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Achieving the Dream 2011 Strategy Institute
February 10, 2011
What is NCPR?

- Partners
  - Community College Research Center, Teachers College, Columbia University
  - MDRC
  - Curry School of Education, University of Virginia
- NCPR is funded by the Institute for Education Sciences, US Department of Education
- Projects also funded by the Houston Endowment and the Gates, Lumina, Kresge, Ford, and Robin Hood Foundations
Presentation Outline

- What is the problem and overview of the Webinar and Conference—Shanna Jaggers
- Intervention Strategies evaluated by NCPR—Heather Wathington
  - Learning communities
  - Developmental summer bridge program
- Future directions—Davis Jenkins
What is the Problem?

- Over 60 percent of entering students are referred to developmental education.
- Developmental education is not very effective for students near the cutoff (Calcagno & Long, 2008).
- Farther below, mixed results—developmental education influences students differently depending on their level of academic preparedness (Boatman & Long, 2010).
- A majority of students do not complete the sequences to which they are referred (Bailey, Jeong, & Cho).
- Current system neglects the needs of weaker “college ready” students.
Assessment
(Hughes & Scott-Clayton, 2010)

- Confusion about what it means to be “college ready”—no obvious cutoff point
- Tests may be reasonable predictors of college-level success, but less effective at identifying who is likely to benefit from dev ed (or alternative interventions)
- Assessments do not provide adequate diagnostic information
- A single cutoff point exaggerates the distinction between developmental and college ready—need for multiple measures including non-cognitive
- Students are confused about the process and not well advised (Venezia, Bracco, & Nodine, 2010)
Math In-Order Course Completion and Enrollment

- Sample: 2001-2005 cohorts, tracked for three years

- Referred to Level 3+
  - Not enrolled 21%

- 3+ levels below
  - Enrolled 79%
    - Not enrolled 15%
    - Not completed 24%

- 2 levels below
  - Enrolled 40%
    - Passed 29%
      - Enrolled 17%
      - Not enrolled 7%
      - Not completed 5%
    - Passed 55%
      - Enrolled 12%
      - Not enrolled 5%

- 1 level below
  - Enrolled 22%
    - Passed 17%
      - Enrolled 12%
      - Not enrolled 5%
    - Not enrolled 5%

- GK Algebra
  - Enrolled 12%
    - Not enrolled 5%
    - Not completed 2%

- TOTAL: 10%
  - Not completed 24%
  - Not completed 11%
  - Not completed 5%
Reading In-Order Course Completion and Enrollment

- Sample: 2001-2005 cohorts, tracked for three years

GK English

- Passed 36%
- Enrolled 29%
- Not enrolled 7%
- Not completed 4%

1 level below

- Passed 39%
- Enrolled 36%
- Not enrolled 6%
- Not completed 3%

2 levels below

- Passed 58%
- Enrolled 45%
- Not enrolled 10%
- Not completed 3%

3+ levels below

- Passed 48%
- Enrolled 48%
- Not enrolled 10%
- Not completed 3%

Referred to Level 3+

- Not enrolled 30%
- Not completed 12%

TOTAL: 25%

15,255
Potential Solutions to Specific Pipeline Problems

- Students fail to enroll—summer bridge programs, improved and earlier assessment
- Students fail or withdraw from courses—learning communities, improved pedagogy including contextualized instruction
- Students exit long sequences—acceleration, diagnostic assessment, redesign and alignment of curriculum
NCPR Developmental Education Research: Findings and Implications

Heather Wathington
University of Virginia
Overview

- Two studies linking developmental education practice to research designed to support causal inferences
  - Study 1 – Learning communities to improve academic outcomes of students in need of remediation
  - Study 2 - Summer bridge programs to improve academic outcomes of students in need of remediation prior to college entry
Random Assignment Design

Targeted students invited to participate in study

Students give consent

Baseline data collected

Random Assignment

Program group
Opportunity to enroll in program

Control group
Received regular courses and services
Learning Communities

- **Purpose:** Assess the effectiveness of learning communities in improving college preparation and success for students.
- **Seven studies:** only sharing results for four ---Kingsborough (Opening Doors - MDRC), Hillsborough, Houston, and Queensborough.
Learning Communities

- Co-enrollment of students in two or more classes
- Faculty Collaboration
- Integration
- Extra student supports
Passing Developmental Education Courses

Percent Pass Dev Ed Course in LC Link (Program Semester)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Program</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingsborough(OD) English</td>
<td>53.5%</td>
<td>36.5%</td>
</tr>
<tr>
<td>Hillsborough Reading</td>
<td>60.4%</td>
<td></td>
</tr>
<tr>
<td>Houston Math</td>
<td>53.9%</td>
<td>40.2%</td>
</tr>
<tr>
<td>Queensborough Math</td>
<td>34.0%</td>
<td>22.2%</td>
</tr>
</tbody>
</table>

