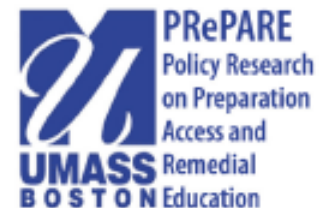




Using policy to improve developmental education and increase college success

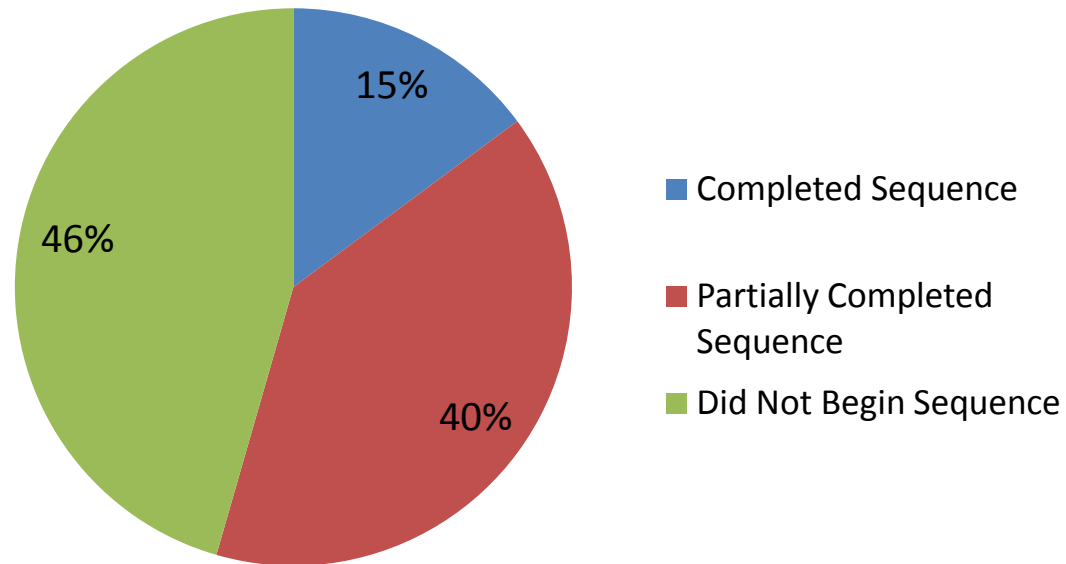
Transforming Remediation

Bruce Vandal, Education Commission of the States



Most Fail to “Get Past Go”

Progress on Remedial Sequence of ATD Students After 1 Academic Year



*Rounded to highest percent

Bailey, et al, 2008

Few enroll in college-level courses,
those who do perform at similar rate.

Virginia Community College System Study by CCRC (2009)

- About 1/3 who were placed in remedial math enrolled in college-level math
- About 1/2 placed into remedial writing every enrolled in college writing courses
- Completion rate in college-level courses for those who did enroll in college-level courses, but skipped remediation were similar to those who completed remediation

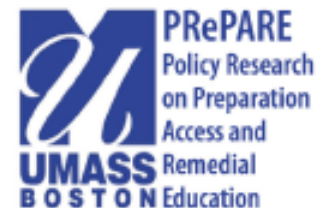
The Goal:

Move students as quickly and effectively through their remedial education sequence and their first college level course.

