Using the Iowa Assessments Interpretation Workshops
Session 3

*Using the Iowa Assessments to Track Readiness*
Tracking Readiness

- Predict college readiness indicators
- Help students plan the appropriate coursework
- Identify students that are not "on track"
Iowa’s College Readiness Research

• 25,000 students from the class of 2009 completed the Iowa Assessment and the ACT
• The relationship between the two assessments was very strong (.89)
• Performance for these students was tracked back to sixth grade
Iowa Assessment (Grade 10) with ACT Correlation of .86

ACT and PLAN = .84
Iowa Assessment (Grade 8) with ACT Correlation of .83

ACT and Explore = .83
Iowa Assessment (7th Grade) with ACT Correlation of .82
Iowa Assessment (6th Grade) with ACT Correlation of .82
Standard Score Scale

Standard Score Growth Model
at Five Achievement Levels in Mathematics
Vertical Scales Link to College Readiness Indicators -- Example

On Track to College Readiness in Mathematics

Iowa Standard Scores

Grade

5th 6th 7th 8th 9th 10th 11th

Ready for College Math

231
248
265
279
287
297
306
Value of this Information

• Providing reports for students, teachers, and parents that include interpretations about being on-track for college readiness
• Providing timely information when students are planning their high school courses (8th grade plan for high school)
• Providing information to schools about their coursework and its ability to prepare for postsecondary opportunities
Using this Data

• Reports include comparison of individual student performance to college readiness indicators.
  – On track
  – Not yet on track

• Reports include aggregate data for a class or building

• Monitor growth towards readiness as you would monitor proficiency
# Performance Profile for Abby Abrahms

**Iowa Assessments**

## Tests and Scores

<table>
<thead>
<tr>
<th>Tests</th>
<th>Scores</th>
<th>NPR Graph</th>
<th>Interpreting the Report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading</strong></td>
<td>SB</td>
<td>NPR</td>
<td></td>
</tr>
<tr>
<td>Written Expression</td>
<td>234</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Conventions of Writing</td>
<td>229</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>233</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>205</td>
<td>29</td>
<td></td>
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<tr>
<td>ELA Total</td>
<td>233</td>
<td>68</td>
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</tr>
<tr>
<td><strong>Core Composite</strong></td>
<td>219</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td><strong>Social Studies</strong></td>
<td>213</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>202</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td><strong>Complete Composite</strong></td>
<td>213</td>
<td>41</td>
<td></td>
</tr>
</tbody>
</table>

## Domain/Cognitive Levels

### Reading

- **Informational Text**
  - Total Items: 19
  - Att: 9
  - Alt: 6
  - Score: 54
- **Literary Text**
  - Total Items: 22
  - Att: 9
  - Alt: 6
  - Score: 60

### Vocabulary

- **Domain**
  - Total Items: 29
  - Att: 9
  - Alt: 6
  - Score: 74
- **Domain**
  - Total Items: 14
  - Att: 6
  - Alt: 5
  - Score: 62

### Mathematics

- **Number Sense and Operations**
  - Total Items: 14
  - Att: 6
  - Alt: 5
  - Score: 67
- **Data Analysis/Probability/Statistics**
  - Total Items: 7
  - Att: 5
  - Alt: 3
  - Score: 65
- **Geometry**
  - Total Items: 10
  - Att: 6
  - Alt: 5
  - Score: 60

### Written Expression

- **Planning/Organization**
  - Total Items: 7
  - Att: 6
  - Alt: 3
  - Score: 67
- **Sentence Structure**
  - Total Items: 6
  - Att: 6
  - Alt: 7
  - Score: 67
- **Prose Editing**
  - Total Items: 7
  - Att: 6
  - Alt: 3
  - Score: 67

### Computation

- **Add whole numbers**
  - Total Items: 10
  - Att: 6
  - Alt: 5
  - Score: 71
- **Multiply/divide whole numbers**
  - Total Items: 6
  - Att: 6
  - Alt: 5
  - Score: 67

### Social Studies

- **Domain**
  - Total Items: 11
  - Att: 6
  - Alt: 5
  - Score: 60

### Conventions of Writing

- **Spelling**
  - Total Items: 24
  - Att: 6
  - Alt: 5
  - Score: 67
- **Capitalization**
  - Total Items: 20
  - Att: 6
  - Alt: 5
  - Score: 67
- **Punctuation**
  - Total Items: 20
  - Att: 6
  - Alt: 5
  - Score: 67

### College Readiness

- **Grade-Level Benchmarks**
  - Reading: On Track
  - Language: Not Yet on Track
  - Math: Not Yet on Track
  - Science: Not Yet on Track
- **Predicted ACT/SAT Scores**
  - ACT Composites
    - Critical Reading: 35
    - Math: 44
  - SAT
    - Critical Reading: 410