**Note:** The asterisks indicate statistical significance.
Overall Credit Accumulation

Total Credits Earned (Program Semester)

<table>
<thead>
<tr>
<th>Location</th>
<th>Control</th>
<th>Program</th>
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<tbody>
<tr>
<td>Kingsborough(OD)</td>
<td>10.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Hillsborough</td>
<td>6.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Houston</td>
<td>5.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Queensborough</td>
<td>6.1</td>
<td>6.8</td>
</tr>
</tbody>
</table>
Overall Credit Accumulation

Total Credits Earned (Cumulative)

Kingsborough(OD) 4 Semesters 30.8 33.2
Hillsborough 2 Semesters 11.1 11.6
Houston 2 Semesters 9.1 9.0
Queensborough 3 Semesters 16.0 16.9

Control
Program
Evidence suggests that, compared to business as usual, learning communities…

- are better at helping students progress through a particular developmental education course sequence (during the program semester)
- are no better at helping students make meaningful progress through their overall developmental needs (during the program semester or beyond)
- are sometimes better at helping students accumulate credits (mostly during the program semester)
- are generally no better at improving rates of persistence or long term credit accumulation

Stay tuned – Findings at other colleges and longer follow-up may change the story.
Forthcoming reports

- Queensborough and Houston: Spring 2011
- Kingsborough's Career Focused Learning Communities for Continuing Students: Summer 2011
- CCBC and Merced: Fall 2011
- Final Report: Summer 2012
Texas Developmental Summer Bridge Study

- Purpose: Assess the effectiveness of a summer bridge model in improving college preparation and success for students in need of remediation.

- Conducted in cooperation with the Texas Higher Education Coordinating Board.
Eight Programs in the Texas DSB Study

- Four to five weeks (64-100 hours)
- Accelerated instruction in developmental math, English, and/or reading at the college
- Student cohorts
- Academic and student services support
- “College knowledge” component
- Student stipend of up to $400 for completers

Programs were generally well-implemented and a fair test of the program model.
Early Impact Findings
Fall 2009

- No program impacts on college enrollment or total credits.
- Impacts on the types of credits attempted:
Early Impact Findings
Spring (plus Flex terms), 2010

- Again, no impacts on college enrollment or total credits.
- Continued impacts on the types of credits attempted:
Overview of Preliminary Findings

- Did not impact college enrollment or persistence.
- Shifted average course load from developmental towards college-level credits.
  - Reduced developmental credits attempted, and increased college-level credits attempted in the spring.
  - Increased students’ ability to meet TSI (Texas Success Initiative) standards in reading, writing and math.
- More data and longer follow-up to come.
Texas Developmental Summer Bridge Study Next Steps

- Interim report, early 2011
  - Program implementation description and lessons
  - Early impacts on additional measures of college progress

- Final report, early 2012
  - Two years of follow-up on program impacts and student success
Future Directions:
What Can Be Done Now?

Davis Jenkins
Senior Research Associate
Community College Research Center
Learning Communities and Summer Bridge: Some Promise, but No Magic Bullet

- Interventions can make a positive difference for students
- Effects generally modest
- Too few students are progressing to college-level courses and degrees
How Might Learning Communities and Summer Bridge Programs Work Better?

1. Allow time for new programs to mature.
2. Encourage more professional development for participating faculty and staff.
3. Increase program intensity.
4. Focus on the transition points. What happens to students once they leave the program?
Other Approaches to Developmental Education Reform

- No shortage of innovation.
- Challenge: Without a good comparison group, hard to know what difference a program made for students.
- Next three sets of slides point to approaches that have some evidence of effectiveness.
(1) Early Assessment Programs

- **Objective:** Help students avoid developmental education in college by testing them in high school
  - Use same tests
  - Report back to students on the skills they need to master

- **Examples:** California’s Early Assessment Program; El Paso Community College’s College Readiness Program
El Paso: College Readiness Initiative

- College’s data analysis revealed:
  - Recent high school grads placed into developmental courses at similar rates as older students
  - Few high school students knew about placement test and “high stakes” involved

- Goal: To decrease the number of students from local high schools needing college remediation

- Strategy: Partnership with University of Texas at El Paso (UTEP) and 12 El Paso school districts
El Paso: College Readiness Results

- College Readiness Protocol
  - HS students complete college application
  - Orientation to ACCUPLACER test
  - Students take the test
  - Refresher course and retesting for non-passers
  - Summer bridge program, if necessary
- Impact: All El Paso area high school seniors (10,000)
  - Fewer students in lowest 2 levels
    - 4 below: 31% → 22%
    - 3 below: 25% → 19%
  - More into higher levels
    - College Ready: 3% → 5%
    - Highest dev ed: 28% → 41%
(2) Accelerated Learning Programs

