Session Learning Outcomes

By the end of the session, participants will be able to:

- Articulate strategies for increasing throughput rates and overall student achievement
- Use mixed-methods to evaluate the success of those strategies
- Leverage evaluation outcomes to further increase throughput rates and overall student achievement
Statewide BSSOT Program Focus Areas

- Reform assessment (e.g., Multiple Measures)
- Increase placement into gateway English and math courses
- Align basic skills courses with program of study
- Contextualize instruction
- Integrate instruction with student support
- Accelerate remediation
Overview of the BSSOT Grant and Focus Areas

Goals:

• Annihilate the achievement gap

• Substantially increase the proportion of incoming students who complete gateway English and math courses in significantly less time

• Substantially increase the proportion of students who transfer and/or earn a degree or certificate
MATH PATHWAYS

Placing Students in Math Pathways Based on Meta Major
(Business, CTE, Education, General Education, STEM)
Changing Placement

• Place students in the appropriate Math Pathway by Meta Major
  o STEM; Business; General Education; CTE; Education

• Disjunctive placement with MMAP rules
  o Algebra II with a C or better + HS GPA ≥ 2.8
    o Transfer level with support
  o Algebra I with a C or better + HS GPA ≥ 2.8
    o Statistics with support
  o All students are eligible for Intermediate Algebra with support or Pre-Statistics
  o Accuplacer (only for higher placement)
One- or Two-Course Sequences

- No math below Intermediate Algebra
- Intermediate Algebra with concurrent-enrollment support followed by a transfer-level course
- Pre-Statistics followed by transfer-level Statistics
- First-tier transfer course with concurrent-enrollment support
General Pathway

Pre-Statistics

Statistics (w or w/out support)

OR

Statistics (w or w/out support)
B-STEM Pathway

Intermediate Algebra (w or w/out support)

Pre-Calculus (w or w/out support)

Pre-Calculus Or Business Calculus

Calculus

Business Calculus (w or w/out support)

Statistics
Schedule Changes

• Fall 2015
  o Two + Levels Below Transfer: 18
  o One Level Below Transfer: 15
  o Pre-Statistics: 3
  o Transfer: 29

• Fall 2016
  o One Level Below Transfer: 19
  o Pre-Statistics: 3
  o Transfer: 37

• Fall 2017 (proposed)
  o One Level Below Transfer: 15
  o Pre-Statistics: 3
  o Transfer: 50
Paradigm Shift in Teaching & Learning

The activity-based math classroom
- Contextualized teaching and learning
- Focus shifts from the teacher to the student
- Just-in-time remediation
- Teacher-guided discovery
- Productive struggle with brains-on activities
- Intentional support for the affective domain
ENGLISH PATHWAYS
One- or Two-Course Sequences

• Limited sections available of basic skills English classes (one or two levels below transfer)
• Accelerated Preparation for English 1A followed by English 1A
• English 1A with concurrent-enrollment support
General Pathway

Accelerated Prep for English 1A

OR

English 1A (w or w/out support)
Schedule Changes

• Fall 2015
  o Two or More Levels Below Transfer: 8
  o One Level Below Transfer: 10
  o Accelerated Prep for English 1A: 3
  o Transfer: 29

• Fall 2016
  o Two or More Levels Below Transfer: 4
  o One Level Below Transfer: 7
  o Accelerated Prep for English 1A: 8
  o Transfer: 32 (2 are English 1A with support)

• Fall 2017 (proposed)
  o Two or More Levels Below Transfer: 2
  o One Level Below Transfer: 0
  o Accelerated Prep for English 1A: 8-9
  o Transfer: 39 (8 are English 1A with support)
EVALUATION PLAN
Evaluation Plan Components

Process Evaluation

• Has the project been implemented as intended?
• How do students experience the project components?
• What is the experience of faculty teaching accelerated and concurrent enrollment support courses?