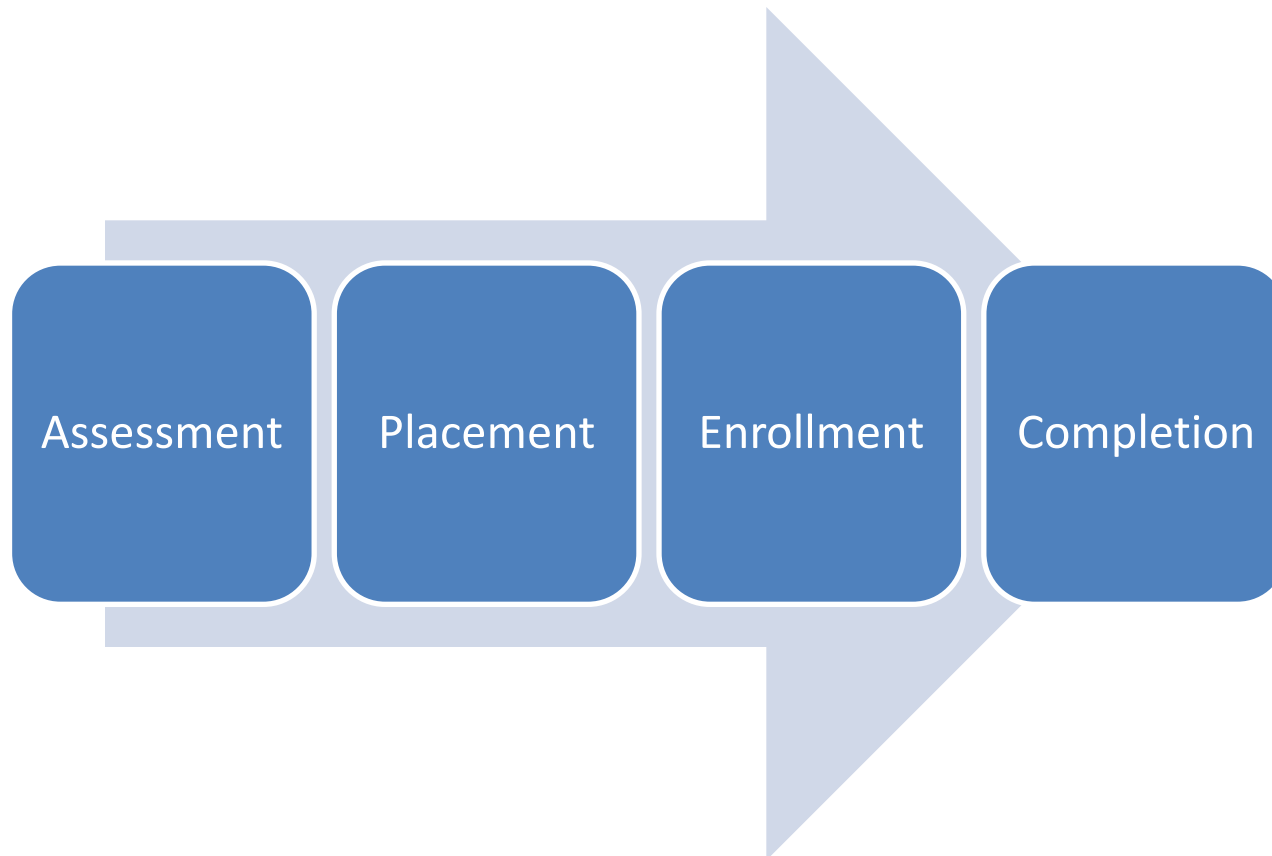


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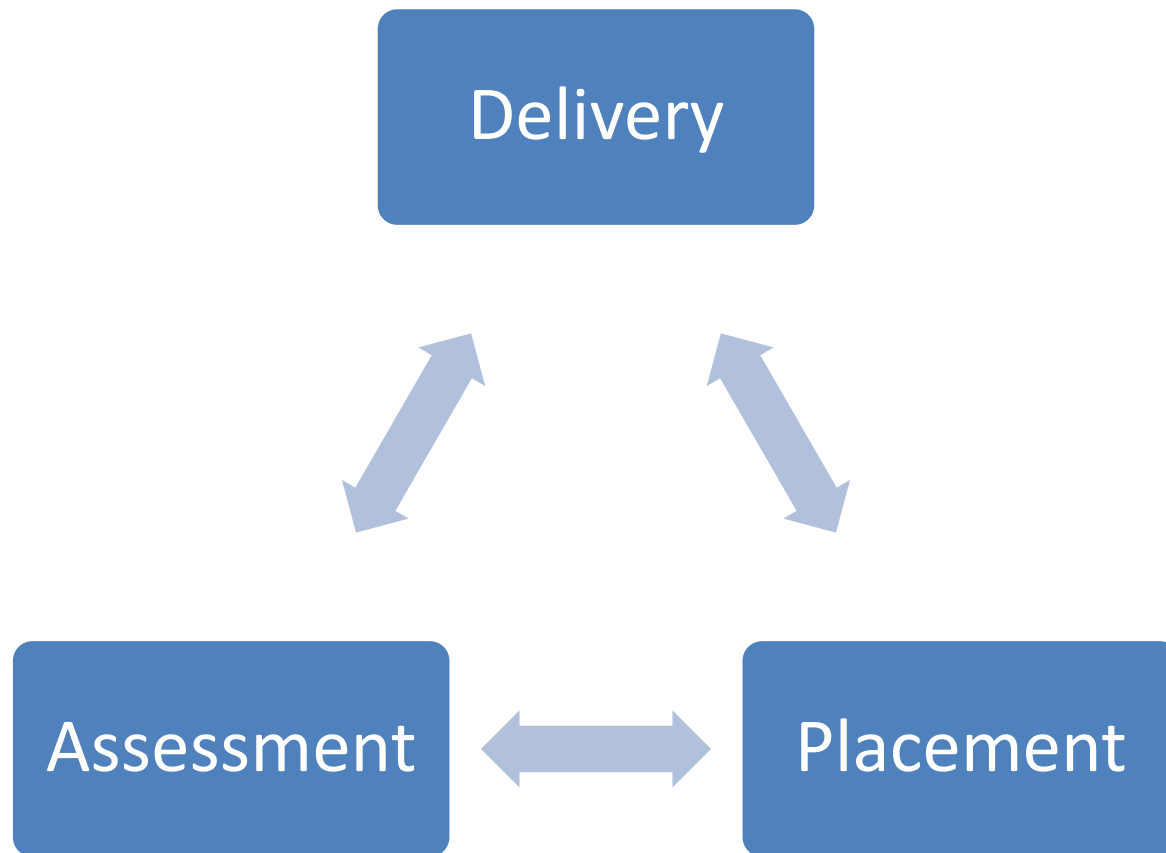
Assessment and Placement Approaches



