# Technical Report \# 23 

Analysis of Reading Fluency and Comprehension Measures for Seventh Grade Students

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#### Abstract

This technical report describes the results of a correlational study of a seventh grade reading assessment kit containing an Oral Reading Fluency (ORF) measure, a District Vocabulary Test, and a District Reading Comprehension Test, consisting of constructed and selected response items. For all assessments, there was no significant difference in performance according to gender. For the Vocabulary test, there was no significant difference in scores between the two alternate forms. For the Reading Comprehension test, there were significant differences in the difficulty of the forms. Due to these differences, forms were analyzed separately in the correlational study. The correlational study indicated a significant positive correlation between all measures, with the highest correlation being between the constructed response section of the Reading Comprehension test and the ORF test. Recommendations are also provided for removing items from the Reading Comprehension test, according to student performance.


## Introduction

The No Child Left Behind Act of 2001 has increased the role of assessment in K-12 education. Designed to help ensure that all students meet high academic standards, the law currently requires states receiving Title I funds to test all children annually in reading and math in grades three through eight and report student performance disaggregated by poverty, race and ethnicity, disability, and limited English proficiency. By the 2005-06 school year, tests must be expanded to include at least one year between grades 10-12, and by 2007-08, states must also include science assessments at least once in grades $3-5$, grades $6-9$, and grades $10-12$. The law requires states to set annual measurable objectives to track student progress towards reaching proficiency, with the ultimate goal that "all groups of students-including low-income students, students from major racial and ethnic groups, students with disabilities, and students with limited English proficiency—reach proficiency within 12 years" (U.S. Department of Education, 2002, p. 17).

With this goal in mind, school districts are scrambling to develop assessment systems that will enable them to monitor student progress in a timely fashion rather than waiting for year-end statewide assessments. These district assessments serve multiple purposes: monitoring student progress, evaluating the effectiveness of particular programs and schools, and providing school personnel with valuable information about how well they and their students are doing. Developing easy to administer and score assessments at the district level offers schools a distinct advantage over depending on costly statewide assessments for progress monitoring. In the area of reading, three measures can provide essential information about students’ developing proficiency: a test of oral reading fluency (ORF), a vocabulary test, and a reading comprehension test comprised of selected response and constructed response items. Taken together, these three measures give a good prediction of student performance on the large-scale reading assessment
administered by the state. To be most useful at the district level, it is helpful to have a variety of comparable forms available for each of these measures so that students can be tested more than once each year without skewing the results due to a practice effect with the same items.

## Methods

## Setting and Subjects

This report summarizes the spring 2003, seventh-grade reading achievement data from five different schools in an urban school district in a mid-sized city in the Pacific Northwest. The original data set contained 358 students, but 96 students were removed from the data set prior to analysis because they had no scores in any of the dependent variables. Additional students were missing data in some but not all of the dependent variable measures, so the total sample size used for analysis varies by measure.

## Design and Operational Procedures

Dependent variables analyzed in this report include scores from the following measures: a test of Oral Reading Fluency (ORF) $(n=303)$, a District Vocabulary Test $(n=327)$, and a District Reading Comprehension Test comprised of both selected response and constructed response items ( $n=327$ ). All seventh-grade students in the classes selected by the district to be sampled present in school on the days the tests were administered took all three assessments. Measurement/Instrument Development

ORF

The test of Oral Reading Fluency was administered individually to each student by trained assessors. Students read aloud for exactly one minute one of four comparable passages deemed grade-level appropriate on the Flesch-Kinkaid reading scale. At the end of one minute,
assessors marked the last word read then counted the total words read as well as any words read incorrectly to arrive at a final ORF score.

## Vocabulary

Seventh-grade students were administered one of two multiple choice Vocabulary Tests. Both tests contained 70 questions. Each item on both forms consisted of one correct answer and two distracters. Students bubbled in their answers on the form itself, and all tests were machine scored. Differences in student performance on the two forms were not statistically significant $F(1,300)=.223, p>.05$.

## Reading Comprehension

In addition, seventh-grade students were administered one of four Reading Comprehension Tests. Each form of the Reading Comprehension Test consisted of a reading passage followed by multiple choice as well as constructed response questions. Multiple choice, or selected response (SR), questions were machine scored while constructed response (CR) questions were all scored by the same scorer using scoring guides provided by the district. The scorer was trained by two district administrators who also checked every fifth paper to ensure that his scores were consistent with district expectations. Responses for which the scorer was unable to decide on an appropriate score were discussed with both trainers before having a final score assigned.

