

DIBELS Next Oral Reading Fluency Readability Study  
Technical Report #7

Kelly A. Powell-Smith, Ph.D.

Roland H. Good III, Ph.D.

*Dynamic Measurement Group*

Trent Atkins, Ph.D.

*University of Montana*

Suggested Citation

Powell-Smith, K. A., Good, R. H., & Atkins, T. (2010). *DIBELS Next Oral Reading Fluency Readability Study* (Technical Report No. 7). Eugene, OR: Dynamic Measurement Group.

Author Note

The authors thank the faculty, staff, students, and parents of participating schools for their effort and support during the course of this study. Correspondence regarding this manuscript should be addressed to Kelly A. Powell-Smith, Dynamic Measurement Group, 132 E. Broadway, Suite 636, Eugene, OR 97401; Email: [kpowellsmith@dibels.org](mailto:kpowellsmith@dibels.org).

## DIBELS Next Oral Reading Fluency Readability Study

The purpose of this technical report is to detail the findings from a descriptive study examining the readability of newly written DIBELS<sup>®</sup> Next<sup>1</sup> Oral Reading Fluency (DORF) passages. DIBELS is a set of brief measures of early reading that have been found to be reliable and valid for assessing the acquisition of early literacy skills of children who are learning to read in English in the United States. The DIBELS assessments correspond to the five basic early literacy skills (e.g. see National Reading Panel Report, 2000) and include indicators of phonemic awareness, alphabetic principle and phonics, vocabulary and oral language development, accuracy and fluency with connected text, and reading comprehension. DIBELS data are collected routinely for many schools as part of ongoing school-improvement efforts in reading. To maximize these efforts, all the DIBELS measures have been refined and improved in DIBELS Next. Revisions of the DIBELS Oral Reading Fluency (DORF) passages have been a part of this process.

While several studies have addressed readability of oral reading fluency passages (e.g., Ardoin, Suldo, Witt, Aldrich, & McDonald, 2005; Compton & Appleton, 2004; Hintze & Christ, 2004; Powell-Smith & Bradley-Klug, 2001), recent studies have attempted to equate ORF passages (e.g., Betts, Pickart, & Heistad, 2009; Francis, Santi, Barr, Fletcher, Varisco, & Foorman, 2008) due to concerns related to passage variability. These concerns are heightened given the need for progress monitoring tools useful within a response-to-intervention (RtI) educational service delivery model. The purpose of this study is to address similar issues with newly revised DIBELS ORF passages developed for DIBELS Next. The overall goal is to have a

---

<sup>1</sup> DIBELS is a registered trademark of Dynamic Measurement Group, Inc. DIBELS Next is a newly updated edition of DIBELS which includes all new forms and passages, revised directions, a new early indicator of phonemic awareness (First Sound Fluency), an additional indicator of reading comprehension based on maze procedures (Daze), and retell integrated into the oral reading fluency measure.

set of new reading passages assigned to use for benchmark and progress monitoring purposes as well as for use with DIBELS Next Survey<sup>2</sup>.

The study was designed to address the following research questions:

1. What is the mean DORF passage at each grade level (i.e., the passage with the average words read correct)?
2. What are the best performing 32 passages (29 for first grade) at each grade level where student performance was closest to the grade level mean and the passages are most reliable and valid?
3. How can passages be arranged such that systematic differences in difficulty across benchmark periods are minimized?
4. Are there common patterns in the passage characteristics/qualitative features of the best passages (e.g., expository vs. narrative text, few unusual proper names, few sentences with multiple clauses, etc.)?
5. At each grade level, how do the new DORF passages compare to the median DIBELS 6<sup>th</sup> Edition end-of-year benchmark ORF passage?
6. How do the DORF passages correspond to a standard fourth-grade passage used in the National Assessment of Educational Progress (NAEP) 2002 Special Study of Oral Reading (Daane, Campbell, Grigg, Goodman, & Oranje, 2005)?

---

<sup>2</sup> DIBELS Next Survey is designed to provide educators with guidelines and decision rules for using the DIBELS measures to identify a student's instructional level and appropriate level for progress monitoring, to set goals, and make instructional decisions. DIBELS Next Survey is used to determine how a student performs on reading tasks compared to the expectations at different grade levels.

In this report we will provide information about the development of the passages under review, along with descriptive and correlational data. For further information regarding the development of DIBELS Next measures, as well as additional technical reports, please visit: <http://dibels.org/>.

## Method

### *Participants and Recruitment*

Student participants were from two schools, one elementary and one middle school, located in the Mountain West region of the United States according to the U.S. Census Bureau. Participating schools, teachers, and students were recruited with the assistance of a university research partner. A project description was provided to all participating schools, teachers, and parents of student participants. Students whose teachers volunteered to participate were then recruited for participation in the study. Each school received \$1000 as a thank you for their participation in this study. Each participating teacher received a \$50 gift card as a thank you for his or her participation. Finally, each participating student received a \$15 gift card as a thank you for his or her participation regardless of whether the student completed the study.

A total of 21 teachers elected to participate in the project. A minimum of 25 children in each grade level (first through sixth grade) were recruited for participation from these teachers' classrooms. Students receiving English language reading instruction in first- through sixth-grade general education classrooms were eligible for participation. Eligible students included those with disabilities as well as English language learners provided they had the response capabilities to participate, and provided their parents did not indicate that they did not want their child to participate. Between 28 and 30 consent letters per grade were distributed. Participants were selected systematically from those students meeting the inclusion criteria. Each school site selected the *n*th student meeting the inclusion criteria from the participating teachers' class lists at each grade level (e.g., every fifth student at each grade level first to sixth) until 25 students per grade were selected. The final sample included 140 students. First, fourth, and fifth grades each

had 23 participating students. Second grade had 25 participating students, while third and sixth grade had 22 and 24 participating students, respectively.

*Demographic information—school level.* Demographic information was not collected at the student level in this study. However, demographic data at the school level were gathered from the National Center for Education Statistics (NCES) website (<http://nces.ed.gov/>) for the 2006-2007 school year. Table 1 summarizes these data. Both schools were Title I eligible, had a majority of white students, and had more male students than female students.

### *Measures*

Two measures were included in this study: DIBELS Oral Reading Fluency (DORF) and the National Assessment of Educational Progress (NAEP) Standard Fourth-Grade Reading Passage, from the NAEP 2002 Special Study of Oral Reading (Daane et. al., 2005).

*DIBELS Oral Reading Fluency (DORF).* The DORF measure builds on the work of Stan Deno and colleagues who developed the Curriculum Based Measurement Reading procedures at the University of Minnesota Institute for Research on Learning Disabilities (Deno, 1985; Shinn, 1989). However, DORF passages are distinguished from other CBM Reading procedures primarily by the specific set of passages that have been developed and by the specific procedures and criteria used to develop and arrange the passages for assessment. DIBELS ORF passages are written according to specific criteria to ensure the appropriateness of the content. DORF includes a mix of different types of passages, with approximately two thirds of passages in first to third grades being narrative and one third being expository, and one third of passages in fourth to sixth grades being narrative and two thirds being expository. To prevent ceiling effects, the passage length in each grade is designed so that most students will not finish the passage in one minute.

The purpose of the study was to examine the readability and passage difficulty of the new DIBELS ORF passages for DIBELS Next. In addition to the DIBELS Next passages, one passage per grade was selected from DIBELS 6<sup>th</sup> Edition to help examine the difficulty of DIBELS Next passages in relation to the 6<sup>th</sup> Edition passages already in use. The 6<sup>th</sup> Edition passage chosen at each grade level was the median difficulty end-of-year benchmark passage for that grade. Median difficulty level on these 6<sup>th</sup> Edition passages was determined by analyzing data from Wireless Generation's mCLASS<sup>®</sup> database for the handheld version of DIBELS. The mCLASS data system records each individual passage score, enabling the middle passage to be determined for each grade level.

The difficulty levels of the DIBELS Next DORF passages were developed to meet grade-specific ranges of difficulty using the DMG<sup>3</sup> Passage Difficulty Index (Cummings, Wallin, Good, & Kaminski, 2007). Information about the DMG Passage Difficulty Index for the DIBELS Next Passages as well as results of other readability formulas are provided in Appendix F. The DMG Passage Difficulty Index examines three aspects of passage difficulty (word difficulty, semantic difficulty, and syntactic difficulty) in isolation, to ensure that each indicator remains within a specified range, as well as providing an overall composite of the three indicators.

Student performance on DORF is measured by having students read the passages out loud after being provided standardized directions. The student is presented with a reading passage on an 8.5" by 11" sheet of paper and is asked to do his or her best reading. The student is allowed one minute to read the passage, and the final scores are the number of words read correctly in

---

<sup>3</sup> Dynamic Measurement Group (DMG) is an educational company that is dedicated to supporting success for children and schools. DMG was founded by Roland H. Good, III, and Ruth Kaminski, authors of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), and is the official home of DIBELS research, development, and training.

that minute and the number of errors. Words read incorrectly, omitted or substituted, and hesitations of more than three seconds, are scored as errors. Errors that are self-corrected within three seconds are scored as correct.

*NAEP Standard Fourth-Grade Reading Passage.* One standard 198-word passage that was used in the NAEP 2002 Special Study of Oral Reading (Daane, et al., 2005) was included as a measure in this study. The 2002 oral reading study was conducted to examine how well the nation's fourth graders read aloud a typical fourth-grade story (Daane, et al., 2005). The assessment provided information about students' fluency in reading aloud and examined the relationship between oral reading, accuracy rate, fluency, and reading comprehension. In the NAEP 2002 Special Study of Oral Reading, a strong relationship was found between oral reading rate (correct words per minute) and average reading scale scores on the NAEP. Four groups of students with different reading rates were reported. Students with the lowest reading rate (14% of students) read less than 80 correct words per minute and obtained an average NAEP reading scale score of 185, which is well below the Basic level of performance on the NAEP. Students with the next lowest reading rate (21% of students) read between 80 and 104 correct words per minute and obtained an average NAEP reading scale score of 204, which is barely below the Basic level of performance on the NAEP. Students who read between 105 and 129 correct words per minute (27 percent of students) obtained an average NAEP reading scale score of 225, which is in the Basic level of performance on the NAEP. Students who read at the highest reading rate reported, 130 words correct per minute or more (38 percent of students), obtained an average NAEP reading scale score of 244, which is in the Proficient level of performance on the NAEP. A correlation coefficient between reading rate and NAEP reading standard score was not reported.



In our study, the administration and scoring procedures for the NAEP passage were identical to those used for DORF. In addition, the passage was formatted in the same manner as the DORF passages used in this study. Prior to conducting the study, we obtained permission for use of this passage in our study from the NAEP passage copyright holder.

### *Procedures*

*Data collector training.* All data collectors were trained during a single two-hour training conducted by the principal investigator via webcast. Data collectors included an onsite coordinator and 13 university students. All but one of the students was at the graduate level. The training included a review of data collector responsibilities (i.e., the importance of reliability and adherence to procedures), the timeline for the study, and training on the procedures for data collection, including obtaining student assent and how to administer and score the assessments. Both scaffolded (trainer-led) and small-group practice with feedback were used. Small-group practice incorporated feedback using the DIBELS ORF assessment integrity checklist. In addition, data collectors were trained in how to enter study data into a Microsoft Excel spreadsheet provided by DMG. Finally, time for questions and discussion was provided.

*Data collection.* All data were collected during the spring of 2009. All testing was conducted individually with participating students. Over the course of 8 to 10 testing sessions per student, the students were administered 40 DIBELS Next passages at their grade level, one DIBELS 6<sup>th</sup> Edition passage at their grade level, plus the one fourth-grade NAEP passage, *The Box in the Barn*. Passages were administered in a random order specific to each participating student (i.e., each student had his or her own specific testing schedule), with the exception of NAEP and DORF 6<sup>th</sup> Edition passages. For each student, the NAEP passage was administered as the second passage in the second session, and the 6<sup>th</sup> Edition DORF passage was administered as the second

passage in the third session. Students in first and second grade were administered 4 DIBELS Next ORF passages during each of the testing sessions, plus the additional passages in the second and third sessions. Students in third through sixth grade were administered 5 passages in each of the testing sessions, plus the additional passages in the second and third sessions. Each testing session was approximately 8 to 10 minutes in length. All testing sessions occurred during a 2 to 3 week period with the exception of sixth grade, which extended into a 4th week of data collection due to logistical issues at the middle school.

Before each testing session began, data collectors were instructed to use that student's randomized testing schedule (see sample in Appendix A) to identify the passages that were to be administered to that student for that session, and to write that day's date next to those passages on the Data Recording Form (see Appendix B) to help ensure that the appropriate passages were administered in each session. In cases where the wrong passage was administered on a particular day, an event that occurred less than 5 times, data collectors transposed the passage administered with the one that should have been administered and recorded the actual dates of administration on the Data Recording Form. This process was used so all passages for a grade level were eventually administered to each student within that grade.

