

Chapter 2

T I a . R a . A b .
TIMSS Ma . a . a . S .
A . . . a . F . G a :
A . A a . b I . R a . D a .

Boon College

Introduction

Introduction

TIMSS 2011

Assessment Frameworks

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...the number of words in the text. The number of words in the text is a measure of the length of the text. The number of words in the text is a measure of the length of the text.

Number of Words.

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Vocabulary.

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The following table shows the relationship between the reading difficulty factors present in each item and the item's difficulty level. The table is organized by reading difficulty factor, with the most difficult items at the top and the least difficult items at the bottom. The table shows that the most difficult items are those that require the most reading difficulty factors, while the least difficult items are those that require the fewest reading difficulty factors.

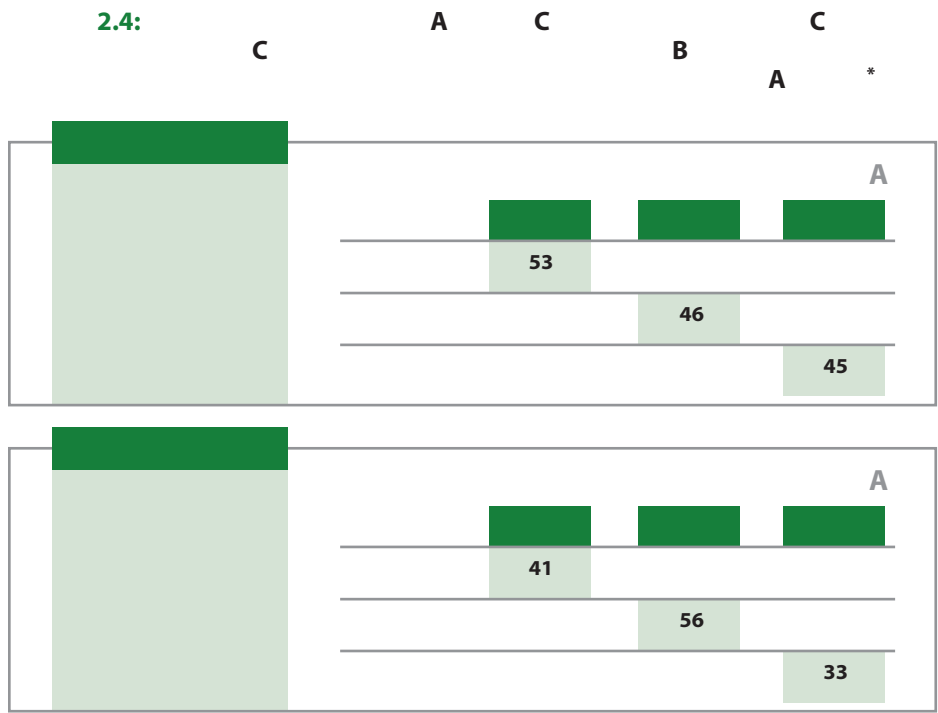
Empirical Data About the Reading Difficulty Factors Present in Each Item

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Discriminant Function Analysis

Discriminant Function Analysis (DFA) is a statistical technique used to identify the variables that best distinguish between two or more groups. In this analysis, the variables are the scores on the TIMSS and PIRLS mathematics and reading tests, respectively. The discriminant function is a linear combination of the variables that maximizes the separation between the groups. The discriminant function is used to classify individuals into the most likely group based on their scores on the tests.



Characteristics of Reading Demands in the TIMSS 2011 Fourth Grade Items

The figure shows the distribution of TIMSS 2011 Fourth Grade Items by reading demand level (A, B, C) and item type (C, A, C, B, A, *). The y-axis represents the number of items, and the x-axis represents the reading demand level. The bars are colored green, and the values are labeled on the bars.

Interaction Between the Levels of Reading Demands and the TIMSS 2011 Content and Cognitive Domains at the Fourth Grade

Figure 2.1 shows the interaction between the levels of reading demands and the TIMSS 2011 content and cognitive domains at the fourth grade. The figure is a 2x2 grid of bar charts. The top row represents 'High' reading demands, and the bottom row represents 'Low' reading demands. The left column represents 'Content' domains, and the right column represents 'Cognitive' domains. Each bar chart shows the percentage of students who performed at a certain level (1, 2, or 3) for each domain and demand level. The bars are color-coded: dark green for level 1, medium green for level 2, and light green for level 3. In the 'High' demand row, the 'Content' chart shows a high percentage of level 1 performance, while the 'Cognitive' chart shows a high percentage of level 3 performance. In the 'Low' demand row, the 'Content' chart shows a high percentage of level 3 performance, while the 'Cognitive' chart shows a high percentage of level 1 performance.

