

Students Confident in Reading Scale

The *Students Confident in Reading* (SCR) scale was created based on students' degree of agreement with the six statements described below.

Items in the PIRLS 2016 *Students Confident in Reading* Scale

| | |
|--|---|
| ASBR07A ASBR07B ASBR07C* ASBR07D* ASBR07E* ASBR07F* | <p>How well do you read? Tell how much you agree with each of these statements.</p> <p style="text-align: center;">Agree a lot Agree a little Disagree a little Disagree a lot</p> <p>1) I usually do well in reading ----- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>2) Reading is easy for me ----- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>3) I have trouble reading stories with difficult words* ----- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>4) Reading is harder for me than for many of my classmates* ----- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>5) Reading is harder for me than any other subject* ----- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>6) I am just not good at reading* ----- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p style="text-align: center;">* Reverse coded</p> <div style="text-align: center; background-color: #FFB6C1; padding: 10px; margin-top: 10px;">  <p>Very Confident Somewhat Confident Not Confident</p> <p style="text-align: center;">10.3 8.2</p> </div> |
|--|---|

Item Parameters for the PIRLS 2016 Students Confident in Reading Scale

| Item | delta | tau_1 | tau_2 | tau_3 | Infit |
|-----------|----------|----------|----------|----------|-------|
| ASBR07A | -0.52312 | -0.32359 | -0.68416 | 1.00775 | 1.11 |
| ASBR07B | -0.60120 | -0.48024 | -0.42689 | 0.90713 | 1.03 |
| * ASBR07C | 1.01425 | -0.93819 | 0.50887 | 0.42932 | 1.22 |
| * ASBR07D | 0.25813 | -0.38905 | 0.22763 | 0.16142 | 0.94 |
| * ASBR07E | -0.00713 | -0.11719 | 0.22036 | -0.10317 | 0.92 |
| * ASBR07F | -0.14093 | -0.05955 | 0.23700 | -0.17745 | 0.90 |

* Reverse coded

Scale Transformation Constants for the PIRLS 2016 Students Confident in Reading Scale

Scale Transformation Constants

$$A = 8.137507$$

$$B = 1.753646$$

$$\text{Transformed Scale Score} = 8.137507 + 1.753646 \cdot \text{Logit Scale Score}$$

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

Equivalence Table of the Raw Score and Transformed Scale Scores for the PIRLS 2016 Students Confident in Reading Scale

| Raw Score | Transformed Scale Score | Cutpoint |
|-----------|-------------------------|----------|
| 0 | 2.95794 | |
| 1 | 4.60752 | |
| 2 | 5.40368 | |
| 3 | 5.97279 | |
| 4 | 6.43307 | |
| 5 | 6.82953 | |
| 6 | 7.18533 | |
| 7 | 7.50982 | |
| 8 | 7.81385 | |
| 9 | 8.10473 | 8.2 |
| 10 | 8.40103 | |
| 11 | 8.70504 | |
| 12 | 9.03187 | |
| 13 | 9.39594 | |
| 14 | 9.81182 | |
| 15 | 10.31185 | 10.3 |
| 16 | 10.93952 | |
| 17 | 11.79542 | |
| 18 | 13.47027 | |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the PIRLS 2016 Students Confident in Reading Scale