The full and shortened standardized DIBELS Next Oral Reading Fluency benchmark assessment directions were used for all passages in the study (see Appendix C for the full and shortened directions). The full standardized directions were given for the first passage in each testing session. However, because multiple passages were administered during each testing session, examiners were provided with the shortened standardized directions for each additional passage given within the same testing session. Discontinue rules were used during the data collection process to prevent student frustration. If a first- or second-grade student read fewer

than 15 words correct on any two of the first three passages administered on the first day, testing was discontinued and no further passages were administered to the student. If a third- through sixth-grade student read fewer than 20 words correct on any two of the first three passages administered on the first day, testing was discontinued and no further passages were administered to the student. If more than 5 students per grade met the discontinue criterion, additional students at that grade level were selected from the pool of eligible students so that the sample did not drop below 20 per grade. In the case of student absence on a testing day, reasonable attempts were made to test the student on an alternate day.

In addition to the passage scores, qualitative and anecdotal data were collected on all the passages. Data collectors were asked to note any particularly challenging words or proper names with an asterisk next to those words directly on the passage. They were asked to put brackets around any sentences that they believed caused a student to stumble while reading, beyond what would be expected from the student's performance level. Data collectors were instructed to make any relevant additional notes at the bottom of the passage in a space provided, including, for example, challenging words, difficult proper names, or difficult sentence structures. Space was also provided for data collectors to indicate whether the topic of each passage had positive impact, negative impact, or no influence on student fluency. Regarding the topic, data collectors also could note if the topic was appropriate for and of interest to students in the target grade level.

*Procedural integrity.* Each data collector's adherence to standardized administration and scoring procedures was checked twice during the study, once during the first week of data collection and a second time during either the second or third week of data collection depending on how frequently the person collected data. To accomplish this task, the onsite coordinator

directly observed each data collector during testing and completed a 9-item assessment integrity checklist (see Appendix D). The checklist included items indicating things such as: provides standardized directions verbatim, holds clipboard and stopwatch so the student can not see them, times accurately, records the number of correct words, and scores accurately. The checklist provided a means to indicate whether or not data collectors were "fine" or "needs practice" on each item.

Procedural integrity checks indicated excellent fidelity to standardized procedures overall. During the first observation, eight of the 13 data collectors had all 9 (100%) of the items checked as "fine," four data collectors had 8 (89%) of the items checked as "fine," and one data collector had 7 (78%) of the items checked as fine. The only items checked as "needs practice" during the first observation were "holds clipboard and stopwatch so student cannot see what he/she records" (four data collectors), and "records the number of correct words" (two data collectors). Regarding this second item ("records the number of correct words"), the two data collectors appeared to have scored the passage correctly, but did not complete the final step of writing the number of words correct per minute on the passage. It is unlikely that the need to practice these procedures would have invalidated the scores. During the second observation, all 13 data collectors had 100% of the items checked as "fine."

*Data entry.* Data collectors entered study data into Excel spreadsheets. One spreadsheet per grade was created for initial data entry. Data were entered by student ID number. No student names were used. For each passage, the session number, number of words read correct, number of errors, and the date of administration were entered into the spreadsheet. Data were checked against the Data Recording Form as they were entered. Data entry files were date-stamped and saved each time data were entered, so that incremental back-up files were created on an ongoing

basis. Once data entry was complete for a student, data were entered a second time into a separate spreadsheet in order to check data-entry reliability.

*Data reliability.* All student reading packets were returned to DMG. Scoring accuracy was checked on 100% of the passages. Any discrepancies in scoring were checked with the principal investigator. Any math errors (e.g., such as when calculating words read correct) or number transposition errors were corrected in the student packets and in the data entry files. Data-entry reliability was checked electronically by comparing the two Excel spreadsheets completed for each grade. Any disagreements in the files resulted in re-examining the student packet to determine the accurate score and reconcile any disagreements in the electronic files.

## Results

### *Initial Data Analysis and Removal of Outlier Passages*

The first step in the data analysis plan was to fit a regression line to all 40 data points for the DIBELS Next passages (session by score). For each student, we then had intercept, slope, and root mean square error (RMSE), an index of variability of scores around the regression line for each student. In addition, we examined the predicted score for each session based upon the individual student's regression analysis. Passage residuals were calculated by subtracting the predicted score from the actual score on each passage. NAEP and 6<sup>th</sup> Edition comparison passage scores also were compared to the predicted score but were not used in estimating the regression line. Positive residuals indicated that a passage was easier than predicted based on the individual student's level and rate of progress, and negative residuals indicated that a passage was harder than predicted. Next, we calculated the mean residual for each passage across all the students within a grade to determine if a passage was systematically easier or harder. These data allowed us to rank order passages by relative difficulty within each grade and to identify outlier passages.

We also examined the standard deviation of the residuals to determine if passages functioned differently across students within a grade.

In addition to the regression analyses, we calculated alternate-form reliability by correlating each passage with every other passage in that grade. Correlations with NAEP and the 6<sup>th</sup> Edition passage within each grade also were also calculated. Next, we calculated the mean Euclidean Distance (Christ & Ardoin, 2009) for each passage. Euclidean Distances were examined because they are robust for small sample sizes and examine distances between passages at all points on the distribution. Finally, we conducted a pilot Item Response Theory (IRT) analysis using Winsteps<sup>4</sup> to examine Rasch Item Response Theory (IRT)<sup>5</sup> passage difficulty parameters.

Selection of the best 32 passages for benchmark, DIBELS Next Survey, and progress monitoring purposes from the 40 potential passages per grade level was an overall evaluative judgment. This judgment was based on the mean residual for each passage, the standard deviation of the residuals for each passage, the median alternate-form reliability of each passage with all other passages, the correlation of each passage with the NAEP passage, the correlation of each passage with the corresponding grade level 6<sup>th</sup> Edition passage, the mean Euclidean distance of each passage with respect to all other passages, the passage difficulty parameter from the IRT analysis, and the consideration of how inclusion of the passage would affect the overall mean of DIBELS Next passages with respect to the mean of DIBELS 6<sup>th</sup> Edition passages for the corresponding grade. We desired a set of passages (a) of high quality (high alternate-form reliability, large correlations with the NAEP oral reading passage and DIBELS 6<sup>th</sup> Edition passages); (b) with reduced passage to passage variability and no outlier passages (small mean residuals, small standard deviation of residuals, small mean Euclidean distance, and consistent

---

<sup>4</sup> Winsteps is a statistical software package.

<sup>5</sup> Rasch Item Response Theory (IRT) is a specific approach to IRT statistical modeling.

passage difficulty parameters from the IRT); and (c) close in overall level to the DIBELS 6<sup>th</sup> Edition passages to facilitate longitudinal analyses (overall mean of selected passages close to the DIBELS 6<sup>th</sup> Edition passage). The standard deviations of the residuals helped us to determine which passages were controversial, meaning the passage was easy for some students and hard for other students.

Individual student data graphs were examined to determine if a highly variable student would compromise conclusions about passage functioning. One student displayed remarkable day-to-day differences in reading performance that did not appear to be related to differences in passage difficulty. That student's data was not included in passage analyses and is discussed later in the individual student variability section.

Finally, anecdotal information provided by examiners on each passage was examined to determine if other factors should be considered in understanding differences in passage difficulty. Little anecdotal information was provided on the set of passages. Most comments were in regard to proper names, followed by comments about challenging words, typos, and sentence or text structure. A complete list of anecdotal comments is found in Appendix E.

The best 32 passages per grade (29 for first grade) were selected for assignment to DIBELS Next benchmark, survey, and progress monitoring purposes. All of the statistics used to identify the best passages for inclusion were then recalculated on the selected passages.

### *Passage Assignment*

Once the best 32 passages were selected for inclusion, they were organized into the following groups: 10 passages that were slightly easier compared to the other included passages, 12 passages that were of middle difficulty compared to the other passages, and 10 passages that were slightly harder compared to the other included passages. For first grade, where only 29

passages were selected, the groups included 9, 11, and 9 passages respectively. It is important to note that slightly easier, middle, and slightly harder passages refer to differences within a small range of difficulty. As noted previously, the small range of difficulty in passages was accomplished in a two-step process. First, passages were written and revised to be as close in difficulty as possible based on the DMG Passage Difficulty Index (see Appendix F). Second, in the initial analysis of the empirical functioning of each passage, any outlier passages were removed and the best 32 of 40 passages with the smallest range of difficulty and the highest reliability and validity were selected for inclusion.

Within the groups of slightly easier, middle, and slightly harder passages, the passages were rank-ordered in difficulty by the mean passage residual. The middle 4 passages in each of the groups were identified and were assigned to benchmark assessment and DIBELS Next Survey. Thus, each set of benchmark and DIBELS Next Survey passages included 1 passage from the middle of the slightly easier passages, 1 passage from the middle of the middle passages, and 1 passage from the middle of the slightly harder passages. The remaining 20 passages were assigned to progress monitoring assessment. Once passages were assigned to benchmark, DIBELS Next Survey, or progress monitoring, they were arranged into triads (and one progress monitoring dyad) to balance (a) remaining differences in passage difficulty and (b) genre (i.e., expository or narrative). Each triad was designed to maintain the desired ratio of expository and narrative passages. These ratios were as follows: (a) in first through third grade, each triad consisted of 2 narrative passages and 1 expository passage, (b) in fourth through sixth grade, each triad consisted of 1 narrative and 2 expository passages.



### *Descriptive Statistics on Final Passage Sets*

Descriptive statistics for the final sets of DIBELS Next passages by grade are summarized in Tables 2 to 19. Descriptive statistics are reported for each passage at each grade level as well as for three-passage triads (both the median score of the triad and the mean score of the triad).

*First-grade passages.* Descriptive statistics for first-grade students' ( $n = 23$ ) data on first-grade DIBELS Next passages and passage triads are found in Tables 2 to 4. Mean performance on DIBELS Next benchmark passages ranged from 76.26 to 86.39 (see Table 2). Mean performance on the progress monitoring passages ranged from 74.04 to 90.09 (see Table 3). Passage triad medians and means are reported in Table 4 and ranged from 80.30 to 84.52 and 80.71 to 83.17, respectively. Data on our first-grade sample of students' performance on the comparison 6<sup>th</sup> Edition passage (*Our Sick Kitty*) and the NAEP passage (*The Box in the Barn*) are also reported in Table 2. The mean for the 6<sup>th</sup> Edition first-grade passage is similar to the means reported for the DIBELS Next first-grade passages; however, the NAEP comparison passage had a lower mean score (64.65). The lower mean score for first graders on the NAEP passage is not surprising given that the NAEP passage was designed by its authors to be a fourth-grade passage.

*Second-grade passages.* Descriptive statistics for second-grade students' ( $n = 23$  to 25) data on second-grade DIBELS Next passages and passage triads are found in Tables 5 to 7. Mean performance on DIBELS Next benchmark passages ranged from 109.52 to 122.08 (see Table 5). Mean performance on the progress monitoring passages ranged from 108.36 to 121.54 (see Table 6). Passage triad medians and means are reported in Table 7 and ranged from 113.62 to 116.36 and 113.21 to 115.41, respectively. Data on our second-grade sample of students' performance on the comparison 6<sup>th</sup> Edition passage (*My Drift Bottle*) and the NAEP passage (*The Box in the Barn*) are presented in Table 5. The mean for the 6<sup>th</sup> Edition second-grade passage is similar to

the means reported for the DIBELS Next second-grade passages, though slightly higher than the means for the second-grade passage triads. The NAEP comparison passage had a slightly lower mean score (107.84) than the DIBELS Next second-grade passages.

*Third-grade passages.* Descriptive statistics for third-grade students' ( $n = 22$ ) data on third-grade DIBELS Next passages and passage triads are found in Tables 8 to 10. Mean performance on DIBELS Next benchmark passages ranged from 102.91 to 118.00 (see Table 8). Mean performance on the progress monitoring passages ranged from 101.95 to 121.82 (see Table 9). Passage triad medians and means are reported in Table 10 and ranged from 108.05 to 111.64 and 109.59 to 111.70, respectively. Data on our third-grade sample of students' performance on the comparison 6<sup>th</sup> Edition passage (*Animal Tracks*) and the NAEP passage (*The Box in the Barn*) are presented in Table 5. Both the mean for the 6<sup>th</sup> Edition third-grade passage and the mean performance on the NAEP comparison passage fall in the middle of the range of the means reported for the DIBELS Next third-grade passages.