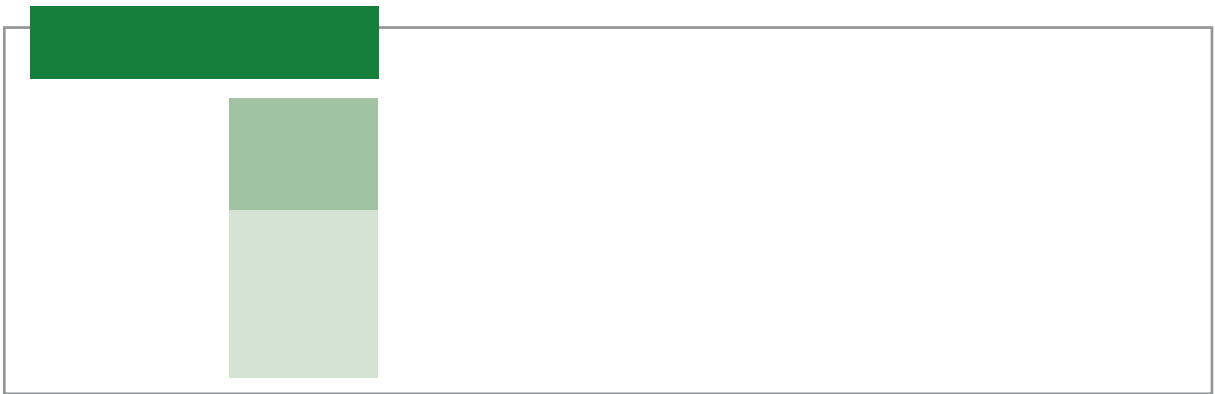


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... triangles ... circles ...



2.12:

A

,C

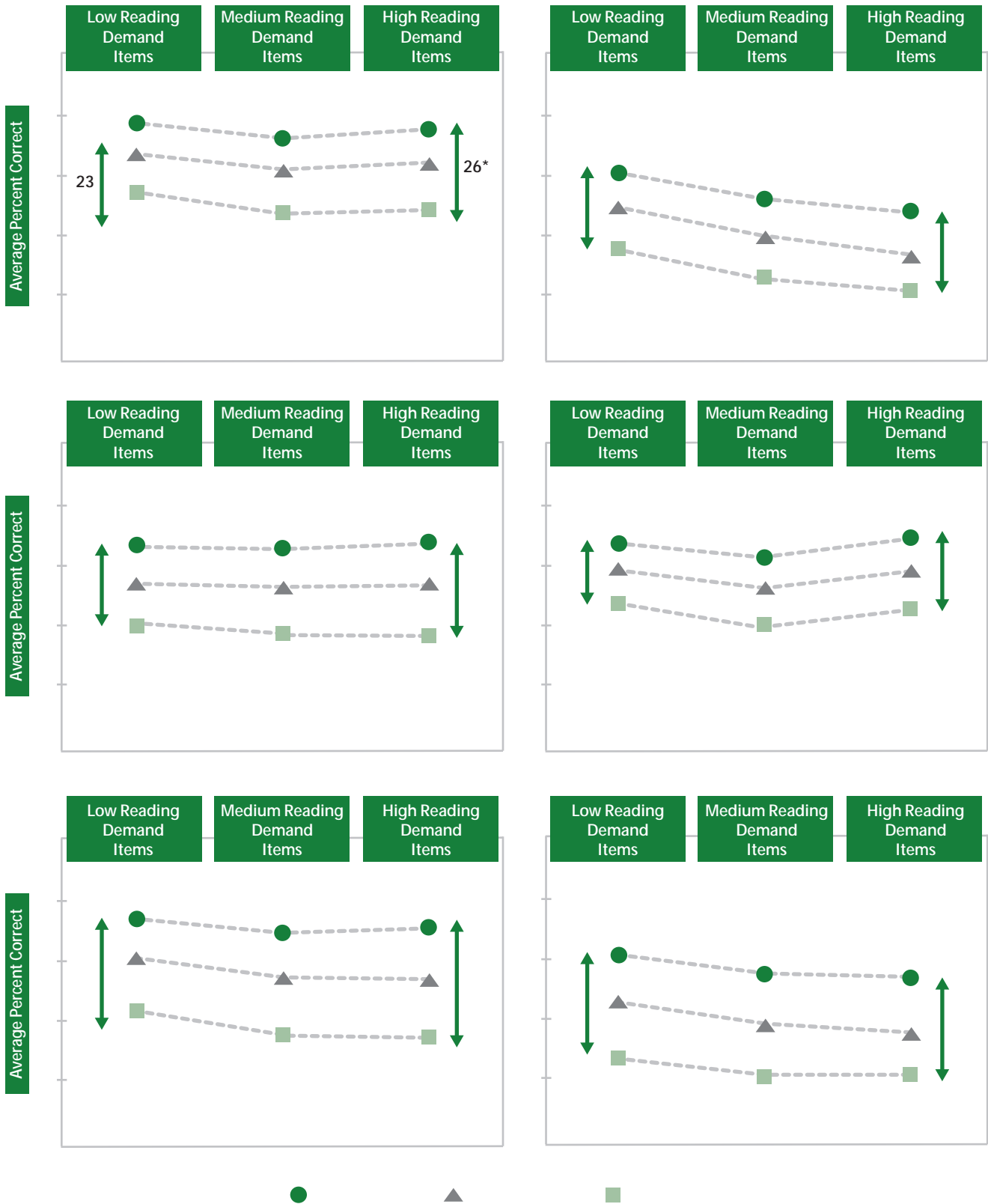
C

(C

)

2.13: A, C C (C)

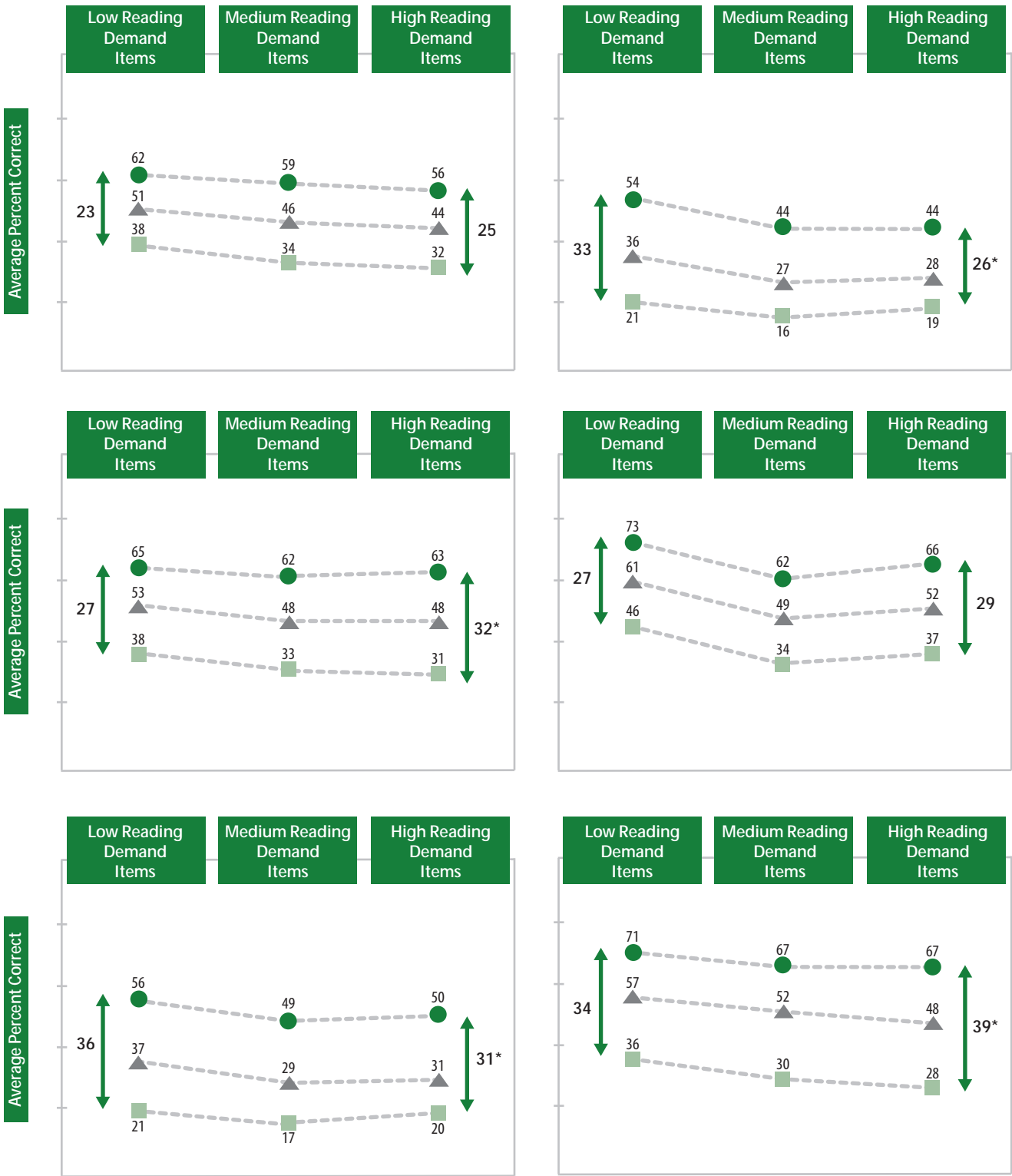
Age Percent Correct for Science Items of PIRLS Reading Ability on Science Items of Reading Demand