Outcome Evaluation

• Did the project improve student throughput?
• Did the project contribute to improved student completion?
PRELIMINARY EVALUATION RESULTS: MATH PATHWAYS
## Fall 2015 vs Fall 2016 Placement Data

<table>
<thead>
<tr>
<th>Incoming Students</th>
<th>Fall 2015 Transfer Math</th>
<th>Fall 2016 B-STEM (w or w/out support)</th>
<th>Fall 2016 Statistics (w or w/out support)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>24%</td>
<td>62%</td>
<td>84%</td>
</tr>
<tr>
<td>Black</td>
<td>9%</td>
<td>49%</td>
<td>73%</td>
</tr>
<tr>
<td>Asian</td>
<td>36%</td>
<td>79%</td>
<td>90%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>21%</td>
<td>62%</td>
<td>85%</td>
</tr>
<tr>
<td>White</td>
<td>27%</td>
<td>62%</td>
<td>84%</td>
</tr>
</tbody>
</table>
Math Placements by Ethnicity: Transfer-Level (All)

Fall 2016 GCCCD First-Time Students' Placements: Transfer Level (All)*

- Asian: 90%
- Black non-Hispanic: 73%
- Hispanic: 85%
- White non-Hispanic: 84%

*Two or more races/ethnicities and unknown/other race/ethnicity categories excluded
Math Successes: Transfer-Level (throughput rates tripled in two years)

Cuyamaca First-Time Students' Transfer-Level Math Enrollments and Successes

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollments</th>
<th>Successes</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2014</td>
<td>84</td>
<td>106</td>
<td>79%</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>154</td>
<td>214</td>
<td>72%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>257</td>
<td>380</td>
<td>68%</td>
</tr>
</tbody>
</table>
## Transfer Math w/support

### Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Initial Placement</th>
<th>Fall 2016 Transfer Math with support</th>
<th>Fall 2013 Cohort Transfer Math in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Math</td>
<td>35</td>
<td>247</td>
</tr>
<tr>
<td>One Level Below</td>
<td>89</td>
<td>216</td>
</tr>
<tr>
<td>Two Levels Below</td>
<td>63</td>
<td>281</td>
</tr>
<tr>
<td>Three + Levels Below</td>
<td>15</td>
<td>79</td>
</tr>
</tbody>
</table>

Success rates:
- Transfer Math: 77% (2016), 79% (2013)
- One Level Below: 69% (2016), 36% (2013)
- Two Levels Below: 68% (2016), 18% (2013)
- Three + Levels Below: 47% (2016), 4% (2013)
# Statistics w/support

## Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Initial Placement</th>
<th>Fall 2016 Statistics with support</th>
<th>Fall 2013 Cohort Transfer Math in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Math</td>
<td>12  100%</td>
<td>247  79%</td>
</tr>
<tr>
<td>One Level Below</td>
<td>54  78%</td>
<td>216  36%</td>
</tr>
<tr>
<td>Two Levels Below</td>
<td>58  69%</td>
<td>281  18%</td>
</tr>
<tr>
<td>Three + Levels Below</td>
<td>13  46%</td>
<td>79   4%</td>
</tr>
</tbody>
</table>
B-STEM w/support
Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Initial Placement</th>
<th>Fall 2016 B-STEM with support</th>
<th>Fall 2013 Cohort Transfer Math in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Math</td>
<td>23</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>65%</td>
<td>79%</td>
</tr>
<tr>
<td>One Level Below</td>
<td>38</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>36%</td>
</tr>
<tr>
<td>Two Levels Below</td>
<td>9</td>
<td>281</td>
</tr>
<tr>
<td></td>
<td>78%</td>
<td>18%</td>
</tr>
<tr>
<td>Three + Levels Below</td>
<td>5</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>40%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Intermediate Algebra w/support Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Initial Placement</th>
<th>Fall 2016 Intermediate Algebra with support</th>
<th>Fall 2013 Cohort Intermediate Algebra in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Level Below</td>
<td>21</td>
<td>216</td>
</tr>
<tr>
<td>Two Levels Below</td>
<td>69</td>
<td>281</td>
</tr>
<tr>
<td>Three + Levels Below</td>
<td>72</td>
<td>79</td>
</tr>
</tbody>
</table>
## Transfer Math w/support Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Incoming Students</th>
<th>Fall 2016 Transfer Math with support</th>
<th>Fall 2013 Cohort Transfer Math in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>14</td>
<td>43%</td>
</tr>
<tr>
<td>Asian</td>
<td>7</td>
<td>86%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>108</td>
<td>62%</td>
</tr>
<tr>
<td>White</td>
<td>107</td>
<td>75%</td>
</tr>
</tbody>
</table>
# Statistics w/support Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Incoming Students</th>
<th>Fall 2016 Statistics with support</th>
<th>Fall 2013 Cohort Transfer Math in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>1-9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>75</td>
<td>173</td>
</tr>
<tr>
<td>White</td>
<td>75</td>
<td>141</td>
</tr>
</tbody>
</table>
### Intermediate Algebra w/support Success Rates (First-Time Students)