*Fourth-grade passages.* Descriptive statistics for fourth-grade students' ( $n = 23$ ) data on fourth-grade DIBELS Next passages and passage triads are found in Tables 11 to 13. Mean performance on DIBELS Next benchmark passages ranged from 127.61 to 138.74 (see Table 11). Mean performance on the progress monitoring passages ranged from 123.78 to 140.65 (see Table 12). Passage triad medians and means are reported in Table 13 and ranged from 131.52 to 133.52 and 131.43 to 133.32, respectively. Data on our fourth-grade sample of students' performance on the comparison 6<sup>th</sup> Edition passage (*The Youngest Rider*) and the NAEP passage (*The Box in the Barn*) are presented in Table 11. Both the mean for the 6<sup>th</sup> Edition fourth-grade passage and the mean performance on the NAEP comparison passage fall above the range of the

means reported for the DIBELS Next fourth-grade passages, suggesting these two passages were slightly easier than the DIBELS Next fourth-grade passages for this sample of students.

*Fifth-grade passages.* Descriptive statistics for fifth-grade students' ( $n = 23$ ) data on fifth-grade DIBELS Next passages and passage triads are found in Tables 14 to 16. Mean performance on DIBELS Next benchmark passages ranged from 128.26 to 147.74 (see Table 14). Mean performance on the progress monitoring passages ranged from 128.09 to 150.57 (see Table 15). Passage triad medians and means are reported in Table 16 and ranged from 135.48 to 138.17 and 136.46 to 138.41, respectively. Data on our fifth-grade sample of students' performance on the comparison 6<sup>th</sup> Edition passage (*Help Is on the Way*) and the NAEP passage (*The Box in the Barn*) are presented in Table 14. The mean for the 6<sup>th</sup> Edition fifth-grade comparison passage falls roughly in the middle of the range of the means for the fifth-grade DIBELS Next passages. The mean performance on the NAEP comparison passage falls above the range of the means reported for the DIBELS Next fifth-grade passages, suggesting this passage was slightly easier than either the DIBELS Next fifth-grade passages or the DIBELS 6<sup>th</sup> Edition comparison passage for this sample of students.

*Sixth-grade passages.* Descriptive statistics for sixth-grade students' ( $n = 22$  to 24) data on sixth-grade DIBELS Next passages and passage triads are found in Tables 17 to 19. Mean performance on DIBELS Next benchmark passages ranged from 138.88 to 159.61 (see Table 17). Mean performance on the progress monitoring passages ranged from 137.08 to 157.92 (see Table 18). Passage triad medians and means are reported in Table 19 and ranged from 146.31 to 149.92 and 147.27 to 149.28, respectively. Data on our sixth-grade sample of students' performance on the comparison 6<sup>th</sup> Edition passage (*Mountains in Danger*) and the NAEP oral reading passage (*The Box in the Barn*) are presented in Table 17. The mean for the 6<sup>th</sup> Edition

sixth-grade comparison passage falls below the range of the means for the sixth-grade DIBELS Next passages suggesting it was slightly harder than the DIBELS Next sixth-grade passages for this sample of students. The mean performance on the NAEP comparison passage falls well above the range of the means reported for the DIBELS Next sixth-grade passages, suggesting this passage was easier than either the DIBELS Next sixth-grade passages or the DIBELS 6<sup>th</sup> Edition comparison passage for this sample of students.

In reviewing the data across grades, the largest differences in scores across passages occur in grades 3, 5, and 6. In each grade, the greatest variability in mean scores occurs with the progress monitoring passages and the least with the three passage triads. Overall, the three passage triads reported at all grade levels show a very tight range of scores, most typically a mean difference of about 2 words read correct from triad to triad.

### *Regression Analyses*

The intercept, slope, and root mean square error (RMSE) summary data from the student-level regression analysis for each grade level's final passage set are reported in Table 20. The lowest mean intercept is reported for grade 1 and the highest for grade 6. Slopes over the course of the data collection period range from a low of .05 for sixth grade to a high of .66 for third grade. Reported slopes are scaled to represent the expected change in correct words per minute per testing session. Testing sessions occurred two to four times per week. Median RMSE, which serves as an index of variability of scores around the regression line, ranges from 10.92 to 13.17.

Descriptive statistics for standard error of slope by grade are reported in Table 21. The standard error of the slope provides an index of the uncertainty with which the slope is estimated. The standard error of the slope can be used to provide a confidence interval for the slope of progress for an individual student.

### *Item Response Theory Analyses*

In an Item Response Theory (IRT) analysis, the Rasch Model provides a *person measure*, or, in this case, an index of each student's reading skill level, as well as an *item difficulty parameter*, or index of the item's difficulty. The range of person measures and the item difficulty parameter can be used to estimate an *item response curve* for each item. The item response curve provides an estimate of the proportion of individuals with that person measure who would be expected to get the item correct. A steep item response curve generally indicates that the item is functioning well to discriminate between different person measures. An item response curve that is further to the left in the range of person measures represents an easier item, while an item response curve that is further to the right represents a harder item. In our analysis, we treated each passage (or triad, depending on the analysis) as an item, and performance above the median was considered getting the item correct. The distributions of person measures for each grade are described in Table 22. The passage or triad (i.e., item) difficulty parameters are provided in Tables 23 through 40. The item response curves for each passage and passage triad are provided in Figure 1 and Figure 2.

### *Final Passage Assignment Considerations*

The data from the regression analysis were used to calculate a predicted score for each student on each passage, where the predicted score equaled the intercept plus the slope multiplied by the assessment session (approximately two to four assessment sessions per week). Passage score residuals were then calculated by subtracting the predicted score from the actual score. The passage residual score provides an indicator of passage difficulty after controlling for the individual student's rate of progress. Thus, a passage would not appear less difficult simply because it was administered later in the sequence and the student's skills had improved. Passage

residuals were summarized and descriptive statistics (i.e., mean and standard deviation) calculated across all students within each grade level for individual passages as well as three-passage triads. A positive mean residual indicates that, averaged over all students within a grade and compared to other passages within the grade, that passage was systematically easier or less difficult, whereas a negative mean residual indicates that a passage was systematically more difficult. The standard deviation of the residuals helps to identify passages that functioned differently across students within each grade-level sample (i.e., passages that may have been controversial).

Next, we calculated the mean Euclidean Distance (M (ED)) for each passage and three-passage triad. The "ED is the square root of the sum of squared differences between repeated measurements" (Christ & Ardoin, 2009, p. 58). Euclidean distance is used to detect outlier values when using analyses like linear regression. The mean Euclidean distance "provides an estimate of the relative (dis)similarity of student performances on specific passages" (Christ & Ardoin, 2009, p. 58). Lower magnitudes of mean Euclidean distance indicate greater passage consistency. For example, Christ and Ardoin (2009) provide the example of a set of 20 CBM-R probes with an M (ED) less than 120 yielding more consistent performance than those with M (ED) greater than 120. Established standards for M (ED) are not provided, but distances are expected to be greater when student performance is more variable within and across passages. Alternatively, distances would be expected to be smaller when student performance is less variable within and across passages.

The small sample size for each grade level allows only a preliminary examination of passage difficulty from an item response theory perspective. To estimate the item response curves for individual passages, each passage was treated as an item on a 32-item (final analysis) or 40-item

(initial analysis) test. For each student, the passage/item was scored a 1 if the student scored at or above the overall median of all passages for that grade level, and the passage/item was scored a 0 if they scored below the overall median of all passages for that grade level. Winsteps with default settings was used to estimate person ability levels and passage difficulty levels.

The alternate-form reliability for each passage was estimated by calculating the correlation between the passage and each of the other 31 passages (28 passages for first grade) at each grade level, yielding 31 (28 for first grade) different alternate-form reliability coefficients for the passage. The median alternate-form reliability coefficient for each passage was then computed as the best estimate of the alternate-form reliability of the passage. The correlation between each passage and the DIBELS 6<sup>th</sup> Edition passage selected for comparison at that grade level was also computed. Because the validity of the DIBELS 6<sup>th</sup> Edition passages is well established, the correlation of the DIBELS Next passage with the DIBELS 6<sup>th</sup> Edition passage can be considered a concurrent validity coefficient. Similarly, the correlation of each passage with the NAEP oral reading fluency study passage also was computed as another estimate of concurrent validity.

Descriptive statistics for the residuals, mean Euclidian distance, IRT Rasch model passage difficulty parameters, alternate-form reliability, and correlations with both the 6<sup>th</sup> Edition comparison passage and the NAEP passage are reported for the final sets of DIBELS Next passages by grade in Tables 23 to 40. These data are reported for each individual passage as well as for each three-passage triad (i.e., mean and median of each triad and one dyad).

*First-grade passages.* Results for first-grade students' ( $n = 23$ ) data on first-grade DIBELS Next passages and passage triads are found in Tables 23 to 25. Mean residuals for all DIBELS Next first-grade passages fall within a relatively small range (-7.92 to 7.23) (see Tables 23 & 24). Mean residuals within the benchmark passages reflect the desired range (one slightly easier,

one middle, one slightly harder) within each benchmark passage triad (see Table 23). The mean residual for a passage triad is obtained by taking the average, across students, of each student's mean or median residual across each of the three passages within that triad. The mean residuals for DIBELS Next passage triads fall within a very narrow range (-0.39 to +0.34 for benchmark and DIBELS Next Survey, and -0.76 to +2.21 for progress monitoring), suggesting that student performance across three-passage triads was very consistent (see Table 25). The mean residual for the 6<sup>th</sup> Edition first-grade comparison passage is negative and suggests that the middle passage from the DIBELS 6<sup>th</sup> Edition end of year assessment is about 2 words per minute more difficult than the DIBELS Next passages as a set. The NAEP passage mean residual is much larger and negative, suggesting the NAEP passage was much more difficult than the DIBELS Next first-grade passages; however, this is not unexpected given that the NAEP passage is targeted to be at the fourth-grade level.

The standard deviations of the residuals for all DIBELS Next first-grade passages fall within a fairly close range and are much smaller than the standard deviation of the residual for the 6<sup>th</sup> Edition comparison passage (see Tables 23 & 24). The larger standard deviation of residuals for the 6<sup>th</sup> Edition passage suggests that the 6<sup>th</sup> Edition passage was more controversial than any of the DIBELS Next first-grade passages. Note, the standard deviation of scores for the DIBELS 6<sup>th</sup> Edition passage (see Table 2) was similar to the standard deviations of scores for the DIBELS Next passages, so both passage sets are equivalent in discriminating between students with higher and lower levels of skill. The standard deviation of the residual for the NAEP passage among this group of first graders is similar to those reported for DIBELS Next first-grade benchmark passages.



Mean Euclidean Distances (ED) are reported in Tables 23, 24 and 25. Mean ED fell below 90 for the DIBELS Next first-grade benchmark passages, and below 61 for all three-passage triads. A wider range of values were found for the individual progress monitoring passages, with a maximum of 105.14. Only one of the progress monitoring passages had a mean ED over 100.

The IRT passage difficulty estimates across the DIBELS Next passages ranged from 21.72 to 89.98. The item response curves corresponding to the individual passages across the range of person ability indices are provided in the top left panel of Figure 1. When the triads (median or mean) are examined, the IRT passage difficulty estimates ranged from 39.17 to 59.13 and the item response curves are tightly clustered as illustrated in the top right panel of Figure 1.

Alternate-form reliability for DIBELS Next first-grade passages is very high, with coefficients ranging from .92 to .97 (see Tables 23 to 24). The reliability of triad medians and means is especially high, ranging from .96 to .98 (see Table 25). DIBELS Next first-grade passages also have positive strong correlations with the 6<sup>th</sup> Edition comparison passage, with correlations ranging from .72 to .87 for individual passages and three-passage triads. Finally, the DIBELS Next first-grade passages had very strong correlations, ranging from .91 to .98, with the NAEP passage.

*Second-grade passages.* Results for second-grade students' ( $n = 23$  to 25) data on second-grade DIBELS Next passages and passage triads are found in Tables 26 to 28. Mean residuals for all DIBELS Next second-grade passages fall within a relatively small range (-6.14 to 5.81 ) (see Tables 26 & 27). As with the first-grade DIBELS Next passages, mean residuals within the second-grade benchmark passages reflect the desired range (one slightly easier, one middle, one slightly harder) within each benchmark passage triad (see Table 26). Mean residuals for the DIBELS Next second-grade passage triads fall within a narrower range than individual passages

(-1.35 to 1.72 for benchmark and DIBELS Next Survey, and -.83 to 1.18 for progress monitoring), suggesting that student performance across three-passage triads was very consistent (see Table 28). The mean residual for the 6<sup>th</sup> Edition second-grade comparison passage is positive and suggests that the middle passage from the 6<sup>th</sup> Edition end of year assessment was about six words per minute easier than the DIBELS Next second-grade passages as a set. The NAEP passage mean residual is negative, suggesting this passage was more difficult than the DIBELS Next second-grade passages. Once again, however, this finding is not unexpected given that the NAEP passage is targeted to be at the fourth-grade level.

The standard deviations of the residuals for all DIBELS Next second-grade passages fall in a range from 6.34 to 18.95 (see Tables 26 & 27). Larger standard deviations of the residuals are found in the progress monitoring passages than in the benchmark passages. The standard deviations of the residuals for benchmark and DIBELS Next Survey passages are consistent with the standard deviation of the residual for the 6<sup>th</sup> Edition comparison passage (see Table 26). The standard deviation of the residual for the NAEP passage among this group of second graders is also similar to those reported for most of the DIBELS Next second-grade benchmark and DIBELS Next Survey passages.

