

Math My Way:

A unique approach to teaching pre-algebra.

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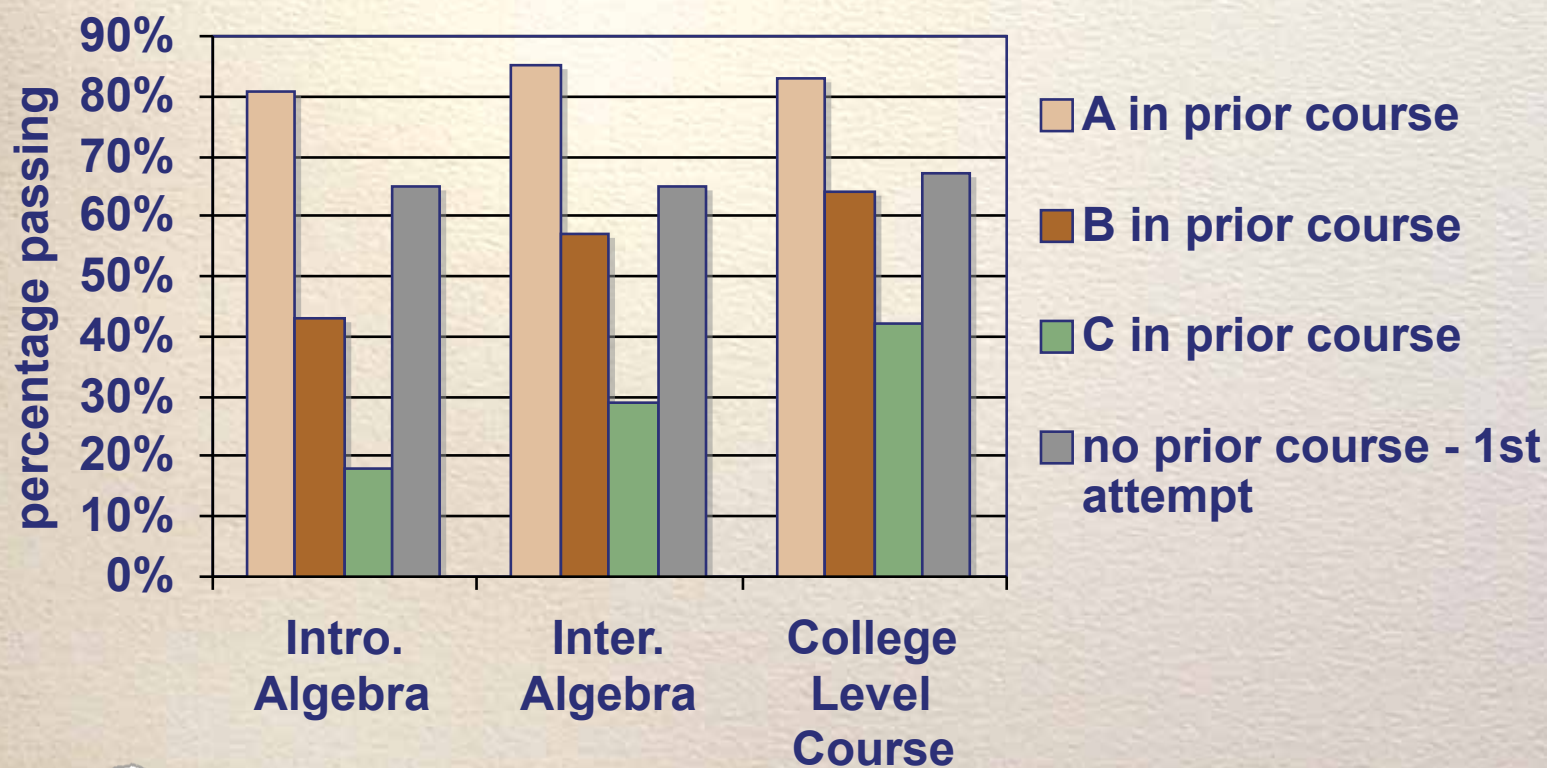


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What led to MMW?

- An increase in basic skills students
- A decrease in preparation levels
- Our frustration with success rates
- Foothill Campus Research

Success Rates & Prior Course Grade



What were we trying to fix?

- Pacing
- Mastery
- Success rates
- Persistence through the sequence.



Math My Way Program Overview

(program started Fall '06)

What do the students learn?