2.13:

2.13: A, C C (C)

Age Percent Correct for Science Items of PIRLS Reading Ability on Science Items of Reading Demand

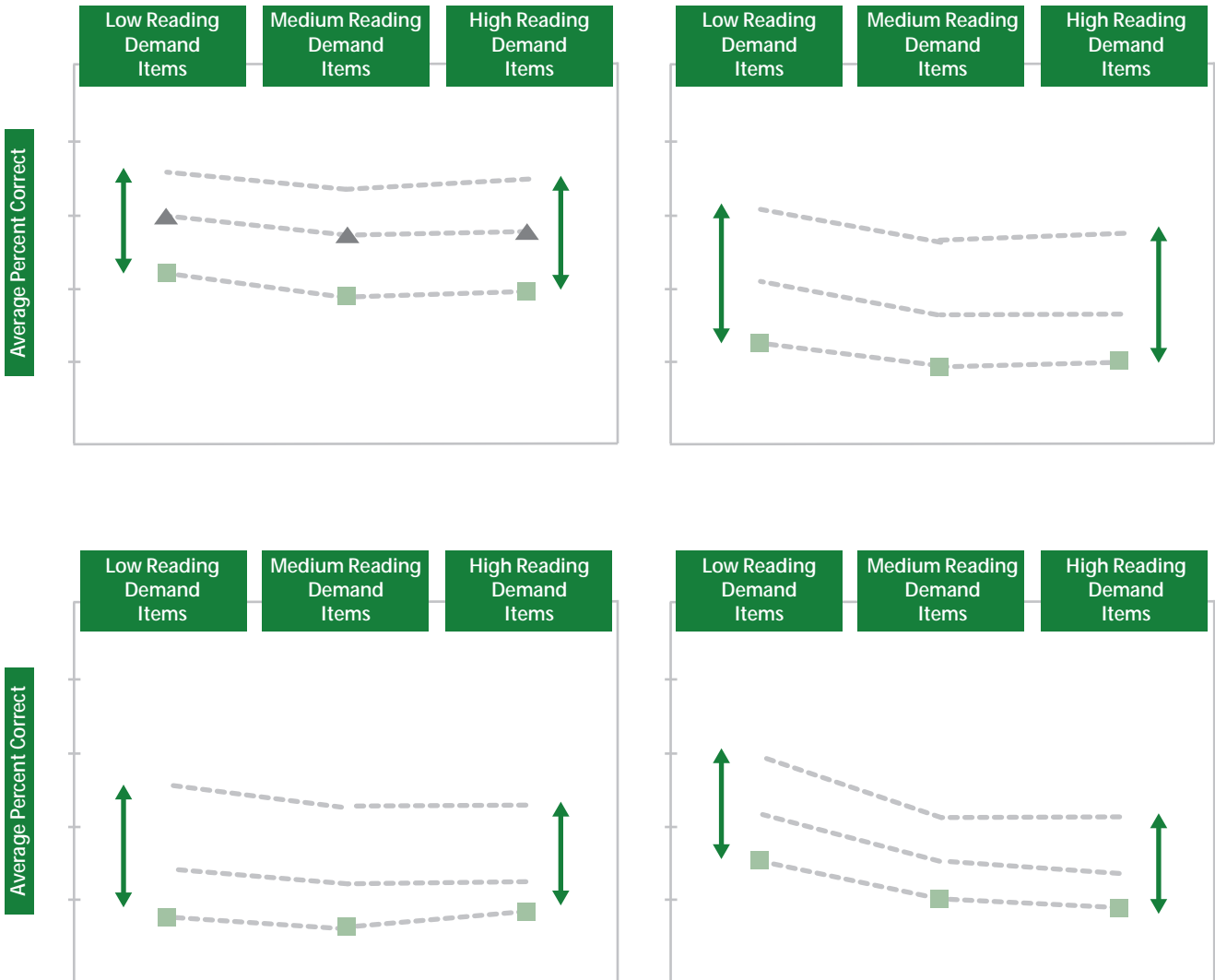


2.13: A , C C (C)