The Remedial Education Sequence



Aligning Assessment and Placement with Delivery



Assessment and Placement Challenges

- Assessments predict success in college level courses – not need for remediation.
- Cut scores are imprecise measure for placement and often are set in a manner inconsistent with intended use– no validity
- Assessments lack diagnostic capacity to pinpoint deficiencies
- Differences across institutions and systems confuse students
- Assessments not aligned to high school graduation or college admission standards.

Assessment/Placement strategies

- Standardize assessments and cut scores
- Do not directly tie placement to single cut score
- Use recommended cut scores to exempt from remediation
- Conduct secondary or diagnostic assessments to pinpoint deficiencies and/or potential to succeed
- More effectively communicate assessments, cut scores and implications to prospective students

Florida's Assessment and Placement Strategy

- Florida Postsecondary Education Readiness Test (PERT) used for placement at community colleges, early assessment in high schools
- Aligned with common core standards, high school grad standards
- Developed competencies in math and English
- New diagnostic assessments will pinpoint deficiencies
- High schools and community colleges develop early intervention courses

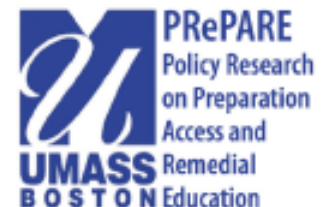


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Instructional Delivery: From Competencies to Completion



KNOWLEDGE
IN
THE PUBLIC
INTEREST



Developing a Game Plan

- The Layup

Just short of the cut score

- The Three Pointer

1-2 levels below college-level

- The Half-Court Shot

3 or more levels below college-level

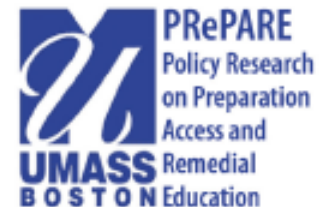
- The Bench

High school students below college-level



Using policy to improve developmental education and increase college success

The Co-Requisite Model



Co-Requisite Characteristics

- Focus on “Layup” students who are assessed at one level below college
- Concurrently enroll students in college level course work and remedial course (or some other academic support program)
- Align and coordinate remedial instruction with college-level course
- Addresses critical hurdle of students not enrolling and completing college course

Austin Peay Structured Assistance Model

- Students enroll in college level math course
- Co-enroll in academic support course
- Academic support course utilizes technology for students to focus on specific needs
- Small group teaching
- Individualized help
- Monitor student success

Traditional Model

Complete 3-6 hours non-university level courses before enrolling in Core Mathematics course

DSPM 0800

Elementary Algebra

- ACT 15-16
- 53.1% Completed course with a grade of C or higher



DSPM 0850

Intermediate Algebra

- ACT 17-18; or
- Completed DSPM 0800
- 51.2% completed course with a grade of C or higher



