

**APPENDIX B: THE 2003 MSA-READING CLASSICAL AND IRT ITEM PARAMETERS**

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**Table B.1 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 1**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.91    | 0.20           | -2.33            | 0.04 | 1.08      | 1.52       |
| 5           | SR        | 0.79    | 0.44           | -1.10            | 0.03 | 0.95      | 0.87       |
| 6           | SR        | 0.58    | 0.41           | 0.15             | 0.03 | 1.06      | 1.05       |
| 9           | SR        | 0.77    | 0.39           | -0.93            | 0.03 | 1.02      | 0.96       |
| 11          | SR        | 0.43    | 0.36           | 0.93             | 0.03 | 1.12      | 1.15       |
| 15          | SR        | 0.78    | 0.33           | -1.08            | 0.03 | 1.06      | 1.22       |
| 18          | SR        | 0.50    | 0.40           | 0.45             | 0.03 | 1.07      | 1.09       |
| 20          | SR        | 0.19    | 0.32           | 2.29             | 0.03 | 1.06      | 1.26       |
| 23          | SR        | 0.62    | 0.43           | -0.08            | 0.03 | 1.02      | 1.01       |
| 30          | SR        | 0.41    | 0.44           | 1.00             | 0.03 | 1.01      | 1.06       |
| 31          | SR        | 0.63    | 0.31           | -0.11            | 0.03 | 1.16      | 1.19       |
| 32          | SR        | 0.56    | 0.45           | 0.24             | 0.02 | 1.00      | 0.98       |
| 34          | SR        | 0.62    | 0.52           | -0.15            | 0.03 | 0.92      | 0.85       |
| 36          | SR        | 0.71    | 0.47           | -0.56            | 0.03 | 0.95      | 0.87       |
| 41          | SR        | 0.61    | 0.56           | -0.03            | 0.03 | 0.86      | 0.81       |
| 44          | SR        | 0.87    | 0.42           | -1.80            | 0.04 | 0.89      | 0.75       |
| 49          | SR        | 0.61    | 0.37           | 0.00             | 0.03 | 1.10      | 1.18       |
| 55          | SR        | 0.60    | 0.53           | 0.03             | 0.03 | 0.91      | 0.86       |
| 56          | SR        | 0.43    | 0.25           | 0.93             | 0.03 | 1.25      | 1.41       |
| 57          | SR        | 0.78    | 0.42           | -1.06            | 0.03 | 0.98      | 1.04       |
| 58          | SR        | 0.82    | 0.52           | -1.43            | 0.03 | 0.84      | 0.63       |
| 59          | SR        | 0.75    | 0.55           | -0.91            | 0.03 | 0.84      | 0.73       |
| 61          | SR        | 0.47    | 0.52           | 0.65             | 0.03 | 0.94      | 0.93       |
| 69          | SR        | 0.58    | 0.47           | -0.40            | 0.03 | 0.98      | 0.95       |
| 70          | SR        | 0.42    | 0.47           | 0.59             | 0.03 | 0.99      | 1.00       |
| 72          | BCR       | 0.35    | 0.60           | 1.74             | 0.02 | 0.93      | 0.92       |
| 73          | SR        | 0.50    | 0.45           | 0.55             | 0.02 | 1.01      | 1.02       |
| 76          | SR        | 0.63    | 0.44           | -0.15            | 0.03 | 1.00      | 1.02       |
| 77          | SR        | 0.90    | 0.38           | -2.25            | 0.04 | 0.91      | 0.88       |
| 78          | BCR       | 0.33    | 0.58           | 1.68             | 0.02 | 1.08      | 1.07       |
| 79          | SR        | 0.48    | 0.47           | 0.62             | 0.03 | 1.00      | 1.00       |
| 81          | BCR       | 0.43    | 0.51           | 0.80             | 0.02 | 1.01      | 1.02       |
| 82          | SR        | 0.68    | 0.37           | -0.39            | 0.03 | 1.07      | 1.12       |
| 84          | BCR       | 0.43    | 0.64           | 0.90             | 0.02 | 0.92      | 0.91       |
| 85          | SR        | 0.43    | 0.51           | 0.90             | 0.03 | 0.92      | 0.94       |
| 88          | SR        | 0.55    | 0.43           | 0.27             | 0.03 | 1.03      | 1.04       |
| 90          | SR        | 0.59    | 0.48           | 0.03             | 0.03 | 0.97      | 0.93       |

**Table B.2 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 2**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.91    | 0.18           | -2.27            | 0.04 | 1.09      | 1.53       |
| 5           | SR        | 0.80    | 0.44           | -1.10            | 0.03 | 0.92      | 0.81       |
| 6           | SR        | 0.58    | 0.40           | 0.15             | 0.02 | 1.07      | 1.05       |
| 9           | SR        | 0.77    | 0.41           | -0.93            | 0.03 | 1.01      | 0.98       |
| 11          | SR        | 0.44    | 0.37           | 0.93             | 0.02 | 1.10      | 1.14       |
| 15          | SR        | 0.78    | 0.31           | -1.08            | 0.03 | 1.11      | 1.29       |
| 18          | SR        | 0.51    | 0.41           | 0.45             | 0.02 | 1.05      | 1.06       |
| 20          | SR        | 0.20    | 0.33           | 2.29             | 0.03 | 1.05      | 1.25       |
| 23          | SR        | 0.64    | 0.44           | -0.08            | 0.02 | 0.99      | 0.96       |
| 30          | SR        | 0.42    | 0.46           | 1.00             | 0.02 | 0.98      | 1.04       |
| 31          | SR        | 0.64    | 0.31           | -0.11            | 0.03 | 1.15      | 1.19       |
| 32          | SR        | 0.57    | 0.45           | 0.24             | 0.02 | 1.00      | 0.97       |
| 34          | SR        | 0.63    | 0.53           | -0.15            | 0.03 | 0.90      | 0.82       |
| 36          | SR        | 0.71    | 0.47           | -0.56            | 0.03 | 0.95      | 0.88       |
| 41          | SR        | 0.63    | 0.57           | -0.03            | 0.02 | 0.84      | 0.78       |
| 44          | SR        | 0.87    | 0.43           | -1.76            | 0.03 | 0.89      | 0.73       |
| 49          | SR        | 0.61    | 0.39           | 0.00             | 0.02 | 1.06      | 1.08       |
| 55          | SR        | 0.61    | 0.51           | 0.03             | 0.02 | 0.92      | 0.87       |
| 56          | SR        | 0.44    | 0.24           | 0.93             | 0.02 | 1.25      | 1.41       |
| 57          | SR        | 0.77    | 0.41           | -1.06            | 0.03 | 1.01      | 1.12       |
| 58          | SR        | 0.83    | 0.53           | -1.44            | 0.03 | 0.83      | 0.64       |
| 59          | SR        | 0.75    | 0.56           | -0.91            | 0.03 | 0.84      | 0.71       |
| 61          | SR        | 0.47    | 0.49           | 0.65             | 0.02 | 0.98      | 0.97       |
| 69          | SR        | 0.59    | 0.46           | -0.43            | 0.03 | 0.98      | 0.95       |
| 70          | SR        | 0.43    | 0.45           | 0.59             | 0.03 | 1.01      | 1.03       |
| 72          | BCR       | 0.51    | 0.69           | 0.53             | 0.02 | 0.83      | 0.83       |
| 75          | BCR       | 0.40    | 0.59           | 1.24             | 0.02 | 0.93      | 0.93       |
| 76          | SR        | 0.63    | 0.48           | -0.13            | 0.03 | 0.97      | 0.92       |
| 77          | SR        | 0.47    | 0.39           | 0.71             | 0.02 | 1.07      | 1.11       |
| 79          | SR        | 0.74    | 0.48           | -0.80            | 0.03 | 0.93      | 0.87       |
| 80          | SR        | 0.43    | 0.40           | 0.90             | 0.02 | 1.06      | 1.10       |
| 81          | BCR       | 0.38    | 0.50           | 1.45             | 0.02 | 1.01      | 1.02       |
| 82          | SR        | 0.48    | 0.28           | 0.69             | 0.02 | 1.20      | 1.28       |
| 83          | SR        | 0.52    | 0.37           | 0.46             | 0.02 | 1.10      | 1.12       |
| 85          | SR        | 0.57    | 0.53           | 0.23             | 0.02 | 0.91      | 0.88       |
| 87          | BCR       | 0.41    | 0.55           | 1.18             | 0.02 | 1.01      | 1.02       |
| 89          | SR        | 0.57    | 0.43           | 0.15             | 0.02 | 1.02      | 1.08       |

**Table B.3 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 3**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.91    | 0.18           | -2.23            | 0.04 | 1.09      | 1.71       |
| 5           | SR        | 0.80    | 0.44           | -1.10            | 0.03 | 0.91      | 0.81       |
| 6           | SR        | 0.57    | 0.40           | 0.15             | 0.02 | 1.05      | 1.03       |
| 9           | SR        | 0.78    | 0.39           | -0.93            | 0.03 | 0.99      | 0.91       |
| 11          | SR        | 0.44    | 0.39           | 0.93             | 0.02 | 1.08      | 1.12       |
| 15          | SR        | 0.78    | 0.32           | -1.08            | 0.03 | 1.10      | 1.34       |
| 18          | SR        | 0.52    | 0.41           | 0.45             | 0.02 | 1.04      | 1.06       |
| 20          | SR        | 0.21    | 0.33           | 2.29             | 0.03 | 1.10      | 1.26       |
| 23          | SR        | 0.62    | 0.45           | -0.08            | 0.02 | 1.00      | 0.99       |
| 30          | SR        | 0.43    | 0.46           | 1.00             | 0.03 | 0.98      | 1.03       |
| 31          | SR        | 0.64    | 0.31           | -0.11            | 0.03 | 1.13      | 1.18       |
| 32          | SR        | 0.58    | 0.45           | 0.24             | 0.02 | 0.99      | 0.95       |
| 34          | SR        | 0.63    | 0.51           | -0.15            | 0.03 | 0.91      | 0.83       |
| 36          | SR        | 0.71    | 0.47           | -0.56            | 0.03 | 0.95      | 0.85       |
| 41          | SR        | 0.62    | 0.58           | -0.03            | 0.02 | 0.83      | 0.77       |
| 44          | SR        | 0.88    | 0.43           | -1.83            | 0.04 | 0.89      | 0.73       |
| 49          | SR        | 0.60    | 0.39           | 0.00             | 0.02 | 1.07      | 1.10       |
| 55          | SR        | 0.60    | 0.52           | 0.03             | 0.02 | 0.91      | 0.85       |
| 56          | SR        | 0.44    | 0.25           | 0.93             | 0.02 | 1.24      | 1.39       |
| 57          | SR        | 0.78    | 0.42           | -1.06            | 0.03 | 0.97      | 1.10       |
| 58          | SR        | 0.83    | 0.53           | -1.47            | 0.03 | 0.83      | 0.68       |
| 59          | SR        | 0.75    | 0.57           | -0.91            | 0.03 | 0.85      | 0.73       |
| 61          | SR        | 0.46    | 0.51           | 0.65             | 0.02 | 0.95      | 0.96       |
| 69          | SR        | 0.59    | 0.47           | -0.44            | 0.03 | 0.97      | 0.92       |
| 70          | SR        | 0.42    | 0.46           | 0.59             | 0.03 | 1.01      | 1.06       |
| 71          | SR        | 0.72    | 0.50           | -0.59            | 0.03 | 0.91      | 0.85       |
| 72          | BCR       | 0.47    | 0.47           | 1.03             | 0.02 | 1.30      | 1.43       |
| 74          | SR        | 0.71    | 0.39           | -0.59            | 0.03 | 1.03      | 1.04       |
| 75          | BCR       | 0.45    | 0.62           | 0.77             | 0.02 | 0.92      | 0.90       |
| 76          | SR        | 0.47    | 0.38           | 0.73             | 0.02 | 1.07      | 1.13       |
| 80          | SR        | 0.82    | 0.36           | -1.49            | 0.03 | 0.99      | 1.10       |
| 82          | SR        | 0.62    | 0.41           | -0.11            | 0.03 | 1.04      | 1.07       |
| 83          | SR        | 0.62    | 0.38           | -0.09            | 0.03 | 1.08      | 1.15       |
| 84          | BCR       | 0.46    | 0.52           | 1.81             | 0.02 | 1.11      | 1.20       |
| 87          | BCR       | 0.28    | 0.58           | 2.89             | 0.02 | 0.93      | 0.93       |
| 88          | SR        | 0.69    | 0.52           | -0.59            | 0.03 | 0.90      | 0.85       |
| 90          | SR        | 0.78    | 0.52           | -1.26            | 0.03 | 0.86      | 0.67       |