- **Objective:** Get students into college-level courses sooner
  - Fast-track courses
  - Modularized instruction
  - Placement into college-level courses with additional support ("mainstreaming")

- **Example:** Community College of Baltimore County’s Accelerated Learning program
CC Baltimore County ALP Accelerated English

- Students placed into upper-level developmental English (ENG 052) “mainstreamed” into English 101 – 8 ALP students per 20-student ENG 101 section
- 8 ALP students take companion class taught by their same ENG 101 instructor
- ALP class designed to maximize success in ENG 101
- If effective, ALP should increase rate / decrease time for developmental students to complete college-level English requirements
ALP alters the structure of ENG 101 enrollment for ENG 052 students
Outcomes of ALP & Non-ALP Comparison
Group 1 Year After ENGL 052 Enrollment

- **Passed English 101**: 74% (ALP), 38% (Non-ALP)
- **Attempted English 102**: 45% (ALP), 16% (Non-ALP)
- **Passed English 102**: 34% (ALP), 12% (Non-ALP)
ALP Study Findings

- ENGL 052 students who enroll in ALP more likely than comparison group to enroll and complete both ENGL 101 and ENGL 102

- ALP more cost-effective route for students to pass the ENGL 101 and 102 than traditional sequence ($2,680 versus $3,122 per student)

- ALP benefits estimated at more than double the costs

- ALP students more likely to attempt college-level courses in the year following ENG 052, but no more likely to complete such courses
(3) Contextualized Instruction

- **Objective**: Integrate developmental education instruction into occupational fields or majors that students want to learn.

- **Example**: Washington State’s I-BEST Program.
I-BEST

- I-BEST (Integrated Basic Education and Skills Training)
  - Developed by WA community and technical colleges to improve transition from adult basic skills to college/careers
  - College-level occupational courses team taught by basic skills and professional-technical teachers
  - Enhanced funding of 1.75 FTE

- CCRC evaluation
  - Multivariate analysis of educational/labor market outcomes
  - Telephone interviews with all colleges in spring 2010
  - Field research and high and low-performing colleges (spring 2011)
Probabilities Compared: I-BEST and Propensity-Score-Matched Students

Note: Outcomes for 2006-07 and 2007-08 first-time enrollees tracked over 2 years.
Models of Integrated Instruction

- Model 1: Non-Integrated Instruction
  - Prof-tech curriculum and instruction unchanged. Basic skills instruction not contextualized.

- Model 2: Non-Integrated Instruction with Separate, Contextualized Basic Skills
  - Prof-tech course unchanged. Co-instructors jointly identify basic skills needed, which BS instructor teaches in a separate class.

- Model 3: Partially Integrated Instruction
  - Co-instructors jointly modify prof-tech course to accommodate basic skills students. BS instructor assumes support role, but prof-tech course content includes more focus on basic skills.

- Model 4: Fully Integrated Instruction
  - Co-instructors jointly overhaul prof-tech curriculum so that bs instruction is interwoven with prof-tech content.
Instructional Program Coherence

■ Definition

■ “A set of interrelated programs for students and staff that are guided by a common framework for curriculum, instruction, assessment, and learning climate and that are pursued over a sustained period”

■ Conditions

■ Common instructional framework – for curriculum, instruction, tutoring, parent education, etc.

■ Supportive working conditions – opportunities for teachers to collaborate on framework development

■ Adequate resources – to support implementation of framework and associated professional development

Source: Newman et al., 2001
New Program Models Sorely Needed

1. **Basic skills assessment and placement**
   - More comprehensive strategies – not predicated on single test scores
   - Better messaging to students on high stakes
   - Practice and review sessions prior to testing

2. **Reforms in curriculum and pedagogy**
   - Tailor subject matter to what students need to know to function in school and society
   - Statway example: Emphasizes quantitative reasoning and basic statistics
Closing Thoughts

- Problems faced by developmental education students not likely to be solved by short-term, single-shot interventions
- Need to focus on **broader institutional context**
  - Validity and diagnostic value of placement testing
  - Quality/frequency of academic/career guidance
  - Alignment between developmental instruction and requirements for success in college-level programs
  - Integration of academic supports with instruction
  - Professional development to ensure program coherence/quality instruction
More Information

Please visit our websites to learn more about our latest research, download publications, and sign up for electronic announcements:

- NCPR: www.PostsecondaryResearch.org
- MDRC: www.mdrc.org
- CCRC: http://ccrc.tc.columbia.edu/

NCPR IS FUNDED BY THE INSTITUTE OF EDUCATION SCIENCES OF THE U.S. DEPARTMENT OF EDUCATION and is a partnership of the Community College Research Center, Teachers College, Columbia University; MDRC; the Curry School of Education at the University of Virginia; and faculty at Harvard University.