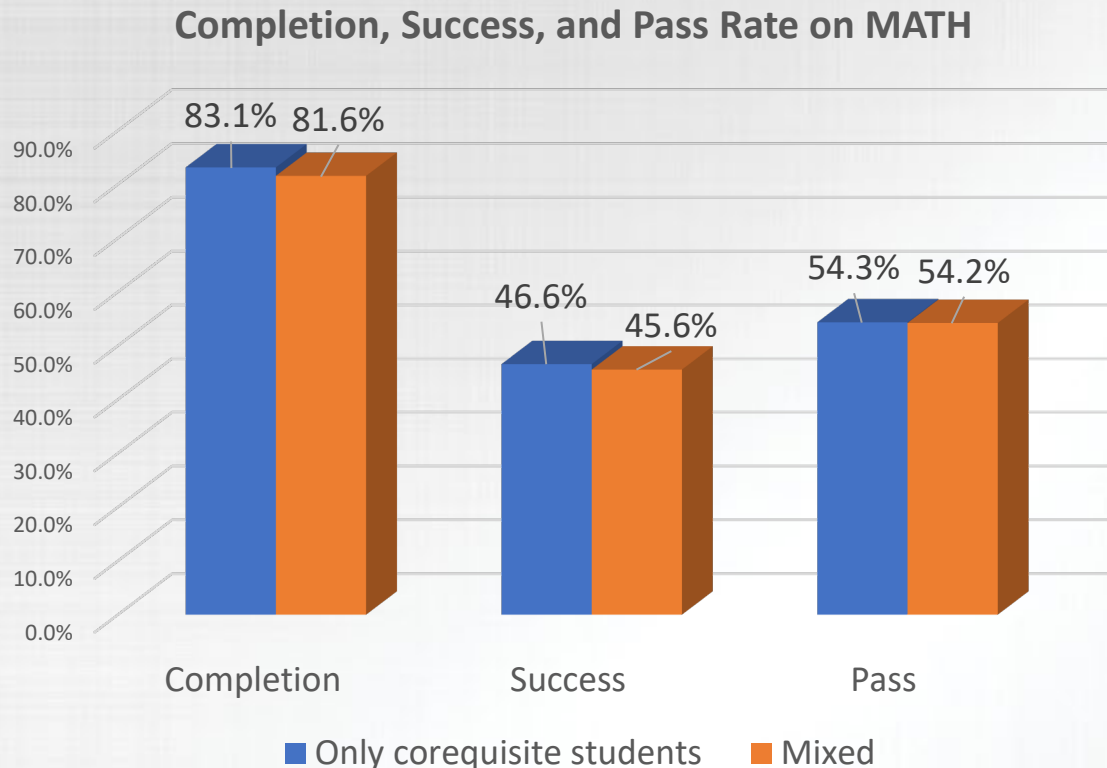
- They showed statistically significant higher completion rate, success rate, and pass rate



- Average Completion rate for ENGL 1301 is 91.3%
- $\chi^2 (1, N = 15178) = 32.03, p < .001.$
- Average Success rate for ENGL 1301 is 69.1%
- $\chi^2 (1, N = 15178) = 113.99, p < .001.$

Math corequisite students received the most benefit from having: Only corequisite students in the college-level course