**Table B.4 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 4**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.91    | 0.18           | -2.32            | 0.04 | 1.09      | 1.77       |
| 5           | SR        | 0.79    | 0.46           | -1.10            | 0.03 | 0.94      | 0.81       |
| 6           | SR        | 0.58    | 0.40           | 0.15             | 0.03 | 1.08      | 1.06       |
| 9           | SR        | 0.77    | 0.40           | -0.93            | 0.03 | 1.01      | 0.99       |
| 11          | SR        | 0.43    | 0.39           | 0.93             | 0.02 | 1.09      | 1.13       |
| 15          | SR        | 0.78    | 0.33           | -1.08            | 0.03 | 1.08      | 1.33       |
| 18          | SR        | 0.51    | 0.42           | 0.45             | 0.03 | 1.05      | 1.06       |
| 20          | SR        | 0.20    | 0.36           | 2.29             | 0.03 | 1.04      | 1.20       |
| 23          | SR        | 0.63    | 0.46           | -0.08            | 0.03 | 0.99      | 0.98       |
| 30          | SR        | 0.43    | 0.46           | 1.00             | 0.03 | 1.00      | 1.05       |
| 31          | SR        | 0.64    | 0.31           | -0.11            | 0.03 | 1.16      | 1.20       |
| 32          | SR        | 0.58    | 0.46           | 0.24             | 0.02 | 1.01      | 0.97       |
| 34          | SR        | 0.62    | 0.54           | -0.15            | 0.03 | 0.91      | 0.82       |
| 36          | SR        | 0.71    | 0.47           | -0.56            | 0.03 | 0.97      | 0.90       |
| 41          | SR        | 0.63    | 0.58           | -0.03            | 0.03 | 0.84      | 0.76       |
| 44          | SR        | 0.87    | 0.44           | -1.81            | 0.04 | 0.88      | 0.70       |
| 49          | SR        | 0.60    | 0.38           | 0.00             | 0.03 | 1.11      | 1.18       |
| 55          | SR        | 0.61    | 0.53           | 0.03             | 0.03 | 0.90      | 0.84       |
| 56          | SR        | 0.44    | 0.27           | 0.93             | 0.03 | 1.24      | 1.38       |
| 57          | SR        | 0.78    | 0.42           | -1.06            | 0.03 | 0.97      | 1.07       |
| 58          | SR        | 0.82    | 0.53           | -1.41            | 0.03 | 0.84      | 0.65       |
| 59          | SR        | 0.76    | 0.57           | -0.91            | 0.03 | 0.83      | 0.70       |
| 61          | SR        | 0.47    | 0.51           | 0.65             | 0.03 | 0.95      | 0.95       |
| 69          | SR        | 0.59    | 0.45           | -0.46            | 0.03 | 1.01      | 1.00       |
| 70          | SR        | 0.43    | 0.45           | 0.59             | 0.03 | 1.03      | 1.06       |
| 73          | SR        | 0.71    | 0.43           | -0.56            | 0.03 | 1.00      | 0.98       |
| 74          | SR        | 0.54    | 0.42           | 0.39             | 0.02 | 1.05      | 1.08       |
| 75          | BCR       | 0.21    | 0.58           | 4.42             | 0.02 | 0.90      | 0.89       |
| 78          | BCR       | 0.23    | 0.60           | 3.75             | 0.02 | 0.92      | 0.91       |
| 79          | SR        | 0.57    | 0.53           | 0.15             | 0.03 | 0.92      | 0.93       |
| 80          | SR        | 0.65    | 0.46           | -0.30            | 0.03 | 0.99      | 0.98       |
| 81          | BCR       | 0.37    | 0.46           | 3.02             | 0.03 | 1.02      | 1.03       |
| 82          | SR        | 0.62    | 0.52           | -0.03            | 0.03 | 0.93      | 0.88       |
| 84          | BCR       | 0.47    | 0.53           | 2.03             | 0.02 | 1.02      | 1.04       |
| 86          | SR        | 0.39    | 0.39           | 1.13             | 0.03 | 1.09      | 1.14       |
| 88          | SR        | 0.51    | 0.32           | 0.49             | 0.02 | 1.20      | 1.30       |
| 90          | SR        | 0.72    | 0.55           | -0.66            | 0.03 | 0.86      | 0.74       |

**Table B.5 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 5**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.91    | 0.19           | -2.29            | 0.04 | 1.10      | 1.61       |
| 5           | SR        | 0.80    | 0.44           | -1.10            | 0.03 | 0.91      | 0.81       |
| 6           | SR        | 0.58    | 0.41           | 0.15             | 0.02 | 1.08      | 1.08       |
| 9           | SR        | 0.77    | 0.39           | -0.93            | 0.03 | 1.01      | 0.97       |
| 11          | SR        | 0.43    | 0.39           | 0.93             | 0.02 | 1.10      | 1.14       |
| 15          | SR        | 0.78    | 0.31           | -1.08            | 0.03 | 1.09      | 1.31       |
| 18          | SR        | 0.50    | 0.41           | 0.45             | 0.03 | 1.08      | 1.12       |
| 20          | SR        | 0.20    | 0.34           | 2.29             | 0.03 | 1.05      | 1.20       |
| 23          | SR        | 0.63    | 0.46           | -0.08            | 0.03 | 1.00      | 0.98       |
| 30          | SR        | 0.43    | 0.48           | 1.00             | 0.03 | 0.98      | 1.03       |
| 31          | SR        | 0.63    | 0.31           | -0.11            | 0.03 | 1.19      | 1.23       |
| 32          | SR        | 0.58    | 0.45           | 0.24             | 0.02 | 1.01      | 0.98       |
| 34          | SR        | 0.62    | 0.53           | -0.15            | 0.03 | 0.91      | 0.84       |
| 36          | SR        | 0.71    | 0.46           | -0.56            | 0.03 | 0.97      | 0.89       |
| 41          | SR        | 0.63    | 0.59           | -0.03            | 0.03 | 0.83      | 0.75       |
| 44          | SR        | 0.87    | 0.43           | -1.82            | 0.04 | 0.89      | 0.73       |
| 49          | SR        | 0.61    | 0.38           | 0.00             | 0.03 | 1.10      | 1.15       |
| 55          | SR        | 0.60    | 0.54           | 0.03             | 0.03 | 0.92      | 0.87       |
| 56          | SR        | 0.43    | 0.26           | 0.93             | 0.02 | 1.27      | 1.44       |
| 57          | SR        | 0.78    | 0.41           | -1.06            | 0.03 | 0.99      | 1.17       |
| 58          | SR        | 0.83    | 0.53           | -1.49            | 0.03 | 0.83      | 0.62       |
| 59          | SR        | 0.76    | 0.56           | -0.91            | 0.03 | 0.82      | 0.69       |
| 61          | SR        | 0.46    | 0.50           | 0.65             | 0.03 | 0.98      | 0.98       |
| 69          | SR        | 0.59    | 0.45           | -0.47            | 0.03 | 1.00      | 1.02       |
| 70          | SR        | 0.43    | 0.45           | 0.59             | 0.03 | 1.04      | 1.06       |
| 71          | SR        | 0.66    | 0.48           | -0.27            | 0.03 | 0.97      | 0.93       |
| 72          | BCR       | 0.34    | 0.60           | 1.83             | 0.02 | 0.93      | 0.92       |
| 73          | SR        | 0.84    | 0.46           | -1.53            | 0.03 | 0.88      | 0.78       |
| 74          | SR        | 0.55    | 0.57           | 0.30             | 0.02 | 0.87      | 0.82       |
| 75          | BCR       | 0.42    | 0.61           | 0.97             | 0.02 | 1.08      | 1.06       |
| 79          | SR        | 0.68    | 0.47           | -0.50            | 0.03 | 0.97      | 1.02       |
| 83          | SR        | 0.71    | 0.47           | -0.60            | 0.03 | 0.96      | 0.95       |
| 84          | BCR       | 0.37    | 0.51           | 1.79             | 0.02 | 1.08      | 1.07       |
| 85          | SR        | 0.35    | 0.43           | 1.37             | 0.03 | 1.02      | 1.09       |
| 86          | SR        | 0.55    | 0.44           | 0.29             | 0.02 | 1.04      | 1.06       |
| 87          | BCR       | 0.52    | 0.68           | 0.83             | 0.02 | 0.83      | 0.83       |
| 89          | SR        | 0.58    | 0.49           | 0.09             | 0.03 | 0.97      | 0.93       |