<table>
<thead>
<tr>
<th>Incoming Students</th>
<th>Fall 2016 Intermediate Algebra with support</th>
<th>Fall 2013 Cohort Intermediate Algebra in Two Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>18 50%</td>
<td>16 25%</td>
</tr>
<tr>
<td>Asian</td>
<td>6 59%</td>
<td>1-9 67%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>75 51%</td>
<td>173 28%</td>
</tr>
<tr>
<td>White</td>
<td>68 59%</td>
<td>141 36%</td>
</tr>
</tbody>
</table>
In Spring 2017, a survey was administered to students enrolled in transfer-level courses (MATH-160, 175, 176, 178) with or without concurrent support (MATH-060, 075, 076, 078)

<table>
<thead>
<tr>
<th>Cuyamaca Math Students</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Completed Survey</strong> #</td>
<td>165</td>
</tr>
<tr>
<td><strong>Transfer Level with support</strong> #</td>
<td>69</td>
</tr>
<tr>
<td><strong>Transfer Level without support</strong> #</td>
<td>96</td>
</tr>
</tbody>
</table>
Math Student Survey: Preliminary Findings

Students were asked to indicate their level of agreement with the following statements on a four-point scale (1=strongly disagree; 4=strongly agree)

Mean Ratings: Level of Agreement

- The activities I do in the course help me complete my math homework.
  - Transfer-Level without Concurrent Enrollment: 2.87
  - Concurrent Enrollment: 3.13

- The in-class activities help me master the class material.
  - Transfer-Level without Concurrent Enrollment: 2.75
  - Concurrent Enrollment: 2.96

- The "Math Interludes" help me master the class material.*
  - Transfer-Level without Concurrent Enrollment: 1.74
  - Concurrent Enrollment: 2.65

- The work I do in the course is relevant to my educational goals.
  - Transfer-Level without Concurrent Enrollment: 2.81
  - Concurrent Enrollment: 2.86

*Statistically significant difference (p<.05)
Math Student Survey: Preliminary Findings

Students were asked to indicate via a four-point scale how comfortable they were doing the following (1=not at all comfortable; 4=very comfortable)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean Ratings: Level of Comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking to your instructor?</td>
<td>Transfer-Level without Concurrent Enrollment: 3.47</td>
</tr>
<tr>
<td>Asking questions in class?</td>
<td>Transfer-Level without Concurrent Enrollment: 3.27</td>
</tr>
<tr>
<td>Contributing to in-class discussions?</td>
<td>Transfer-Level without Concurrent Enrollment: 2.98</td>
</tr>
<tr>
<td>Making mistakes in class?*</td>
<td>Transfer-Level without Concurrent Enrollment: 2.51</td>
</tr>
</tbody>
</table>

*Statistically significant difference (p<.05)
Math Student Survey: Preliminary Findings

Students were asked to indicate via a five-point scale how often did the following (1=never; 5=always)

Mean Ratings: Frequency

Actively participate in the in-class activities? (3.80)

Work with other students from the course outside of class to complete assignments and/or study? (2.82)

Attend your instructor’s office hours? (1.53)

---

Transfer-Level without Concurrent Enrollment

Concurrent Enrollment
Math Student Survey: Preliminary Findings

Students were asked to indicate their level of agreement with the following statements on a four-point scale (1=strongly disagree; 4=strongly agree)

Mean Ratings: Level of Agreement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Transfer-Level without Concurrent Enrollment</th>
<th>Concurrent Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The pace of the course is appropriate (that is, it is not too fast or too slow) for me.</td>
<td>2.65</td>
<td>2.88</td>
</tr>
<tr>
<td>My instructor manages the classroom well.</td>
<td>2.82</td>
<td>2.95</td>
</tr>
<tr>
<td>My instructor is organized.</td>
<td>2.95</td>
<td>3.03</td>
</tr>
<tr>
<td>The course provides me with opportunities to receive guidance from the instructor when I need it.</td>
<td>2.97</td>
<td>3.07</td>
</tr>
<tr>
<td>The course provides me with opportunities to receive guidance from other students when I need it.*</td>
<td>2.75</td>
<td>3.26</td>
</tr>
</tbody>
</table>