## Data Preparation and Analysis

I used AOV to test for form comparability and differential performance by different groups of students. I then ran an option analysis using Excel, calculating the percentage of students selecting each response, the mean score on the measure for the students selecting each response, and the correlation between score on the measure and response selection for each item
(see Appendix A). Because the SR section of Form A of the District Reading Test was found to be not comparable with the other three forms, data from Form A was excluded in the correlation and multiple regression analyses. Alpha level was set at .05 for all analyses.

## Results

ORF
Table 1 presents descriptive statistics for the district seventh grade ORF test.

Table 1
Descriptive Statistics for Grade 7 District ORF Test

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | Male | 141 | 151.96 | 33.63 |
|  | Female | 146 | 159.16 | 36.28 |
| Total |  | 287 | 155.62 | 35.13 |

There were no significant differences between student performance on the ORF based on gender $F(1,285)=3.04, \mathrm{p}>.05($ see Table 2$)$.

Table 2
Analysis of Variance Summary Table for Grade 7 District ORF Test

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | 1 | 3.04 | .01 | .08 |
| Error | 285 | $(1225.31)$ |  |  |

Note. Values enclosed in parentheses represent mean square errors.
*p $<.05,{ }^{* *} p<.01$.

## District Vocabulary Test

Table 3 presents a comparison of student performance on Forms A and B of the District
Vocabulary Test. There was no statistically significant difference between student performance
on Forms A and B, $F(1,300)=.223 \mathrm{p}>.05$. However, both forms could yield a more detailed picture of differentiated student achievement if they were made more challenging.

Table 3
Comparison of Forms A and B of Grade 7 District Vocabulary Test

| Form | $n$ | $M$ | $S D$ |
| :---: | :---: | :---: | :---: |
| A | 153 | $75.15 \%$ | 19.73 |
| B | 149 | $74.16 \%$ | 16.64 |

Because there was no significant difference between student performance on Form A and B of the District Vocabulary Test, descriptive statistics (see Table 4) and analysis of variance (see Table 5) include data from both forms combined.

Table 4
Descriptive Statistics for Grade 7 District Vocabulary Test

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | Male | 150 | 75.28 | 17.66 |
|  | Female | 152 | 74.06 | 18.85 |
| Total |  | 302 | 74.66 | 18.25 |

AOV finds no difference in student performance on the District Vocabulary Test with regards to gender.

Table 5
Analysis of Variance Summary Table for Grade 7 District Vocabulary Test

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | 1 | .335 | .00 | .56 |
| Error | 300 | $(.033)$ |  |  |

Note. Items in parentheses represent mean square errors.
*p $<.05,{ }^{* *} p<.01$.

## District Reading Comprehension Test

There is a statistically significant difference between student performance on the SR portion of the four forms, $F(3,317)=5.87, \mathrm{p}<.01$. Table 6 presents a comparison of the four forms. Students perform at a significantly lower level on Form C (Merrick and the Challenge of Denali passage). There is a statistically significant difference between student performance on the CR portion of the four forms $F(3,317)=81.54, \mathrm{p}<.001$. Students perform at a significantly lower level on Form C (Merrick and the Challenge of Denali passage) and at a significantly higher level on Form A (Penner passage).

Table 6
Descriptive Statistics for Grade 7 District Reading Comprehension Test

| Form | $n$ | SR Mean | SR $S D$ | CR Mean | CR $S D$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | 75 | $74.29 \%$ | 16.46 | $89.17 \%$ | 25.28 |
| B | 83 | $71.03 \%$ | 16.93 | $72.05 \%$ | 27.40 |
| C | 81 | $64.73 \%$ | 17.80 | $20.99 \%$ | 34.45 |
| D | 82 | $74.00 \%$ | 14.24 | $63.78 \%$ | 26.14 |

For this reason, Form C is separated out from the other three forms for analyses of student performance by group in the SR and CR section while form A is separated out from the others
analyses of the CR section. Forms B and D are combined for analyses of the CR section. In addition, only forms B and D are used for correlational analyses. Table 7 presents descriptive statistics for Forms A, B, and D, combined.

Table 7
Descriptive Statistics for Grade 7 District Reading Test: SR Forms A, B, and D

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | Male | 108 | 73.45 | 15.26 |
|  | Female | 115 | 73.48 | 16.07 |
| Total |  | 223 | 73.46 | 15.65 |

On Forms A. B, and D combined, there was no significant difference in performance on the SR section between different groups of students with regards to gender (see Table 8).