**Table B.6 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 6**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.90    | 0.20           | -2.23            | 0.04 | 1.11      | 1.83       |
| 5           | SR        | 0.79    | 0.46           | -1.10            | 0.03 | 0.93      | 0.82       |
| 6           | SR        | 0.58    | 0.42           | 0.15             | 0.03 | 1.08      | 1.05       |
| 9           | SR        | 0.78    | 0.41           | -0.93            | 0.03 | 0.99      | 0.93       |
| 11          | SR        | 0.44    | 0.39           | 0.93             | 0.03 | 1.12      | 1.17       |
| 15          | SR        | 0.77    | 0.33           | -1.08            | 0.03 | 1.12      | 1.35       |
| 18          | SR        | 0.50    | 0.41           | 0.45             | 0.03 | 1.10      | 1.14       |
| 20          | SR        | 0.20    | 0.33           | 2.29             | 0.03 | 1.07      | 1.28       |
| 23          | SR        | 0.63    | 0.45           | -0.08            | 0.03 | 1.02      | 1.02       |
| 30          | SR        | 0.43    | 0.47           | 1.00             | 0.03 | 1.02      | 1.08       |
| 31          | SR        | 0.64    | 0.32           | -0.11            | 0.03 | 1.17      | 1.22       |
| 32          | SR        | 0.57    | 0.46           | 0.24             | 0.03 | 1.03      | 1.01       |
| 34          | SR        | 0.62    | 0.55           | -0.15            | 0.03 | 0.91      | 0.83       |
| 36          | SR        | 0.70    | 0.48           | -0.56            | 0.03 | 0.97      | 0.88       |
| 41          | SR        | 0.62    | 0.57           | -0.03            | 0.03 | 0.87      | 0.82       |
| 44          | SR        | 0.86    | 0.44           | -1.73            | 0.03 | 0.89      | 0.77       |
| 49          | SR        | 0.61    | 0.39           | 0.00             | 0.03 | 1.12      | 1.17       |
| 55          | SR        | 0.61    | 0.55           | 0.03             | 0.03 | 0.90      | 0.84       |
| 56          | SR        | 0.44    | 0.24           | 0.93             | 0.03 | 1.32      | 1.52       |
| 57          | SR        | 0.78    | 0.41           | -1.06            | 0.03 | 0.98      | 1.25       |
| 58          | SR        | 0.82    | 0.54           | -1.44            | 0.03 | 0.83      | 0.64       |
| 59          | SR        | 0.75    | 0.58           | -0.91            | 0.03 | 0.84      | 0.70       |
| 61          | SR        | 0.48    | 0.50           | 0.65             | 0.03 | 1.00      | 0.99       |
| 69          | SR        | 0.59    | 0.49           | -0.45            | 0.03 | 0.99      | 0.98       |
| 70          | SR        | 0.43    | 0.47           | 0.59             | 0.03 | 1.04      | 1.06       |
| 71          | SR        | 0.48    | 0.49           | 0.70             | 0.03 | 0.99      | 0.99       |
| 72          | BCR       | 0.49    | 0.61           | 0.96             | 0.02 | 0.90      | 0.89       |
| 73          | SR        | 0.77    | 0.47           | -0.98            | 0.03 | 0.95      | 0.85       |
| 74          | SR        | 0.79    | 0.46           | -1.11            | 0.03 | 0.93      | 0.89       |
| 75          | BCR       | 0.17    | 0.56           | 4.00             | 0.02 | 0.95      | 0.92       |
| 79          | SR        | 0.81    | 0.46           | -1.45            | 0.03 | 0.92      | 0.86       |
| 82          | SR        | 0.65    | 0.55           | -0.24            | 0.03 | 0.90      | 0.86       |
| 83          | SR        | 0.49    | 0.40           | 0.62             | 0.03 | 1.11      | 1.18       |
| 84          | BCR       | 0.31    | 0.57           | 3.56             | 0.02 | 1.01      | 1.00       |
| 87          | BCR       | 0.40    | 0.62           | 1.81             | 0.02 | 0.90      | 0.89       |
| 88          | SR        | 0.54    | 0.57           | 0.33             | 0.03 | 0.89      | 0.83       |
| 89          | SR        | 0.70    | 0.47           | -0.63            | 0.03 | 0.98      | 0.97       |

**Table B.7 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 3 Form 7**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 2           | SR        | 0.90    | 0.21           | -2.10            | 0.04 | 1.08      | 1.52       |
| 5           | SR        | 0.80    | 0.45           | -1.10            | 0.03 | 0.96      | 0.82       |
| 6           | SR        | 0.57    | 0.41           | 0.15             | 0.03 | 1.08      | 1.06       |
| 9           | SR        | 0.79    | 0.37           | -0.93            | 0.03 | 1.03      | 0.98       |
| 11          | SR        | 0.43    | 0.39           | 0.93             | 0.03 | 1.07      | 1.11       |
| 15          | SR        | 0.79    | 0.31           | -1.08            | 0.03 | 1.10      | 1.31       |
| 18          | SR        | 0.52    | 0.42           | 0.45             | 0.03 | 1.05      | 1.06       |
| 20          | SR        | 0.20    | 0.32           | 2.29             | 0.03 | 1.02      | 1.19       |
| 23          | SR        | 0.64    | 0.42           | -0.08            | 0.03 | 1.04      | 1.05       |
| 30          | SR        | 0.43    | 0.45           | 1.00             | 0.03 | 0.99      | 1.04       |
| 31          | SR        | 0.63    | 0.33           | -0.11            | 0.03 | 1.17      | 1.24       |
| 32          | SR        | 0.58    | 0.46           | 0.24             | 0.03 | 1.00      | 0.96       |
| 34          | SR        | 0.63    | 0.53           | -0.15            | 0.03 | 0.93      | 0.85       |
| 36          | SR        | 0.71    | 0.47           | -0.56            | 0.03 | 1.00      | 0.91       |
| 51          | SR        | 0.60    | 0.59           | -0.03            | 0.03 | 0.87      | 0.80       |
| 54          | SR        | 0.82    | 0.49           | -1.44            | 0.04 | 0.86      | 0.67       |
| 59          | SR        | 0.65    | 0.35           | 0.00             | 0.03 | 1.08      | 1.15       |
| 65          | SR        | 0.66    | 0.52           | 0.03             | 0.03 | 0.87      | 0.82       |
| 76          | SR        | 0.50    | 0.26           | 0.93             | 0.03 | 1.24      | 1.38       |
| 77          | SR        | 0.84    | 0.31           | -1.06            | 0.03 | 0.92      | 1.05       |
| 78          | SR        | 0.89    | 0.46           | -1.86            | 0.04 | 0.85      | 0.62       |
| 79          | SR        | 0.80    | 0.52           | -0.91            | 0.03 | 0.78      | 0.64       |
| 81          | SR        | 0.53    | 0.49           | 0.65             | 0.03 | 0.96      | 0.95       |
| 89          | SR        | 0.78    | 0.45           | -0.98            | 0.03 | 0.95      | 0.91       |
| 90          | SR        | 0.58    | 0.48           | 0.59             | 0.03 | 0.98      | 0.97       |
| 42          | BCR       | 0.45    | 0.52           | 1.00             | 0.02 | 1.04      | 1.04       |
| 43          | SR        | 0.46    | 0.46           | 0.84             | 0.03 | 0.99      | 1.00       |
| 46          | SR        | 0.66    | 0.44           | -0.16            | 0.03 | 1.01      | 1.05       |
| 47          | SR        | 0.89    | 0.41           | -1.99            | 0.04 | 0.90      | 0.93       |
| 48          | BCR       | 0.32    | 0.60           | 1.93             | 0.02 | 1.03      | 1.02       |
| 49          | SR        | 0.48    | 0.45           | 0.75             | 0.03 | 1.01      | 1.03       |
| 66          | BCR       | 0.41    | 0.51           | 1.26             | 0.02 | 1.03      | 1.04       |
| 67          | SR        | 0.72    | 0.36           | -0.47            | 0.03 | 1.08      | 1.12       |
| 69          | BCR       | 0.35    | 0.60           | 1.74             | 0.02 | 0.91      | 0.90       |
| 70          | SR        | 0.47    | 0.50           | 0.84             | 0.03 | 0.93      | 0.95       |
| 73          | SR        | 0.58    | 0.42           | 0.20             | 0.03 | 1.04      | 1.07       |
| 75          | SR        | 0.62    | 0.46           | 0.00             | 0.03 | 1.00      | 0.99       |



**Table B.8 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 1**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.63    | 0.51           | 0.08             | 0.03 | 0.92      | 0.88       |
| 4           | SR        | 0.55    | 0.44           | 0.51             | 0.02 | 1.00      | 1.00       |
| 5           | SR        | 0.54    | 0.41           | 0.56             | 0.02 | 1.03      | 1.03       |
| 6           | SR        | 0.58    | 0.55           | 0.37             | 0.02 | 0.88      | 0.82       |
| 7           | SR        | 0.63    | 0.48           | 0.08             | 0.03 | 0.96      | 0.92       |
| 9           | SR        | 0.87    | 0.31           | -1.52            | 0.03 | 1.02      | 1.05       |
| 10          | SR        | 0.80    | 0.50           | -0.96            | 0.03 | 0.89      | 0.75       |
| 11          | SR        | 0.82    | 0.28           | -1.11            | 0.03 | 1.08      | 1.35       |
| 13          | SR        | 0.82    | 0.29           | -1.14            | 0.03 | 1.07      | 1.51       |
| 14          | SR        | 0.79    | 0.33           | -0.91            | 0.03 | 1.07      | 1.17       |
| 16          | SR        | 0.75    | 0.46           | -0.71            | 0.03 | 0.98      | 1.00       |
| 17          | SR        | 0.71    | 0.51           | -0.47            | 0.03 | 0.95      | 0.87       |
| 18          | SR        | 0.80    | 0.54           | -1.22            | 0.03 | 0.88      | 0.72       |
| 19          | SR        | 0.68    | 0.44           | -0.37            | 0.03 | 1.05      | 1.11       |
| 20          | SR        | 0.66    | 0.42           | -0.25            | 0.03 | 1.08      | 1.18       |
| 23          | SR        | 0.55    | 0.38           | 0.49             | 0.02 | 1.07      | 1.08       |
| 25          | SR        | 0.68    | 0.47           | -0.19            | 0.03 | 0.95      | 0.88       |
| 28          | SR        | 0.60    | 0.30           | 0.28             | 0.02 | 1.16      | 1.23       |
| 31          | SR        | 0.56    | 0.47           | 0.45             | 0.02 | 0.96      | 0.95       |
| 33          | SR        | 0.75    | 0.48           | -0.65            | 0.03 | 0.93      | 0.87       |
| 34          | SR        | 0.37    | 0.41           | 1.44             | 0.03 | 1.02      | 1.05       |
| 37          | SR        | 0.64    | 0.42           | -0.02            | 0.03 | 1.05      | 1.14       |
| 41          | SR        | 0.66    | 0.47           | -0.38            | 0.03 | 1.01      | 0.97       |
| 45          | SR        | 0.45    | 0.44           | 0.69             | 0.03 | 1.05      | 1.10       |
| 49          | SR        | 0.61    | 0.47           | -0.92            | 0.03 | 0.88      | 0.75       |
| 51          | BCR       | 0.52    | 0.58           | 0.66             | 0.02 | 1.00      | 1.00       |
| 52          | SR        | 0.56    | 0.32           | 0.48             | 0.02 | 1.14      | 1.25       |
| 53          | SR        | 0.69    | 0.51           | -0.23            | 0.03 | 0.90      | 0.82       |
| 54          | SR        | 0.83    | 0.53           | -1.17            | 0.03 | 0.83      | 0.60       |
| 55          | BCR       | 0.41    | 0.64           | 1.59             | 0.02 | 0.90      | 0.90       |
| 57          | SR        | 0.80    | 0.50           | -0.95            | 0.03 | 0.89      | 0.71       |
| 61          | SR        | 0.65    | 0.42           | -0.03            | 0.03 | 1.01      | 1.00       |
| 63          | SR        | 0.49    | 0.45           | 0.80             | 0.02 | 0.99      | 0.97       |
| 65          | SR        | 0.56    | 0.25           | 0.47             | 0.02 | 1.22      | 1.30       |
| 67          | BCR       | 0.47    | 0.64           | 1.08             | 0.02 | 0.87      | 0.87       |
| 69          | BCR       | 0.29    | 0.49           | 2.50             | 0.02 | 1.05      | 1.05       |
| 70          | SR        | 0.52    | 0.38           | 0.65             | 0.02 | 1.16      | 1.23       |

