

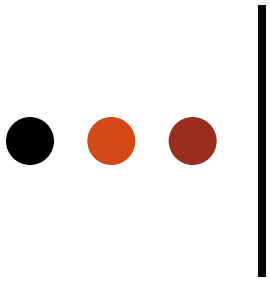


Increasing Pre-College Students Academic Success Rates Using a Predictive Model

**League for Innovations
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Session Objectives

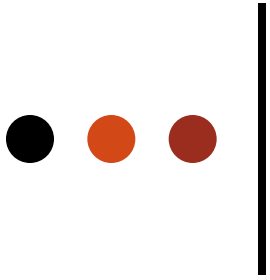
- Program overview
- Illustrate the program's innovative predictive model and framework
- Provide program outcomes that demonstrated efficiency and effectiveness

Sinclair Community College



- Founded 1887 as part of the “Dayton YMCA”
- Located in the urban inner city of Dayton, OH
- One main campus and 4 additional campus locations
- Enrollment (Fall 2010) = 25,950
- Fully accredited comprehensive college
- League for Innovation Community College
- **MetLife Foundation Community College Excellence Award** (2002, 2005, 2009) recognizes institutional-wide efforts to help underserved, disadvantaged youths and adults
- **League of Innovations, Innovation of the Year Award 2010** “Increasing High School OGT Success Rates, Using a Predictive Model”





PROGRAM OVERVIEW



Young Scholars Program (YSP)

1991

- Program to encourage college as a realistic option for first-generation college students
- Enrollment goal of fifty (50) students
- Themed workshops focused on achievement motivation and self-efficacy

1995

- YSP Phase II component developed and implemented
- First cohort graduated

1998

- Year-round workshops – three Sessions (Fall, Winter, Spring)
- Enrollment increase
- Workshops addressed achievement motivation, computer literacy and scientific discovery/inquiry
- Laptop incentives to address technology gap (1998 – 2000)



Young Scholars Program (YSP)

2000

- Business Plan written and aligned to Ohio academic standards
- Introduction of supplemental courseware for skill/drill in math (grades 8 – 10)

2001 to 2004

- 2001 Summer – YSP Academy developed and implemented to improve math scores on Ohio's state proficiency test
- Palm Pilot incentives for mastery of Ohio's proficiency test (2001 – 2008)



Young Scholars Program (YSP)

2005

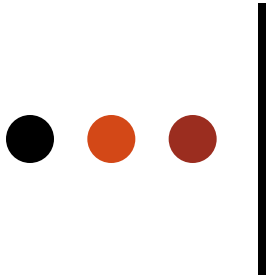
- First year for state's Ohio Graduation Test (OGT)
- Review of OGT state and district data

2006

- Amended Business Plan to include OGT math preparation
- Implementation of integrated pedagogy to prepare for OGT math