| Country | Cronbach's Alpha Reliability Coefficient | Percent of Variance Explained | Component Loadings for Each Item | | | | | |
|----------------------------------|--|-------------------------------|----------------------------------|---------|----------|----------|----------|----------|
| | | | ASBRO1A | ASBRO1B | ASBRO1C* | ASBRO1D* | ASBRO1E* | ASBRO1F* |
| Australia | 0.81 | 52 | 0.67 | 0.73 | 0.62 | 0.79 | 0.75 | 0.77 |
| Austria | 0.81 | 53 | 0.71 | 0.74 | 0.59 | 0.76 | 0.76 | 0.79 |
| Azerbaijan | 0.68 | 40 | 0.11 | 0.25 | 0.51 | 0.84 | 0.84 | 0.81 |
| Bahrain | 0.69 | 40 | 0.19 | 0.40 | 0.62 | 0.76 | 0.81 | 0.75 |
| Belgium (Flemish) | 0.83 | 56 | 0.75 | 0.80 | 0.57 | 0.76 | 0.75 | 0.83 |
| Belgium (French) | 0.75 | 45 | 0.59 | 0.60 | 0.55 | 0.74 | 0.75 | 0.77 |
| Bulgaria | 0.80 | 53 | 0.71 | 0.73 | 0.49 | 0.78 | 0.80 | 0.80 |
| Canada | 0.81 | 53 | 0.69 | 0.75 | 0.57 | 0.78 | 0.78 | 0.78 |
| Chile | 0.69 | 39 | 0.38 | 0.48 | 0.57 | 0.71 | 0.75 | 0.78 |
| Chinese Taipei | 0.78 | 49 | 0.60 | 0.66 | 0.45 | 0.81 | 0.81 | 0.80 |
| Czech Republic | 0.79 | 50 | 0.65 | 0.73 | 0.50 | 0.78 | 0.75 | 0.80 |
| Denmark | 0.83 | 56 | 0.77 | 0.80 | 0.58 | 0.75 | 0.78 | 0.79 |
| Egypt | 0.72 | 42 | 0.32 | 0.60 | 0.53 | 0.77 | 0.80 | 0.76 |
| England | 0.82 | 54 | 0.68 | 0.74 | 0.61 | 0.80 | 0.78 | 0.79 |
| Finland | 0.80 | 53 | 0.72 | 0.75 | 0.57 | 0.79 | 0.76 | 0.78 |
| France | 0.78 | 48 | 0.68 | 0.62 | 0.57 | 0.77 | 0.72 | 0.79 |
| Georgia | 0.75 | 45 | 0.45 | 0.52 | 0.49 | 0.81 | 0.82 | 0.82 |
| Germany | 0.82 | 54 | 0.71 | 0.74 | 0.58 | 0.78 | 0.78 | 0.80 |
| Hong Kong SAR | 0.80 | 50 | 0.62 | 0.67 | 0.57 | 0.79 | 0.80 | 0.76 |
| Hungary | 0.82 | 55 | 0.76 | 0.75 | 0.52 | 0.80 | 0.77 | 0.82 |
| Iran, Islamic Rep. of | 0.70 | 41 | 0.40 | 0.46 | 0.59 | 0.74 | 0.79 | 0.75 |
| Ireland | 0.82 | 54 | 0.72 | 0.78 | 0.61 | 0.79 | 0.75 | 0.76 |
| Israel | 0.75 | 46 | 0.42 | 0.63 | 0.49 | 0.80 | 0.80 | 0.82 |
| Italy | 0.75 | 45 | 0.63 | 0.63 | 0.61 | 0.75 | 0.67 | 0.73 |
| Kazakhstan | 0.77 | 48 | 0.37 | 0.44 | 0.67 | 0.85 | 0.85 | 0.79 |
| Kuwait | 0.65 | 37 | 0.44 | 0.57 | 0.42 | 0.69 | 0.73 | 0.73 |
| Latvia | 0.80 | 52 | 0.73 | 0.76 | 0.51 | 0.79 | 0.76 | 0.74 |
| Lithuania | 0.80 | 52 | 0.69 | 0.74 | 0.54 | 0.80 | 0.78 | 0.75 |
| Macao SAR | 0.75 | 45 | 0.61 | 0.63 | 0.46 | 0.76 | 0.77 | 0.75 |