**Table B.9 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 2**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.64    | 0.50           | 0.08             | 0.02 | 0.92      | 0.90       |
| 4           | SR        | 0.56    | 0.44           | 0.51             | 0.02 | 1.00      | 1.01       |
| 5           | SR        | 0.54    | 0.42           | 0.56             | 0.02 | 1.02      | 1.02       |
| 6           | SR        | 0.58    | 0.54           | 0.37             | 0.02 | 0.89      | 0.84       |
| 7           | SR        | 0.64    | 0.49           | 0.08             | 0.02 | 0.95      | 0.90       |
| 9           | SR        | 0.86    | 0.33           | -1.44            | 0.03 | 1.02      | 1.04       |
| 10          | SR        | 0.79    | 0.51           | -0.96            | 0.03 | 0.90      | 0.77       |
| 11          | SR        | 0.82    | 0.26           | -1.11            | 0.03 | 1.11      | 1.41       |
| 13          | SR        | 0.81    | 0.30           | -1.14            | 0.03 | 1.13      | 1.51       |
| 14          | SR        | 0.79    | 0.33           | -0.91            | 0.03 | 1.08      | 1.24       |
| 16          | SR        | 0.75    | 0.47           | -0.71            | 0.03 | 0.97      | 0.96       |
| 17          | SR        | 0.71    | 0.51           | -0.47            | 0.03 | 0.94      | 0.86       |
| 18          | SR        | 0.80    | 0.56           | -1.22            | 0.03 | 0.83      | 0.69       |
| 19          | SR        | 0.68    | 0.45           | -0.37            | 0.03 | 1.05      | 1.13       |
| 20          | SR        | 0.65    | 0.44           | -0.25            | 0.03 | 1.08      | 1.13       |
| 23          | SR        | 0.57    | 0.37           | 0.49             | 0.02 | 1.07      | 1.09       |
| 25          | SR        | 0.69    | 0.46           | -0.19            | 0.03 | 0.95      | 0.86       |
| 28          | SR        | 0.59    | 0.32           | 0.33             | 0.02 | 1.15      | 1.19       |
| 31          | SR        | 0.56    | 0.48           | 0.45             | 0.02 | 0.96      | 0.93       |
| 33          | SR        | 0.76    | 0.48           | -0.65            | 0.03 | 0.90      | 0.87       |
| 34          | SR        | 0.38    | 0.41           | 1.44             | 0.02 | 1.02      | 1.08       |
| 37          | SR        | 0.64    | 0.42           | -0.03            | 0.03 | 1.05      | 1.11       |
| 41          | SR        | 0.65    | 0.47           | -0.38            | 0.03 | 1.02      | 1.00       |
| 45          | SR        | 0.44    | 0.46           | 0.69             | 0.03 | 1.03      | 1.04       |
| 49          | SR        | 0.61    | 0.48           | -0.93            | 0.03 | 0.90      | 0.76       |
| 53          | SR        | 0.91    | 0.36           | -1.98            | 0.04 | 0.95      | 0.85       |
| 55          | BCR       | 0.50    | 0.61           | 1.13             | 0.02 | 0.88      | 0.87       |
| 56          | BCR       | 0.46    | 0.53           | 1.27             | 0.02 | 0.98      | 0.97       |
| 58          | SR        | 0.85    | 0.42           | -1.47            | 0.03 | 0.94      | 0.85       |
| 59          | SR        | 0.63    | 0.44           | 0.06             | 0.02 | 1.01      | 0.99       |
| 60          | SR        | 0.71    | 0.46           | -0.41            | 0.03 | 0.97      | 0.93       |
| 62          | SR        | 0.76    | 0.49           | -0.66            | 0.03 | 0.91      | 0.81       |
| 63          | SR        | 0.75    | 0.25           | -0.57            | 0.03 | 1.15      | 1.50       |
| 64          | BCR       | 0.35    | 0.57           | 1.60             | 0.02 | 1.08      | 1.09       |
| 67          | BCR       | 0.31    | 0.53           | 1.84             | 0.02 | 1.05      | 1.09       |
| 68          | SR        | 0.80    | 0.47           | -0.97            | 0.03 | 0.93      | 0.80       |
| 70          | SR        | 0.74    | 0.37           | -0.71            | 0.03 | 1.04      | 1.08       |

**Table B.10 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 3**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.65    | 0.50           | 0.08             | 0.02 | 0.90      | 0.92       |
| 4           | SR        | 0.54    | 0.45           | 0.51             | 0.02 | 0.98      | 0.98       |
| 5           | SR        | 0.54    | 0.41           | 0.56             | 0.02 | 1.02      | 1.00       |
| 6           | SR        | 0.58    | 0.54           | 0.37             | 0.02 | 0.88      | 0.84       |
| 7           | SR        | 0.64    | 0.45           | 0.08             | 0.02 | 0.97      | 0.93       |
| 9           | SR        | 0.86    | 0.33           | -1.44            | 0.03 | 1.01      | 0.99       |
| 10          | SR        | 0.80    | 0.51           | -0.96            | 0.03 | 0.90      | 0.75       |
| 11          | SR        | 0.83    | 0.26           | -1.11            | 0.03 | 1.06      | 1.36       |
| 13          | SR        | 0.81    | 0.30           | -1.14            | 0.03 | 1.10      | 1.39       |
| 14          | SR        | 0.78    | 0.34           | -0.91            | 0.03 | 1.06      | 1.22       |
| 16          | SR        | 0.76    | 0.45           | -0.71            | 0.03 | 0.95      | 0.98       |
| 17          | SR        | 0.71    | 0.50           | -0.47            | 0.03 | 0.93      | 0.87       |
| 18          | SR        | 0.81    | 0.55           | -1.22            | 0.03 | 0.84      | 0.67       |
| 19          | SR        | 0.68    | 0.44           | -0.37            | 0.03 | 1.03      | 1.12       |
| 20          | SR        | 0.65    | 0.44           | -0.25            | 0.03 | 1.04      | 1.10       |
| 23          | SR        | 0.57    | 0.39           | 0.49             | 0.02 | 1.04      | 1.04       |
| 25          | SR        | 0.68    | 0.47           | -0.19            | 0.03 | 0.95      | 0.89       |
| 28          | SR        | 0.59    | 0.35           | 0.31             | 0.02 | 1.14      | 1.19       |
| 31          | SR        | 0.56    | 0.48           | 0.45             | 0.02 | 0.95      | 0.93       |
| 33          | SR        | 0.75    | 0.48           | -0.65            | 0.03 | 0.92      | 0.84       |
| 34          | SR        | 0.37    | 0.49           | 1.44             | 0.02 | 1.02      | 1.08       |
| 37          | SR        | 0.64    | 0.41           | -0.07            | 0.03 | 1.04      | 1.13       |
| 41          | SR        | 0.67    | 0.48           | -0.48            | 0.03 | 0.98      | 0.95       |
| 45          | SR        | 0.45    | 0.45           | 0.69             | 0.03 | 1.03      | 1.06       |
| 49          | SR        | 0.62    | 0.48           | -0.92            | 0.03 | 0.90      | 0.74       |
| 51          | BCR       | 0.48    | 0.51           | 1.08             | 0.02 | 0.97      | 0.97       |
| 54          | SR        | 0.75    | 0.40           | -0.60            | 0.03 | 1.00      | 0.95       |
| 55          | BCR       | 0.40    | 0.58           | 1.82             | 0.02 | 0.94      | 0.94       |
| 57          | SR        | 0.51    | 0.42           | 0.69             | 0.02 | 1.01      | 1.02       |
| 59          | SR        | 0.57    | 0.24           | 0.40             | 0.02 | 1.22      | 1.31       |
| 60          | SR        | 0.78    | 0.43           | -0.83            | 0.03 | 0.96      | 0.91       |
| 61          | SR        | 0.90    | 0.32           | -1.82            | 0.04 | 0.97      | 1.01       |
| 65          | SR        | 0.55    | 0.41           | 0.52             | 0.02 | 1.02      | 1.05       |
| 66          | SR        | 0.83    | 0.34           | -1.14            | 0.03 | 1.02      | 1.03       |
| 67          | BCR       | 0.64    | 0.54           | -0.30            | 0.02 | 1.01      | 1.01       |
| 68          | SR        | 0.42    | 0.32           | 1.18             | 0.02 | 1.13      | 1.22       |
| 69          | BCR       | 0.58    | 0.58           | 0.26             | 0.02 | 0.94      | 0.94       |