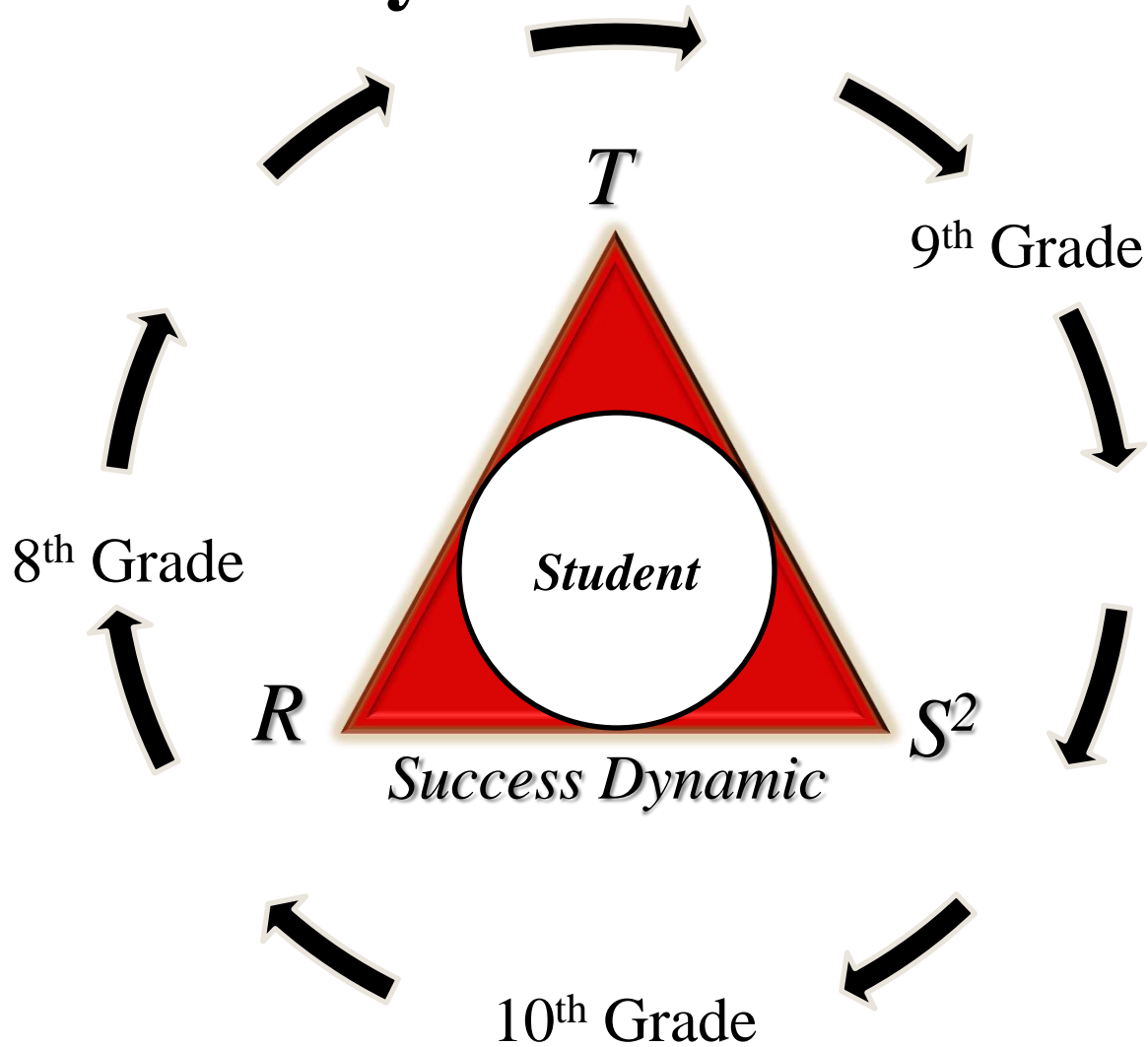
2007 - Present

- Implementation of new supplemental courseware
- 20 hours of OGT instruction per grade level (grades 8 – 10)
- Washington, D.C. Trip incentive for successful completion of the OGT