- Whole numbers
- Fractions
- Decimals
- Real Numbers
- Equations and Expression I
- Equations and Expressions II
- Ratio and Proportion
- Percentages
- Basic Geometry

What happens in the classroom?

- Mini-lectures (10 -20 minutes)
- Computer Drills (using ALEKS*)
- Textbook Assignments
- Review Worksheets
- Students work alone and in groups
- Math Games
- Study Skills building activities

*Software coupled with a custom McGraw-Hill text



How do the students gain mastery?

- All written work must be satisfactorily completed
 - 100% complete
 - 100% correct
 - Correct use of mathematical notation
- All computer drills must be completed
- All module work is completed before taking an exam
- 87% is required to pass exams

What makes it a program and not a regular course?

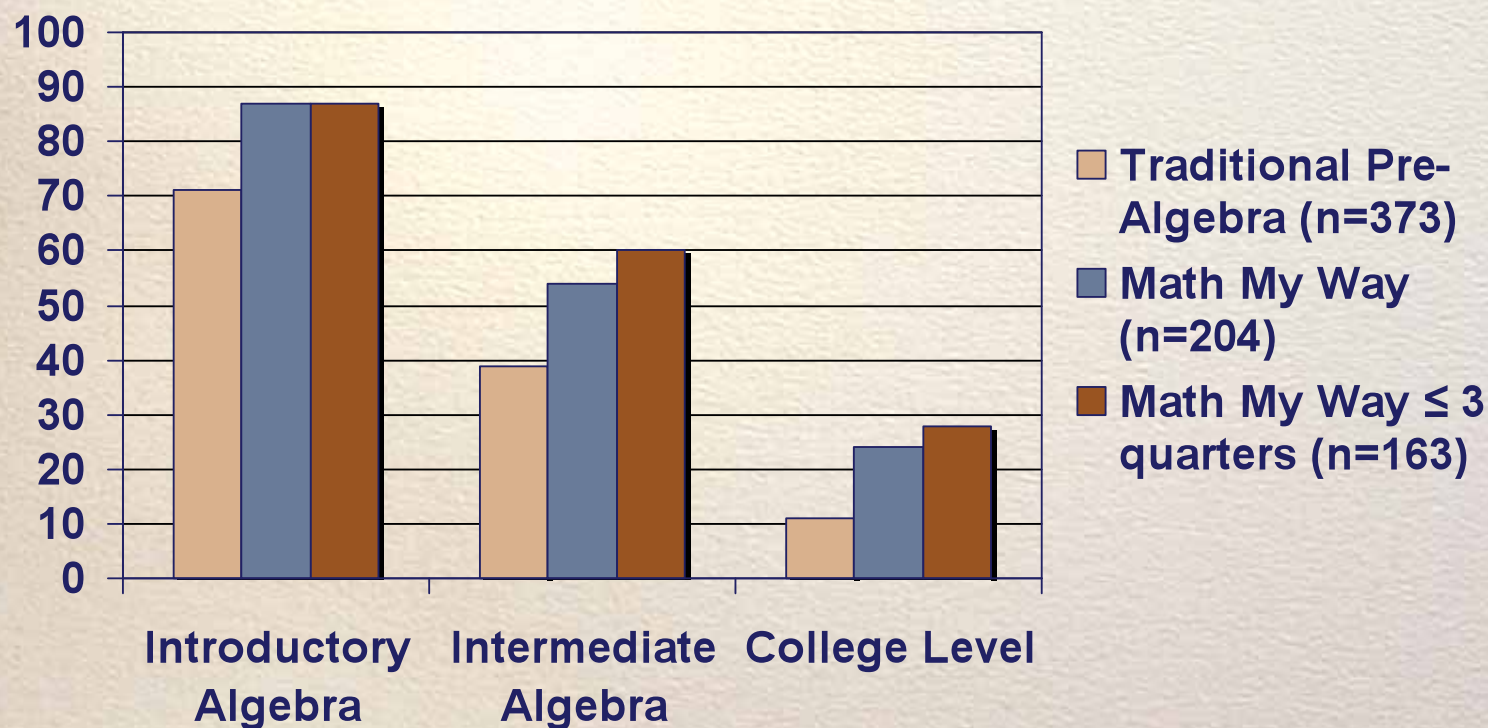
- 150 students shared by 5 instructors.
- Students are reassigned every 2-3 weeks
- Students don't restart each quarter
- Faculty members meet weekly
- Faculty members share grading
- Faculty members share outside responsibilities

Preliminary Results

What have we learned about the students?