**Table B.11 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 4**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.64    | 0.51           | 0.08             | 0.02 | 0.90      | 0.87       |
| 4           | SR        | 0.55    | 0.45           | 0.51             | 0.02 | 0.98      | 0.97       |
| 5           | SR        | 0.54    | 0.42           | 0.56             | 0.02 | 1.00      | 0.99       |
| 6           | SR        | 0.59    | 0.55           | 0.37             | 0.02 | 0.86      | 0.82       |
| 7           | SR        | 0.65    | 0.48           | 0.08             | 0.02 | 0.93      | 0.87       |
| 9           | SR        | 0.86    | 0.31           | -1.44            | 0.03 | 1.03      | 1.06       |
| 10          | SR        | 0.79    | 0.50           | -0.96            | 0.03 | 0.93      | 0.78       |
| 11          | SR        | 0.82    | 0.27           | -1.11            | 0.03 | 1.10      | 1.33       |
| 13          | SR        | 0.81    | 0.32           | -1.14            | 0.03 | 1.09      | 1.33       |
| 14          | SR        | 0.78    | 0.35           | -0.91            | 0.03 | 1.08      | 1.21       |
| 16          | SR        | 0.76    | 0.47           | -0.71            | 0.03 | 0.95      | 0.93       |
| 17          | SR        | 0.71    | 0.51           | -0.47            | 0.03 | 0.94      | 0.87       |
| 18          | SR        | 0.80    | 0.55           | -1.22            | 0.03 | 0.87      | 0.75       |
| 19          | SR        | 0.67    | 0.45           | -0.37            | 0.03 | 1.04      | 1.08       |
| 20          | SR        | 0.65    | 0.44           | -0.25            | 0.03 | 1.05      | 1.09       |
| 23          | SR        | 0.56    | 0.38           | 0.49             | 0.02 | 1.05      | 1.07       |
| 25          | SR        | 0.68    | 0.46           | -0.19            | 0.03 | 0.95      | 0.88       |
| 28          | SR        | 0.58    | 0.29           | 0.35             | 0.02 | 1.15      | 1.20       |
| 31          | SR        | 0.56    | 0.46           | 0.45             | 0.02 | 0.96      | 0.96       |
| 33          | SR        | 0.77    | 0.48           | -0.65            | 0.03 | 0.89      | 0.83       |
| 34          | SR        | 0.38    | 0.41           | 1.44             | 0.02 | 1.02      | 1.06       |
| 37          | SR        | 0.64    | 0.41           | -0.03            | 0.03 | 1.05      | 1.09       |
| 41          | SR        | 0.66    | 0.47           | -0.42            | 0.03 | 1.00      | 0.98       |
| 45          | SR        | 0.46    | 0.47           | 0.69             | 0.03 | 1.00      | 1.01       |
| 49          | SR        | 0.63    | 0.48           | -0.97            | 0.03 | 0.89      | 0.75       |
| 51          | BCR       | 0.59    | 0.58           | 0.27             | 0.02 | 0.97      | 0.97       |
| 53          | SR        | 0.79    | 0.48           | -0.87            | 0.03 | 0.91      | 0.81       |
| 55          | BCR       | 0.68    | 0.56           | -0.81            | 0.02 | 0.95      | 0.95       |
| 57          | SR        | 0.71    | 0.40           | -0.36            | 0.03 | 1.01      | 1.05       |
| 58          | SR        | 0.69    | 0.36           | -0.24            | 0.03 | 1.06      | 1.10       |
| 60          | SR        | 0.91    | 0.40           | -2.02            | 0.04 | 0.90      | 0.81       |
| 61          | SR        | 0.65    | 0.29           | 0.02             | 0.02 | 1.14      | 1.15       |
| 63          | SR        | 0.67    | 0.26           | -0.12            | 0.03 | 1.17      | 1.31       |
| 64          | BCR       | 0.43    | 0.53           | 1.42             | 0.02 | 0.98      | 0.99       |
| 65          | SR        | 0.79    | 0.37           | -0.86            | 0.03 | 1.01      | 1.06       |
| 66          | SR        | 0.57    | 0.34           | 0.38             | 0.02 | 1.10      | 1.20       |
| 69          | BCR       | 0.34    | 0.57           | 1.84             | 0.02 | 1.01      | 1.01       |

**Table B.12 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 5**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.64    | 0.51           | 0.08             | 0.02 | 0.92      | 0.89       |
| 4           | SR        | 0.56    | 0.46           | 0.51             | 0.02 | 0.99      | 0.98       |
| 5           | SR        | 0.54    | 0.42           | 0.56             | 0.02 | 1.03      | 1.03       |
| 6           | SR        | 0.59    | 0.55           | 0.37             | 0.02 | 0.88      | 0.82       |
| 7           | SR        | 0.65    | 0.48           | 0.08             | 0.02 | 0.95      | 0.90       |
| 9           | SR        | 0.87    | 0.33           | -1.50            | 0.03 | 1.01      | 1.09       |
| 10          | SR        | 0.80    | 0.50           | -0.96            | 0.03 | 0.89      | 0.76       |
| 11          | SR        | 0.82    | 0.27           | -1.11            | 0.03 | 1.10      | 1.50       |
| 13          | SR        | 0.82    | 0.31           | -1.14            | 0.03 | 1.06      | 1.47       |
| 14          | SR        | 0.78    | 0.34           | -0.91            | 0.03 | 1.10      | 1.23       |
| 16          | SR        | 0.76    | 0.45           | -0.71            | 0.03 | 0.98      | 0.98       |
| 17          | SR        | 0.72    | 0.53           | -0.47            | 0.03 | 0.90      | 0.81       |
| 18          | SR        | 0.80    | 0.53           | -1.22            | 0.03 | 0.85      | 0.73       |
| 19          | SR        | 0.68    | 0.44           | -0.37            | 0.03 | 1.06      | 1.16       |
| 20          | SR        | 0.65    | 0.43           | -0.25            | 0.03 | 1.08      | 1.19       |
| 23          | SR        | 0.56    | 0.38           | 0.49             | 0.02 | 1.07      | 1.10       |
| 25          | SR        | 0.69    | 0.47           | -0.19            | 0.03 | 0.95      | 0.88       |
| 28          | SR        | 0.58    | 0.32           | 0.39             | 0.02 | 1.15      | 1.21       |
| 31          | SR        | 0.56    | 0.48           | 0.45             | 0.02 | 0.96      | 0.93       |
| 33          | SR        | 0.76    | 0.49           | -0.65            | 0.03 | 0.91      | 0.87       |
| 34          | SR        | 0.37    | 0.41           | 1.44             | 0.03 | 1.02      | 1.11       |
| 37          | SR        | 0.65    | 0.43           | -0.11            | 0.03 | 1.04      | 1.10       |
| 41          | SR        | 0.66    | 0.48           | -0.44            | 0.03 | 1.00      | 1.01       |
| 45          | SR        | 0.45    | 0.45           | 0.69             | 0.03 | 1.05      | 1.08       |
| 49          | SR        | 0.62    | 0.48           | -0.97            | 0.03 | 0.89      | 0.77       |
| 51          | BCR       | 0.46    | 0.53           | 1.28             | 0.02 | 1.02      | 1.02       |
| 54          | SR        | 0.74    | 0.42           | -0.50            | 0.03 | 1.00      | 0.99       |
| 56          | BCR       | 0.51    | 0.53           | 0.71             | 0.02 | 0.98      | 0.98       |
| 57          | SR        | 0.64    | 0.30           | 0.06             | 0.03 | 1.17      | 1.38       |
| 58          | SR        | 0.72    | 0.48           | -0.44            | 0.03 | 0.95      | 0.88       |
| 59          | SR        | 0.57    | 0.50           | 0.41             | 0.02 | 0.95      | 0.91       |
| 61          | SR        | 0.79    | 0.45           | -0.83            | 0.03 | 0.94      | 0.86       |
| 63          | SR        | 0.75    | 0.50           | -0.62            | 0.03 | 0.89      | 0.78       |
| 65          | SR        | 0.54    | 0.40           | 0.55             | 0.02 | 1.05      | 1.07       |
| 67          | BCR       | 0.46    | 0.49           | 1.11             | 0.02 | 1.03      | 1.03       |
| 68          | SR        | 0.63    | 0.48           | 0.12             | 0.02 | 0.95      | 0.94       |
| 69          | BCR       | 0.42    | 0.47           | 1.06             | 0.02 | 1.02      | 1.03       |

**Table B.13 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 6**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.64    | 0.50           | 0.08             | 0.03 | 0.93      | 0.90       |
| 4           | SR        | 0.55    | 0.45           | 0.51             | 0.02 | 1.00      | 1.00       |
| 5           | SR        | 0.54    | 0.43           | 0.56             | 0.02 | 1.02      | 1.02       |
| 6           | SR        | 0.58    | 0.54           | 0.37             | 0.02 | 0.89      | 0.84       |
| 7           | SR        | 0.64    | 0.49           | 0.08             | 0.03 | 0.95      | 0.89       |
| 9           | SR        | 0.87    | 0.31           | -1.51            | 0.03 | 1.03      | 1.13       |
| 10          | SR        | 0.80    | 0.50           | -0.96            | 0.03 | 0.88      | 0.75       |
| 11          | SR        | 0.82    | 0.27           | -1.11            | 0.03 | 1.09      | 1.42       |
| 13          | SR        | 0.82    | 0.30           | -1.14            | 0.03 | 1.10      | 1.40       |
| 14          | SR        | 0.78    | 0.33           | -0.91            | 0.03 | 1.11      | 1.31       |
| 16          | SR        | 0.76    | 0.46           | -0.71            | 0.03 | 0.97      | 0.95       |
| 17          | SR        | 0.72    | 0.51           | -0.47            | 0.03 | 0.93      | 0.83       |
| 18          | SR        | 0.80    | 0.55           | -1.22            | 0.03 | 0.85      | 0.71       |
| 19          | SR        | 0.69    | 0.43           | -0.37            | 0.03 | 1.05      | 1.11       |
| 20          | SR        | 0.66    | 0.43           | -0.25            | 0.03 | 1.07      | 1.19       |
| 23          | SR        | 0.56    | 0.38           | 0.49             | 0.02 | 1.07      | 1.09       |
| 25          | SR        | 0.68    | 0.48           | -0.19            | 0.03 | 0.97      | 0.88       |
| 28          | SR        | 0.57    | 0.32           | 0.40             | 0.02 | 1.16      | 1.24       |
| 31          | SR        | 0.56    | 0.47           | 0.45             | 0.02 | 0.97      | 0.96       |
| 33          | SR        | 0.76    | 0.50           | -0.65            | 0.03 | 0.89      | 0.79       |
| 34          | SR        | 0.37    | 0.41           | 1.44             | 0.03 | 1.03      | 1.09       |
| 37          | SR        | 0.64    | 0.43           | -0.04            | 0.03 | 1.05      | 1.10       |
| 41          | SR        | 0.67    | 0.46           | -0.48            | 0.03 | 1.02      | 0.98       |
| 45          | SR        | 0.45    | 0.45           | 0.69             | 0.03 | 1.04      | 1.09       |
| 49          | SR        | 0.62    | 0.48           | -0.99            | 0.04 | 0.89      | 0.73       |
| 52          | SR        | 0.78    | 0.36           | -0.81            | 0.03 | 1.04      | 1.11       |
| 55          | BCR       | 0.41    | 0.46           | 2.13             | 0.02 | 1.05      | 1.06       |
| 56          | BCR       | 0.46    | 0.62           | 1.80             | 0.02 | 0.90      | 0.88       |
| 57          | SR        | 0.67    | 0.48           | -0.11            | 0.03 | 0.95      | 0.92       |
| 59          | SR        | 0.86    | 0.38           | -1.51            | 0.03 | 0.98      | 0.88       |
| 60          | SR        | 0.63    | 0.40           | 0.08             | 0.03 | 1.06      | 1.09       |
| 62          | SR        | 0.84    | 0.40           | -1.31            | 0.03 | 0.96      | 0.98       |
| 63          | SR        | 0.56    | 0.44           | 0.47             | 0.02 | 1.01      | 1.01       |
| 66          | SR        | 0.73    | 0.29           | -0.49            | 0.03 | 1.14      | 1.56       |
| 67          | BCR       | 0.33    | 0.65           | 2.13             | 0.02 | 0.87      | 0.86       |
| 69          | BCR       | 0.26    | 0.55           | 2.91             | 0.02 | 0.96      | 0.96       |
| 70          | SR        | 0.87    | 0.42           | -1.94            | 0.04 | 0.88      | 0.64       |