PREDICTIVE MODEL & FRAMEWORK

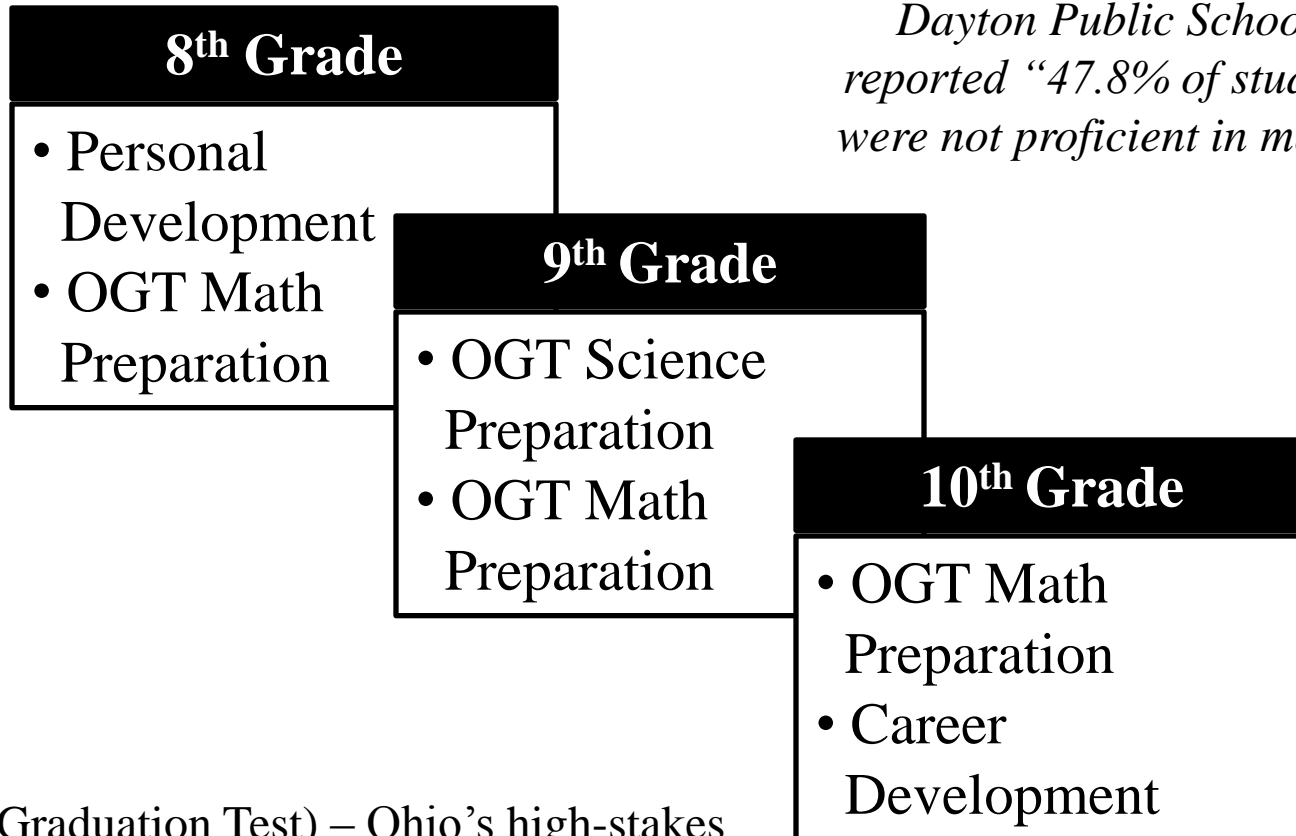
Predictive Model Overview: Success Dynamic





Framework

2004 -2005 Ohio Department of Education report card for Dayton Public Schools reported “47.8% of students were not proficient in math.”



OGT (Ohio Graduation Test) – Ohio’s high-stakes test for high school graduation



How We Do Business...

Blended Methodology

Pre-test

- Online assessment

Prescriptive Plan

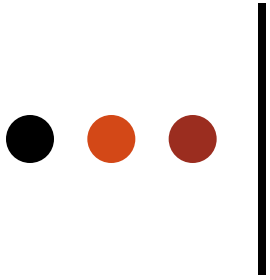
- Individualized skill/drill based on pre-test scores

Instruction

- Overview of OGT mathematical concepts
- Facilitated instruction and small group activities
 - Examples: Inquiry based group projects, worksheets, and peer to peer tutoring