Table 8
Analysis of Variance Summary Table for Grade 7 District Reading Test: SR, Forms A, B, and D

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | 1 | 0.00 | .00 | .99 |
| Error | 82 | $(3.16 \mathrm{E}-02)$ |  |  |

Note. Items in parentheses represent mean square errors. ${ }^{*} p<.05,{ }^{* *} p<.01$.

Table 9 presents descriptive statistics for student performance on the SR portion of Form C of the District Reading Comprehension test.

Table 9
Descriptive Statistics for Grade 7 District Reading Test: SR Form C

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :--- | :--- | :--- | :--- |
| Gender | Male | 40 | 60.83 | 19.12 |
|  | Female | 36 | 68.78 | 15.95 |
| Total |  | 76 | 64.60 | 18.03 |

There was not a significant difference between student performance in regard to gender $F(1,74)=3.82, \mathrm{p}=.05$ on the SR section of the District Reading Test, Form C (see Table 10).

Table 10
Analysis of Variance Summary Table for Grade 7 District Reading Test: SR, Form C

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :--- |
| Gender | 1 | 3.82 | .05 | .05 |
| Error | 74 | $(.03)$ |  |  |

Note. Items in parentheses represent mean square errors.
${ }^{*} p<.05,{ }^{* *} p<.01$.

Table 11 presents descriptive statistics for the CR section of the District Reading Test,
Form A.

Table 11
Descriptive Statistics for Grade 7 District Reading Test: CR, Form A

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :--- | :---: | :---: | :---: |
| Gender | Male | 40 | 26.25 | 36.23 |
|  | Female | 36 | 17.71 | 33.99 |
| Total |  | 76 | 22.20 | 35.21 |

There was not a significant difference between student performance in regard to gender $F(1,74)=1.12, \mathrm{p}>.05$ on the CR section of the District Reading Test, Form A (see Table 12).

Table 12
Analysis of Variance Summary Table for Grade 7 District Reading Test: CR. Form A

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | 1 | 1.12 | .02 | .29 |
| Error | 74 | $(.12)$ |  |  |

Note. Items in parentheses represent mean square errors.
*p $<.05,{ }^{* *} p<.01$
Table 13 presents descriptive statistics for the CR section of the District Reading Test,
Forms B and D.

Table 13
Descriptive Statistics for Grade 7 District Reading Test: CR, Forms B and D

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | Male | 79 | 73.04 | 14.67 |
|  | Female | 75 | 71.84 | 16.73 |
| Total |  | 154 | 72.46 | 15.67 |

There was also not a significant difference between student performance in regard to gender $F(1$,
152 ) $=0.23$, p $>.05$ on the CR section of the District Reading Test, Forms B and D (see Table
14).

Table 14
Analysis of Variance Summary Table for Grade 7 District Reading Test: CR, Forms B and D

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | 1 | 0.23 | .00 | .64 |
| Error | 152 | $(.025)$ |  |  |

Note. Items in parentheses represent mean square errors.
*p $<.05,{ }^{* *} p<.01$
Table 15 presents descriptive statistics for the CR section of the District Reading Test, Form C.

Table 15
Descriptive Statistics for Grade 7 District Reading Test: CR Form C

|  | Group | $n$ | $M$ | $S D$ |
| :--- | :--- | :--- | :--- | :--- |
| Gender | Male | 40 | 26.25 | 36.23 |
|  | Female | 36 | 17.71 | 33.99 |
| Total |  | 76 | 22.20 | 35.24 |

There was not a significant difference between student performance in regard to gender $F(1,74)=1.17, \mathrm{p}>.05$ on the CR section of the District Reading Test, Form C (see Table 16).

Table 16
Analysis of Variance Summary Table for Grade 7 District Reading Test: CR, Form C

| Source | $d f$ | $F$ | $\eta^{2}$ | $p$ |
| :--- | :---: | :---: | :---: | :---: |
| Gender | 1 | 1.17 | .02 | .29 |
| Error | 74 | $(.124)$ |  |  |

Note. Items in parentheses represent mean square errors.

* $p<.05,{ }^{* *} p<.01$.


## Correlation of the Four Measures

Because the SR section of Forms A and C and the CR section of Form C of the District Reading Test differ significantly from the other forms, they are excluded from the remaining analyses. There is a significant positive correlation between all of the measures, with the highest correlation (.43) between the CR section of the District Reading Test and the District ORF (see Table 17).