Mean Euclidean Distances (ED) are reported in Tables 26, 27 and 28. Mean ED fell below 104 for the DIBELS Next second-grade benchmark and DIBELS Next Survey passages, and below 87.80 for all 3-passage triads. A wider range of values were found for the individual progress monitoring passages, with a maximum of 120.16. Only one of the progress monitoring passages had a mean ED over 102.

The IRT passage difficulty estimates across the passages ranged from 30.88 to 63.76. The item response curves corresponding to the individual passages across the range of person ability

indices are provided in the middle left panel of Figure 1. When the triad medians or means are examined, the IRT passage difficulty estimates ranged from 43.10 to 63.76 and the item response curves are tightly clustered, as illustrated in the middle right panel of Figure 1.

Alternate-form reliability for DIBELS Next second-grade passages is high, with coefficients ranging from .83 to .93 (see Tables 26 to 27). The alternate-form reliability of triad medians and means is very high, ranging from .92 to .96 (see Table 28). DIBELS Next second-grade passages also have positive strong correlations with the 6<sup>th</sup> Edition comparison passage, with correlations ranging from .81 to .95 for individual passages and 3-passage triads. Finally, the DIBELS Next second-grade passages had strong correlations with the NAEP passage, ranging from .86 to .97.

*Third-grade passages.* Results for third-grade students' ( $n = 22$ ) data on third-grade DIBELS Next passages and passage triads are found in Tables 29 to 31. Mean residuals for all DIBELS Next third-grade passages fall within a reasonable range (-8.23 to 11.00), with the largest residuals found in the progress monitoring passages (see Tables 29 & 30). As with the first- and second-grade DIBELS Next passages, mean residuals within the third-grade benchmark passages reflect the desired range (one slightly easier, one middle, one slightly harder) within each benchmark passage triad (see Table 29). Mean residuals for the DIBELS Next third-grade passages fall within a narrower range than individual passages (-0.92 to 0.52 for benchmark and DIBELS Next Survey, and -1.88 to 2.11 for progress monitoring), suggesting that student performance across three-passage triads was very consistent (see Table 31). The mean residual for the 6<sup>th</sup> Edition third-grade comparison passage is positive and suggests that the middle passage from the 6<sup>th</sup> Edition end of year assessment was about three words per minute easier than the DIBELS Next third-grade passages as a set. The NAEP passage mean residual is also positive, suggesting this passage was also easier (by nearly five words per minute) than the

DIBELS Next third-grade passages. This finding is interesting given the NAEP passage is targeted to be at the fourth-grade level.

The standard deviations of the residuals for all DIBELS Next third-grade passages fall within a range from 8.43 to 21.39 (see Tables 29 & 30). In general, larger standard deviations of the residuals are found in the progress monitoring set of passages than in the benchmark passages. With the exception of one passage, the standard deviations of the residuals for benchmark and DIBELS Next Survey passages are consistent with the standard deviation of the residual for the 6<sup>th</sup> Edition comparison passage (see Table 29). The standard deviation of the residual for the NAEP passage among this group of third graders is also similar to those reported for most of the DIBELS Next third-grade benchmark and DIBELS Next Survey passages.

Mean Euclidean Distances (ED) are reported in Tables 29, 30 and 31. For most DIBELS Next third-grade benchmark and DIBELS Next Survey passages, the mean ED was below 100. One passage had a mean ED of 118.64. The mean ED was below 62 for all three-passage triads. Greater variability in the mean ED values was found for the individual progress monitoring passages (see Table 30). Three of the progress monitoring passages had a mean ED over 100.

The IRT passage difficulty estimates across the DIBELS Next third-grade passages ranged from 6.14 to 67.12. The item response curves corresponding to the individual passages across the range of person ability indices are provided in the bottom left panel of Figure 1. When the triad medians or means are examined, the IRT passage-difficulty estimates ranged from 39.73 to 62.07 and the item response curves are tightly clustered as illustrated in the bottom right panel of Figure 1.

Alternate-form reliability for third-grade DIBELS Next passages is generally high, with coefficients ranging from .80 to .94 (see Tables 29 & 30). The alternate-form reliability of

passage triad medians and means is especially high, ranging from .94 to .98 (see Table 31). DIBELS Next third-grade passages also have positive strong correlations with the 6<sup>th</sup> Edition comparison passage, with correlations ranging from .84 to .96 for individual passages and passage triads. Finally, the DIBELS Next third-grade passages had strong correlations with the NAEP passage, ranging from .83 to .97.

*Fourth-grade passages.* Results for fourth-grade students' ( $n = 23$ ) data on fourth-grade DIBELS Next passages and passage triads are found in Tables 32 to 34. Mean residuals for all DIBELS Next fourth-grade passages fall within a reasonable range (-8.51 to 7.40), with the largest residuals found in the progress monitoring passages (see Tables 32 & 33). As with the previous grades' DIBELS Next passages, mean residuals within the fourth-grade benchmark passages reflect the desired range (one slightly easier, one middle, one slightly harder) within each benchmark passage triad (see Table 32). Mean residuals for the DIBELS Next fourth-grade passages fall within a narrower range than individual passages (-.94 to .95 for benchmark and DIBELS Next Survey, and -.69 to .83 for progress monitoring), suggesting that student performance across three-passage triads was very consistent (see Table 34). The mean residual for the 6<sup>th</sup> Edition fourth-grade comparison passage is positive and suggests that the middle passage from the 6<sup>th</sup> Edition end of year assessment was about 11 words per minute easier than the DIBELS Next fourth-grade passages as a set. The NAEP passage mean residual is also positive, suggesting this passage was also easier (by about 15 words per minute) than the DIBELS Next fourth-grade passages. This finding is notable given the NAEP passage is targeted to be at the fourth-grade level.

The standard deviations of the residuals for all DIBELS Next fourth-grade passages range from 6.44 to 13.47, a smaller range than previous grade levels (see Tables 32 & 33). In general,

standard deviations of the residuals were similar for both the progress monitoring set of passages and the benchmark and DIBELS Next Survey passages. Furthermore, the standard deviations of the residuals for the entire set of DIBELS Next fourth-grade passages are consistent with the standard deviation of the residual for the 6<sup>th</sup> Edition comparison passage (see Table 32), and also similar to the standard deviation of the residual for the NAEP passage among this group of fourth graders.

Mean Euclidean Distances (ED) are reported in Tables 32 to 34. For most DIBELS Next fourth-grade benchmark and DIBELS Next Survey passages the mean ED was below 88. The mean ED was below 59 for all three-passage triads. Greater variability in the mean ED values was found for the individual progress monitoring passages (see Table 33). However, all of the progress monitoring passages had a mean ED at or below 86.

The IRT passage difficulty estimates across the DIBELS Next fourth-grade passages ranged from 29.31 to 67.86 (see Tables 32 & 33). The item response curves corresponding to the individual passages across the range of person ability indices are provided in the top left panel of Figure 2. When the triad medians or means are examined, the IRT passage difficulty estimates ranged from 41.71 to 58.41 (see Table 34) and the item response curves are tightly clustered as illustrated in the top right panel of Figure 2.

Alternate-form reliability for fourth-grade DIBELS Next passages is very high, with coefficients ranging from .86 to .93 (see Tables 32 & 33). The alternate-form reliability of passage triad medians and means is especially high, ranging from .93 to .97 (see Table 34). DIBELS Next fourth-grade passages also have strong positive correlations with the 6<sup>th</sup> Edition comparison passage, with correlations ranging from .82 to .95 for individual passages and

passage triads. Finally, the DIBELS Next fourth-grade passages had strong correlations with the NAEP passage, ranging from .80 to .95.

*Fifth-grade passages.* Results for fifth-grade students' ( $n = 23$ ) data on fifth-grade DIBELS Next passages and passage triads are found in Tables 35 to 37. Mean residuals for all DIBELS Next fifth-grade passages fall within a reasonable range (-8.48 to 11.78), with the largest residuals found in the progress monitoring passages (see Tables 35 & 36). As with the previous grades' DIBELS Next passages, mean residuals within the fifth-grade benchmark passages reflect the desired range (one slightly easier, one middle, one slightly harder) within each benchmark passage triad (see Table 35). Mean residuals for DIBELS Next fifth-grade passages fall within a narrower range than individual passages (-.07 to 1.09 for benchmark and DIBELS Next Survey, and -1.31 to .85 for progress monitoring), suggesting that student performance across three-passage triads was very consistent (see Table 37). The mean residual for the 6<sup>th</sup> Edition fifth-grade comparison passage is positive and suggests that the middle passage from the 6<sup>th</sup> Edition end of year assessment was about 3 words per minute easier than the DIBELS Next fifth-grade passages as a set. The NAEP passage mean residual is also positive, suggesting this passage was also easier (by about 16 words per minute) than the DIBELS Next fifth-grade passages. This finding is expected given the NAEP passage is targeted to be at the fourth-grade level.

The standard deviations of the residuals for all DIBELS Next fifth-grade passages fall within a range from 7.33 to 14.07 (see Tables 35 & 36), similar to the range found for fourth grade. Standard deviations of the residuals were similar for both the progress monitoring passages and the benchmark and DIBELS Next Survey passages. In general, the standard deviations of the residuals for the entire set of DIBELS Next fifth-grade passages are consistent with the standard

deviation of the residual for the 6<sup>th</sup> Edition comparison passage (see Table 35). The standard deviation of the residual for the NAEP passage among this group of fifth graders falls at the lower end of the range when compared to those reported for most of the DIBELS Next fifth-grade passages.

Mean Euclidean Distances (ED) for DIBELS Next fifth-grade passages are reported in Tables 35 to 37. All but one of the benchmark and DIBELS Next Survey passages had a mean ED below 100. The mean ED was below 58 for all 3-passage triads. All of the progress monitoring passages had a mean ED at or below 96 (see Table 36).

The IRT passage difficulty estimates across the DIBELS Next fifth-grade passages ranged from 19.31 to 77.83 (see Tables 35 & 36). The item response curves corresponding to the individual passages across the range of person ability indices are provided in the middle left panel of Figure 2. When the triad medians or means are examined, the IRT passage difficulty estimates ranged from 40.57 to 58.31 (see Table 37) and the item response curves are tightly clustered as illustrated in the middle right panel of Figure 2.

Alternate-form reliability for fifth-grade DIBELS Next passages is very high, with coefficients ranging from .88 to .94 (see Tables 35 & 36). The reliability of passage triad medians and means is especially high, ranging from .95 to .98 (see Table 37). DIBELS Next fifth-grade passages also have strong positive correlations with the 6<sup>th</sup> Edition comparison passage with correlations ranging from .87 to .97 for individual passages and passage triads. Finally, the DIBELS Next fifth-grade passages had very strong correlations with the NAEP passage, ranging from .85 to .97.

*Sixth-grade passages.* Results for sixth-grade students' ( $n = 22$  to  $24$ ) data on sixth-grade DIBELS Next passages and passage triads are found in Tables 38 to 40. Mean residuals for all



DIBELS Next sixth-grade passages fall within a reasonable range (-10.55 to 12.50), with the largest residuals found in the progress monitoring passages (see Tables 38 & 39). As with the previous grades' DIBELS Next passages, mean residuals within the sixth-grade benchmark passages reflect the desired range (one slightly easier, one middle, one slightly harder) within each benchmark passage triad (see Table 38). Mean residuals for the DIBELS Next sixth-grade passages fall within a narrower range than individual passages (-1.37 to 1.97 for benchmark and DIBELS Next Survey, and -1.97 to 0.00 for progress monitoring), suggesting that student performance across three-passage triads was very consistent (see Table 40). The mean residual for the 6<sup>th</sup> Edition sixth-grade comparison passage is negative and suggests that the middle passage from the 6<sup>th</sup> Edition end of year assessment was about 15 words per minute more difficult than the DIBELS Next sixth-grade passages as a set. The NAEP passage mean residual is large and positive, suggesting this passage was quite a bit easier (by about 24 words per minute) than the DIBELS Next sixth-grade passages. This finding is expected, given the NAEP passage is targeted to be at the fourth-grade level.

The standard deviations of the residuals for all DIBELS Next sixth-grade passages range from 8.01 to 14.43 (see Tables 38 & 39), similar to the range found for fifth grade. In general, standard deviations of the residuals were similar for both the progress monitoring passages and the benchmark and DIBELS Next Survey passages. In general, the standard deviations of the residuals for the entire set of DIBELS Next sixth-grade passages are consistent with the standard deviation of the residual for the 6<sup>th</sup> Edition comparison passage (see Table 38). The standard deviation of the residual for the NAEP passage among this group of sixth graders is also consistent with those reported for most of the DIBELS Next sixth-grade passages.