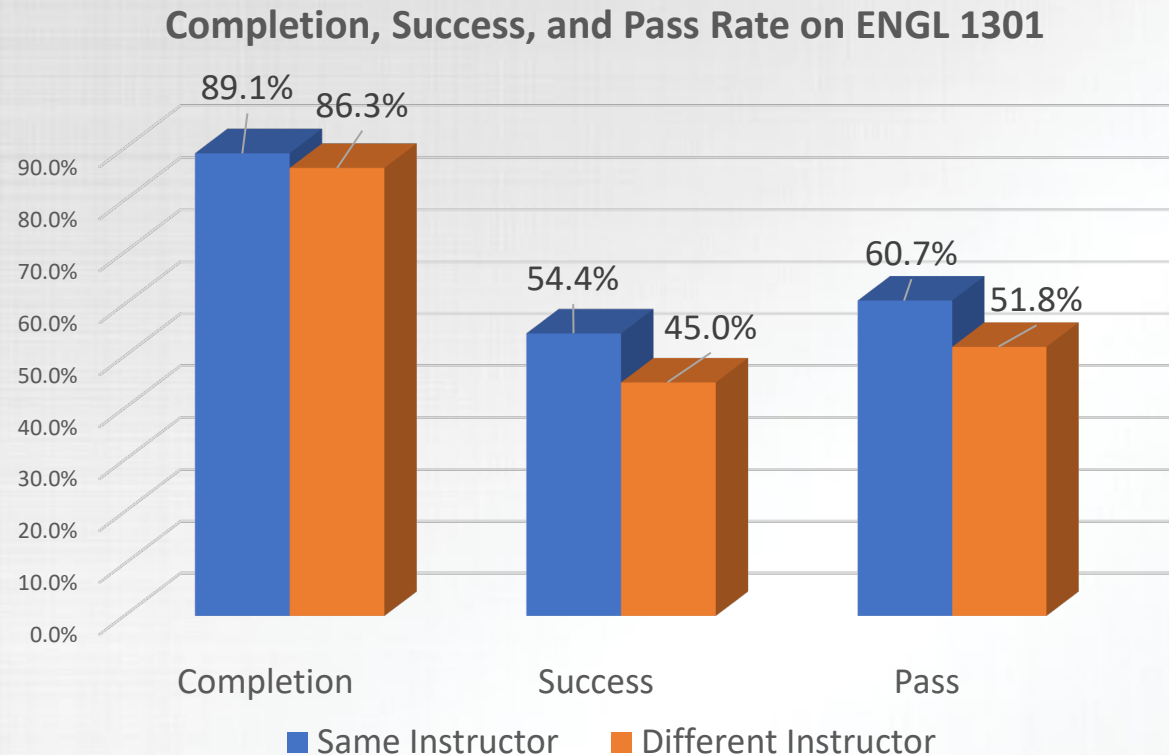
- They showed a statistically significant higher only completion rate.



- Average Completion rate for MATH 1314, 1324, 1332, and 1342 is 86.3%
- $\chi^2 (1, N = 24966) = 5.35, p < .05.$
- Average Success rate for MATH 1314, 1324, 1332, and 1342 is 62.3%
- $\chi^2 (1, N = 24966) = 0.02, p = .452.$

English corequisite students received the most benefit from having: the same instructor for both the corequisite support and college-level courses

- They showed statistically significant higher completion rate, success rate, and pass rate