*Statistically significant difference (p<.05)
PRELIMINARY EVALUATION RESULTS:
ENGLISH PATHWAYS
## Transfer English Placement

<table>
<thead>
<tr>
<th>GCCCD First Time Students: Placement in English Curriculum at Cuyamaca College</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>#</strong></td>
<td><strong>%</strong></td>
<td><strong>#</strong></td>
<td><strong>%</strong></td>
</tr>
<tr>
<td>Transfer-Level (all, with or without concurrent support)</td>
<td>468</td>
<td>23.8%</td>
<td>484</td>
</tr>
<tr>
<td>Transfer Level (without concurrent support)</td>
<td>468</td>
<td>23.8%</td>
<td>484</td>
</tr>
<tr>
<td>Transfer Level (with concurrent support)*</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>One Level Below Transfer</td>
<td>730</td>
<td>37.1%</td>
<td>862</td>
</tr>
<tr>
<td>Two Levels Below Transfer or Accelerated Course</td>
<td>626</td>
<td>31.8%</td>
<td>602</td>
</tr>
<tr>
<td>Three Levels Below Transfer</td>
<td>146</td>
<td>7.4%</td>
<td>163</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,970</td>
<td>100.0%</td>
<td>2,111</td>
</tr>
</tbody>
</table>

*Students that were eligible for Transfer-Level English (with concurrent support) in Fall 2016 were also eligible for One Level Below Transfer.
English Placements by Ethnicity: Transfer-Level (All)

Fall 2016 GCCCD First-Time Students' Placements: Transfer Level (All)

- Asian: 64%
- Black non-Hispanic: 50%
- Hispanic: 58%
- White non-Hispanic: 66%

*Two or more races/ethnicities and unknown/other race/ethnicity categories excluded*
English Successes: Transfer-Level (All)

Cuyamaca First-Time Students' Transfer-Level English Enrollments and Successes

- **Fall 2014**
  - Enrollments: 147
  - Successes: 177
  - Success Rate: 83%

- **Fall 2015**
  - Enrollments: 156
  - Successes: 192
  - Success Rate: 81%

- **Fall 2016**
  - Enrollments: 201
  - Successes: 254
  - Success Rate: 79%
English Successes: Transfer-Level (All)

Fall 2016 Cuyamaca First-Time Students' Transfer-Level Success Rates*

- Asian (n=9): 89%
- Black non-Hispanic (n=22): 59%
- Hispanic (n=95): 76%
- White non-Hispanic (n=106): 86%

*Two or more races/ethnicities and unknown/other race/ethnicity categories excluded
English Student Survey: Preliminary Findings

In Spring 2017, a survey was administered to students enrolled in transfer-level English (ENGL-120) with or without concurrent support (ENGL-020).

<table>
<thead>
<tr>
<th>Cuyamaca English Students</th>
<th>Completed Survey #</th>
<th>Transfer Level with support #</th>
<th>Transfer-Level w/out support #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>109</td>
<td>81</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>74%</td>
<td>26%</td>
</tr>
</tbody>
</table>
English Student Survey: Preliminary Findings

Students were asked to indicate their level of agreement with the following statements on a four-point scale (1=strongly disagree; 4=strongly agree)

Mean Ratings: Level of Agreement

- This course has improved my confidence in my English skills. Mean Rating: 2.40
- The course is helping me critically analyze readings. Mean Rating: 2.76
- The course is helping me respond to readings with my own writing. Mean Rating: 2.92
- I am learning English skills that are necessary for success in college. Mean Rating: 2.60
- I feel welcomed in the course. Mean Rating: 2.60
- Based on my experience in the course, I have learned the skills necessary to be successful in English. Mean Rating: 2.56

Note: All differences are statistically significant (p<.01)
English Student Survey: Preliminary Findings

Students were asked to indicate their level of agreement with the following statements on a four-point scale (1=strongly disagree; 4=strongly agree)

