Math & English Teams Discuss:

How to Reduce Unnecessary Remediation by Improving Placement

Mina Dadgar PhD, Career Ladders Project
Objectives of the Session

1) Develop a shared understanding of the evidence based placement strategies; discuss best practices.

2) Discuss implementation and available support.

1) Identify individuals to lead designing and implementing pilots to improve placement.
Session Structure

I. Review evidence on accuracy the current placements and alternatives

II. Discuss best practices and implementation lessons

III. Lunch break at noon

IV. Small group discussion by subject & sub-region on how to design and implement a pilot

V. Action planning and follow up worksheet

VI. Next steps and closing
Remediation is the Key Barrier to Accessing Pathways

- About two thirds of all CC students in CA and nationally enroll in one or more remedial courses. (BPS 2003-2004 cohort; CCCO 2009)

- Only 33% assigned to math and 46% assigned to English complete the remedial sequence. (Bailey, Jeong & Cho 2008)

- In fact, enrolling in remedial courses negatively affects student’s chances of earning a credential. (Dadgar 2012; Martorell & McFarlin 2011; Scott-Clayton & Rodriguez 2012)

- Yet many students placed into remedial courses would have been able to succeed in college level courses
# The Current Assessment and Placement Landscape

## Standardized Assessments: ACCUPLACER & COMPASS

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Inexpensive to purchase, administer &amp; grade;</td>
<td>➢ In mathematics 1 in 4 students are severely misplaced; in English 1 in 3 are severely misplaced</td>
</tr>
<tr>
<td>✓ Consistent measure across all students</td>
<td>➢ Being placed too low is 5-6 times more common that being placed too high</td>
</tr>
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</table>

(Scott-Clayton, Crosta & Belfield 2012)
## Alternative Measures?

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>Predictive of College Success</th>
<th>Aligned with HS curricula</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized Assessments (ACCUPLACER/COMPASS)</td>
<td>✅✅✅</td>
<td></td>
<td>✅✅✅</td>
</tr>
<tr>
<td>High School GPA</td>
<td></td>
<td>✅✅</td>
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<tr>
<td><em>Long Beach City College</em></td>
<td></td>
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<td><em>North Carolina</em></td>
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<td><em>Massachusetts</em></td>
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<tr>
<td><em>Hawaii</em></td>
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<td>✅</td>
<td></td>
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<tr>
<td>Math/English courses and grades</td>
<td>✅✅</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td><em>Long Beach City College</em></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Smarter Balanced Assessments</td>
<td>Unknown</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td><em>Washington State</em></td>
<td></td>
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<td>✅</td>
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</table>
Discussion Questions

• Do you have evidence of how prevalent unnecessary remediation is in your department (or the college your HS graduates attend)?

• (For colleges) Is there interest in improving placement in your department? Has your colleges piloted alternative placement strategies?

• Are there other reforms in remediation, academic preparation, or alignment that you would like to address as a part of this grant?
Using Multiple Measures

How Long Beach City College Uses Multiple Measures to Assess Incoming Students

Andrew Fuenmayor, Senior Research Analyst

Long Beach City College
Office of Institutional Effectiveness
The Long Beach College Promise:

Extending the promise of a college education to every student in the Long Beach Unified School District.
LBCC’s Promise Pathways: Background

First year experience program for students matriculating directly from high school

– Alternative assessment using multiple measures
– Prescriptive scheduling emphasizing full-time enrollment and early completion of basic skills courses
– Priority registration
– Achievement coaches and other pilot experiments
Preliminary Analysis

• Historical longitudinal data provided courtesy Cal-Pass.

• Simple analysis: How many students with a history of success in English and Math are ending up in remediation?

• Complex analysis: Logistic Regression to determine the relationship between course success in college and several key predictors of success in high school.

• Even a simple analysis can reveal easy potential gains
Key Component: Data Sharing

- Effective programs for incoming students rely on leveraging K12 transcript information.
- Community Colleges typically rely solely on a standardized assessment exam and a short questionnaire to assess students abilities and interests.
- A student’s performance and interests as demonstrated on their high school transcript is CRUCIAL towards understanding who your students are, their strengths and goals.
Preparing for the Start of Term

• Arrange data sharing with feeder K12 districts
  – Typically by February

• Assign students placements based on grades
  – Simple Example: Students with at least a B in their last English Course get assigned to Transfer Level.
  – Complex Example: Predictive model generates probability of successful completion of transfer level. Cut scores are identified which achieve desired pass rate for course.

