Responding to the California Math Placement Act (SB-359)

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What is SB-359?

- California Mathematics Placement Act of 2015
- Approved October 2015 with mandated enactment in the 2016-17 school year.
- All schools and educational bodies with student entering grade 9 must enact “a fair, objective, and transparent mathematics placement policy for pupils entering grade 9” (SB-359, 2015).
Rationale

- Student preparation and achievement in math is paramount to success in college and career, especially in STEM fields.

- Student success hinges on appropriate math placement during middle and high school years.

- 9th grade math course placement is “a crucial crossroads” for future educational success (SB-359, 2015)

- Misplacement results in students who are less competitive for college admissions and happens disproportionately more with successful students of color
Two Criteria

- Initial placement policy
  - Multiple objective academic measures: “statewide mathematics assessments, including interim and summative assessments authorized pursuant to Section 60640, placement tests that are aligned to state-adopted content standards in mathematics, classroom assignment and grades, and report cards (SB-359, 2015)

- Check up in the first month of school
  - Accurate placement – readiness for course
  - Reevaluation of pupil progress – formative feedback
## Placement vs. Readiness

- **Objective of the assessment**
- **Content of the assessment**
- **Consequences in the outcome of the assessment**

<table>
<thead>
<tr>
<th></th>
<th>Test</th>
<th>Objective</th>
<th>Content</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Placement Assessment</strong></td>
<td>Summative</td>
<td>To learn if students can succeed in the next level of math</td>
<td>Majority from prior math course</td>
<td>High stakes</td>
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<tr>
<td><strong>Readiness Assessment</strong></td>
<td>Formative</td>
<td>To learn about student understandings, pedagogical practices, and program enhancement</td>
<td>Foundational math concepts and skills</td>
<td>Low stakes</td>
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</tbody>
</table>
Mathematics Diagnostic Testing Project (MDTP)

- MDTP tests are designed to measure student readiness for a broad range of mathematics courses.
- Tests were developed to provide students and teachers with diagnostic information about student preparedness.

Results benefit students:
- Identify specific areas where additional study or review is needed.

Results benefit teachers
- Identify topics and skills that need more attention in courses.
Response

- MDTP is in the process of creating two placement tests:
  - Traditional and Integrated Pathways
- Placement provides feedback for multiple levels appropriate for exiting 8th grade or entering 9th grade students
- The new placement test will be one part of a two part “Placement Package”
- Release date of August 2016 in field test version
Why Create a Placement Test?

- MDTP readiness tests are good predictors of student success (Snipes et al., 2016)
- Readiness tests are not designed for placement
- Integrity and security of MDTP tests
- Supports schools with MDTP quality “Placement Package”
Test Design

- Informed by the Priority Standards of the Common Core State Standards for Mathematics.

- Represents the most important topics needed for success in each level following the CCSS framework of each pathway.
In a Perfect World

- All schools will test their students in August 2015.

- All schools are excited to participate in field testing and will provide feedback and data necessary for validation.
Back to Reality

- Schools need to test in the spring (exiting 8th grade students).

- Early testers are looking to use MDTP Readiness tests for placement.

- MDTP wishes to provide guidelines for this process.
Using MDTP Tests for Placement

- Adhere to the objectives of SB-359
  - Equitable, Accessible, Fair, Transparent

- Avoid using cut-scores as the primary criteria of placement instead.

- Design an equitable placement policy using the six recommended guidelines.
Guideline #1

- Use multiple measures for placement

Example from one school:

- Multiple filters
  - Student achievement: course grade, teacher recommendation, and end-of-course exam scores
  - Student effort and work habits: homework, attendance, and citizenship
Guideline #2

- Consider placement recommendations based on both total score and topic scores for a placement test.

Example from School District:

- **Qualifying Achievement** (meets at least one of the following)
  - Answered at least 70% of the questions correctly, OR
  - Answered 3 questions correct out of 5 for Integers, 2 questions correct out of 4 for Exponents & Square Roots, AND 3 questions correct out of 6 for Literals & Equations

- **Near Qualifying Achievement**
  - Answered 3 questions correct out of 5 for Integers OR 3 questions correct out of 6 for Literals & Equations
Guideline #3

- Provide students diagnostic feedback about their preparation for a course
Guideline #4

- Consider recommending students for a lower course but allowing them to enroll in a higher course.

- Consider supports for students who are at the low range of a qualifying score.
Guideline #5

- Use content experts to establish initial cut scores or score ranges
  - Teachers and other content experts familiar with the range of courses covered by the placement test should determine the initial cut scores or score ranges.
    - Identify support classes and intervention programs to help struggling students.
    - Successful support programs can allow districts to set lower cut scores and place more students into a course.
  - Consult ETS publication: *A Primer on Setting Cut Scores on Tests of Educational Achievement* for guidance on setting cut scores (Zieky & Perie, 2006).
Guideline #6

Evaluate how well the placement program is working and adjust as needed.
Recommended Tests

- For students in 8th Grade Common Core Math, the High School Readiness Test can be used.

- For students in Algebra 1, the Geometry Readiness Test can be used (mindful that it has not been revised for CCSS).

- For students in Integrated Math 1, the Integrated Second Year Readiness Test can be used.
Our Current Endeavors

- Continuous creation, revision, and release of new tests aligned to Common Core State Standards
  - 7R, 8R, HS Released Fall 2015
  - IS, IT 2nd year of Field testing
  - GR, SR being redesigned this summer with field testing Fall 2016
  - HS revised to reflect current implementation of CCSS curriculum.
First Month Check-in

- Use the readiness tests for the class the student is placed in.

- Participate in field testing:
  - The Geometry Readiness (traditional pathway)
  - The Integrated Second Year Readiness (integrated pathway) – may be fully released in Fall 2016
  - The High School Readiness

- Use the diagnostic feedback to design instruction and student supports in the classes they are placed into.
Exploring the HS

- Given HS Readiness test-topic sheets, what would you deem to be important topics for readiness for Algebra 1 or Integrated Math 1?

- What would you want to know about Algebra 1 or Integrated Math 1 readiness from the HS readiness test?

- How can you use the HS to determine readiness?
Exploring the GR or IS

- Given GR or IS test-topic sheets, what would you deem to be important topics for **placement** into Geometry or Integrated Math 2?

- What would you want to know about Geometry or Integrated Math 2 readiness from the GR or IS?

- How can you use the GR or IS to determine **placement**?
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References