MATH1010

Mathematical Thought and Practice

- 43.5% earned a D or higher

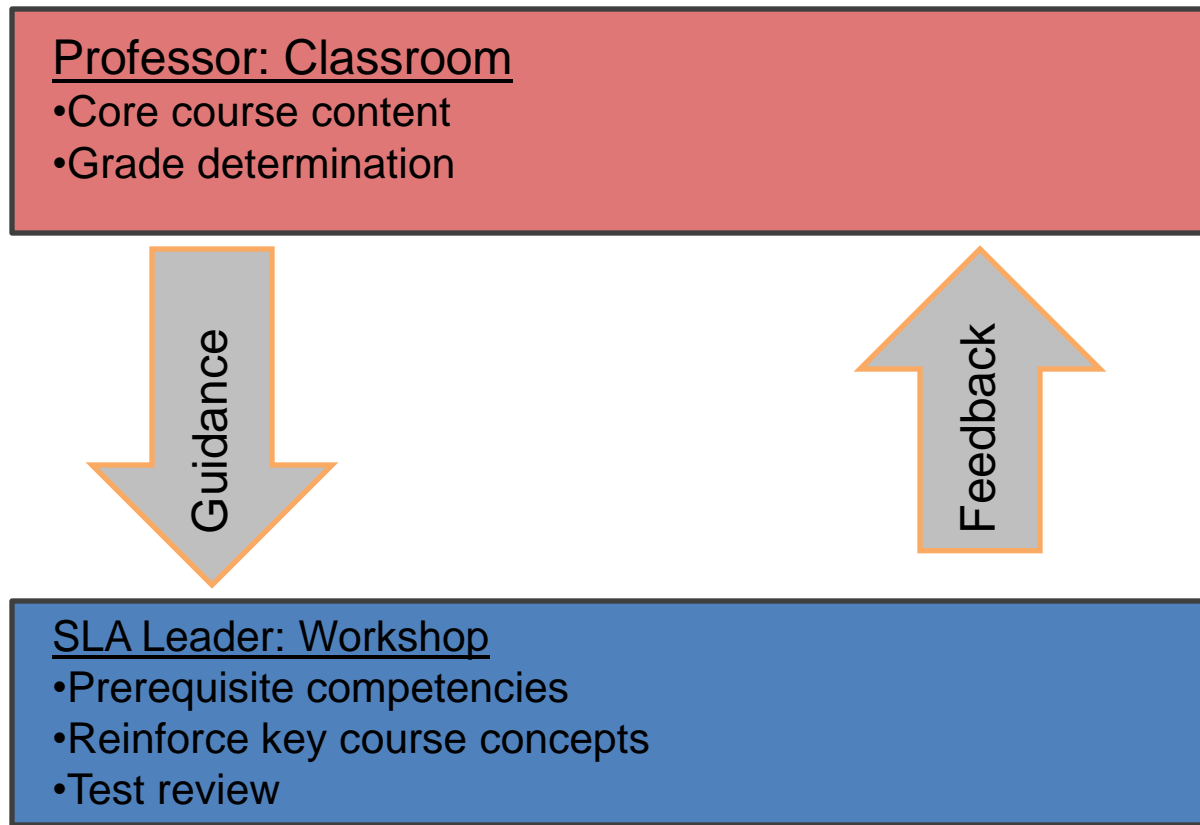


Math 1530

Fundamentals of Statistics

- 28.8% earned a D or higher

Structured Assistance Redesign



Student and Faculty Time

Students

- Meet in class for 2x50 minute sessions
- Attend *math lab* for at least 1 hour

Faculty

- Number of classroom meetings remains unchanged
- Office hours now in *math lab*

Structured Assistance Results

| | Traditional-DSPM 0800 | Traditional – DSPM 0850 | Traditional College Ready | Redesign |
|-----------|-----------------------|-------------------------|---------------------------|----------|
| Math 1010 | 11.6% | 43.5% | 85% | 76.3% |
| Math 1530 | 7.5% | 28.8% | 56.2% | 61.2% |

Austin Peay Cost Savings

Eliminated 52 developmental math sections per year

Added 32 enhanced courses 32 workshops per year

\$207,000 or 52% in cost savings



CC of Baltimore County Accelerated Learning Project

- Students co-enroll in college English and highest level developmental English.
- Developmental students enrolled with traditional students in college English
- Developmental students pulled out into developmental English
- Uses learning community approach for instruction
- Developmental course reinforces and supports instruction in college English