• Placements provided to counselors who meet with students to discuss first semester course work.
Follow-Up

• Short Term: Compare how students performed in their classes if given an alternative placement.

• Long Term: Analyze long term success metrics like Unit Completion, Behavioral Intent to Transfer
Contact information

• Andrew Fuenmayor: afuenmayor@lbcc.edu
Let Icarus Fly: Unleashing student achievement through multiple measures assessment

East Bay Career Pathways Regional Convening #2
December 4, 2014

John J. Hetts, Ph.D.
Senior Director of Data Science
Educational Results Partnership
Overview

- Standardized tests systematically underestimate student capacity
  - Students of color
  - First generation college students
  - Lower SES
  - Women

- Multiple measures (esp. GPA) fairer and far more accurate predictor of college performance/graduation
  - Increase grad rates, decrease time to completion

- Very low cost, exceptionally high ROI
  - To students
  - To colleges
  - To state
Daedalus and Icarus

- Daedalus crafted the labyrinth of inescapable complexity for King Minos

- To escape from Minos, Daedalus built wings of feather and wax for his son Icarus and himself

- Don’t fly too high, lest sun melt the wax and you plummet to your doom
  - Dangers of innovation/invention, hubris,
  - Importance of knowing your limits, listening to your wiser elders

- But most of us forget the rest of that story…
Student transition to college

• Community colleges rely nearly entirely on standardized assessment

• **Most** CC students placed below college-level
  • **Significant** barrier (Bailey, Jeong, and Cho, 2010)

• **First** interaction is to tell students they don’t belong
  • Imply that most students are **not ready** for college and are **likely to fail**
  • Convinces many, including our students
Conventional Wisdom
Explaining Assessment Results

• It is a problem with today’s students
  • Students are simply, vastly unprepared for college
  • Kids these days …. 

• It is a problem with public education
  • Public education is failing to prepare students
  • Teachers these days…
What If the Conventional Wisdom is Wrong?

- Substantial, long-term increase in IQ: bit.ly/FlynnEffectIQ
- National Assessment of Educational Progress: at all-time highs in virtually every demographic category: bit.ly/NAEPInfo
- Research increasingly questions effectiveness of standardized assessment for placement
Big questions

• What if the problem is not with our students, but with how we have assessed their capabilities?

• OR

• What if one of the barriers to our students’ successful transition to college is one that we fully control?
LBCC Research

• Five longitudinal cohorts tracking more than 7,000 HS grads who attend LBCC directly after high school
  • built with help of Cal-PASS

• Examined predictive utility of wide range of high school achievement data
  • most notably 11th grade California Standards Test (CST) scores and high school grades

• For predicting:
  • How students are assessed and placed into developmental skills sequences
  • How students perform in those classes
  • (and for understanding alignment between them)
Alignment in English

Predicting Placement

<table>
<thead>
<tr>
<th>CST ELA (z)</th>
<th>Eng Grade (12)</th>
<th>GPA (other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.34*</td>
<td>.00</td>
<td>.30**</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001, x = p < 1 x 10^{-10}

Predicting Performance

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<th>CST ELA (z)</th>
<th>Eng Grade (12)</th>
<th>GPA (other)</th>
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<tbody>
<tr>
<td>.17*</td>
<td>.37***</td>
<td>.88*</td>
</tr>
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</table>
Alignment in Math

Predicting Placement

Predicting Performance

* p < .05  **, p < .01, *** p < .001, x = p < 1 x 10^{-10}
Key Takeaways

• Assessment should predict how students will perform at our colleges

• Instead:
  • Standardized tests best predict standardized tests
  • Classroom performance best predicts classroom performance
  • More information tells us more about students than less information

• Replicated statewide by STEPS project, conceptually replicated by CCRC work

• **Significant opportunities** exist to improve placement, student achievement, and students’ college experience.
Multiple Measures Placement: Transfer-level Placement Rates F2012

- Transfer Level English:
  - F2011 First time students: 11%
  - F2011 LBUSD: 13%
  - F2012 Promise Pathways - Accuplacer Only: 14%

- Transfer Level Math:
  - F2011 First time students: 7%
  - F2011 LBUSD: 9%
  - F2012 Promise Pathways - Multiple Measures: 9%