**Table B.14 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 5 Form 7**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.66    | 0.50           | 0.08             | 0.03 | 0.92      | 0.90       |
| 4           | SR        | 0.55    | 0.46           | 0.51             | 0.03 | 0.99      | 0.98       |
| 5           | SR        | 0.55    | 0.41           | 0.56             | 0.03 | 1.03      | 1.04       |
| 6           | SR        | 0.58    | 0.55           | 0.37             | 0.03 | 0.89      | 0.83       |
| 7           | SR        | 0.65    | 0.48           | 0.08             | 0.03 | 0.94      | 0.90       |
| 9           | SR        | 0.88    | 0.34           | -1.49            | 0.04 | 1.00      | 0.95       |
| 10          | SR        | 0.82    | 0.48           | -0.96            | 0.03 | 0.89      | 0.73       |
| 11          | SR        | 0.83    | 0.26           | -1.11            | 0.03 | 1.11      | 1.36       |
| 13          | SR        | 0.85    | 0.27           | -1.14            | 0.03 | 1.02      | 1.43       |
| 14          | SR        | 0.80    | 0.28           | -0.91            | 0.03 | 1.13      | 1.38       |
| 16          | SR        | 0.80    | 0.39           | -0.71            | 0.03 | 0.95      | 0.96       |
| 17          | SR        | 0.76    | 0.44           | -0.47            | 0.03 | 0.94      | 0.85       |
| 18          | SR        | 0.87    | 0.47           | -1.22            | 0.03 | 0.78      | 0.64       |
| 19          | SR        | 0.75    | 0.34           | -0.37            | 0.03 | 1.03      | 1.09       |
| 20          | SR        | 0.72    | 0.33           | -0.25            | 0.03 | 1.07      | 1.16       |
| 23          | SR        | 0.56    | 0.39           | 0.49             | 0.03 | 1.06      | 1.07       |
| 25          | SR        | 0.69    | 0.47           | -0.19            | 0.03 | 0.98      | 0.92       |
| 38          | SR        | 0.63    | 0.25           | 0.24             | 0.03 | 1.20      | 1.27       |
| 46          | SR        | 0.59    | 0.49           | 0.45             | 0.03 | 0.94      | 0.93       |
| 48          | SR        | 0.78    | 0.47           | -0.65            | 0.03 | 0.89      | 0.79       |
| 49          | SR        | 0.38    | 0.41           | 1.44             | 0.03 | 1.01      | 1.05       |
| 42          | SR        | 0.75    | 0.35           | -0.45            | 0.03 | 1.05      | 1.19       |
| 61          | SR        | 0.79    | 0.38           | -0.74            | 0.03 | 1.01      | 1.00       |
| 65          | SR        | 0.59    | 0.42           | 0.69             | 0.03 | 1.01      | 1.01       |
| 69          | SR        | 0.90    | 0.40           | -1.82            | 0.04 | 0.91      | 0.82       |
| 26          | BCR       | 0.52    | 0.56           | 0.65             | 0.02 | 1.02      | 1.02       |
| 27          | SR        | 0.56    | 0.34           | 0.59             | 0.03 | 1.11      | 1.19       |
| 28          | SR        | 0.71    | 0.52           | -0.26            | 0.03 | 0.89      | 0.81       |
| 29          | SR        | 0.84    | 0.53           | -1.18            | 0.03 | 0.84      | 0.61       |
| 30          | BCR       | 0.43    | 0.66           | 1.45             | 0.02 | 0.86      | 0.86       |
| 32          | SR        | 0.78    | 0.54           | -0.77            | 0.03 | 0.86      | 0.70       |
| 51          | SR        | 0.65    | 0.42           | 0.09             | 0.03 | 1.01      | 0.99       |
| 53          | SR        | 0.51    | 0.45           | 0.83             | 0.03 | 0.98      | 0.97       |
| 55          | SR        | 0.58    | 0.28           | 0.45             | 0.03 | 1.17      | 1.25       |
| 57          | BCR       | 0.49    | 0.64           | 0.90             | 0.02 | 0.90      | 0.90       |
| 59          | BCR       | 0.32    | 0.51           | 2.33             | 0.02 | 1.04      | 1.04       |
| 60          | SR        | 0.53    | 0.29           | 0.74             | 0.03 | 1.18      | 1.25       |

**Table B.15 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 1**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.67    | 0.47           | 0.07             | 0.03 | 0.98      | 0.96       |
| 6           | SR        | 0.50    | 0.32           | 0.96             | 0.02 | 1.15      | 1.21       |
| 8           | SR        | 0.59    | 0.46           | 0.51             | 0.03 | 0.99      | 0.97       |
| 9           | SR        | 0.89    | 0.40           | -1.57            | 0.04 | 0.95      | 0.80       |
| 22          | SR        | 0.97    | 0.29           | -3.60            | 0.09 | 0.96      | 1.23       |
| 23          | SR        | 0.57    | 0.26           | 0.64             | 0.02 | 1.23      | 1.33       |
| 25          | SR        | 0.81    | 0.26           | -0.80            | 0.03 | 1.13      | 1.43       |
| 26          | SR        | 0.61    | 0.38           | 0.39             | 0.03 | 1.09      | 1.12       |
| 29          | SR        | 0.72    | 0.46           | -0.19            | 0.03 | 0.97      | 0.96       |
| 31          | SR        | 0.65    | 0.46           | 0.20             | 0.03 | 0.98      | 0.99       |
| 32          | SR        | 0.50    | 0.23           | 0.98             | 0.02 | 1.26      | 1.41       |
| 33          | SR        | 0.63    | 0.42           | 0.29             | 0.03 | 0.98      | 0.94       |
| 35          | SR        | 0.76    | 0.33           | -0.46            | 0.03 | 1.04      | 1.09       |
| 37          | SR        | 0.72    | 0.43           | -0.24            | 0.03 | 1.01      | 1.03       |
| 38          | SR        | 0.76    | 0.46           | -0.49            | 0.03 | 0.96      | 0.92       |
| 40          | SR        | 0.70    | 0.52           | -0.12            | 0.03 | 0.91      | 0.85       |
| 41          | SR        | 0.82    | 0.32           | -1.02            | 0.03 | 1.09      | 1.35       |
| 44          | SR        | 0.69    | 0.53           | -0.16            | 0.03 | 0.92      | 0.88       |
| 46          | SR        | 0.68    | 0.53           | -0.22            | 0.03 | 0.93      | 0.86       |
| 48          | SR        | 0.64    | 0.57           | -0.05            | 0.03 | 0.84      | 0.73       |
| 49          | SR        | 0.65    | 0.48           | -0.16            | 0.03 | 1.01      | 1.00       |
| 50          | SR        | 0.65    | 0.51           | -0.18            | 0.03 | 0.96      | 0.92       |
| 51          | BCR       | 0.46    | 0.70           | 1.32             | 0.02 | 0.82      | 0.82       |
| 52          | SR        | 0.57    | 0.49           | 0.58             | 0.02 | 0.95      | 0.92       |
| 56          | BCR       | 0.45    | 0.73           | 1.35             | 0.02 | 0.79      | 0.78       |
| 57          | SR        | 0.62    | 0.49           | 0.36             | 0.03 | 0.96      | 0.94       |
| 59          | SR        | 0.41    | 0.26           | 1.40             | 0.03 | 1.23      | 1.37       |
| 60          | SR        | 0.46    | 0.47           | 1.16             | 0.02 | 0.98      | 0.99       |
| 61          | SR        | 0.78    | 0.29           | -0.62            | 0.03 | 1.10      | 1.30       |
| 62          | SR        | 0.48    | 0.56           | 1.06             | 0.02 | 0.86      | 0.84       |
| 64          | BCR       | 0.57    | 0.61           | 0.19             | 0.02 | 0.93      | 0.93       |
| 66          | SR        | 0.88    | 0.35           | -1.57            | 0.04 | 0.97      | 1.13       |
| 67          | SR        | 0.76    | 0.33           | -0.45            | 0.03 | 1.08      | 1.36       |
| 68          | BCR       | 0.51    | 0.60           | 0.67             | 0.02 | 0.96      | 0.95       |