| Malta | 0.71 | 42 | 0.55 | 0.53 | 0.49 | 0.79 | 0.73 | 0.74 |
| Morocco | 0.56 | 34 | -0.08 | 0.32 | 0.58 | 0.74 | 0.76 | 0.71 |
| Netherlands | 0.85 | 59 | 0.73 | 0.82 | 0.58 | 0.79 | 0.80 | 0.84 |
| New Zealand | 0.76 | 46 | 0.55 | 0.63 | 0.55 | 0.79 | 0.78 | 0.74 |
| Northern Ireland | 0.83 | 55 | 0.70 | 0.74 | 0.65 | 0.78 | 0.77 | 0.79 |
| Norway (5) | 0.82 | 54 | 0.71 | 0.77 | 0.64 | 0.76 | 0.80 | 0.74 |
| Oman | 0.67 | 38 | 0.33 | 0.40 | 0.55 | 0.75 | 0.78 | 0.72 |
| Poland | 0.83 | 56 | 0.68 | 0.73 | 0.65 | 0.80 | 0.80 | 0.79 |
| Portugal | 0.72 | 44 | 0.71 | 0.65 | 0.56 | 0.66 | 0.57 | 0.79 |
| Qatar | 0.72 | 42 | 0.19 | 0.36 | 0.65 | 0.80 | 0.83 | 0.80 |
| Russian Federation | 0.79 | 51 | 0.71 | 0.72 | 0.54 | 0.80 | 0.74 | 0.73 |
| Saudi Arabia | 0.53 | 41 | -0.41 | 0.26 | 0.64 | 0.73 | 0.83 | 0.75 |
| Singapore | 0.79 | 49 | 0.65 | 0.70 | 0.57 | 0.77 | 0.75 | 0.76 |
| Slovak Republic | 0.81 | 53 | 0.68 | 0.74 | 0.54 | 0.79 | 0.76 | 0.82 |
| Slovenia | 0.83 | 55 | 0.73 | 0.77 | 0.66 | 0.78 | 0.77 | 0.74 |
| South Africa | 0.58 | 35 | -0.13 | -0.07 | 0.61 | 0.74 | 0.77 | 0.74 |
| Spain | 0.68 | 40 | 0.61 | 0.60 | 0.41 | 0.70 | 0.67 | 0.73 |
| Sweden | 0.82 | 55 | 0.69 | 0.75 | 0.65 | 0.77 | 0.77 | 0.79 |
| Trinidad and Tobago | 0.76 | 47 | 0.63 | 0.66 | 0.49 | 0.75 | 0.77 | 0.77 |
| United Arab Emirates | 0.72 | 42 | 0.39 | 0.47 | 0.61 | 0.76 | 0.79 | 0.75 |
| United States | 0.79 | 49 | 0.62 | 0.67 | 0.57 | 0.80 | 0.76 | 0.76 |
| Benchmarking Participants | | | | | | | | |
| Buenos Aires, Argentina | 0.65 | 37 | 0.47 | 0.43 | 0.46 | 0.77 | 0.65 | 0.78 |
| Ontario, Canada | 0.82 | 54 | 0.70 | 0.76 | 0.57 | 0.79 | 0.79 | 0.79 |
| Quebec, Canada | 0.82 | 54 | 0.70 | 0.75 | 0.58 | 0.77 | 0.78 | 0.80 |
| Denmark (3) | 0.80 | 51 | 0.71 | 0.75 | 0.60 | 0.74 | 0.73 | 0.77 |
| Norway (4) | 0.79 | 50 | 0.65 | 0.73 | 0.61 | 0.74 | 0.77 | 0.74 |
| Moscow City, Russian Fed. | 0.80 | 52 | 0.74 | 0.77 | 0.53 | 0.80 | 0.76 | 0.70 |
| Eng/Afr/Zulu - RSA (5) | 0.68 | 39 | 0.23 | 0.30 | 0.56 | 0.80 | 0.80 | 0.77 |
| Andalusia, Spain | 0.66 | 38 | 0.59 | 0.51 | 0.42 | 0.71 | 0.68 | 0.73 |
| Madrid, Spain | 0.67 | 39 | 0.63 | 0.57 | 0.42 | 0.71 | 0.65 | 0.72 |
| Abu Dhabi, UAE | 0.71 | 41 | 0.38 | 0.46 | 0.61 | 0.75 | 0.78 | 0.75 |
| Dubai, UAE | 0.75 | 45 | 0.51 | 0.55 | 0.58 | 0.77 | 0.78 | 0.76 |