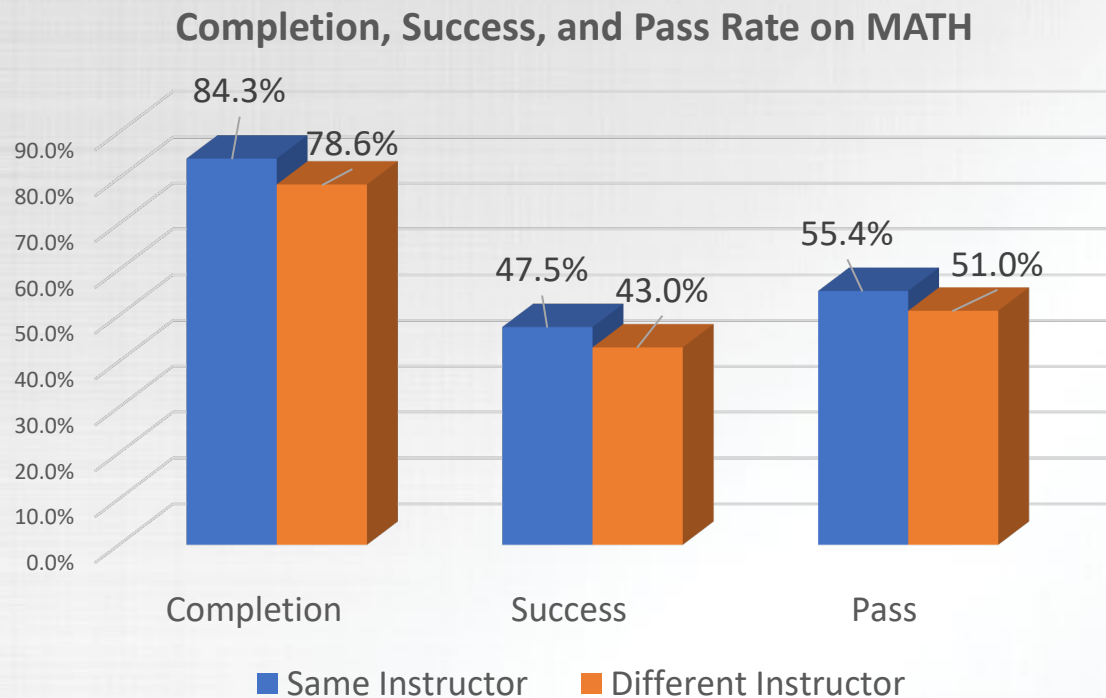


- Average Completion rate for ENGL 1301 is 91.3%
- $\chi^2 (1, N = 15178) = 26.67, p < .001.$
- Average Success rate for ENGL 1301 is 69.1%
- $\chi^2 (1, N = 15178) = 35.73, p < .001.$



Math corequisite students received the most benefit from having: the same instructor for both the corequisite support and college-level courses

- They showed statistically significant higher completion rate, success rate, and pass rate

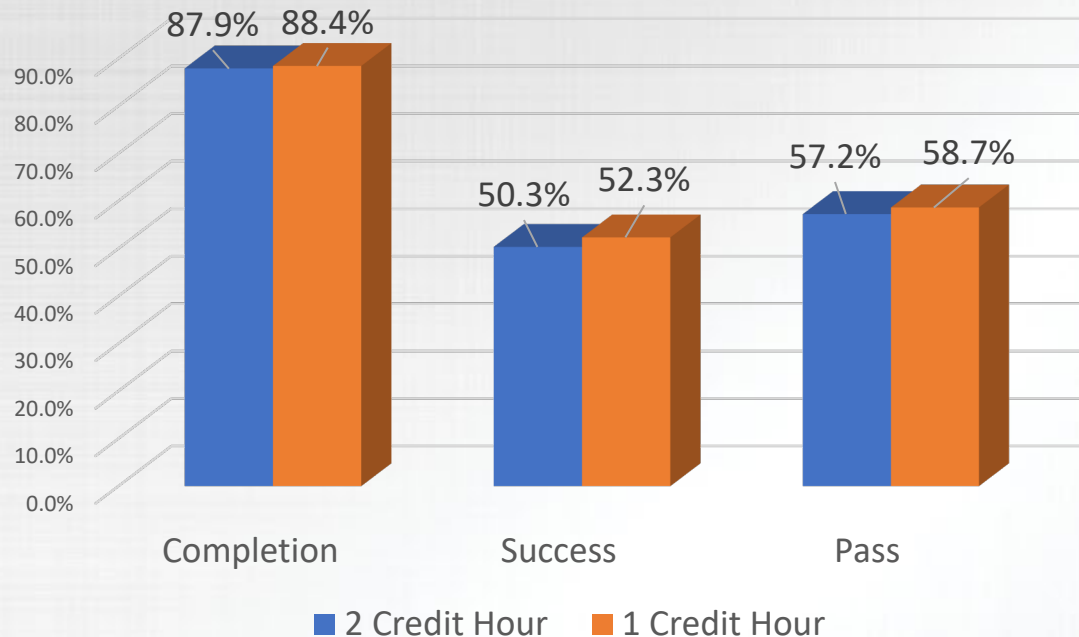


- Average Completion rate for MATH 1314, 1324, 1332, and 1342 is 86.3%
- $X^2 (1, N = 24966) = 35.73, p < .001.$
- Average Success rate for MATH 1314, 1324, 1332, and 1342 is 62.3%
- $X^2 (1, N = 24966) = 33.84, p < .001.$

English corequisite students received the most benefit from having: At least two credit hours per week for the corequisite course