**Table B.16 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 2**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.67    | 0.47           | 0.07             | 0.03 | 0.96      | 0.93       |
| 6           | SR        | 0.51    | 0.34           | 0.86             | 0.02 | 1.13      | 1.21       |
| 8           | SR        | 0.59    | 0.46           | 0.51             | 0.02 | 0.98      | 0.97       |
| 9           | SR        | 0.88    | 0.44           | -1.57            | 0.04 | 0.94      | 0.77       |
| 22          | SR        | 0.97    | 0.36           | -3.46            | 0.08 | 0.97      | 0.83       |
| 23          | SR        | 0.57    | 0.26           | 0.64             | 0.02 | 1.22      | 1.34       |
| 25          | SR        | 0.80    | 0.29           | -0.80            | 0.03 | 1.13      | 1.41       |
| 26          | SR        | 0.61    | 0.39           | 0.39             | 0.02 | 1.07      | 1.08       |
| 29          | SR        | 0.70    | 0.47           | -0.19            | 0.03 | 0.97      | 0.99       |
| 31          | SR        | 0.63    | 0.45           | 0.20             | 0.02 | 1.01      | 1.01       |
| 32          | SR        | 0.48    | 0.27           | 0.98             | 0.02 | 1.23      | 1.38       |
| 33          | SR        | 0.63    | 0.43           | 0.29             | 0.02 | 0.97      | 0.94       |
| 35          | SR        | 0.76    | 0.35           | -0.46            | 0.03 | 1.00      | 1.03       |
| 37          | SR        | 0.72    | 0.45           | -0.24            | 0.03 | 0.98      | 0.99       |
| 38          | SR        | 0.75    | 0.48           | -0.49            | 0.03 | 0.95      | 0.92       |
| 40          | SR        | 0.69    | 0.53           | -0.12            | 0.03 | 0.91      | 0.84       |
| 41          | SR        | 0.81    | 0.38           | -1.01            | 0.03 | 1.05      | 1.25       |
| 44          | SR        | 0.68    | 0.54           | -0.16            | 0.03 | 0.92      | 0.89       |
| 46          | SR        | 0.68    | 0.53           | -0.31            | 0.03 | 0.94      | 0.88       |
| 48          | SR        | 0.63    | 0.57           | -0.10            | 0.03 | 0.86      | 0.74       |
| 49          | SR        | 0.64    | 0.47           | -0.16            | 0.03 | 1.02      | 1.05       |
| 50          | SR        | 0.63    | 0.50           | -0.18            | 0.03 | 1.00      | 1.00       |
| 52          | SR        | 0.78    | 0.44           | -0.70            | 0.03 | 0.97      | 0.96       |
| 53          | SR        | 0.53    | 0.40           | 0.74             | 0.02 | 1.06      | 1.09       |
| 55          | BCR       | 0.55    | 0.64           | 0.31             | 0.02 | 0.91      | 0.91       |
| 56          | BCR       | 0.55    | 0.57           | 0.38             | 0.02 | 1.04      | 1.04       |
| 58          | SR        | 0.72    | 0.42           | -0.28            | 0.03 | 1.02      | 1.02       |
| 59          | SR        | 0.64    | 0.39           | 0.19             | 0.03 | 1.08      | 1.12       |
| 61          | SR        | 0.63    | 0.42           | 0.26             | 0.02 | 1.04      | 1.05       |
| 62          | SR        | 0.53    | 0.47           | 0.78             | 0.02 | 0.97      | 0.95       |
| 64          | BCR       | 0.52    | 0.66           | 0.61             | 0.02 | 0.90      | 0.90       |
| 66          | SR        | 0.81    | 0.47           | -0.95            | 0.03 | 0.93      | 0.84       |
| 68          | BCR       | 0.44    | 0.70           | 1.26             | 0.02 | 0.85      | 0.85       |
| 69          | SR        | 0.49    | 0.45           | 0.93             | 0.02 | 1.00      | 1.01       |

**Table B.17 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 3**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.67    | 0.47           | 0.07             | 0.03 | 0.98      | 0.93       |
| 6           | SR        | 0.51    | 0.32           | 0.89             | 0.02 | 1.13      | 1.19       |
| 8           | SR        | 0.59    | 0.46           | 0.51             | 0.02 | 0.98      | 0.96       |
| 9           | SR        | 0.89    | 0.41           | -1.57            | 0.04 | 0.93      | 0.86       |
| 22          | SR        | 0.97    | 0.35           | -3.47            | 0.08 | 0.96      | 0.88       |
| 23          | SR        | 0.57    | 0.26           | 0.64             | 0.02 | 1.21      | 1.30       |
| 25          | SR        | 0.80    | 0.27           | -0.80            | 0.03 | 1.16      | 1.42       |
| 26          | SR        | 0.61    | 0.37           | 0.39             | 0.02 | 1.08      | 1.09       |
| 29          | SR        | 0.71    | 0.47           | -0.19            | 0.03 | 0.96      | 0.93       |
| 31          | SR        | 0.64    | 0.45           | 0.20             | 0.02 | 0.98      | 0.97       |
| 32          | SR        | 0.50    | 0.25           | 0.98             | 0.02 | 1.21      | 1.34       |
| 33          | SR        | 0.64    | 0.43           | 0.29             | 0.02 | 0.95      | 0.90       |
| 35          | SR        | 0.76    | 0.34           | -0.46            | 0.03 | 1.02      | 1.05       |
| 37          | SR        | 0.72    | 0.44           | -0.24            | 0.03 | 1.00      | 0.98       |
| 38          | SR        | 0.75    | 0.48           | -0.49            | 0.03 | 0.96      | 0.90       |
| 40          | SR        | 0.69    | 0.51           | -0.12            | 0.03 | 0.93      | 0.87       |
| 41          | SR        | 0.81    | 0.36           | -0.98            | 0.03 | 1.08      | 1.20       |
| 44          | SR        | 0.69    | 0.54           | -0.16            | 0.03 | 0.90      | 0.86       |
| 46          | SR        | 0.69    | 0.52           | -0.34            | 0.03 | 0.94      | 0.86       |
| 48          | SR        | 0.64    | 0.56           | -0.10            | 0.03 | 0.86      | 0.75       |
| 49          | SR        | 0.65    | 0.47           | -0.16            | 0.03 | 1.01      | 1.00       |
| 50          | SR        | 0.65    | 0.51           | -0.18            | 0.03 | 0.96      | 0.92       |
| 51          | BCR       | 0.48    | 0.64           | 1.15             | 0.02 | 0.92      | 0.91       |
| 52          | SR        | 0.87    | 0.47           | -1.43            | 0.04 | 0.91      | 0.94       |
| 53          | SR        | 0.75    | 0.31           | -0.44            | 0.03 | 1.12      | 1.52       |
| 55          | BCR       | 0.66    | 0.57           | -0.40            | 0.02 | 1.00      | 1.00       |
| 58          | SR        | 0.88    | 0.48           | -1.60            | 0.04 | 0.90      | 0.76       |
| 60          | SR        | 0.67    | 0.43           | 0.06             | 0.03 | 1.01      | 1.03       |
| 63          | SR        | 0.83    | 0.48           | -1.04            | 0.03 | 0.93      | 0.83       |
| 64          | BCR       | 0.47    | 0.56           | 0.85             | 0.02 | 0.97      | 0.98       |
| 66          | SR        | 0.62    | 0.56           | 0.30             | 0.02 | 0.93      | 0.90       |
| 68          | BCR       | 0.33    | 0.63           | 1.76             | 0.02 | 0.89      | 0.89       |
| 69          | SR        | 0.60    | 0.45           | 0.40             | 0.02 | 0.99      | 0.98       |
| 70          | SR        | 0.66    | 0.29           | 0.05             | 0.03 | 1.18      | 1.44       |

**Table B.18 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 4**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.65    | 0.47           | 0.07             | 0.03 | 0.97      | 0.93       |
| 6           | SR        | 0.50    | 0.32           | 0.87             | 0.02 | 1.13      | 1.18       |
| 8           | SR        | 0.58    | 0.47           | 0.51             | 0.02 | 0.96      | 0.94       |
| 9           | SR        | 0.88    | 0.43           | -1.57            | 0.04 | 0.93      | 0.80       |
| 22          | SR        | 0.97    | 0.38           | -3.51            | 0.08 | 0.96      | 0.85       |
| 23          | SR        | 0.55    | 0.30           | 0.64             | 0.02 | 1.16      | 1.24       |
| 25          | SR        | 0.80    | 0.31           | -0.80            | 0.03 | 1.08      | 1.27       |
| 26          | SR        | 0.61    | 0.39           | 0.39             | 0.02 | 1.05      | 1.05       |
| 29          | SR        | 0.71    | 0.48           | -0.19            | 0.03 | 0.94      | 0.91       |
| 31          | SR        | 0.64    | 0.46           | 0.20             | 0.02 | 0.97      | 0.96       |
| 32          | SR        | 0.49    | 0.27           | 0.98             | 0.02 | 1.19      | 1.28       |
| 33          | SR        | 0.62    | 0.45           | 0.29             | 0.02 | 0.93      | 0.88       |
| 35          | SR        | 0.75    | 0.36           | -0.46            | 0.03 | 1.00      | 1.02       |
| 37          | SR        | 0.71    | 0.46           | -0.24            | 0.03 | 0.98      | 0.96       |
| 38          | SR        | 0.75    | 0.50           | -0.49            | 0.03 | 0.93      | 0.86       |
| 40          | SR        | 0.69    | 0.53           | -0.12            | 0.03 | 0.90      | 0.88       |
| 41          | SR        | 0.81    | 0.37           | -0.98            | 0.03 | 1.06      | 1.17       |
| 44          | SR        | 0.68    | 0.56           | -0.16            | 0.03 | 0.89      | 0.84       |
| 46          | SR        | 0.68    | 0.54           | -0.32            | 0.03 | 0.92      | 0.82       |
| 48          | SR        | 0.63    | 0.57           | -0.05            | 0.03 | 0.84      | 0.73       |
| 49          | SR        | 0.64    | 0.47           | -0.16            | 0.03 | 1.02      | 1.01       |
| 50          | SR        | 0.64    | 0.51           | -0.18            | 0.03 | 0.95      | 0.90       |
| 54          | SR        | 0.39    | 0.37           | 1.44             | 0.02 | 1.05      | 1.09       |
| 55          | BCR       | 0.44    | 0.60           | 1.01             | 0.02 | 0.87      | 0.85       |
| 56          | BCR       | 0.58    | 0.62           | 0.43             | 0.02 | 0.94      | 0.93       |
| 58          | SR        | 0.48    | 0.50           | 1.00             | 0.02 | 0.90      | 0.89       |
| 59          | SR        | 0.68    | 0.31           | -0.04            | 0.03 | 1.13      | 1.29       |
| 60          | SR        | 0.62    | 0.30           | 0.26             | 0.02 | 1.16      | 1.29       |
| 61          | SR        | 0.63    | 0.27           | 0.26             | 0.02 | 1.19      | 1.34       |
| 62          | SR        | 0.53    | 0.54           | 0.75             | 0.02 | 0.88      | 0.84       |
| 63          | SR        | 0.69    | 0.25           | -0.08            | 0.03 | 1.19      | 1.37       |
| 64          | BCR       | 0.53    | 0.55           | 0.35             | 0.02 | 0.97      | 0.97       |
| 68          | BCR       | 0.50    | 0.60           | 1.17             | 0.02 | 0.98      | 0.99       |
| 69          | SR        | 0.85    | 0.38           | -1.34            | 0.03 | 0.99      | 1.02       |