*A e agePe cen Co ec fo S den a Th ee Le e of PIRLS Reading Abili on
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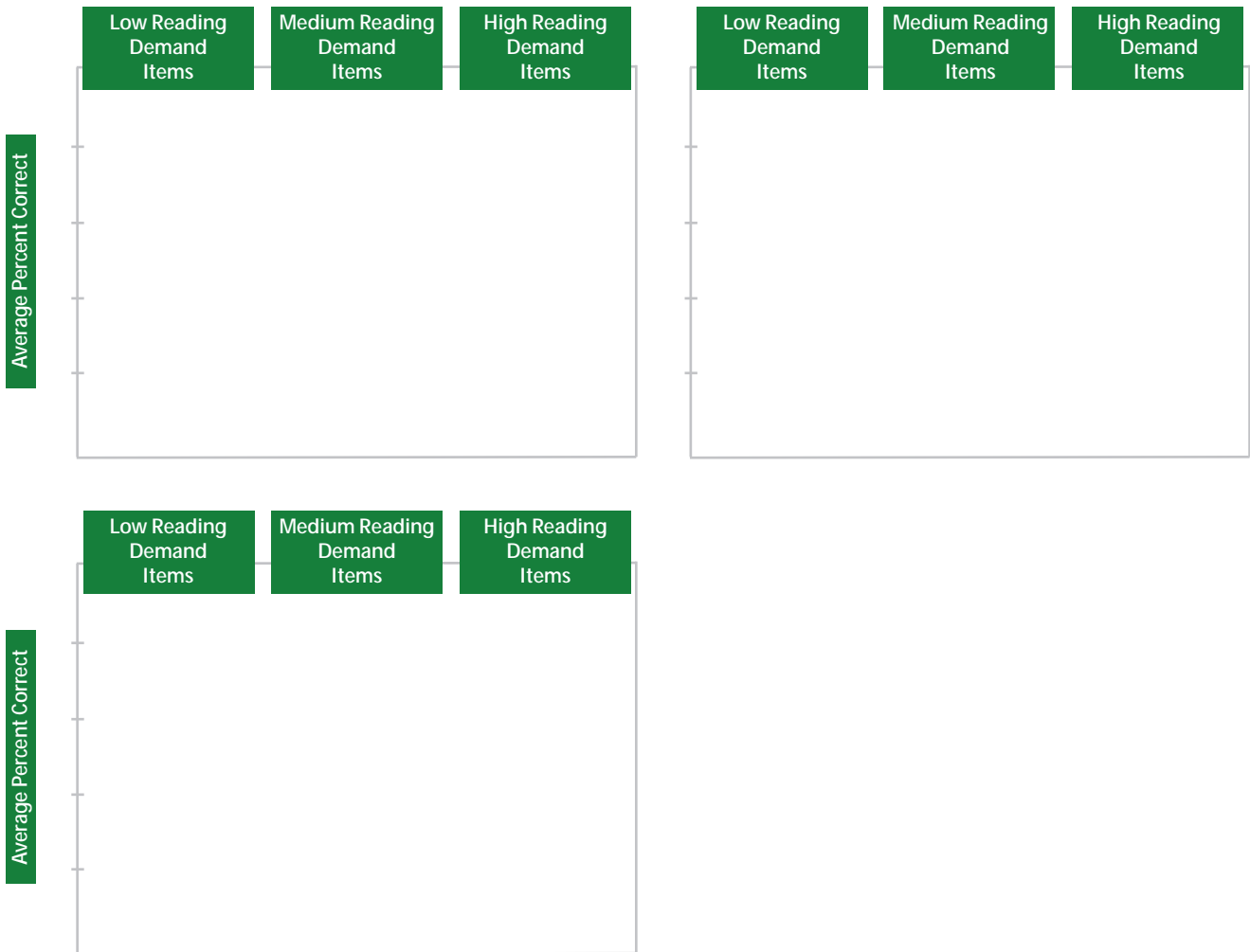
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Age Percent Correct for Science Items of PIRLS Reading Ability on Science Items of Reading Demand



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Average Percent Correct for Science Items by the Level of PIRLS Reading Ability on Science Items by the Level of Reading Demand



Considering the Results

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