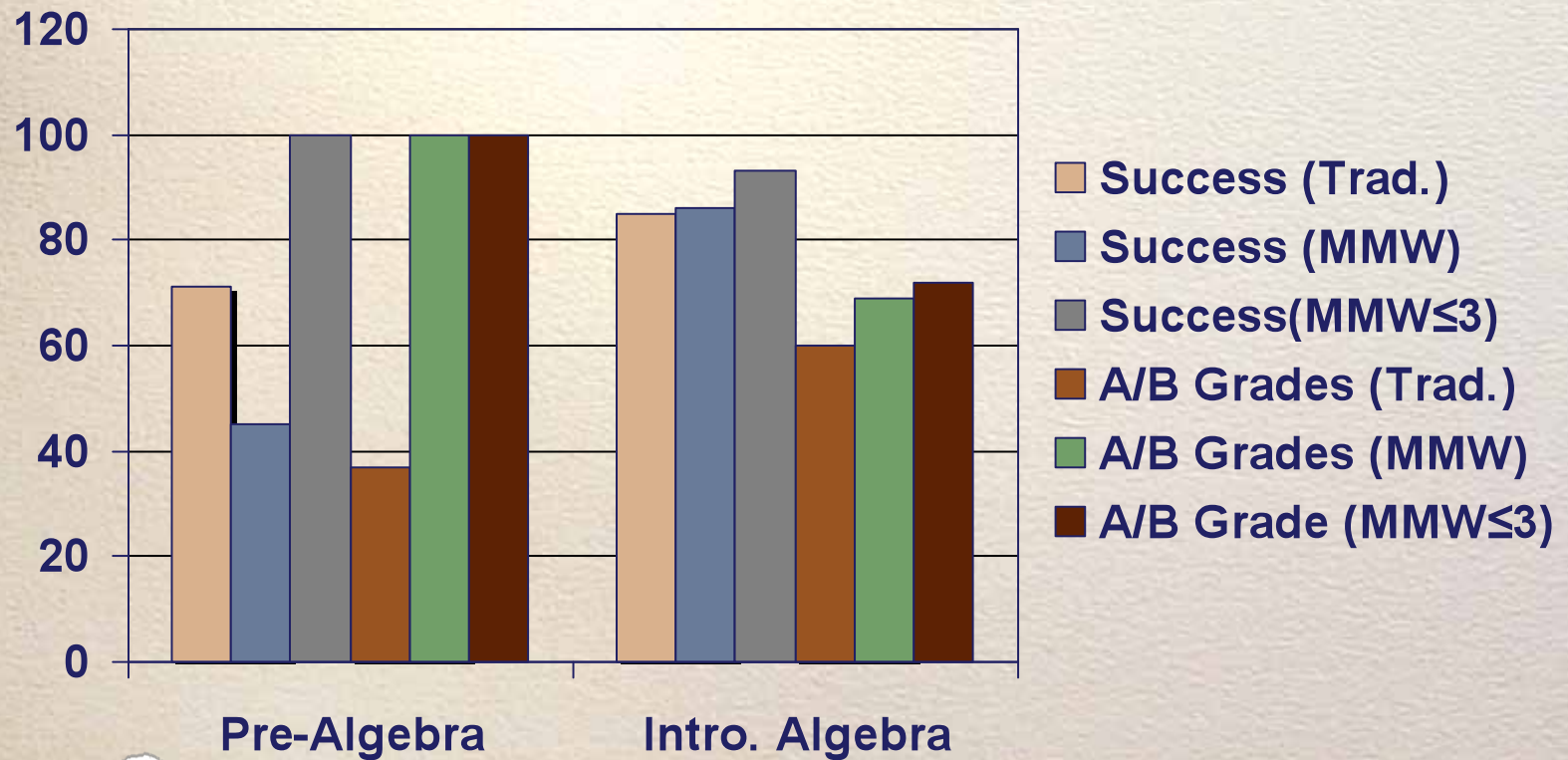
- Most students can master Arithmetic Concepts
- Students are content to move slowly
- Many students' lack of self-awareness impedes their progress
- Many students need to develop basic life skills
- Accuracy is very difficult to learn