Table 17
Correlation Matrix for the Different District Tests

|  |  | District ORF | District Voc. | District SR Rdg | District CR Rdg |
| :---: | :---: | :---: | :---: | :---: | :---: |
| District ORF | Pearson Correlation | 1 | .43** | .27** | .43** |
|  | Sig. (2-tailed) | . | . 000 | . 000 | . 000 |
|  | $n$ | 141 | 141 | 141 | 141 |
| District <br> Voc. | Pearson Correlation |  | 1 | .26** | . $44^{* *}$ |
|  | Sig. (2-tailed) |  | . | . 002 | . 000 |
|  | $n$ |  | 146 | 146 | 146 |
| District SR <br> Reading | Pearson Correlation |  |  | 1 | .30** |
|  | Sig. (2-tailed) |  |  | . | . 000 |
|  | $n$ |  |  | 146 | 146 |
| District CR <br> Reading | Pearson Correlation |  |  |  | 1 |
|  | Sig. (2-tailed) |  |  |  |  |
|  | $n$ |  |  |  | 146 |

## Discussion

ORF
The ORF as it was administered in 2002-03 is moderately correlated with same year performance on the District Reading Test $(r=.43)$ and same year performance on the District Vocabulary Test $(r=.43)$. Because the ORF is easy to administer and does not require much time or training to score, it can continue to be a useful source of information for teachers monitoring student growth in reading.

## District Vocabulary Test

Both forms of the District Vocabulary Test are functioning correctly, although the district may want to make the tests more challenging in order to obtain more information from them. They currently do not offer as much differentiation as would be possible were they scaled more aggressively.

## District Reading Comprehension Test

The district administered four different forms of the Reading Comprehension Test. Two of the reading passages were fiction (Forms A and B) while two were non-fiction (Forms C and D). The difference in type of literature (fiction versus non-fiction) did not have a significant effect on student performance. All four forms had different numbers of questions and varied slightly in length and degree of difficulty on the Flesch-Kinkaid reading scale. Table 18 presents comparative information on the four forms.

Table 18
Comparison of the Four District Reading Comprehension Forms

| Form | Number <br> of <br> Words | Reading <br> Level | Number <br> of SR <br> Questions | Mean <br> SR <br> Score | \# of CR <br> Questions | Mean CR <br> Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 1569 | 6.9 | 21 | $79 \%$ | 4 | $94 \%$ |
| B | 1396 | 7.7 | 22 | $79 \%$ | 5 | $77 \%$ |
| C | 1397 | 8.2 | 21 | $69 \%$ | 4 | $71 \%$ |
| D | 1396 | 8.0 | 25 | $79 \%$ | 5 | $68 \%$ |

Forms B and D are comparable based on an ANOVA of student performance on the tests. There is no significant difference between student scores on these two forms. However, Forms A and C are not equivalent to the other two forms; as a result, scores on Forms A and C can not reliably be compared to scores on the other three forms.

The district asked for a recommendation of questions that could be removed to reduce the SR section of each form to 15 questions and the CR section of each form to 2 questions. Table 19 presents recommendations on which items to remove based on an analysis of how the different items are functioning.

Table 19

| Items for Removal from Grade 7 Reading Test and How Removal Would Affect Scores |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Form | SR Item \#s <br> for <br> Removal | New Mean <br> SR Score | SR Score <br> Before <br> Removal | CR Item \#s <br> for <br> Removal | New Mean <br> CR Score | CR Score <br> Before <br> Removal |
| A | $1,2,3,6,9$, <br> 16 | $79 \%$ | $79 \%$ | 23,25 | $91 \%$ | $94 \%$ |
| B | $1,5,8,12$, <br> $18,21,22$ | $69 \%$ | $79 \%$ | $23,24,26$ | $67 \%$ | $77 \%$ |
| C | $3,7,12,15$, <br> 20,21 | $71 \%$ | $69 \%$ | 23,25 | $68 \%$ | $71 \%$ |
| D | $1,2,3,5,9$, <br> $10,17,18$, <br> 23,25 | $68 \%$ | $79 \%$ | $26,28,29$ | $70 \%$ | $68 \%$ |

Recommendations are based on student performance. Table 20 provides a rationale for each of the items recommended for removal. Based on mean student performance, removing the suggested SR items brought Forms B, C, and D closer together, but Form A remains easier than the others. To make Form A more comparable to the other three Reading Comprehension Test forms, more difficult test items need to be written for it. In reading Table 20, an item is considered redundant if students performed equally well on that item as they did on another item on the same form. The \% given in parentheses refers to the percentage of seventh-grade students who got that particular item correct. A distracter is referred to as a bad distracter when no students selected that particular response; distracters that were selected by no students are noted in the Action Needed to Save Item for Question Bank column. See Appendix A for a complete table of Item Analysis for the SR section of the District Reading Test.