## Note

- The report includes scores for various tests and composites, with NPR (National Percentile Rank) values indicating the percent of students in the nation with lower scores. The NPR graph provides a visual display of the student's performance on each test relative to the other tests. The lower part of the report provides detailed information about the skills and domains in each test. The difference between the student's percent correct and the average percent correct for students in this grade in the nation is displayed as a horizontal bar. These bars permit identification of skills that stand out as high or low when compared with students across the nation.
Research to Support

- National Standardization
  - Sample Representation
  - Stratified on size, geographic location and SES
- Linking Studies
- Equating Studies
<table>
<thead>
<tr>
<th>Tracking Toward Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report – Individual Performance Profile</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>In what grade is Abby? Based on her Standard Scores (SS), what are Abby’s strengths? According to this report, is Abby “on track” in reading? Is she “on track” in mathematics?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>There are three cognitive levels reported for each core test (Essential Competencies, Comprehension and Extended Reasoning). Based on this report what conclusions can you draw about Abby’s extended reasoning skills? How do Abby’s extended reasoning skills vary across core test areas? What is Abby’s predicted ACT composite score? What does this mean? What advice would you give Abby with respect to additional coursework in reading, mathematics, science and language? Based on this report, what domains within reading and mathematics are areas of primary concern for Abby?</td>
</tr>
<tr>
<td></td>
<td>How can Abby’s strengths be used to her advantage in instruction? How might Abby’s parents use this information to help her prepare for future coursework? How might this information be shared with teachers in your building? Assume you are a high school teacher, what information from this report would be helpful to you? How could discussions and analysis of information of this type best be facilitated in your building?</td>
</tr>
</tbody>
</table>
How Ready are Iowa Students?

Preparing students to be college or career-ready is critically important in a highly competitive global economy. *One Unshakable Vision* (2011) identifies a need for such information for all students.

Recent research has focused on the readiness of students who are college bound. This report focuses on all students in the Iowa Class of 2012. Iowa Testing Programs provides this information to raise awareness of the importance of monitoring progress towards readiness of all students for post-secondary opportunities.
In the Iowa class of 2012, what percentage of students are ready for college when they graduate?

Figure 1: All Iowa Students

<table>
<thead>
<tr>
<th>Subject</th>
<th>College-ready and proficient</th>
<th>Proficient</th>
<th>Not proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>45</td>
<td>21</td>
<td>34</td>
</tr>
<tr>
<td>Math</td>
<td>41</td>
<td>21</td>
<td>38</td>
</tr>
<tr>
<td>Science</td>
<td>50</td>
<td>18</td>
<td>32</td>
</tr>
</tbody>
</table>
Figure 3: Percent of Class of 2012 in Three Performance Categories: Math

<table>
<thead>
<tr>
<th>Year</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
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</thead>
<tbody>
<tr>
<td>G6 2005-06</td>
<td>25</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>G7 2006-07</td>
<td>22</td>
<td>36</td>
<td>33</td>
</tr>
<tr>
<td>G8 2007-08</td>
<td>25</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>G9 2008-09</td>
<td>27</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>G10 2009-10</td>
<td>21</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>G11 2010-11</td>
<td>21</td>
<td>41</td>
<td>34</td>
</tr>
</tbody>
</table>
Research on Readiness

• Readiness trajectories reflect a high standard of preparation
• Growth patterns are stable for diverse learners
• Achievement gaps remain
Growth Trends for Students’ Average Performance

Reading from All students datasets

- **Asian**
- **Reference group**
- **Hispanic**
- **ELL**
Applications of this Information

• I Have a Plan Iowa™
• Regents Admission Index
I Have a Plan Iowa™

https://secure.ihaveaplaniowa.gov/Home/_default.aspx
Regents’ Admission Index

- ACT/SAT test score
- High school rank
- Grade-point average
- Number of completed core courses. Iowa high schools have a 4-3-3-3 requirement for graduation
# Predicted ACT Ranges in the RAI

<table>
<thead>
<tr>
<th></th>
<th>Lower Bound</th>
<th>Upper Bound</th>
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</thead>
<tbody>
<tr>
<td>Predicted ACT Score Range</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>High School Rank</td>
<td>50 of 120</td>
<td>50 of 120</td>
</tr>
<tr>
<td>Grade-Point Average</td>
<td>3.1 of 4</td>
<td>3.1 of 4</td>
</tr>
<tr>
<td>Core Courses</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>RAI</td>
<td>239</td>
<td>245</td>
</tr>
</tbody>
</table>

RAI = 245 means guaranteed admission to UI, ISU and UNI.