|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Raw Score on Test | Logit Measure | Standard Error | Minimum measure for next level (must be less than Logit Measure to start the next level) | Statistical Level |
| 0 1 … 5 6 7 … 10 11 12 … 16  17 … 22  23  …  27  …  30 | **-8.03** -6.68  -4.18 **-3.74** -3.29  -1.77 **-1.22** -0.71  **0.85**  1.17  **2.71** 3.03  **4.55**  7.23 | 1.88 1.10  0.67 0.66 0.67  0.75 0.73 0.69  0.57  0.56  0.56 0.57  0.70  1.86 | **-8.03** -8.03 + 2√(1.88²+1.10²) = -3.67   (> -6.68)  -8.03 + 2√(1.88²+0.67²) = -4.04   (> -4.18) -8.03 + 2√(1.88²+0.67²) = **-4.05**   (< -3.74) -3.74 + 2√(0.66²+0.67²) = -1.86   (> -3.29)  -3.74 + 2√(0.66²+0.75²) = -1.74   (> -1.77) -3.74 + 2√(0.66²+0.73²) = **-1.77**   (**<** -1.22) -1.22 + 2√(0.73²+0.69²) = 0.79   (> -0.71)   -1.22 + 2√(0.73²+0.57²) = **0.63**   (< 0.85)  0.85 + 2√(0.57²+0.56²) = 2.45   (**>** 1.17)  0.85 + 2√(0.57²+0.56²) = **2.45**   (< 2.71)  2.71 + 2√(0.56²+0.57²) = 4.31   (> 3.03)  2.71 + 2√(0.56²+0.70²) = **4.50**   (< 4.55)  4.55 + 2√(0.70²+1.86²) = 8.52   (> 7.23)  *Range-based precision = 62 / 1+62****= 0.97*** | 1 1 1 1 2 2 2 2 3 3 3 4 4 4 5  5  5  6  6  6 |

**Supplementary Figure 1.** Calculation of range-based precision for the Reading and Accessing Information subscale of the Chinese IVI, modeled on the description by Wright (2001).[1] Red font indicates the point on the test where the statistical level changes. For brevity, not all levels are provided and ‘…’ depicts the missing levels.

1. Wright, B., *Separation, Reliability and Skewed Distributions: Statistically Different Levels of Performance.* Rasch Measurment Transactions, 2001. **14**(4): p. 786.