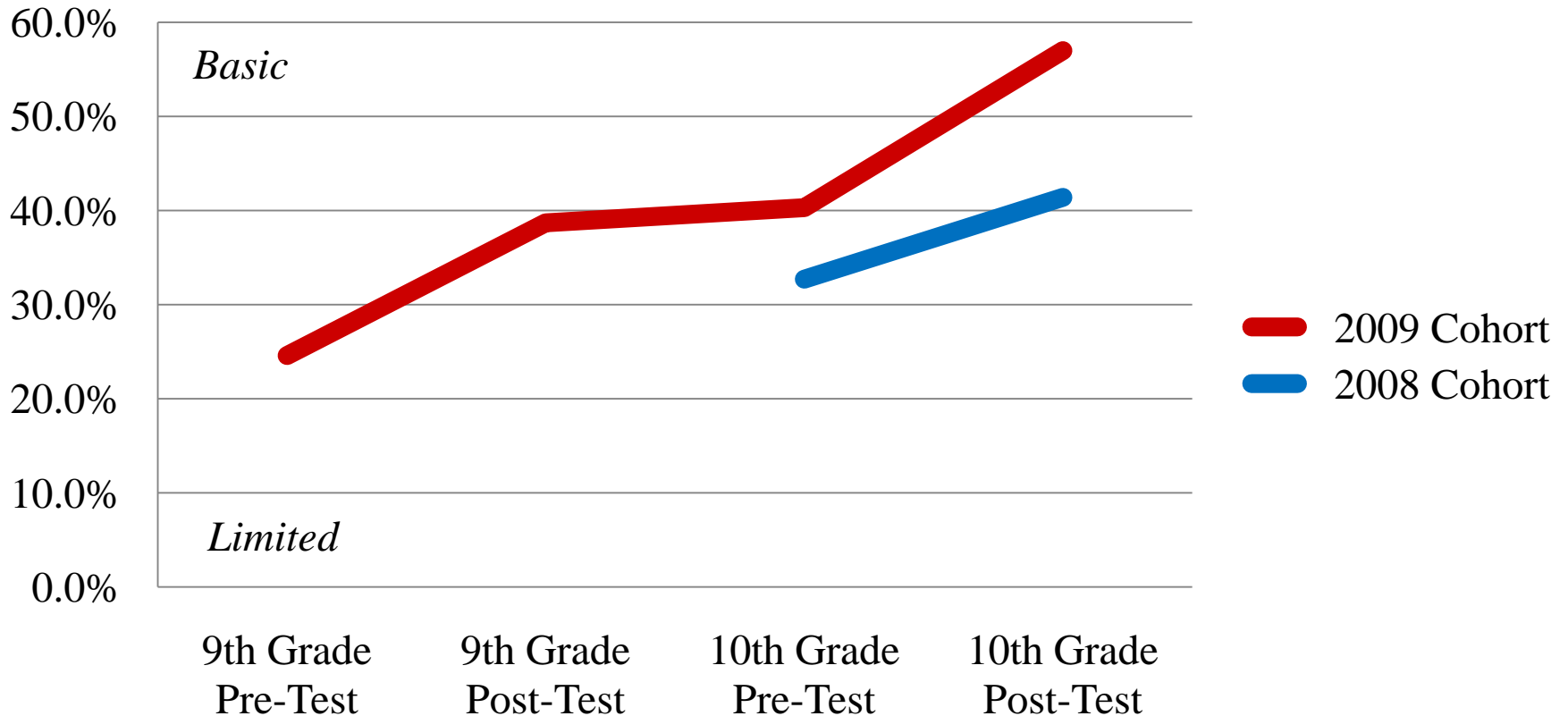
Post-test

- Online assessments
- Projects OGT score and performance level



OUTCOMES

2007-2009 Test Data



Basic

Limited

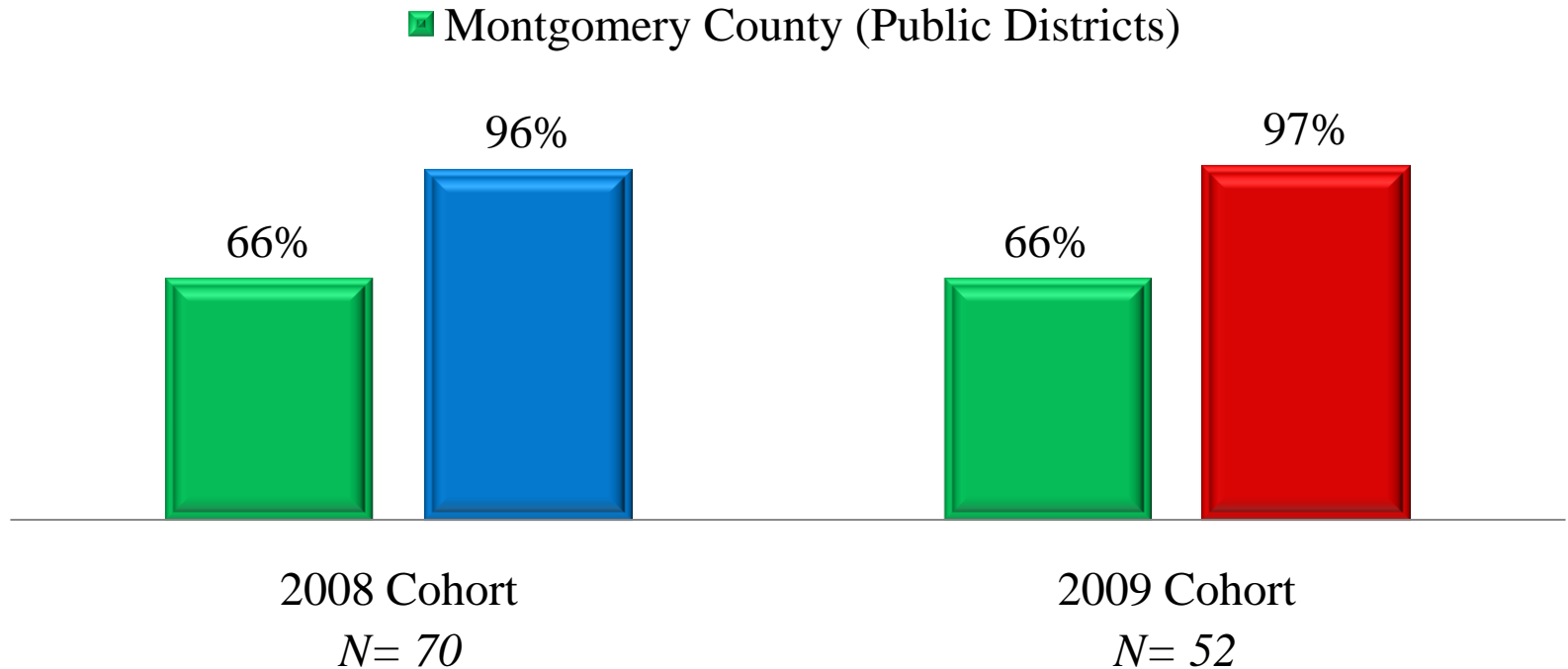
2009 Cohort
2008 Cohort

Limited – Difficulty in recalling, recognizing, communicating, and performing mathematical concepts and computations.

Basic – Demonstrates, recalls, and recognizes mathematical concepts. May have difficulty with using math terms when communicating.

Definitions from Ohio Department of Education, www.education.ohio.gov

2008-2009 OGT Success Rates



Albeit a small sample size, this project supports the AYP scores for a local urban school district. As a result, one feeder high school is piloting the program through a school improvement grant in collaboration with Sinclair's Office of Pre-College Programs.



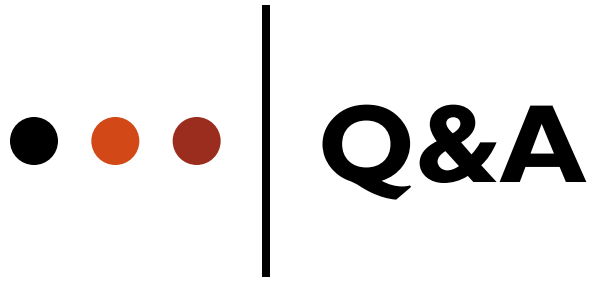
Cost Effectiveness & Efficiency

- $N = 122$
- Total cost = \$6,608.39
- Staffing costs = \$4,916.25
- Direct student costs = \$1,692.14
 - Classroom materials = \$0.92 per student
 - Online access = \$12.95 per student



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Q&A



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- www.sinclair.edu/precollege
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