- F2012 Promise Pathways - Multiple Measures Placement Rate: 60%
F2012 Promise Pathways vs. Fall 2011 2-year rates of achievement

- Successfully Completed Transfer Math: 13.3% (F2011 LBUSD, N=1654) vs. 22.9% (F2012 Promise Pathways, N=933)
- Successfully Completed Transfer English: 24.2% (F2011 LBUSD, N=1654) vs. 52.0% (F2012 Promise Pathways, N=933)
- Successful Completion of English 3: 3.0% (F2011 LBUSD, N=1654) vs. 19.5% (F2012 Promise Pathways, N=933)
- Behavioral Intent to Transfer: 0% (F2011 LBUSD, N=1654) vs. 31.0% (F2012 Promise Pathways, N=933)
Success rates in transfer-level courses Fall 2012

Neither of these differences approach significance, $p > .30$
Equity impact: F2011 Baseline Equity Gaps for 2-year rates of achievement

- Transfer Math Successful Completion: F2011 Hispanic 4%, F2011 Asian 12%, F2011 Hispanic 18%
- Transfer English Successful Completion: F2011 Hispanic 24%, F2011 Asian 25%, F2011 Hispanic 34%
- English 3 Success: F2011 Hispanic 2%, F2011 Asian 1%, F2011 Hispanic 6%
- Behavioral Intent to Transfer: F2011 Hispanic 33%, F2011 Asian 32%, F2011 Hispanic 41%
Equity impact: F2012 Pathways 2-year rates of achievement

- Transfer Math Successful Completion:
  - F2012 Black: 12%
  - F2012 Asian: 21%
  - F2012 Hispanic: 26%
  - F2012 White: 36%

- Transfer English Successful Completion:
  - F2012 Black: 51%
  - F2012 Asian: 39%
  - F2012 Hispanic: 58%
  - F2012 White: 64%

- English 3 Success:
  - F2012 Black: 18%
  - F2012 Asian: 17%
  - F2012 Hispanic: 23%
  - F2012 White: 28%

- Behavioral Intent to Transfer:
  - F2012 Black: 42%
  - F2012 Asian: 52%
  - F2012 Hispanic: 59%
  - F2012 White: 66%
How might this change how we understand college readiness?

College Readiness – Spring 2012 Graduates

Applying LBCC Placement Model to All LBUSD Graduates

Standardized assessment (EAP)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Applying LBCC Placement Model</th>
<th>Standardized Assessment (EAP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>38%</td>
<td>18%</td>
</tr>
<tr>
<td>Math</td>
<td>33%</td>
<td>6%</td>
</tr>
</tbody>
</table>
What was gained through evidence based approach to transition to college

• **Dramatic increases** in students attaining early educational milestones, & **shorter times to do so**

• New discussion of research and instructional pedagogy, kick-starting **experimentation** and **innovation**

• **Strong challenges** to conventional wisdom and perceptions of students by administration, staff, faculty, and students themselves

• **Saved** thousands of units of unnecessary remediation

• Reminder of the forgotten second instruction of Daedalus
  • We keep on using these tests. I do not think they mean what we think they mean...
  • **Just as important not to fly too low.**

• Concrete achievable steps that **any** college can take to **dramatically improve all** of our students’ futures.
Contact Information

• Research questions/data requests
  • John Hetts, Educational Results Partnership
    jhetts@edresults.org
  • 916-498-8980 ext. 208
  • 714-380-2678 cell
  • Twitter: @jhetts

• General questions about Promise Pathways or Long Beach College Promise
  • Alicia Kruizenga, Director of School Relations and International Education:
    akruizenga@lbcc.edu
  • (562) 938-4083
  • http://www.lbcc.edu/PromisePathways
Additional Resources

- Background research
  - Achieving the Dream/Jobs for the Future summary of alternative assessment
    - bit.ly/AlternativeAssessment
  - CCRC research on Assessment, Placement, and Progression in Developmental Education
- RP Group’s Student Transcript-Enhanced Placement (STEPS) Project
  - bit.ly/RPSTEPS
- More information about our research
  - bit.ly/PathwaysResearch
- Similar CCC research and implementation:
  - Peralta CCD: bit.ly/LaneySTEPS2, bit.ly/PeraltaSTEPS
  - Grossmont-Cuyamaca: bit.ly/Grossmont