Table 20
Rationale for Items Suggested for Removal from Grade 7 District Reading Test

| Form | Item | Rationale for Removal | Action Needed to Save Item for Question Bank |
| :---: | :---: | :---: | :---: |
| A | 1 | Too easy (96\%) | Re-write question |
| A | 2 | Redundant with $5,14,18,20$, 21 and one bad distracter. | Re-write Distracter B |
| A | 3 | Two bad distracters | Re-write Distracters B and D |
| A | 6 | Redundant with 13 and 15. | OK to use as is in place of 13 or 15 |
| A | 9 | Too easy (97\%) and distracter B is bad | Re-write question and Distracter D |
| A | 10 | Redundant with 6, 13, and 15 | OK to use as is in place of 6,13 or 15 |
| A | 16 | Redundant with 2, 5, 14, 18, and 21 and less a test of reading than knowledge of hospitals | Re-write question |
| A | 23 | Too easy (94\%) | Re-write question to make more challenging |
| A | 25 | Too easy (96\%) | Re-write question to make more challenging |
| B | 1 | Too easy (97\%) and distracter A is bad | Re-write question and Distracter A |
| B | 5 | Redundant with 13 and one bad distracter | Re-write Distracter C |
| B | 8 | Redundant with 12 and 18 | OK to use as is in place of 12 or 18 |
| B | 12 | Redundant with 8 and 18 and one bad distracter | Re-write Distracter A |
| B | 18 | Redundant with 8 and 12 | OK to use as is in place of 8 or 12 |
| B | 21 | Redundant with 9 and two bad distracters | Re-write Distracters A and D |
| B | 22 | Too easy (97\%) and two bad distracters | Re-write to make question more challenging, and re-write Distracters A and D |
| B | 23 | Too easy (83\%) | Re-write question to make more challenging |

B 24 Too easy (80\%)
B 26 Too easy (88\%)
C 3 Redundant with 1 and 12 and one bad distracter

C 7 Redundant with 2 and one bad distracter

C 12 Redundant with 1 and 3
C 15 Redundant with 18
C 20 Too hard (12\%)
C 21 Redundant with 17
C 23 Too easy (77\%)
C 25 Too easy (81\%)
D $1 \quad$ Redundant with $5,10,15$, and 19 and two bad distracters

D 2 Too easy (95\%), redundant with 3,12 , and 18 and one bad distracter

D 3 Too easy (95\%), redundant with 2,12 , and 18 , and two bad distracters

D 5 Redundant with 1, 10, 15, and 19 and one bad distracter

D $\quad 9 \quad$ Redundant with 7 and 16
D 10 Redundant with $1,5,15$, and 19 and one bad distracter

D $\quad 17$ Too easy (94\%) and one bad distracter

D 18 Too easy (95\%), redundant with 2 , 3 , and 12 , and two bad distracters

Re-write question to make more challenging
Re-write question to make more challenging
Re-write Distracter D

Re-write Distracter A

OK to use as is in place of 1 or 3
OK to use as is in place of 18
Re-write question
OK to use as is in place of 17
Re-write question to make more challenging
Re-write question to make more challenging
Re-write Distracters B and D

Re-write to make more challenging, and rewrite Distracter C

Re-write to make more challenging, and rewrite Distracters B and C

Re-write Distracter C

OK to use as is in place of 7 or 16
Re-write Distracter D

Re-write question to make more challenging, and re-write Distracter D

Re-write question to make more challenging, and re-write Distracters A and D

| D | 23 | Redundant with 8 and one bad <br> distracter | Re-write Distracter C |
| :--- | :--- | :--- | :--- |
| D | 25 | Redundant with 11 and one bad <br> distracter | Re-write Distracter D |
| D | 26 | Too easy (87\%) | Re-write question to make more challenging |
| D | 28 | Too easy (81\%) | Re-write question to make more challenging |
| D | 29 | Too hard (34\%) | Re-write question to make less challenging |

The district's current reading assessment kit is a commendable model. It can offer insights into strengths of particular programs, schools, and teachers and provides school personnel with information that can help them measure their progress towards promoting reading proficiency for all students.