Traditional Model

ENG 052



semester 1

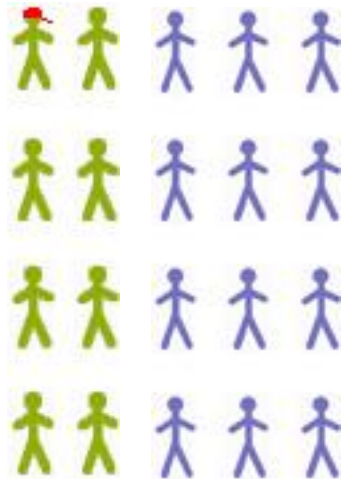
ENG 101



semester 2

ALP Model

ENG 101



semester 1

ENG 052



semester 1

Accelerated Learning Project Results

students who took traditional developmental writing in fall 06

took 052
fall 06
1023

S in 052
604
59%

took 101
383
37%

A, B, or C
in 101
279
27%

students who took ALP in fall 07, spring 08, fall 08, spring 09

took 052
2007-09
227

S in 052
175
77%

took 101
227
100%

A, B, or C
in 101
142
63%

ALP Cost Benefit

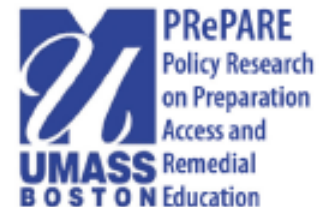
CCRC analysis found increased cost, AND increased productivity:

- Increased from 77 to 125 sections per year
- Cost increased from \$213,000 to \$400,000 per year
- Net revenue increased from \$783,000 to \$1,016,000 per year
- Net revenue increased by \$233,000 per year or 30%



Using policy to improve developmental education and increase college success

Modularization/Emporium Model



Modular/Emporium: Key Characteristics

- Ideal for “Three-Point Shot” students
- Breaks down course content into mini-courses or sections
- Competency based
- Requires a minimum pace, but allows students to self-accelerate
- Utilizes technology – typically computer labs - to deliver instruction
- Enables greater one-on-one contact between instructor and student
- When combined with modularized college level course, can allow students to complete remediation and college level course in single semester.

Jackson St. SMART Math

Modularization & Multi-Exit Options

- 12 modules replaced 3 traditional courses
- Prerequisite modules were identified for success in
 - general education math courses
 - other college level courses
 - programs not requiring college level math
- Procedures set up to advise students of their multi-exit options based on their career choices

Academic Program Readiness

Jackson State's Module Distribution

| Modules | 1, 2, 3 | 4, 5, 6, 7 | 8, 9, 10, 11, 12 |
|-------------|-------------------|--------------------|----------------------|
| Traditional | Basic Mathematics | Elementary Algebra | Intermediate Algebra |

Module Requirements by Academic Program

| | | |
|--------------------------------------|----|-------|
| Programs Requiring 12 Modules | 7 | 20.3% |
| Programs Requiring 8 or less Modules | 41 | 79.7% |

Mastery Learning

New student begins with Pre-Test on Module 1

80% mastery moves student to next module, If less than 80%,

1. Student studies work text book : and does homework assignment s for Module 1 in MyMathLab + (80% Mastery)
2. After homework is completed student works and turns in Notebook problems found in MML+ (100% Mastery).
3. Student takes Practice Test in MyMathLab+ (80% Mastery)
4. Student takes Post Test in MyMathLab+ (75% Mastery)
5. Student , moves to Module 2 and so on

SMART Math Results

| Course | Term | Percent Course Completion | Percent "C" or Better |
|-------------|-------------|---------------------------|-----------------------|
| Traditional | Spring 2008 | 74% | 41% |
| Redesign | Spring 2008 | 72% | 54% |
| SMART Math | Fall 2008 | 75% | 57% |
| SMART Math | Spring 2009 | 83% | 59% |
| SMART Math | Fall 2009 | 84% | 60% |

SMART Math - Cost Savings

Increased section size

+ decreased sections

+ maintained faculty load

= \$162,00 in savings or 38%

U Do the Math

NCAT Emporium Model

- Students meet in computer classroom once a week
- Students work in math lab outside of class