**Table B.19 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 5**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.66    | 0.46           | 0.07             | 0.03 | 0.98      | 0.96       |
| 6           | SR        | 0.51    | 0.33           | 0.87             | 0.02 | 1.13      | 1.21       |
| 8           | SR        | 0.59    | 0.47           | 0.51             | 0.02 | 0.96      | 0.94       |
| 9           | SR        | 0.89    | 0.42           | -1.57            | 0.04 | 0.90      | 0.78       |
| 22          | SR        | 0.97    | 0.35           | -3.64            | 0.08 | 0.96      | 1.41       |
| 23          | SR        | 0.56    | 0.27           | 0.64             | 0.02 | 1.21      | 1.31       |
| 25          | SR        | 0.80    | 0.30           | -0.80            | 0.03 | 1.12      | 1.29       |
| 26          | SR        | 0.61    | 0.37           | 0.39             | 0.02 | 1.08      | 1.11       |
| 29          | SR        | 0.71    | 0.48           | -0.19            | 0.03 | 0.94      | 0.91       |
| 31          | SR        | 0.64    | 0.45           | 0.20             | 0.02 | 0.99      | 1.01       |
| 32          | SR        | 0.49    | 0.26           | 0.98             | 0.02 | 1.21      | 1.33       |
| 33          | SR        | 0.62    | 0.44           | 0.29             | 0.02 | 0.95      | 0.92       |
| 35          | SR        | 0.75    | 0.35           | -0.46            | 0.03 | 1.02      | 1.06       |
| 37          | SR        | 0.71    | 0.45           | -0.24            | 0.03 | 1.00      | 0.98       |
| 38          | SR        | 0.75    | 0.49           | -0.49            | 0.03 | 0.93      | 0.88       |
| 40          | SR        | 0.70    | 0.51           | -0.12            | 0.03 | 0.91      | 0.87       |
| 41          | SR        | 0.81    | 0.38           | -1.01            | 0.03 | 1.06      | 1.18       |
| 44          | SR        | 0.68    | 0.54           | -0.16            | 0.03 | 0.92      | 0.91       |
| 46          | SR        | 0.68    | 0.53           | -0.31            | 0.03 | 0.93      | 0.86       |
| 48          | SR        | 0.63    | 0.56           | -0.07            | 0.03 | 0.85      | 0.74       |
| 49          | SR        | 0.64    | 0.49           | -0.16            | 0.03 | 0.99      | 0.99       |
| 50          | SR        | 0.63    | 0.51           | -0.18            | 0.03 | 0.98      | 0.98       |
| 51          | BCR       | 0.40    | 0.58           | 1.64             | 0.02 | 0.95      | 0.95       |
| 52          | SR        | 0.86    | 0.45           | -1.36            | 0.03 | 0.94      | 0.80       |
| 53          | SR        | 0.85    | 0.40           | -1.28            | 0.03 | 1.01      | 1.00       |
| 55          | BCR       | 0.27    | 0.52           | 2.48             | 0.02 | 1.00      | 1.01       |
| 57          | SR        | 0.66    | 0.47           | 0.09             | 0.03 | 0.98      | 0.93       |
| 58          | SR        | 0.72    | 0.49           | -0.28            | 0.03 | 0.95      | 0.90       |
| 61          | SR        | 0.64    | 0.41           | 0.17             | 0.02 | 1.04      | 1.11       |
| 62          | SR        | 0.83    | 0.48           | -1.12            | 0.03 | 0.92      | 0.80       |
| 63          | SR        | 0.41    | 0.37           | 1.35             | 0.02 | 1.06      | 1.13       |
| 65          | BCR       | 0.51    | 0.59           | 0.72             | 0.02 | 0.97      | 0.97       |
| 68          | BCR       | 0.42    | 0.58           | 1.46             | 0.02 | 0.98      | 0.98       |
| 70          | SR        | 0.75    | 0.35           | -0.58            | 0.03 | 1.07      | 1.30       |

**Table B.20 The 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 6**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.68    | 0.44           | 0.07             | 0.03 | 0.97      | 0.92       |
| 6           | SR        | 0.51    | 0.31           | 0.88             | 0.02 | 1.13      | 1.2        |
| 8           | SR        | 0.59    | 0.44           | 0.51             | 0.02 | 0.99      | 0.98       |
| 9           | SR        | 0.89    | 0.42           | -1.57            | 0.04 | 0.9       | 0.79       |
| 22          | SR        | 0.97    | 0.31           | -3.56            | 0.08 | 0.99      | 1.14       |
| 23          | SR        | 0.57    | 0.24           | 0.64             | 0.02 | 1.21      | 1.31       |
| 25          | SR        | 0.80    | 0.28           | -0.80            | 0.03 | 1.13      | 1.28       |
| 26          | SR        | 0.62    | 0.36           | 0.39             | 0.02 | 1.08      | 1.11       |
| 29          | SR        | 0.71    | 0.45           | -0.19            | 0.03 | 0.97      | 0.99       |
| 31          | SR        | 0.64    | 0.45           | 0.20             | 0.03 | 0.98      | 0.99       |
| 32          | SR        | 0.51    | 0.25           | 0.98             | 0.02 | 1.21      | 1.31       |
| 33          | SR        | 0.64    | 0.42           | 0.29             | 0.02 | 0.95      | 0.9        |
| 35          | SR        | 0.76    | 0.34           | -0.46            | 0.03 | 1.01      | 1.02       |
| 37          | SR        | 0.72    | 0.44           | -0.24            | 0.03 | 0.98      | 0.97       |
| 38          | SR        | 0.76    | 0.48           | -0.49            | 0.03 | 0.94      | 0.89       |
| 40          | SR        | 0.70    | 0.51           | -0.12            | 0.03 | 0.91      | 0.84       |
| 41          | SR        | 0.81    | 0.37           | -0.94            | 0.03 | 1.05      | 1.17       |
| 44          | SR        | 0.69    | 0.54           | -0.16            | 0.03 | 0.91      | 0.87       |
| 46          | SR        | 0.68    | 0.52           | -0.23            | 0.03 | 0.93      | 0.85       |
| 48          | SR        | 0.64    | 0.56           | -0.06            | 0.03 | 0.85      | 0.73       |
| 49          | SR        | 0.65    | 0.46           | -0.16            | 0.03 | 1.03      | 1.04       |
| 50          | SR        | 0.65    | 0.51           | -0.18            | 0.03 | 0.95      | 0.9        |
| 51          | BCR       | 0.55    | 0.55           | 0.39             | 0.02 | 0.97      | 0.97       |
| 53          | SR        | 0.52    | 0.39           | 0.85             | 0.02 | 1.05      | 1.08       |
| 54          | SR        | 0.82    | 0.31           | -0.95            | 0.03 | 1.06      | 1.27       |
| 55          | BCR       | 0.55    | 0.59           | 0.59             | 0.02 | 0.95      | 0.96       |
| 57          | SR        | 0.74    | 0.47           | -0.34            | 0.03 | 0.95      | 0.91       |
| 60          | SR        | 0.68    | 0.41           | 0.00             | 0.03 | 1.02      | 1.06       |
| 62          | SR        | 0.74    | 0.36           | -0.37            | 0.03 | 1.06      | 1.07       |
| 65          | BCR       | 0.39    | 0.56           | 2.13             | 0.02 | 0.93      | 0.93       |
| 66          | SR        | 0.91    | 0.44           | -1.82            | 0.04 | 0.9       | 0.79       |
| 67          | SR        | 0.63    | 0.38           | 0.29             | 0.02 | 1.06      | 1.03       |
| 68          | BCR       | 0.49    | 0.55           | 1.04             | 0.02 | 1.03      | 1.03       |
| 69          | SR        | 0.74    | 0.40           | -0.42            | 0.03 | 1.02      | 1.06       |

**Table B.21 2003 MSA-Reading Classical and IRT Item Parameters: Grade 8 Form 7**

| Item Number | Item Type | P-Value | Point-Biserial | Rasch Difficulty | SEM  | Ms. Infit | Ms. Outfit |
|-------------|-----------|---------|----------------|------------------|------|-----------|------------|
| 3           | SR        | 0.68    | 0.46           | 0.07             | 0.04 | 1.00      | 1.00       |
| 6           | SR        | 0.52    | 0.33           | 1.02             | 0.04 | 1.13      | 1.19       |
| 8           | SR        | 0.63    | 0.46           | 0.51             | 0.04 | 0.98      | 0.93       |
| 9           | SR        | 0.89    | 0.39           | -1.57            | 0.06 | 1.00      | 0.84       |
| 22          | SR        | 0.97    | 0.26           | -3.30            | 0.12 | 0.98      | 1.66       |
| 23          | SR        | 0.58    | 0.23           | 0.64             | 0.04 | 1.25      | 1.40       |
| 25          | SR        | 0.81    | 0.26           | -0.80            | 0.05 | 1.21      | 1.49       |
| 26          | SR        | 0.64    | 0.37           | 0.39             | 0.04 | 1.08      | 1.14       |
| 29          | SR        | 0.73    | 0.44           | -0.19            | 0.04 | 1.00      | 1.08       |
| 41          | SR        | 0.65    | 0.45           | 0.20             | 0.04 | 1.02      | 1.05       |
| 42          | SR        | 0.54    | 0.25           | 0.98             | 0.04 | 1.22      | 1.33       |
| 43          | SR        | 0.64    | 0.36           | 0.29             | 0.04 | 1.05      | 1.03       |
| 45          | SR        | 0.82    | 0.29           | -0.46            | 0.04 | 0.92      | 0.95       |
| 47          | SR        | 0.76    | 0.39           | -0.24            | 0.04 | 0.99      | 0.97       |
| 48          | SR        | 0.80    | 0.44           | -0.49            | 0.04 | 0.90      | 0.87       |
| 50          | SR        | 0.72    | 0.50           | -0.12            | 0.04 | 0.95      | 0.91       |
| 61          | SR        | 0.84    | 0.27           | -0.91            | 0.05 | 1.11      | 1.39       |
| 64          | SR        | 0.74    | 0.49           | -0.16            | 0.04 | 0.92      | 0.85       |
| 66          | SR        | 0.84    | 0.45           | -0.97            | 0.05 | 0.94      | 0.79       |
| 68          | SR        | 0.78    | 0.51           | -0.50            | 0.04 | 0.85      | 0.69       |
| 69          | SR        | 0.76    | 0.39           | -0.16            | 0.04 | 0.96      | 1.00       |
| 70          | SR        | 0.78    | 0.44           | -0.18            | 0.04 | 0.87      | 0.81       |
| 31          | BCR       | 0.42    | 0.70           | 1.66             | 0.02 | 0.80      | 0.80       |
| 32          | SR        | 0.58    | 0.52           | 0.70             | 0.04 | 0.91      | 0.88       |
| 36          | BCR       | 0.40    | 0.70           | 1.87             | 0.02 | 0.82      | 0.81       |
| 37          | SR        | 0.62    | 0.51           | 0.48             | 0.04 | 0.93      | 0.89       |
| 39          | SR        | 0.43    | 0.27           | 1.43             | 0.04 | 1.20      | 1.32       |
| 40          | SR        | 0.43    | 0.49           | 1.48             | 0.04 | 0.93      | 0.93       |
| 51          | SR        | 0.77    | 0.33           | -0.37            | 0.04 | 1.07      | 1.31       |
| 52          | SR        | 0.48    | 0.54           | 1.22             | 0.04 | 0.86      | 0.83       |
| 54          | BCR       | 0.56    | 0.62           | 0.33             | 0.03 | 0.91      | 0.91       |
| 56          | SR        | 0.87    | 0.35           | -1.45            | 0.06 | 0.97      | 1.06       |
| 57          | SR        | 0.73    | 0.30           | -0.26            | 0.04 | 1.10      | 1.36       |
| 58          | BCR       | 0.44    | 0.53           | 1.58             | 0.03 | 1.00      | 1.00       |