## References

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## Appendix A

| Item | Form | \% of students who got item | \% of students selecting | \% of students selecting | \% of students selecting | \% of students selecting | Mean score of students selecting | Mean score of students selecting | Mean score of students selecting | Mean score of students selecting | Correlat <br> ion <br> between <br> student <br> score <br> and <br> selectio n of right |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A | 96 | 01 | $01$ | 96 | 01 | 0.38 | 0.24 | 0.83 | 0.38 | 0.57 |
| 2 | A | 85 | 01 | 00 | 14 | 85 | 0.76 | 0.00 | 0.69 | 0.83 | 0.30 |
| 3 | A | 70 | 70 | 00 | 30 | 00 | 0.82 | 0.00 | 0.80 | 0.00 | 0.06 |
| 4 | A | 76 | 05 | 16 | 76 | 03 | 0.65 | 0.78 | 0.84 | 0.60 | 0.27 |
| 5 | A | 84 | 84 | 13 | 00 | 04 | 0.84 | 0.68 | 0.00 | 0.52 | 0.44 |
| 6 | A | 90 | 06 | 90 | 03 | 01 | 0.78 | 0.82 | 0.60 | 0.76 | 0.16 |
| 7 | A | 62 | 28 | 06 | 03 | 61 | 0.76 | 0.59 | 0.79 | 0.86 | 0.36 |
| 8 | A | 80 | 80 | 05 | 09 | 06 | 0.85 | 0.55 | 0.69 | 0.71 | 0.45 |
| 9 | A | 97 | 01 | 00 | 01 | 96 | 0.62 | 0.00 | 0.67 | 0.82 | 0.18 |
| 10 | A | 90 | 04 | 89 | 03 | 04 | 0.68 | 0.83 | 0.81 | 0.71 | 0.20 |
| 11 | A | 71 | 70 | 01 | 11 | 16 | 0.86 | 0.90 | 0.63 | 0.74 | 0.46 |
| 12 | A | 72 | 14 | 71 | 05 | 09 | 0.68 | 0.86 | 0.76 | 0.71 | 0.45 |
| 13 | A | 90 | 01 | 06 | 03 | 87 | 0.71 | 0.67 | 0.33 | 0.85 | 0.53 |
| 14 | A | 86 | 10 | 03 | 84 | 01 | 0.65 | 0.55 | 0.85 | 0.86 | 0.46 |
| 15 | A | 90 | 08 | 01 | 87 | 01 | 0.53 | 0.38 | 0.86 | 0.81 | 0.62 |
| 16 | A | 83 | 80 | 14 | 03 | 00 | 0.86 | 0.75 | 0.33 | 0.00 | 0.45 |
| 17 | A | 89 | 86 | 08 | 01 | 01 | 0.86 | 0.69 | 0.43 | 0.29 | 0.53 |
| 18 | A | 86 | 05 | 82 | 01 | 08 | 0.73 | 0.85 | 0.38 | 0.75 | 0.36 |
| 19 | A | 74 | 01 | 71 | 05 | 19 | 0.76 | 0.86 | 0.73 | 0.74 | 0.37 |
| 20 | A | 84 | 03 | 04 | 09 | 81 | 0.60 | 0.60 | 0.70 | 0.86 | 0.52 |
| 21 | A | 84 | 03 | 08 | 80 | 05 | 0.48 | 0.70 | 0.86 | 0.69 | 0.52 |
| 1 | B | 97 | 00 | 01 | 98 | 01 | 0.00 | 0.82 | 0.79 | 0.86 | 0.00 |
| 2 | B | 51 | 12 | 01 | 35 | 51 | 0.72 | 0.50 | 0.73 | 0.86 | 0.01 |
| 3 | B | 82 | 83 | 11 | 01 | 05 | 0.81 | 0.73 | 0.18 | 0.74 | 0.11 |
| 4 | B | 65 | 27 | 01 | 64 | 07 | 0.77 | 0.18 | 0.82 | 0.73 | -0.19 |
| 5 | B | 90 | 89 | 09 | 00 | 01 | 0.80 | 0.69 | 0.00 | 0.45 | -0.06 |
| 6 | B | 76 | 14 | 77 | 00 | 10 | 0.72 | 0.82 | 0.00 | 0.65 | -0.09 |
| 7 | B | 65 | 09 | 01 | 25 | 65 | 0.63 | 0.45 | 0.77 | 0.83 | -0.03 |
| 8 | B | 92 | 93 | 04 | 02 | 01 | 0.81 | 0.45 | 0.66 | 0.64 | -0.07 |
| 9 | B | 95 | 01 | 01 | 02 | 94 | 0.18 | 0.45 | 0.70 | 0.81 | -0.01 |
| 10 | B | 34 | 42 | 35 | 15 | 09 | 0.78 | 0.84 | 0.71 | 0.83 | -0.08 |
| 11 | B | 85 | 85 | 09 | 05 | 01 | 0.82 | 0.66 | 0.56 | 0.45 | -0.02 |
| 12 | B | 92 | 00 | 93 | 02 | 05 | 0.00 | 0.81 | 0.73 | 0.43 | -0.08 |
| 13 | B | 90 | 05 | 04 | 01 | 90 | 0.52 | 0.68 | 0.18 | 0.82 | -0.11 |
| 14 | B | 84 | 01 | 09 | 83 | 07 | 0.45 | 0.58 | 0.83 | 0.71 | -0.05 |
| 15 | B | 59 | 16 | 10 | 59 | 15 | 0.77 | 0.72 | 0.81 | 0.81 | 0.09 |