Mastery Learning

- Students keep working until they “get it”
- Students Do the Math and get the help they need

Weekly Expectations

- Course organized by Mini-modules – weekly HW and Quiz
- Students watch topic videos, do homework, take quiz

Cleveland State: U Do the Math

3 Developmental Math Classes

Basic Math, Elementary Algebra, Intermediate Algebra
Emporium Model, Mastery Learning 1+2 Format

7 College Math Classes

College Algebra, Finite Math, Statistics (1 + 2)
Precalculus I & II, Applied Trig, Business Calculus (2 + 1)

2 Computer Labs, 4 Computer Classrooms

60 computer lab on main campus in Cleveland
35 computer classroom/lab on campus in Athens



The Cleveland State: U Do the Math

Course Layout

Each course consists of 10 – 12 mini-modules
1 hour class meeting each week – students work in class
2 hours work outside class each week – at least 1 hour in lab
Students expected to complete one module each week

Course Grade

10% Attendance Grade - class & lab attendance, module finished
30% Homework Sets – 2 to 5 sections per module
60% Quiz and Exam Grades – 1 quiz each module, 2 exams

Course Standards

Students must complete every homework set (70 or better)
Students must pass every module quiz and exam (70 or better)
Students must pass attendance grade (70 or better)
Students may take each quiz and exam multiple times



Cleveland State Results

- Developmental Math Completion 54% to 72%
- College Math Completion from 72% to 74% (*including increased enrollment among remedial students*)
- 35% Growth in Math Enrollments
- Replicated at Chattanooga State CC with similar results

Cleveland State Cost Savings

Decreased section size
+ increased sections
+ doubled faculty load
= \$51,000 in savings or 20%

Northeast CTC Reading Redesign

- Reading Emporium: No traditional class meetings or contact hours
- Weekly Reading Group meetings: Once a week required
- Mandatory weekly hours to allow hands-on learning in the Reading Center
- Course Notebook required; study skills taught and enforced
- Early exit allowed and encouraged

Northeast CTC Results

- The course success rate in the redesigned reading course was 2-6% higher than the traditional reading course.
- 20-point average gain on test results, 12 points more than the traditional reading class.
- Success rates in college level courses were 2-3% higher than those of traditional reading students.
- 35% students early exit the course
- Per-student cost was lowered from that of the traditional course for a savings of 51%

Northeast CTC Cost Savings

Significantly increased section size

+ Significantly decreased sections

+ Decreased faculty load

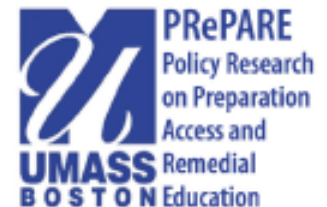
+ Eliminated adjunct faculty

= \$51,000 in savings or 51%



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Contextualized Instruction



Contextualized Instruction Characteristics

- Works with “half-court shot” students who are 3 or more levels below college level – to include ESL and adult basic education.
- Embed remediation into career certificate/applied associate degree programs.
- For adult basic education or ESL courses have two instructors – one basic skills, one content oriented.
- Deliver remedial education in just-in-time manner, focused only on what students need to succeed in academic program.

Washington I-BEST Model

Integrated Learning Outcomes

1. Compile Resources
2. Create Integrated Learning Outcomes
3. Match Available Standards to Integrated Learning Outcomes
4. Assess, Review and Revise Integrated Learning Outcomes

Integrated Teaching

1. Both instructors work as a collaborative team to design and deliver the program.
2. They are both present in the classroom
3. The adult basic education instructor ensures that basic skills are within the context of the workforce education content and gauge student progress.
4. The workforce education instructor focuses on the delivery of the workforce content.