Persistence* through the Math Sequence by Preparation

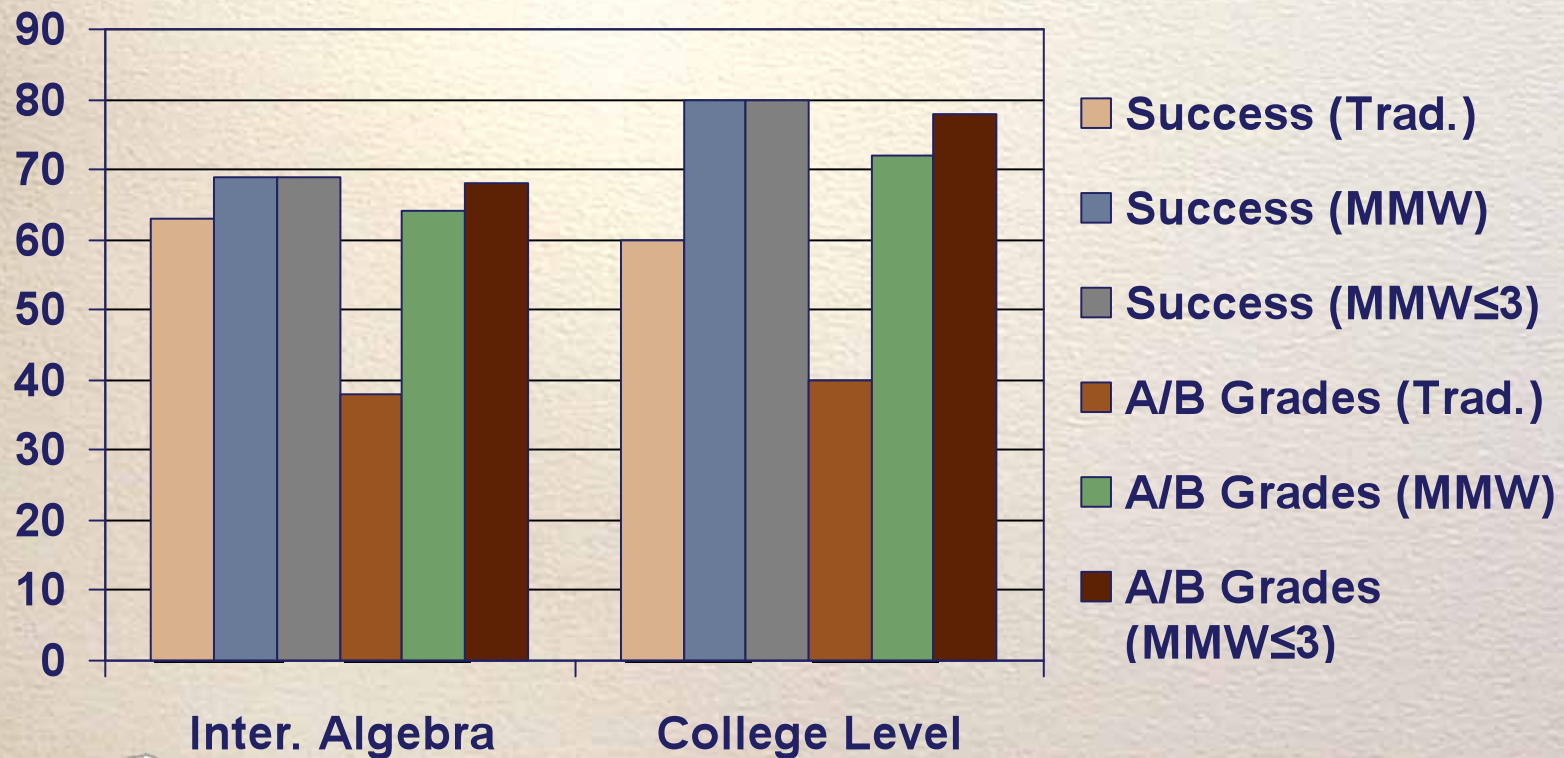


*Percentage of students completing Pre-Algebra who enroll in subsequent courses.

Success rates and A/B grades



Success rates and A/B grades



Next Steps

Improving MathMyWay

- Organize existing open source materials to provide alternate explanations
- Develop customized video lectures and animations to address topics specific to our curriculum
- Develop a MMW “portal” which will help students efficiently navigate the modules

How does MMW influence the entire PSME division?