*Reverse coded

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016

Relationship Between the PIRLS 2016 Students Confident in Reading Scale and PIRLS 2016 Reading Achievement

| Country | Pearson's Correlation with Reading Achievement | | Variance in Reading Achievement Accounted for by Difference Between Regions of the Scale (η^2) |
|----------------------------------|--|-----------|---|
| | (r) | (r^2) | |
| Australia | 0.52 | 0.27 | 0.28 |
| Austria | 0.41 | 0.17 | 0.16 |
| Azerbaijan | 0.31 | 0.10 | 0.11 |
| Bahrain | 0.45 | 0.20 | 0.22 |
| Belgium (Flemish) | 0.33 | 0.11 | 0.10 |
| Belgium (French) | 0.43 | 0.18 | 0.19 |
| Bulgaria | 0.42 | 0.17 | 0.18 |
| Canada | 0.45 | 0.20 | 0.21 |
| Chile | 0.39 | 0.15 | 0.17 |
| Chinese Taipei | 0.40 | 0.16 | 0.17 |
| Czech Republic | 0.40 | 0.16 | 0.17 |
| Denmark | 0.50 | 0.25 | 0.23 |
| Egypt | 0.39 | 0.15 | 0.16 |
| England | 0.49 | 0.24 | 0.23 |
| Finland | 0.42 | 0.18 | 0.17 |
| France | 0.41 | 0.17 | 0.19 |
| Georgia | 0.38 | 0.15 | 0.16 |
| Germany | 0.40 | 0.16 | 0.17 |
| Hong Kong SAR | 0.39 | 0.15 | 0.14 |
| Hungary | 0.49 | 0.24 | 0.22 |
| Iran, Islamic Rep. of | 0.43 | 0.18 | 0.19 |
| Ireland | 0.44 | 0.19 | 0.19 |
| Israel | 0.46 | 0.21 | 0.24 |
| Italy | 0.30 | 0.09 | 0.11 |
| Kazakhstan | 0.23 | 0.05 | 0.07 |
| Kuwait | 0.36 | 0.13 | 0.14 |
| Latvia | 0.41 | 0.17 | 0.17 |
| Lithuania | 0.47 | 0.22 | 0.20 |
| Macao SAR | 0.37 | 0.14 | 0.13 |
| Malta | 0.46 | 0.21 | 0.21 |
| Morocco | 0.42 | 0.17 | 0.19 |
| Netherlands | 0.37 | 0.14 | 0.13 |
| New Zealand | 0.50 | 0.25 | 0.26 |
| Northern Ireland | 0.46 | 0.21 | 0.23 |
| Norway (5) | 0.46 | 0.21 | 0.19 |
| Oman | 0.43 | 0.18 | 0.19 |
| Poland | 0.40 | 0.16 | 0.20 |
| Portugal | 0.39 | 0.16 | 0.17 |
| Qatar | 0.43 | 0.18 | 0.21 |
| Russian Federation | 0.41 | 0.17 | 0.19 |
| Saudi Arabia | 0.33 | 0.11 | 0.12 |
| Singapore | 0.49 | 0.24 | 0.24 |
| Slovak Republic | 0.42 | 0.18 | 0.19 |
| Slovenia | 0.43 | 0.19 | 0.20 |
| South Africa | 0.39 | 0.15 | 0.15 |
| Spain | 0.39 | 0.15 | 0.16 |
| Sweden | 0.41 | 0.17 | 0.17 |
| Trinidad and Tobago | 0.53 | 0.29 | 0.30 |
| United Arab Emirates | 0.48 | 0.23 | 0.25 |
| United States | 0.44 | 0.20 | 0.19 |
| International Median | 0.42 | 0.17 | 0.19 |
| Benchmarking Participants | | | |
| Buenos Aires, Argentina | 0.43 | 0.19 | 0.19 |
| Ontario, Canada | 0.45 | 0.20 | 0.21 |
| Quebec, Canada | 0.43 | 0.19 | 0.19 |
| Denmark (3) | 0.47 | 0.22 | 0.21 |
| Norway (4) | 0.45 | 0.20 | 0.20 |
| Moscow City, Russian Fed. | 0.40 | 0.16 | 0.16 |
| Eng/Afr/Zulu - RSA (5) | 0.43 | 0.19 | 0.18 |
| Andalusia, Spain | 0.42 | 0.18 | 0.20 |
| Madrid, Spain | 0.37 | 0.14 | 0.14 |
| Abu Dhabi, UAE | 0.50 | 0.25 | 0.27 |
| Dubai, UAE | 0.44 | 0.20 | 0.22 |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2016