Mean Euclidean Distances (ED) are reported in Tables 38, 39 and 40. Mean ED fell below 100 for all but one of the DIBELS Next sixth-grade benchmark passages, and below 64 for all 3-passage triads. A wider range of values were found for the individual progress monitoring passages, with a maximum of 109.24. Only four of the progress monitoring passages had a mean ED over 100.

The IRT passage difficulty estimates across the DIBELS Next sixth-grade passages ranged from 26.24 to 69.46. The item response curves corresponding to the individual passages across the range of person ability indices are provided in the bottom left panel of Figure 2. When the triad medians or means are examined, the IRT passage difficulty estimates ranged from 41.21 to 57.34 and the item response curves are tightly clustered as illustrated in the bottom right panel of Figure 2.

Alternate-form reliability for DIBELS Next sixth-grade passages is generally high, with coefficients ranging from .73 to .89 (see Tables 38 & 39), but is lower than previous grade levels. The reliability of triad medians and means is higher than for individual passages, ranging from .88 to .95 (see Table 40). DIBELS Next sixth-grade passages also have positive strong correlations with the 6<sup>th</sup> Edition comparison passage, with correlations ranging from .78 to .94 for individual passages and passage triads. Finally, the DIBELS Next sixth-grade passages had moderate to strong correlations with the NAEP passage, ranging from .69 to .90.

#### *Standard Error of Measurement, Standard Error of the Mean, and Visual Inspection of Individual Student Graphs*

To estimate variability at the group level in each grade, we calculated the median Standard Error of Measurement (SEM) for a single passage, the median SEM for a three-passage triad median, and the median SEM for a three-passage triad mean. These data are reported in Table

41. The median SEM for a single passage is relatively consistent across the grades, ranging from 10.33 to 11.29.

To estimate typical variability of an individual student's passage scores around their trajectory of progress and the range of variability within individual students at each grade level, we examined the standard error of the mean. The standard error of the mean is based on the number of scores comprising the mean and the variability of those scores. In this case, the standard error of the mean is based on the scores of three passages for an individual student, and the variability of those scores is estimated from each student's root mean square error (RMSE, see results of individual regression analyses reported previously). Across students, there were substantial differences in RMSE. The minimum RMSE, first quartile RMSE, median RMSE, third quartile RMSE, and maximum RMSE for each grade level are shown in Table 41. The data for Student 20 with an RMSE of 30.58 (illustrated in the top panel of Figure 3) was judged to represent some other source of variability than passage difficulty and was not included in data analysis for passage difficulty or in Table 41. The RMSE data illustrate the range of variability within individual students. While the RMSE data show some consistency across grades for a specific quartile, a relatively large range exists between the minimum RMSE and the maximum RMSE at each grade level. The largest range is observed at the third-grade level (4.36 to 17.66). These data suggest that the range of within-student variability might be an important consideration when collecting ongoing progress monitoring data and making decisions about adequate progress for an individual student.

Figure 3 displays individual third-grade student performance profiles illustrating maximum (top panel), median (middle panel), and minimum (bottom panel) within-student variability in performance across repeated assessments with alternate forms of DIBELS Next passages. In

each student's graph the NAEP data point is represented by the square and the 6<sup>th</sup> Edition comparison passage is represented by the larger diamond. For Student 17 (bottom panel), the data from the Next passages are clustered near or on the regression line, indicating very consistent performance on the passages over the 8 testing sessions. For Student 15 (middle panel), most of the data points for Next passages are near or on the regression line as well. For Student 20 (top panel), however, several of the data points are spread out above and below the regression line. These differences appear to occur in relation to the session day, rather than the passages. These student data graphs, in particular the data for Student 20 (top panel), show that variability in student performance is not always about passage difference, but is sometimes about something else unique to the student (i.e., is idiographic). Based on visual analysis, the data for Student 20 were not included in final analyses of passage difficulty for selection and assignment.

To examine the differences in confidence regarding mean student performance resulting from differences in the variability for individual students, we plotted the standard error of the mean for individual confidence intervals based on the within-student variability in performance across repeated assessments with alternate forms (RMSE) and the number of data points upon which the student's mean is computed (see Figure 4). The figure shows the across-grade median RMSE illustrating the typical minimum, first quartile, median, third quartile, and maximum within-student variability in performance across repeated assessments with alternate forms. The data in this figure suggest that as you gather more data, one becomes more confident in the score obtained (i.e., the standard error of the mean is reduced).

### Discussion

When schools or districts are making year-to-year decisions about their curriculum, instruction, and the educational needs of their students, they may use year-to-year longitudinal

comparisons of performance. For longitudinal comparisons where DIBELS 6<sup>th</sup> Edition passages were administered in a prior year and DIBELS Next passages were administered in a more recent year, it is desirable for the two sets of passages to be as close in level of difficulty as possible. Based on the passage difficulty variables used in the DMG Passage Difficulty Index and common readability formulas, the DIBELS Next and DIBELS 6<sup>th</sup> Edition passages were constructed to be approximately equivalent. In the empirical examination of student performance in a repeated measures design, there were remaining differences between DIBELS Next and DIBELS 6<sup>th</sup> Edition passages. Based on examination of the mean residual of the DIBELS 6<sup>th</sup> Edition passage for each grade, it appears that compared to DIBELS 6<sup>th</sup> Edition: (a) Grade 1 DIBELS Next passages are about two words per minute easier, (b) Grade 2 DIBELS Next passages are about six words per minute harder, (c) Grade 3 DIBELS Next passages are about three words per minute harder, (d) Grade 4 DIBELS Next passages are about 11 words per minute harder, (e) Grade 5 DIBELS Next passages are about three words per minute harder, and (f) Grade 6 DIBELS Next passages are about 15 words per minute easier. These differences should be considered when making longitudinal comparisons between DIBELS Next and DIBELS 6<sup>th</sup> Edition.

When educators are making decisions about student progress within a year, it is important for alternate-form passages to be as equivalent as possible. We followed a three-phase process to control the difficulty of alternate forms. In the first phase, we had the DIBELS Next passages written using rigorous procedures to control and minimize variability in passage difficulty. We first developed the DMG Passage Difficulty Index that equally weighted decoding difficulty, semantic difficulty, and syntactic difficulty of the passage. Then, passages were written to be within a narrow range of difficulty based on the overall DMG Passage Difficulty Index as well

as each of the individual components of decoding difficulty, semantic difficulty, and syntactic difficulty. In this phase, the passages also underwent extensive review and revision to ensure that they were accurate, well written, engaging, and followed a logical flow and sequence. Forty passages were written for each grade as a result of the first, passage writing, phase.

In the second phase of the DIBELS Next passage development process, we empirically examined passages in a repeated measures design where 20 to 25 students in each grade were administered all 40 passages for that grade in a random order within 8 or 10 sessions across 2 or 3 weeks. Based on a number of variables representing passage functioning, we identified and excluded any outlier passages and selected the best 32 passages per grade (29 for first grade) for inclusion in DIBELS Next.

In the third phase of development, passages were arranged into triads for benchmark, DIBELS Next Survey, and progress monitoring assessment. Triads were arranged so that each triad comprised two narrative and one expository passage for first through third grades, and one narrative and two expository passages for fourth through sixth grades. Further, each triad included one passage that was slightly easier (students scored somewhat higher on), one passage that was in the middle of the range of passage difficulty for the grade, and one passage that was slightly harder (students scored somewhat lower on). Differences in triad difficulty are minimal, enhancing decisions about skills and progress when a triad of passages is used. Figures 5, 6, and 7 illustrate the process of arranging passages into triads and the equivalence of triad difficulty for benchmark, DIBELS Next Survey, and progress monitoring triads. For benchmark decisions about a student's skills and progress, the median (or mean) of the triad is used. Either the mean or median could be used interchangeably. Researchers might choose the mean for its statistical properties and slightly increased precision. We recommend that practitioners use the median

because it works almost as well as the mean and has the advantage of discounting outliers and being quickly, easily, and accurately computed by practitioners without requiring a calculator. For individual progress monitoring, we recommend assessing with one passage on each progress monitoring occasion and making decisions about progress based on the moving median of the three most recent passages.

We used a number of data analyses to help us make decisions about selecting and arranging the final passage set for each grade level. The mean residual indicated whether a passage was easier or harder overall for students within a grade. The standard deviation of the residuals helped us to identify passages that functioned differently across students in the sample (i.e., controversial passages). The mean Euclidian Distance (ED) data helped us to identify outlier passages (i.e., larger magnitude mean ED) as well as identify the passages with the greatest consistency (i.e., smaller magnitude mean ED). In addition, we examined data from a pilot IRT analysis. Finally, we examined alternate-form reliability and correlations with 6<sup>th</sup> Edition comparison passages and an NAEP oral reading study passage.

Each element of this analysis provided a different perspective on passage functioning. Information that appeared to be somewhat conflicting resulted on occasion. For example, consider the Grade 3 MOY (middle of year) Benchmark Passage 1 (see Table 29). The IRT difficulty parameter for this passage was 6.14, which would indicate that it is less difficult than the other Grade 3 benchmark and DIBELS Next Survey passages. However, the other indices of passage difficulty for this passage are generally similar to the other Grade 3 benchmark and DIBELS Next Survey passages. The passage looks slightly easier when examining the mean residual data, but not a lot easier. When examining Mean ED and standard deviation of the residual, the passage looks very similar to the others. Clearly, no single way to determine the

best-functioning passages exists. Rather, multiple elements should be examined with the goal of obtaining a convergence of evidence about which passages should be retained for use and how they should be organized.

### *Limitations*

As with all research, this study has its limitations which could impact both internal and external validity.

*Internal validity.* History is a potential limitation. Students may have had background knowledge or prior experience with a topic that could have impacted their performance on some passages but not other ones. This source of error is likely not systematic. We believe it is unlikely that maturation was a threat to internal validity in this study. Because the study occurred over a short period of time (2 to 3 week time frame), we do not believe changes in passage reading results occurred due to the effects of instruction or maturation. Nonetheless, it is possible that repeated testing can lead to systematic changes in student performance. This sort of testing effect is something we attempted to control by having each student read passages in their own unique randomized order. We also controlled for possible instruction, maturation, or testing effects by examining passage residuals from an individual regression line for each student. Selection bias is another potential threat. Students had the option of not participating through the assenting process. We don't know the impact of having students select out of the study, however, we believe only two students did not give their assent. Similarly, gauging the impact of students who didn't participate because their parents did not give consent is also difficult, but we believe that there were no more than eight instances where this occurred. Likewise, attrition or the loss of participants due to our discontinue rule could have impacted our results, however, only two students were discontinued. Thus, we believe that selection bias was minimal.



The small sample size also is a limitation to the conclusions that can be drawn, especially for the IRT pilot study. Because the primary comparisons of interest are within-subject comparisons – that is, which passages are more or less difficult compared to other passages – there should be adequate power to identify differences of interest.

*External validity.* The primary external validity threats in this study are that the sample size in each grade level was relatively small and that the sample was drawn from one geographic location. These two issues may limit the generalizability of our results.

#### *Implications for Research and Practice*

Future directions for research include repeating this type of study with a larger, more geographically representative sample. Doing so would provide the opportunity to conduct a more comprehensive IRT analysis. A larger scale study would also allow for greater generalizability of results. In addition, we encourage continued investigation of ways to increase precision and reduce differences in passage difficulty.

With respect to recommendations for practice, we first recommend beginning with a set of known passages where there is rigorous control of all the features of passage difficulty that can be analyzed objectively (decoding difficulty, semantic difficulty, and syntactic difficulty), and with empirical evidence regarding passage difficulty. Next, arrange the passages into triads to further control differences in passage difficulty. Finally, examine student performance on groups of three passages for educational and research decisions. It is also important to consider individual student variability in making progress monitoring decisions. Basing confidence intervals on the overall group estimates of the standard error of measurement or standard error of the slope may be appropriate for students who display typical variability in performance, but group estimates of variability may result in over-estimating our confidence in decisions for

students with high variability, and may be needlessly conservative for students with low variability in performance. A general recommendation is to obtain more information (i.e., administer more alternate forms) when students are more variable in their performance. Finally, when a student's RMSE is greater than the third quartile of RMSE, we recommend making a professional judgment about whether scores are interpretable as a measure of the student's reading proficiency (see, for example, Student 20 in Figure 3).

In conclusion, when conducting benchmark, DIBELS Next Survey and progress monitoring assessments with students, we recommend two central goals: (1) to make good decisions, and (2) to make self-correcting decisions. To help achieve these goals, begin with a well-constructed set of reading passages where difficulty level is controlled to the greatest extent possible. Next, administer the appropriate passages for their purpose (i.e., benchmark passages at their designated benchmark time period). When progress monitoring students, administer the reading passages in order (i.e., maintaining dyad/triad arrangement). When examining the data, determine if the student's data appear to be well-behaved or appear to be impacted by issues unrelated to the passages themselves (e.g., issues unique to the student). Finally, make important decisions based on a triad of passages (three or more passages). When progress monitoring, decisions can be based on the moving median of the most recent three passages (or four if more variable performance).