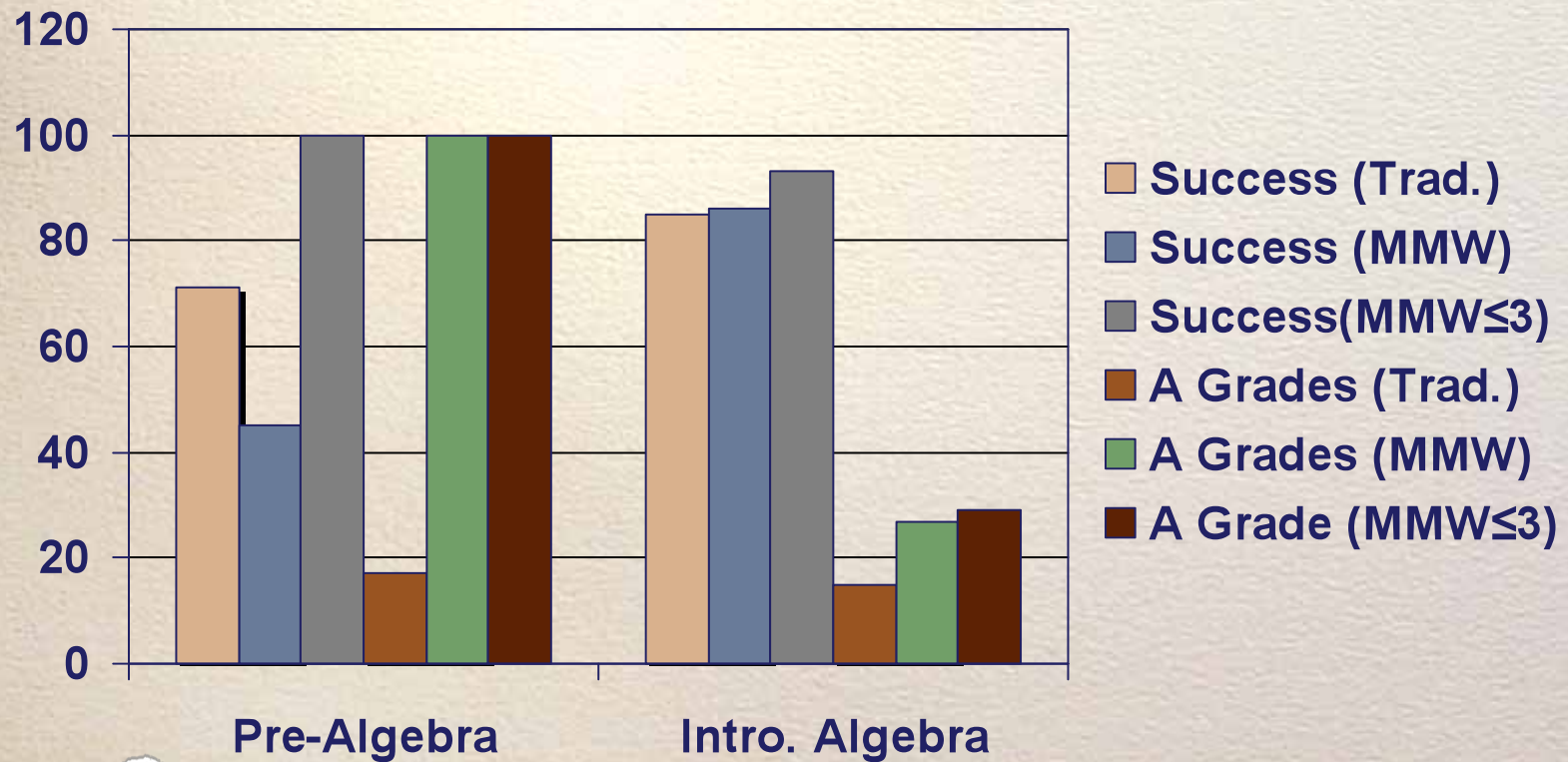
- Continue research driven updates
- Continue relationship with Mountain View - Whisman middle schools.
- Carnegie STAT-way project
- Use lessons learned to improve STEM college level course completion
- More team projects overall

Why is this so important?

- STEM
- Good at math = good at stem!

Thank You!

Success rates and A grades



Success rates and A grades