| 16 | B | 63 | 63 | 05 | 21 | 11 | 0.82 | 0.52 | 0.74 | 0.83 | -0.11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | B | 86 | 86 | 01 | 10 | 02 | 0.82 | 0.45 | 0.65 | 0.57 | 0.04 |
| 18 | B | 92 | 01 | 93 | 02 | 04 | 0.86 | 0.81 | 0.57 | 0.59 | -0.04 |
| 19 | B | 74 | 01 | 74 | 09 | 15 | 0.18 | 0.83 | 0.70 | 0.74 | 0.08 |
| 20 | B | 82 | 14 | 02 | 01 | 83 | 0.70 | 0.73 | 0.45 | 0.81 | -0.03 |
| 21 | B | 94 | 00 | 06 | 94 | 00 | 0.00 | 0.54 | 0.81 | 0.00 | -0.06 |
| 22 | B | 97 | 00 | 94 | 02 | 00 | 0.00 | 0.81 | 0.32 | 0.00 | -0.08 |
| 1 | C | 81 | 07 | 05 | 80 | 06 | 0.53 | 0.46 | 0.74 | 0.50 | 0.03 |
| 2 | C | 89 | 02 | 06 | 02 | 89 | 0.19 | 0.35 | 0.64 | 0.72 | 0.10 |
| 3 | C | 81 | 80 | 12 | 06 | 00 | 0.73 | 0.52 | 0.52 | 0.00 | -0.09 |
| 4 | C | 94 | 00 | 04 | 94 | 02 | 0.00 | 0.30 | 0.71 | 0.31 | -0.01 |
| 5 | C | 83 | 83 | 09 | 01 | 07 | 0.72 | 0.60 | 0.19 | 0.45 | -0.06 |
| 6 | C | 28 | 63 | 28 | 05 | 04 | 0.69 | 0.78 | 0.38 | 0.32 | -0.16 |
| 7 | C | 89 | 00 | 04 | 07 | 89 | 0.00 | 0.27 | 0.53 | 0.72 | -0.08 |
| 8 | C | 84 | 84 | 01 | 15 | 00 | 0.72 | 0.19 | 0.56 | 0.00 | 0.09 |
| 9 | C | 75 | 06 | 01 | 17 | 73 | 0.55 | 0.67 | 0.53 | 0.75 | 0.02 |
| 10 | C | 68 | 05 | 68 | 19 | 09 | 0.33 | 0.77 | 0.61 | 0.39 | 0.00 |
| 11 | C | 52 | 52 | 15 | 09 | 25 | 0.74 | 0.60 | 0.50 | 0.69 | 0.02 |
| 12 | C | 81 | 01 | 81 | 07 | 10 | 0.43 | 0.74 | 0.40 | 0.50 | -0.07 |
| 13 | C | 88 | 01 | 06 | 05 | 88 | 0.29 | 0.41 | 0.37 | 0.73 | 0.05 |
| 14 | C | 78 | 04 | 15 | 78 | 04 | 0.43 | 0.57 | 0.74 | 0.30 | -0.10 |
| 15 | C | 74 | 73 | 02 | 22 | 01 | 0.74 | 0.52 | 0.59 | 0.38 | 0.00 |
| 16 | C | 65 | 65 | 27 | 04 | 04 | 0.78 | 0.56 | 0.37 | 0.29 | -0.05 |
| 17 | C | 48 | 17 | 48 | 15 | 20 | 0.53 | 0.81 | 0.58 | 0.61 | 0.09 |
| 18 | C | 74 | 17 | 74 | 02 | 06 | 0.49 | 0.76 | 0.21 | 0.57 | -0.04 |
| 19 | C | 60 | 23 | 02 | 14 | 60 | 0.57 | 0.31 | 0.52 | 0.79 | -0.04 |
| 20 | C | 12 | 09 | 28 | 12 | 51 | 0.49 | 0.64 | 0.69 | 0.75 | -0.02 |