Table 1.

*School Demographic Characteristics*

School	Locale	Grades taught	Total students	Student/teacher ratio	Title 1 eligible	Free/reduced lunch	Percent female	Student Ethnicity				
								Am. Indian	Asian	Black	Hispanic	White
Elementary school	City: Small	K-5	466	17:1	Yes	39%	48%	13%	4%	1%	<1%	81%
Middle school	City: Small	6-8	513	14:1	Yes	56%	46%	6%	2%	<1%	2%	89%

*Note.* All data are reported from National Center for Educational Statistics (NCES) for the 2006-2007 school year.

Table 2

*First-Grade Benchmark and Survey Passage Descriptive Statistics for DIBELS Next with Comparison Passages*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
A Jump Rope Contest	MOY Benchmark 1	23	85.26	42.84	33	49	79	123	189
Go Fish	MOY Benchmark 2	23	80.74	43.06	26	46	68	111	175
A Busy Bee	MOY Benchmark 3	23	78.39	46.69	23	42	66	108	215
The Cocoa Stand	EOY Benchmark 1	23	86.22	40.51	22	54	79	126	188
Parts of a Tree	EOY Benchmark 2	23	79.78	39.10	27	51	70	101	192
Going to Market	EOY Benchmark 3	23	76.13	42.28	24	42	70	119	183
Let's Make a Smoothie	Survey 1	23	86.39	47.36	23	43	80	125	219
Taking Eggs to Market	Survey 2	23	82.96	42.04	29	51	74	118	200
Twins Learn To Surf	Survey 3	23	76.26	44.78	21	45	62	107	210
Our Sick Kitty	6 <sup>th</sup> Edition EOY 3	23	78.13	32.98	16	54	74	112	150
The Box in the Barn	NAEP Passage	23	64.65	44.17	13	27	51	99	165

*Note.* MOY refers to middle of year and EOY refers to end of year.

Table 3  
*First-Grade Progress Monitoring Passage Descriptive Statistics for DIBELS Next*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
A Busy Saturday	Progress Monitor 1	23	81.52	43.11	34	45	70	107	172
Tap Dance	Progress Monitor 2	23	83.96	42.14	28	58	73	103	204
The Yellow Snake	Progress Monitor 3	23	85.22	43.64	26	57	73	112	222
A Pancake Breakfast	Progress Monitor 4	23	85.91	49.04	28	46	85	129	223
Picking Apples	Progress Monitor 5	23	78.39	50.77	22	34	63	121	217
The Puppet Show	Progress Monitor 6	23	87.57	49.87	23	46	86	117	200
Puzzles	Progress Monitor 7	23	79.70	41.15	24	47	76	106	201
A Night at Grandma's House	Progress Monitor 8	23	78.17	45.39	29	46	61	100	208
Go to Sleep	Progress Monitor 9	23	90.09	48.86	33	59	83	107	245
Shape Art	Progress Monitor 10	23	83.13	40.61	27	47	76	123	198
Watch Them Change and Grow	Progress Monitor 11	23	74.04	49.65	21	40	59	113	235
Clams	Progress Monitor 12	23	85.83	37.72	32	60	74	124	173
The Talking Stone	Progress Monitor 13	23	80.00	41.66	25	49	71	104	184
The Kite Contest	Progress Monitor 14	23	79.48	50.49	26	44	65	110	229
Dad's Surprise	Progress Monitor 15	23	86.48	57.79	24	42	65	129	267
Kinds of Hats	Progress Monitor 16	23	80.61	42.48	34	48	71	108	212
My Mom Is an Artist	Progress Monitor 17	23	78.35	44.49	33	44	63	106	191
A Train Under the City	Progress Monitor 18	23	84.35	45.18	31	45	74	129	193
The School Bus	Progress Monitor 19	23	82.78	34.29	35	62	73	114	178
Star Pitcher	Progress Monitor 20	23	76.70	36.16	23	51	63	102	159

Table 4  
*First-Grade Three-Passage Triads for DIBELS Next Benchmark, Survey, and Progress Monitoring Passages*

Triad	N	Mean	SD	Min	Q1	Med	Q3	Max
Triad Based on Median of 3 Passages								
MOY Benchmark Triad	23	81.65	43.32	26	46	72	116	189
EOY Benchmark Triad	23	80.78	39.92	24	51	70	119	188
Survey Triad	23	81.61	45.05	23	45	74	124	210
Dyad (PM 1 & 2)	23	82.74	41.65	31	51	70	118	188
Triad 1 (PM 3 - 5)	23	82.91	48.29	26	46	70	127	222
Triad 2 (PM 6 - 8)	23	81.17	44.49	24	47	76	106	201
Triad 3 (PM 9 - 11)	23	84.52	46.37	28	47	76	121	235
Triad 4 (PM 12 - 14)	23	81.52	41.63	26	49	71	124	184
Triad 5 (PM 15 - 17)	23	81.65	46.44	33	48	65	121	212
Triad 6 (PM 18 - 20)	23	80.30	38.27	31	51	65	114	178
Triad Based on Mean of 3 Passages								
MOY Benchmark Triad	23	81.46	43.17	28	46	70	116	193
EOY Benchmark Triad	23	80.71	39.88	24	48	73	120	188
Survey Triad	23	81.87	43.76	24	46	71	120	210
Dyad (PM 1 & 2)	23	82.74	41.65	31	51	70	118	188
Triad 1 (PM 3 - 5)	23	83.17	47.08	27	41	71	126	221
Triad 2 (PM 6 - 8)	23	81.81	44.62	26	49	73	116	203
Triad 3 (PM 9 - 11)	23	82.42	45.89	29	50	73	118	226
Triad 4 (PM 12 - 14)	23	81.77	42.24	28	51	68	128	195
Triad 5 (PM 15 - 17)	23	81.81	47.51	31	48	69	121	223
Triad 6 (PM 18 - 20)	23	81.28	37.88	31	52	69	119	177

*Note.* MOY refers to middle of year and EOY refers to end of year.

Table 5  
*Second-Grade Benchmark Passage Descriptive Statistics for DIBELS Next with Comparison Passages*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
Picture Day	BOY Benchmark 1	25	119.48	38.23	41	94	115	142	206
Going Camping	BOY Benchmark 2	24	113.79	33.05	48	92	107	137	172
The South Pole	BOY Benchmark 3	25	109.52	40.04	38	83	108	134	186
Check Out a Book	MOY Benchmark 1	24	122.08	34.75	48	103	127	150	176
Sue's Goals	MOY Benchmark 2	25	114.88	36.70	36	92	110	135	188
The Best Big Brother	MOY Benchmark 3	25	111.04	36.35	44	92	113	138	173
Gavin's Jump	EOY Benchmark 1	25	118.16	38.38	44	100	125	149	174
The New Year	EOY Benchmark 2	25	116.08	42.66	31	94	127	152	191
Roller Skating Fun	EOY Benchmark 3	25	110.04	31.95	47	89	106	137	167
Helping Readers	Survey 1	25	118.20	37.62	46	89	119	148	185
Beach Volleyball	Survey 2	25	114.76	35.64	52	82	114	138	182
Juggling	Survey 3	25	110.88	43.09	22	86	119	143	183
My Drift Bottle	6 <sup>th</sup> Edition EOY 3	25	120.32	38.86	44	87	122	143	183
The Box in the Barn	NAEP Passage	25	107.84	38.99	30	77	107	132	174

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 6  
*Second-Grade Progress Monitoring Passages Descriptive Statistics for DIBELS Next*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
Building Happy Places	Progress Monitor 1	23	115.35	37.38	43	90	109	151	182
Luke Makes His Move	Progress Monitor 2	24	117.08	33.44	40	96	116	143	180
My Pen Pal	Progress Monitor 3	24	119.00	44.32	40	83	124	150	199
Life on the River	Progress Monitor 4	24	117.63	42.64	37	91	117	141	195
A Day for Trees	Progress Monitor 5	25	108.44	42.48	27	79	107	145	185
Making Orange Juice	Progress Monitor 6	23	120.65	38.37	42	89	125	151	182
Kim Gets Ready	Progress Monitor 7	25	112.48	35.11	50	90	113	138	173
Dear Diary	Progress Monitor 8	23	112.43	38.65	35	84	107	142	177
Circus Tickets	Progress Monitor 9	24	121.54	36.43	55	103	111	140	199
Bats Are Not Birds	Progress Monitor 10	25	112.88	33.29	44	90	116	139	161
Cooking School	Progress Monitor 11	25	112.28	33.52	55	90	106	130	176
Writing Your Own Book	Progress Monitor 12	25	121.04	36.47	47	97	112	154	197
In Space for an Hour	Progress Monitor 13	25	113.08	36.73	48	83	113	144	188
Wind Power	Progress Monitor 14	25	108.36	33.15	47	79	107	126	169
Going to School	Progress Monitor 15	24	118.63	29.56	50	101	118	144	164
A Happy House Plant	Progress Monitor 16	25	116.04	34.83	41	94	117	139	174
A Gift of Chores	Progress Monitor 17	25	110.92	36.59	31	91	111	140	172
Canoe Fun	Progress Monitor 18	25	120.56	40.77	45	91	119	150	198
African Drums	Progress Monitor 19	24	118.46	33.34	41	95	120	146	172
Flower Parts	Progress Monitor 20	25	108.40	34.21	32	93	106	127	161



Table 7  
*Second-Grade Three-Passage Triads for DIBELS Next Benchmark, Survey, and Progress Monitoring Passages*

Triad	N	Mean	SD	Min	Q1	Med	Q3	Max
Triad Based on Median of 3 Passages								
BOY Benchmark Triad	25	113.62	35.68	41	94	110	132	176
MOY Benchmark Triad	25	115.34	36.00	44	92	121	139	176
EOY Benchmark Triad	25	114.32	38.74	44	94	128	151	174
Survey Triad	25	116.20	37.34	46	86	114	143	182
Dyad (PM 1 & 2)	25	114.72	34.55	42	87	113	136	174
Triad 1 (PM 3 - 5)	25	115.48	43.80	37	79	119	139	195
Triad 2 (PM 6 - 8)	25	114.46	36.31	49	89	121	142	177
Triad 3 (PM 9 - 11)	25	114.80	33.28	55	96	111	136	176
Triad 4 (PM 12 - 14)	25	114.64	34.03	48	90	112	144	173
Triad 5 (PM 15 - 17)	25	116.36	32.98	41	96	117	140	172
Triad 6 (PM 18 - 20)	25	114.10	34.46	41	90	116	145	164
Triad Based on Mean of 3 Passages								
BOY Benchmark Triad	25	114.02	35.81	52	93	108	135	185
MOY Benchmark Triad	25	115.41	35.06	43	90	122	138	174
EOY Benchmark Triad	25	114.76	36.94	41	95	124	146	177
Survey	25	114.61	37.78	40	90	115	144	180
Dyad (PM 1 & 2)	25	114.72	34.55	42	87	113	136	174
Triad 1 (PM 3 - 5)	25	114.37	41.44	38	80	116	137	188
Triad 2 (PM 6 - 8)	25	113.21	36.44	45	89	117	141	177
Triad 3 (PM 9 - 11)	25	114.84	33.12	57	97	111	138	177
Triad 4 (PM 12 - 14)	25	114.16	34.08	51	88	113	142	176
Triad 5 (PM 15 - 17)	25	114.84	32.96	42	96	115	139	170
Triad 6 (PM 18 - 20)	25	115.33	35.25	41	91	118	146	170

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 8  
*Third-Grade Benchmark and Survey Passage Descriptive Statistics for DIBELS Next with Comparison Passages*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
Finding a Nest	BOY Benchmark 1	22	117.23	44.76	38	74	133	146	208
A Famous Food: The History of Pizza	BOY Benchmark 2	22	111.00	36.16	42	86	114	138	201
Living in Singapore	BOY Benchmark 3	22	103.77	42.06	24	76	104	130	204
Horseback Treasure Hunt	MOY Benchmark 1	22	118.00	41.04	35	87	127	140	214
Raising a Calf	MOY Benchmark 2	22	107.64	42.13	31	71	114	139	201
Skimboarding	MOY Benchmark 3	22	103.27	40.46	28	80	107	127	199
A Surprising Discovery	EOY Benchmark 1	22	116.00	43.00	25	86	133	140	204
A Day for a Shadow Dance	EOY Benchmark 2	22	109.14	43.20	32	69	122	136	179
A Triple Challenge	EOY Benchmark 3	22	103.64	36.82	35	80	106	136	161
Northern Lights	Survey 1	22	116.09	37.56	35	93	119	145	177
Caring for Sheep	Survey 2	22	110.64	36.59	44	78	123	132	189
Independence Day in India	Survey 3	22	102.91	42.76	24	84	108	127	217
Animal Tracks	6 <sup>th</sup> Edition EOY 2	22	112.32	35.54	29	90	120	136	182
The Box in the Barn	NAEP Passage	22	113.45	40.28	38	81	127	145	183