- They showed a statistically significant lower success rate

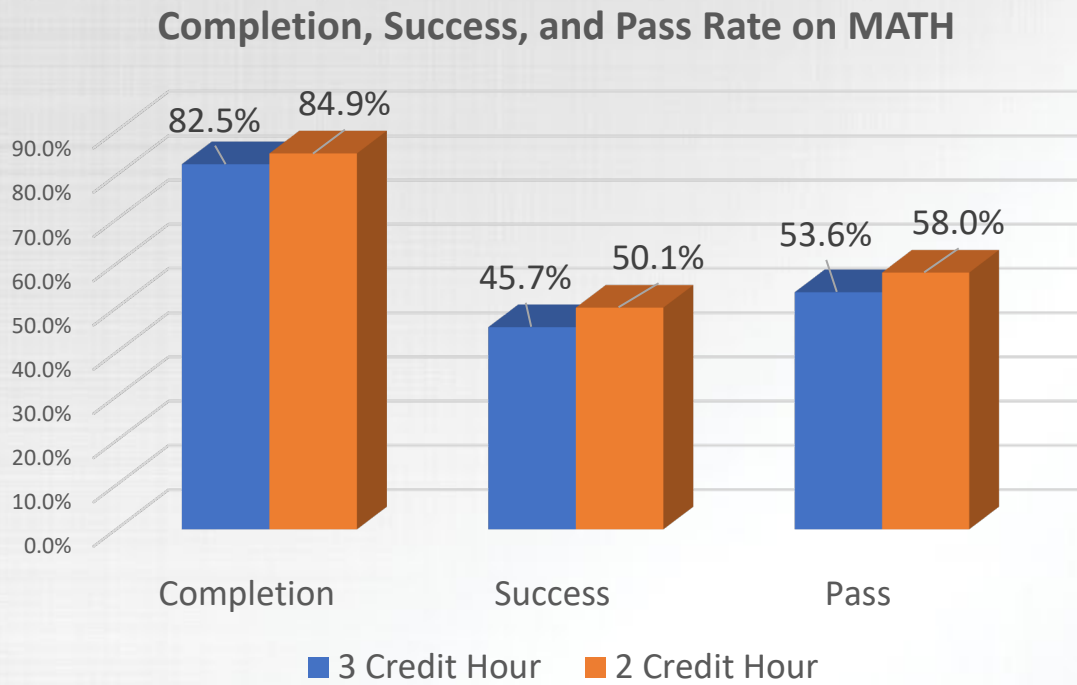
Completion, Success, and Pass Rate on ENGL 1301



- Average Completion rate for ENGL 1301 is 91.3%
- $X^2 (1, N = 15178) = 0.78, p = .197.$
- Average Success rate for ENGL 1301 is 69.1%
- $X^2 (1, N = 15178) = 4.71, p < .05.$

Math corequisite students received the most benefit from having: At least three credit hours per week for the corequisite course

- They showed statistically significant lower completion, success, and pass rates.



- Average Completion rate for MATH 1314, 1324, 1332, and 1342 is 86.3%
- $X^2 (1, N = 24966) = 14.84, p < .001.$
- Average Success rate for MATH 1314, 1324, 1332, and 1342 is 62.3%
- $X^2 (1, N = 24966) = 27.56, p < .001..$

Result: English



- Across LSC, English corequisite students received the most benefit from having:
 - ✓ Only corequisite students in the college-level course.
 - ✓ The same instructor for both the corequisite support and college-level courses.
 - ✓ The results of this study are identical to those of The University of Georgia.
- However, unlike The University of Georgia's results, LSC students who enrolled in the two-credit Corequisite Dev ENGL Course did not perform better on ENGL 1301 than those who took the one-credit Corequisite Dev ENGL Course.
- This is because students who failed both Reading and Writing TSI exams were placed in the two-credit course, while those who failed only one exam were placed in the one-credit course.
- This suggests that differences in academic preparation for English prior to taking the corequisite course may have affected academic performance in the course.

Result: MATH



- Across LSC, MATH corequisite students received the most benefit from having:
 - ✓ The same instructor for both the corequisite support and college-level courses.
 - ✓ The results of this study are identical to those of The University of Georgia.
 - ✓ Similar to the research results in the University of Georgia, our analysis showed that LSC MATH corequisite students did not benefit significantly from having only corequisite students in the college-level course.
- However, contrary to the University of Georgia's research results, students who enrolled the three-credit Corequisite Dev MATH Course did not perform better on the college level MATH course compared to the two-credit Corequisite Dev MATH Course.
- Two Credit Corequisite DEV Math courses are linked to MATH 1332 or MATH 1342. On the other side, three credit corequisite DEV MATH courses are linked to MATH 1314 or MATH 1324. The academic difficulty of MATH 1332 and MATH 1342 is lower than that of MATH 1314 or MATH 1324, and as a result, the success rate of the previous two courses is higher.

Thank you

Any questions?