Mean Ratings: Level of Agreement

- The activities I do in the course helped me complete my English homework. [Transfer-Level without Concurrent Enrollment: 2.60, Concurrent Enrollment: 3.23]
- The in-class activities help me master the class material. [Transfer-Level without Concurrent Enrollment: 2.44, Concurrent Enrollment: 3.04]
- The group work in the course helps me master the class material. [Transfer-Level without Concurrent Enrollment: 2.29, Concurrent Enrollment: 2.96]
- The course provides me with opportunities to work with others to practice my English skills. [Transfer-Level without Concurrent Enrollment: 2.71, Concurrent Enrollment: 3.22]
- The work I do in the course is relevant to my educational goals. [Transfer-Level without Concurrent Enrollment: 2.75, Concurrent Enrollment: 3.22]

Note: All differences are statistically significant (p<.01)
English Student Survey: Preliminary Findings

Students were asked to indicate via a four-point scale how comfortable they were doing the following (1=not at all comfortable; 4=very comfortable)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean Rating: Level of Comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking to your instructor?</td>
<td>Transfer-Level without Concurrent Enrollment: 2.83</td>
</tr>
<tr>
<td>Asking questions in class?</td>
<td>Transfer-Level without Concurrent Enrollment: 2.95</td>
</tr>
<tr>
<td>Contributing to in-class discussions?</td>
<td>Transfer-Level without Concurrent Enrollment: 2.82</td>
</tr>
<tr>
<td>Making mistakes in class?</td>
<td>Transfer-Level without Concurrent Enrollment: 2.41</td>
</tr>
</tbody>
</table>

Note: All differences are statistically significant (p<.01)
English Student Survey: Preliminary Findings

Students were asked to indicate via a five-point scale how often they did the following (1=never; 5=always)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean Ratings: Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actively participate in the in-class activities?</td>
<td>3.59</td>
</tr>
<tr>
<td>Work with other students from the course outside of class to complete assignments and/or study?</td>
<td>2.55</td>
</tr>
<tr>
<td>Attend your instructor’s office hours?</td>
<td>1.43</td>
</tr>
</tbody>
</table>

Note: There was a statistically significant difference between groups in responses to the item “How often do you attend your instructor’s office hours?” (p<.01)
English Student Survey: Preliminary Findings

Students were asked to indicate via a five-point scale the frequency of the following statements (1=never; 5=always)

Mean Ratings: Frequency

- When I struggle with class assignments, my instructor helps me locate campus resources to support my success: 2.65 (Transfer-Level without Concurrent Enrollment) and 3.92 (Concurrent Enrollment)
- My accomplishments in the class are recognized: 2.65 (Transfer-Level without Concurrent Enrollment) and 4.20 (Concurrent Enrollment)
- I receive timely feedback on written assignments: 3.04 (Transfer-Level without Concurrent Enrollment) and 4.59 (Concurrent Enrollment)
- I am encouraged to do challenging work: 3.22 (Transfer-Level without Concurrent Enrollment) and 4.25 (Concurrent Enrollment)
- My instructor cares about my success and struggles: 2.91 (Transfer-Level without Concurrent Enrollment) and 4.71 (Concurrent Enrollment)

Note: All differences are statistically significant (p<.01)
English Student Survey: Preliminary Findings

Students were asked to indicate their level of agreement with the following statements on a four-point scale (1=strongly disagree; 4=strongly agree)

Mean Ratings: Level of Agreement

- The course includes a variety of activities.
- The teaching methods are appropriate for my learning style.
- The pace of the course is appropriate (that is, it is not too fast or too slow) for me.
- My instructor manages the classroom well.
- I receive an appropriate amount of support in class, as I develop my English skills.
- The course provides me with opportunities to receive guidance from my instructor when I need it.

Note: All differences are statistically significant (p<.01)
Future Evaluation Activities

• Evaluating answers to questions on survey
  o What aspects of the English course have been most valuable?
  o What advice would you give future students that enroll in this course?
  o How can this course be improved for future students?

• Student focus groups

• Evaluating the effectiveness of the instructor training program
Thank you!

Terrie Nichols    Tammi Marshall    Katie Cabral    Chris Tarman    Bri Hays

RP Conference
April 21, 2017