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 9  
*Third-Grade Progress Monitoring Passages Descriptive Statistics for DIBELS Next*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
A New Ball Game	Progress Monitor 1	22	114.05	36.99	53	88	117	138	209
Swimming the Channel	Progress Monitor 2	22	106.82	36.78	34	84	117	136	176
Rooftop Gardens	Progress Monitor 3	22	118.59	36.00	41	90	127	142	187
Learning to Skateboard	Progress Monitor 4	22	106.45	39.16	36	77	107	134	188
Glassmaking	Progress Monitor 5	22	103.86	38.88	30	82	107	127	204
Space Camp	Progress Monitor 6	22	115.36	38.83	39	85	122	132	205
A Woodland Path	Progress Monitor 7	22	112.32	42.91	34	79	120	146	197
How Ryan Made a Difference	Progress Monitor 8	22	101.95	42.49	29	66	103	128	189
Rachel's Box	Progress Monitor 9	22	120.77	42.24	40	87	127	152	200
The Pinecone Feast	Progress Monitor 10	22	107.00	39.09	30	83	107	134	187
Save the Turtles!	Progress Monitor 11	22	107.32	37.27	25	81	114	130	194
Planting a Butterfly Garden	Progress Monitor 12	22	113.91	39.02	36	82	124	140	202
Lan's First Day	Progress Monitor 13	22	112.14	39.36	24	85	117	142	188
Kayla's Special Owl	Progress Monitor 14	22	104.18	35.18	37	80	104	124	169
Amazing Dolphins	Progress Monitor 15	22	121.82	41.72	47	90	127	140	210
Strawberry Festival Day	Progress Monitor 16	22	105.86	44.78	31	79	115	136	207
A Poetry Contest	Progress Monitor 17	22	102.18	38.88	24	71	112	131	157
Keeping the Planet Clean	Progress Monitor 18	22	113.95	41.94	31	81	115	145	201
How Worms Help Gardens	Progress Monitor 19	22	113.73	34.20	39	98	117	131	187
A Chess Tournament	Progress Monitor 20	22	106.23	38.90	21	75	112	140	171

Table 10  
*Third-Grade Three-Passage Triads for DIBELS Next Benchmark, Survey, and Progress  
 Monitoring Passages*

Triad	N	Mean	SD	Min	Q1	Med	Q3	Max
Triad Based on Median of Three Passages								
BOY Benchmark Triad	22	110.18	40.50	38	76	111	140	204
MOY Benchmark Triad	22	110.45	40.77	31	80	117	139	201
EOY Benchmark Triad	22	109.86	40.16	32	80	124	138	179
Survey Triad	22	109.91	36.62	35	84	119	131	189
Dyad (PM 1 & 2)	22	110.43	35.49	44	86	117	136	193
Triad 1 (PM 3 - 5)	22	108.05	37.49	36	82	112	129	188
Triad 2 (PM 6 - 8)	22	111.64	40.21	34	79	122	132	197
Triad 3 (PM 9 - 11)	22	111.14	38.40	30	81	122	134	194
Triad 4 (PM 12 - 14)	22	111.00	37.08	36	85	122	140	188
Triad 5 (PM 15 - 17)	22	108.55	42.18	31	84	123	133	207
Triad 6 (PM 18 - 20)	22	110.45	37.61	31	81	117	136	187
Triad Based on Mean of Three Passages								
BOY Benchmark Triad	22	110.67	39.66	35	82	118	137	204
MOY Benchmark Triad	22	109.64	40.15	31	83	118	134	205
EOY Benchmark Triad	22	109.59	38.46	31	82	120	135	181
Survey Triad	22	109.88	37.73	34	85	119	130	191
Dyad (PM 1 & 2)	22	110.43	35.49	44	86	117	136	193
Triad 1 (PM 3 - 5)	22	109.64	37.12	36	81	116	130	193
Triad 2 (PM 6 - 8)	22	109.88	39.76	34	78	117	136	197
Triad 3 (PM 9 - 11)	22	111.70	38.40	32	84	122	134	194
Triad 4 (PM 12 - 14)	22	110.08	36.60	32	85	118	137	186
Triad 5 (PM 15 - 17)	22	109.95	40.02	34	82	123	136	191
Triad 6 (PM 18 - 20)	22	111.30	37.59	30	85	118	135	186

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 11

*Fourth-Grade Benchmark and Survey Passage Descriptive Statistics for DIBELS Next with Comparison Passages*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
How to Make Dill Pickles	BOY Benchmark 1	23	138.74	37.39	67	127	138	157	225
Water Skiing	BOY Benchmark 2	23	131.91	34.81	55	112	133	152	203
The Power of Magnets	BOY Benchmark 3	23	129.30	33.45	58	110	130	135	207
Your Nervous System	MOY Benchmark 1	23	136.65	30.30	72	118	139	159	192
The Story Tree	MOY Benchmark 2	23	131.70	31.89	79	104	131	148	213
A Grand Old Clock	MOY Benchmark 3	23	129.13	29.53	68	115	127	145	194
A Wild Ride for Bella	EOY Benchmark 1	23	136.48	34.46	74	107	136	159	219
Rainbows	EOY Benchmark 2	23	131.78	26.96	85	112	136	142	197
A New Kind of Family	EOY Benchmark 3	23	129.13	32.65	67	112	124	150	212
Tea Around the World	Survey 1	23	136.26	26.93	87	118	138	153	197
Performing Magic	Survey 2	22	131.86	36.87	68	100	143	156	211
A Pen Pal Surprise	Survey 3	23	127.61	28.51	81	111	124	149	195
The Youngest Rider	6 <sup>th</sup> Edition EOY 1	23	143.13	35.49	83	112	143	165	223
The Box in the Barn	NAEP Passage	23	146.87	28.86	89	129	148	160	221

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 12  
*Fourth-Grade Progress Monitoring Passages Descriptive Statistics for DIBELS Next*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
An Island Festival	Progress Monitor 1	23	133.00	33.56	77	110	128	150	221
Exploring South America	Progress Monitor 2	23	130.04	32.61	73	105	130	140	225
A Gift from the Past	Progress Monitor 3	23	137.30	28.99	80	124	136	156	198
A Home for Freckles	Progress Monitor 4	23	131.87	33.18	80	103	134	153	202
Art in Action	Progress Monitor 5	23	129.83	31.84	83	104	128	145	218
Empty Lot to a Garden Spot	Progress Monitor 6	22	139.91	30.06	89	123	140	160	210
The Little Hero	Progress Monitor 7	23	132.17	32.08	62	114	135	150	196
A Surprising Little Fish	Progress Monitor 8	23	124.61	30.46	76	109	120	135	203
On the Road to Success	Progress Monitor 9	23	134.30	36.96	50	115	138	154	220
Growing a Rosebush	Progress Monitor 10	22	133.09	34.38	73	102	135	144	214
Rainy Day Savings	Progress Monitor 11	23	129.74	37.43	66	100	131	149	215
A Vacation Adventure	Progress Monitor 12	23	140.65	31.45	87	120	137	149	222
Sunnydale Stars	Progress Monitor 13	23	132.74	34.13	70	115	127	143	227
Wonderful Water	Progress Monitor 14	23	123.78	30.11	78	107	120	137	207
Healthy Choices	Progress Monitor 15	22	134.82	31.09	89	114	128	150	205
A Trip into History	Progress Monitor 16	23	130.57	40.46	48	108	132	152	220
Keeping Oil on the Job	Progress Monitor 17	23	129.74	29.14	81	113	131	139	208
Gail Devers	Progress Monitor 18	23	139.17	35.50	69	113	148	164	209
A Day of Surprises	Progress Monitor 19	23	130.61	24.83	86	114	131	146	179
Rodeo Dreams	Progress Monitor 20	23	127.52	30.18	78	102	127	153	201

Table 13  
*Fourth-Grade Three-Passage Triads for DIBELS Next Benchmark, Survey, and Progress Monitoring Passages*

Triad	N	Mean	SD	Min	Q1	Med	Q3	Max
Triad Based on Median of Three Passages								
BOY Benchmark Triad	23	133.52	34.69	58	112	133	152	207
MOY Benchmark Triad	23	132.04	29.88	72	118	129	148	194
EOY Benchmark Triad	23	132.74	30.88	74	112	132	150	212
Survey Triad	23	132.17	29.23	81	111	128	153	197
Dyad (PM 1 & 2)	23	131.52	32.39	81	109	135	145	223
Triad 1 (PM 3 - 5)	23	132.35	30.81	80	108	134	153	202
Triad 2 (PM 6 - 8)	23	131.98	30.37	76	114	131	148	203
Triad 3 (PM 9 - 11)	23	132.59	35.24	66	102	138	150	215
Triad 4 (PM 12 - 14)	23	131.74	31.14	78	115	127	141	212
Triad 5 (PM 15 - 17)	23	133.46	32.12	81	113	131	150	208
Triad 6 (PM 18 - 20)	23	132.61	30.10	85	113	135	151	201
Triad Based on Mean of Three Passages								
BOY Benchmark Triad	23	133.32	34.27	60	111	136	148	212
MOY Benchmark Triad	23	132.49	29.41	79	117	127	149	200
EOY Benchmark Triad	23	132.46	29.75	80	111	130	147	209
Survey Triad	23	131.68	29.67	79	113	133	154	201
Dyad (PM 1 & 2)	23	131.52	32.39	81	109	135	145	223
Triad 1 (PM 3 - 5)	23	133.00	30.35	83	108	133	150	206
Triad 2 (PM 6 - 8)	23	132.08	29.73	80	112	132	145	203
Triad 3 (PM 9 - 11)	23	132.14	35.00	65	112	138	149	216
Triad 4 (PM 12 - 14)	23	132.39	30.87	83	117	129	142	214
Triad 5 (PM 15 - 17)	23	131.43	32.52	75	112	130	147	211
Triad 6 (PM 18 - 20)	23	132.43	29.07	83	111	136	149	193

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 14

*Fifth-Grade Benchmark and Survey Passage Descriptive Statistics for DIBELS Next with Comparison Passages*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
The Land Bridge	BOY Benchmark 1	23	145.09	33.33	62	126	150	160	214
The Crow and the Pitcher	BOY Benchmark 2	23	136.61	40.11	42	110	135	162	237
Recycling Tires	BOY Benchmark 3	23	130.22	36.10	32	116	137	147	204
A Genius at Work	MOY Benchmark 1	23	145.13	37.07	77	117	145	164	224
A Special Song	MOY Benchmark 2	23	137.09	35.40	59	113	136	162	215
The Chunnel	MOY Benchmark 3	23	129.00	38.60	62	104	117	142	226
Build a Thermometer	EOY Benchmark 1	23	147.74	39.58	53	127	144	168	237
How Kangaroo Got Her Pouch	EOY Benchmark 2	23	134.26	39.12	53	108	129	163	221
An Amazing City	EOY Benchmark 3	23	128.26	35.37	57	108	132	142	228
Benjamin's Treehouse	Survey 1	23	146.17	33.38	53	133	141	168	222
Ancient Trees	Survey 2	23	135.87	30.29	58	114	139	152	203
The Respiratory System	Survey 3	23	130.65	37.46	52	101	127	150	204
Help Is on the Way	6 <sup>th</sup> Edition EOY 1	23	139.65	27.25	76	122	140	148	197
The Box in the Barn	NAEP Passage	23	153.09	32.89	64	135	150	169	235

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.