| 21 | C | 43 | 42 | 42 | 05 | 09 | 0.69 | 0.77 | 0.25 | 0.56 | -0.19 |
| 1 | D | 92 | 07 | 00 | 93 | 00 | 0.73 | 0.00 | 0.81 | 0.00 | -0.04 |
| 2 | D | 95 | 02 | 02 | 00 | 95 | 0.74 | 0.72 | 0.74 | 0.81 | 0.25 |
| 3 | D | 95 | 95 | 00 | 00 | 05 | 0.80 | 0.00 | 0.80 | 0.00 | 0.08 |
| 4 | D | 83 | 01 | 02 | 84 | 12 | 0.52 | 0.56 | 0.81 | 0.71 | 0.09 |
| 5 | D | 92 | 91 | 06 | 00 | 01 | 0.81 | 0.70 | 0.81 | 0.76 | -0.15 |
| 6 | D | 77 | 02 | 76 | 18 | 04 | 0.40 | 0.82 | 0.73 | 0.64 | 0.14 |
| 7 | D | 87 | 02 | 05 | 05 | 88 | 0.72 | 0.72 | 0.80 | 0.81 | 0.11 |
| 8 | D | 79 | 77 | 01 | 01 | 21 | 0.82 | 0.00 | 0.83 | 0.00 | -0.04 |
| 9 | D | 88 | 01 | 07 | 04 | 88 | 0.52 | 0.62 | 0.58 | 0.81 | 0.14 |
| 10 | D | 92 | 06 | 91 | 02 | 00 | 0.58 | 0.81 | 0.59 | 0.70 | 0.29 |
| 11 | D | 91 | 90 | 05 | 04 | 01 | 0.81 | 0.57 | 0.68 | 0.66 | 0.14 |
| 12 | D | 95 | 02 | 93 | 02 | 01 | 0.64 | 0.81 | 0.58 | 0.73 | 0.25 |
| 13 | D | 59 | 33 | 06 | 05 | 56 | 0.78 | 0.63 | 0.72 | 0.83 | -0.14 |
| 14 | D | 41 | 04 | 38 | 44 | 15 | 0.75 | 0.78 | 0.84 | 0.76 | -0.01 |
| 15 | D | 92 | 05 | 01 | 93 | 01 | 0.55 | 0.52 | 0.81 | 0.62 | -0.08 |
| 16 | D | 88 | 88 | 01 | 05 | 06 | 0.82 | 0.56 | 0.73 | 0.64 | 0.16 |
| 17 | D | 94 | 93 | 02 | 04 | 00 | 0.80 | 0.62 | 0.73 | 0.71 | -0.09 |
| 18 | D | 95 | 00 | 94 | 05 | 00 | 0.00 | 0.81 | 0.00 | 0.00 | -0.07 |


| 19 | D | 92 | 05 | 93 | 01 | 01 | 0.75 | 0.80 | 0.75 | 0.70 | -0.04 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 20 | D | 51 | 22 | 05 | 23 | 50 | 0.76 | 0.77 | 0.77 | 0.82 | 0.17 |
| 21 | D | 37 | 04 | 59 | 37 | 01 | 0.69 | 0.80 | 0.82 | 0.75 | 0.11 |
| 22 | D | 60 | 07 | 59 | 29 | 04 | 0.61 | 0.84 | 0.74 | 0.73 | 0.06 |
| 23 | D | 79 | 13 | 06 | 00 | 78 | 0.68 | 0.73 | 0.68 | 0.82 | 0.02 |
| 24 | D | 42 | 49 | 06 | 40 | 02 | 0.78 | 0.68 | 0.86 | 0.75 | -0.08 |
| 25 | D | 91 | 04 | 05 | 89 | 00 | 0.57 | 0.74 | 0.81 | 0.66 | 0.17 |