I-BEST Results

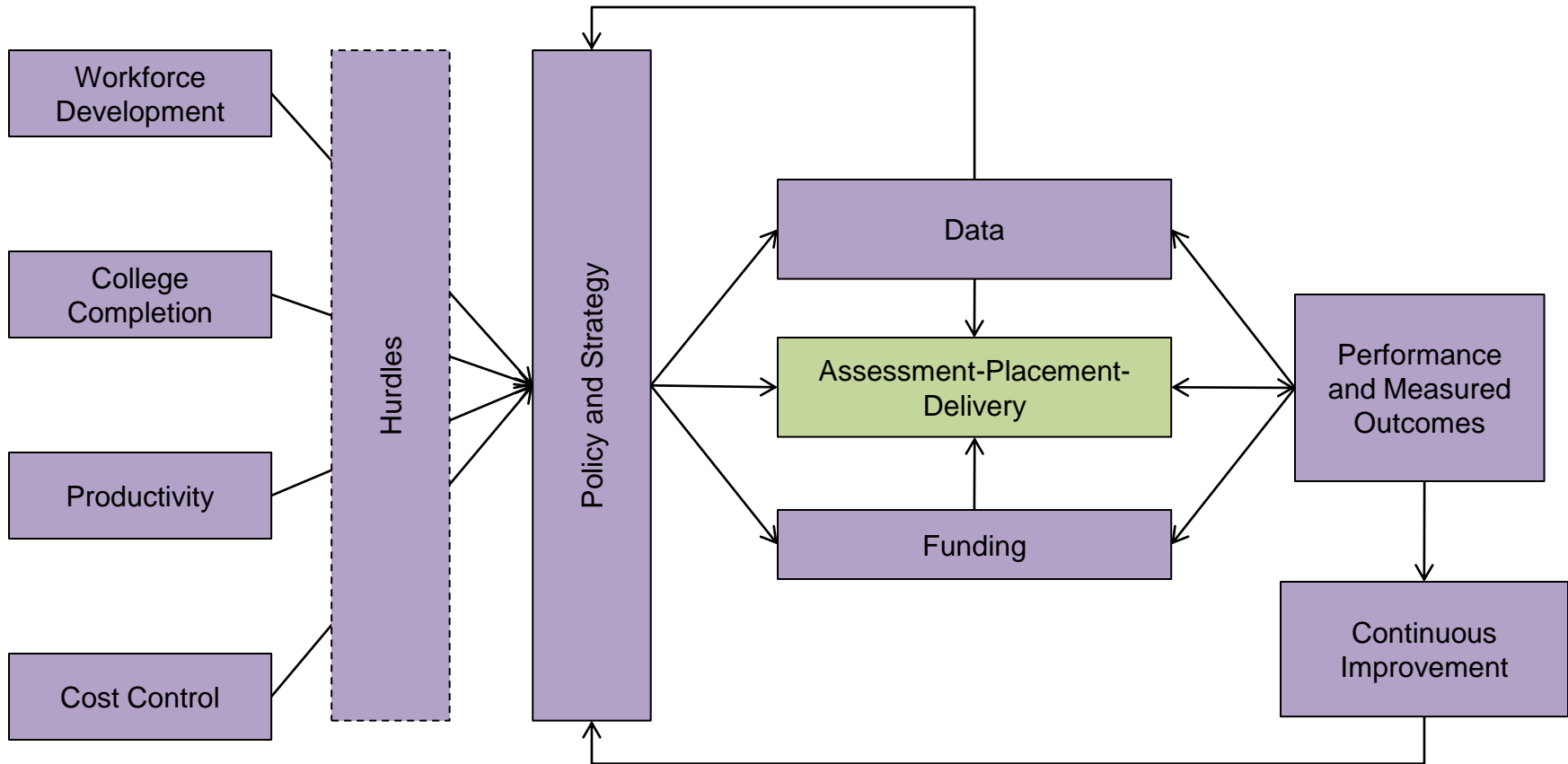
I-BEST students were more likely to:

- continue into credit-bearing courses
- earn credits toward a credential
- earn a certificate
- improve their basic skills.
- *Probability of credential 50% greater for I-BEST Students*

Sustain and Scale

- Identify and hold institutions accountable to established benchmarks – see CCA remediation related metrics
- Create financial incentives for success
- Develop policies that facilitate continuous improvement
- Gain the support faculty at every step of the process
- Provide professional development for faculty on both instruction and the continuous improvement process
- Gather data on the entire enterprise assessment, placement and delivery.

Remedial Education Policy Framework



Join us for the online discussion

Log in at: Gettingpastgo.polilogue.net

Username: first initial first name, last name (ex. Bvandal))

Password: 123abc

- Get your more in depth questions answered
- Engage Peter Adams of the CC of Baltimore County Accelerated Learning Project and John Squires of the Chattanooga State U Do the Math Program
- Discussion open through Wednesday



For More Information

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bvandal@ecs.org

<http://GettingPastGo.org>



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