Table 15  
*Fifth-Grade Progress Monitoring Passages Descriptive Statistics for DIBELS Next*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
Ride the ICE	Progress Monitor 1	23	138.43	31.19	62	124	135	159	212
The Best Present Ever	Progress Monitor 2	23	137.91	39.50	56	105	134	165	216
Exploring Australia	Progress Monitor 3	23	149.74	31.98	84	131	148	163	237
Dinner Is Served	Progress Monitor 4	23	135.26	35.31	46	119	132	158	226
How Water Moves Through Plants	Progress Monitor 5	23	128.09	36.96	57	95	129	150	206
How Pulleys Work	Progress Monitor 6	23	147.13	39.45	36	127	143	176	221
All About Shoes	Progress Monitor 7	23	135.13	31.38	49	119	133	156	211
The Outback Adventure	Progress Monitor 8	23	130.43	36.39	53	100	128	153	201
Watching a Soccer Game	Progress Monitor 9	23	142.30	41.41	63	112	138	165	226
Exploring Europe	Progress Monitor 10	23	139.09	32.99	64	118	141	165	212
Chinese Kites	Progress Monitor 11	23	128.96	36.03	54	103	128	152	200
The Talent Show	Progress Monitor 12	23	150.57	35.28	70	131	147	174	234
Fish Farms	Progress Monitor 13	23	132.87	30.18	72	106	135	160	191
How Technology Shrinks the World	Progress Monitor 14	23	131.78	31.49	59	115	126	158	195
Protein	Progress Monitor 15	23	141.26	33.71	52	130	142	156	217
Early Bikes	Progress Monitor 16	23	140.30	31.85	47	127	136	161	203
Owl Houses	Progress Monitor 17	23	128.43	40.16	41	100	123	143	218
A Trip to an Aquarium	Progress Monitor 18	23	143.91	37.02	63	118	149	168	220
Welcome to Giza	Progress Monitor 19	23	134.00	39.92	52	109	133	149	230
Being a Bird Keeper	Progress Monitor 20	23	131.48	37.37	50	106	127	161	216

Table 16  
*Fifth-Grade Three-Passage Triads for DIBELS Next Benchmark, Survey, and Progress Monitoring Passages*

Triad	N	Mean	SD	Min	Q1	Med	Q3	Max
Triad Based on Median of Three Passages								
BOY Benchmark Triad	23	136.13	35.97	42	117	135	162	214
MOY Benchmark Triad	23	137.74	37.69	62	110	133	162	224
EOY Benchmark Triad	23	136.22	38.08	53	117	130	163	228
Survey Triad	23	137.74	33.30	53	118	135	156	204
Dyad (PM 1 & 2)	23	138.17	34.60	59	115	139	163	214
Triad 1 (PM 3 - 5)	23	138.17	34.64	57	119	134	162	226
Triad 2 (PM 6 - 8)	23	138.00	33.50	49	119	136	152	211
Triad 3 (PM 9 - 11)	23	136.87	35.15	63	112	138	163	212
Triad 4 (PM 12 - 14)	23	136.78	29.67	70	118	135	158	195
Triad 5 (PM 15 - 17)	23	137.35	34.06	47	127	136	155	217
Triad 6 (PM 18 - 20)	23	135.48	37.23	52	110	133	161	220
Triad Based on Mean of Three Passages								
BOY Benchmark Triad	23	137.30	35.56	45	120	139	162	218
MOY Benchmark Triad	23	137.07	36.01	66	110	131	156	222
EOY Benchmark Triad	23	136.75	36.38	54	117	130	158	226
Survey Triad	23	137.57	32.57	54	119	134	156	210
Dyad (PM 1 & 2)	23	138.17	34.60	59	115	139	163	214
Triad 1 (PM 3 - 5)	23	137.70	33.70	62	121	135	160	223
Triad 2 (PM 6 - 8)	23	137.57	34.73	46	119	135	156	211
Triad 3 (PM 9 - 11)	23	136.78	35.86	60	111	135	157	213
Triad 4 (PM 12 - 14)	23	138.41	31.06	67	120	133	159	207
Triad 5 (PM 15 - 17)	23	136.67	34.10	47	121	136	151	213
Triad 6 (PM 18 - 20)	23	136.46	37.00	55	113	134	157	221

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 17

*Sixth-Grade Benchmark and Survey Passage Descriptive Statistics for DIBELS Next with Comparison Passages*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
Hello, Hong Kong!	BOY Benchmark 1	24	154.63	22.84	105	148	153	160	215
Ocean Harvest	BOY Benchmark 2	23	153.04	22.19	121	130	150	169	201
River of Grass	BOY Benchmark 3	23	140.43	28.62	100	117	137	163	207
Acting	MOY Benchmark 1	24	156.88	32.84	109	132	157	173	230
The Mariana Trench	MOY Benchmark 2	22	150.23	25.68	102	137	150	169	195
A Delicious Tradition	MOY Benchmark 3	24	138.88	29.58	92	118	137	159	206
Sea of Salt	EOY Benchmark 1	23	159.61	26.84	106	144	157	175	210
Another World	EOY Benchmark 2	22	153.64	24.41	116	138	149	171	201
The Barefoot Runner	EOY Benchmark 3	24	138.96	31.95	88	116	142	155	204
A Note of Recognition	Survey 1	24	156.04	32.90	101	139	157	174	229
Young Reader's Choice Award	Survey 2	23	151.91	26.31	113	131	151	162	216
The Stream of Life	Survey 3	23	140.00	24.16	109	119	136	157	189
Mountains in Danger	6 <sup>th</sup> Edition EOY 2	24	132.75	26.64	83	116	133	149	185
The Box in the Barn	NAEP Passage	24	171.50	27.11	120	156	175	190	215

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 18  
*Sixth-Grade Progress Monitoring Passages Descriptive Statistics for DIBELS Next*

Title	Assignment	N	Mean	SD	Min	Q1	Med	Q3	Max
Kilimanjaro	Progress Monitor 1	24	151.75	28.92	104	135	150	172	203
No Dirt Required	Progress Monitor 2	24	142.79	23.51	99	127	142	154	205
Making a Comic Book	Progress Monitor 3	23	161.26	28.33	116	142	157	185	230
Bike and Build	Progress Monitor 4	23	147.96	31.70	97	130	153	166	206
Subway Musician	Progress Monitor 5	24	138.79	30.82	85	116	143	165	194
Sailing on Land	Progress Monitor 6	23	155.13	31.02	98	128	154	175	213
Let's Look at Asia	Progress Monitor 7	23	151.83	24.09	113	135	148	169	195
Ice Country	Progress Monitor 8	24	138.13	29.85	87	114	140	154	195
Diana Nyad	Progress Monitor 9	23	154.91	26.76	109	136	148	170	207
An Underground Journey	Progress Monitor 10	23	149.70	26.64	102	134	151	173	195
The San Juan Islands	Progress Monitor 11	23	141.91	25.49	105	122	140	153	203
The Importance of Exercise	Progress Monitor 12	23	163.30	25.10	127	139	164	175	226
Drifting Downriver	Progress Monitor 13	24	146.88	29.40	97	127	151	169	205
Dubai: A City of Innovation	Progress Monitor 14	24	137.08	30.32	85	114	139	153	204
A Web Site for Volunteers	Progress Monitor 15	23	156.00	28.64	112	132	157	170	217
Horseback Trekking	Progress Monitor 16	22	152.45	25.85	117	141	147	163	214
The Kon-Tiki Expedition	Progress Monitor 17	24	139.88	29.33	79	121	144	151	199
The Great Bird Count	Progress Monitor 18	24	157.92	29.05	98	136	153	175	210
An Unusual Island	Progress Monitor 19	23	148.74	31.21	100	119	149	175	206
How We See	Progress Monitor 20	23	142.57	30.04	100	124	143	155	208

Table 19  
*Sixth-Grade Three-Passage Triads for DIBELS Next Benchmark, Survey, and Progress  
 Monitoring Passages*

Triad	N	Mean	SD	Min	Q1	Med	Q3	Max
Triad Based on Median of Three Passages								
BOY Benchmark Triad	24	149.42	24.75	105	130	150	162	207
MOY Benchmark Triad	24	146.79	28.53	102	123	146	165	206
EOY Benchmark Triad	24	149.92	27.01	105	139	149	163	204
Survey Triad	24	148.77	28.24	110	129	148	163	216
Dyad (PM 1 & 2)	24	147.27	24.88	111	131	147	160	204
Triad 1 (PM 3 - 5)	24	146.31	29.83	97	124	151	170	200
Triad 2 (PM 6 - 8)	24	147.63	25.99	98	127	145	161	195
Triad 3 (PM 9 - 11)	23	148.78	26.96	105	123	148	165	203
Triad 4 (PM 12 - 14)	24	147.83	30.91	97	127	154	168	205
Triad 5 (PM 15 - 17)	24	147.77	28.64	79	134	148	156	214
Triad 6 (PM 18 - 20)	24	149.17	30.18	100	128	149	170	208
Triad Based on Mean of Three Passages								
BOY Benchmark Triad	24	148.21	23.42	105	132	148	158	203
MOY Benchmark Triad	24	148.32	28.08	103	125	148	164	210
EOY Benchmark Triad	24	148.71	27.52	105	128	146	164	203
Survey Triad	24	148.35	26.79	111	131	148	159	207
Dyad (PM 1 & 2)	24	147.27	24.88	111	131	147	160	204
Triad 1 (PM 3 - 5)	24	148.13	28.79	104	131	147	170	201
Triad 2 (PM 6 - 8)	24	147.49	27.24	101	126	147	160	198
Triad 3 (PM 9 - 11)	23	148.84	24.72	105	126	148	164	202
Triad 4 (PM 12 - 14)	24	148.17	27.59	97	129	150	163	202
Triad 5 (PM 15 - 17)	24	147.40	29.19	79	132	150	156	210
Triad 6 (PM 18 - 20)	24	149.28	28.43	103	124	150	168	208

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 20  
*Student-Level Regressions by Grade*

Grade	N	Intercept		Slope		Root Mean Square Error (Standard Error of Estimate)				
		M	SD	M	SD	Min	Q1	Med	Q3	Max
Grade 1	23	78.58	39.42	0.64	1.40	5.27	9.16	10.92	13.75	17.83
Grade 2	25	114.14	36.06	0.10	1.31	7.21	10.25	11.70	12.97	20.07
Grade 3	22	107.27	36.70	0.66	1.11	7.55	9.94	11.41	14.06	30.58
Grade 4	23	131.30	31.63	0.23	1.35	7.10	9.69	11.12	12.96	14.32
Grade 5	23	136.67	32.93	0.16	1.33	7.00	10.69	12.78	14.24	16.39
Grade 6	24	147.75	27.84	0.05	1.60	7.71	11.64	13.17	14.94	18.71

*Note.* Slope is reported as expected change in ORF score per assessment session, two to four assessment sessions per week.

Table 21  
*Descriptive Statistics for Standard Error of Slope [SE(b)] by Grade*

Grade	N	M	SD	Min	Q1	Med	Q3	Max
Grade 1	23	0.72	0.20	0.33	0.61	0.68	0.92	1.21
Grade 2	25	0.76	0.16	0.49	0.65	0.72	0.81	1.20
Grade 3	22	0.98	0.35	0.59	0.80	0.91	1.06	2.33
Grade 4	23	0.87	0.18	0.53	0.75	0.84	1.02	1.22
Grade 5	23	0.96	0.16	0.56	0.85	0.97	1.10	1.19
Grade 6	24	1.08	0.36	0.58	0.89	1.04	1.21	2.43

*Note.* Slope is reported as expected change in ORF score per assessment session, two to four assessment sessions per week.

$$s(b_1) = \sqrt{\frac{MSE}{(n-1)s_x^2}}$$

Table 22  
*Person Measures for IRT Rasch Models by Grade*

Grade	N	M	SD	Minimum	Maximum
Grade 1	23	52.82	48.00	-6.94	110.01
Grade 2	25	47.69	40.34	-1.07	100.33
Grade 3	22	44.35	40.36	-5.75	101.49
Grade 4	23	48.15	35.82	-1.23	101.70
Grade 5	23	50.57	38.18	-7.15	106.60
Grade 6	24	48.24	33.48	-2.82	102.80

Table 23

*Passage Selection and Placement Considerations for Grade 1 DIBELS Next Benchmark and Survey Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
MOY Benchmark 1	Narrative	23	4.20	8.85	75.09	39.17	0.94	0.83	0.96
MOY Benchmark 2	Narrative	23	0.40	11.66	83.32	55.34	0.93	0.84	0.95
MOY Benchmark 3	Expository	23	-4.48	9.69	74.26	55.34	0.96	0.79	0.94
EOY Benchmark 1	Narrative	23	4.72	8.01	77.63	30.77	0.94	0.83	0.95
EOY Benchmark 2	Expository	23	-0.30	9.60	75.37	55.34	0.95	0.76	0.96
EOY Benchmark 3	Narrative	23	-4.80	8.23	76.44	55.34	0.95	0.83	0.96
Survey 1	Expository	23	4.56	12.77	89.92	21.72	0.93	0.80	0.91
Survey 2	Narrative	23	1.08	7.81	63.90	39.17	0.96	0.80	0.96
Survey 3	Narrative	23	-4.61	12.08	85.41	89.98	0.94	0.76	0.93
DIBELS 6 <sup>th</sup> Edition		23	-2.43	22.94					0.84
NAEP Passage		23	-15.21	9.86				0.84	

*Note.* MOY refers to middle of year and EOY refers to end of year.



Table 24

*Passage Selection and Placement Considerations for Grade 1 DIBELS Next Progress Monitoring Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Progress Monitor 1	Narrative	23	-0.72	12.06	85.56	55.34	0.92	0.83	0.95
Progress Monitor 2	Expository	23	1.64	10.77	72.37	39.17	0.95	0.78	0.94
Progress Monitor 3	Narrative	23	2.63	10.47	78.68	47.25	0.94	0.77	0.92
Progress Monitor 4	Expository	23	1.97	9.43	76.99	21.72	0.96	0.81	0.96
Progress Monitor 5	Narrative	23	-4.96	12.27	86.03	64.09	0.95	0.82	0.94
Progress Monitor 6	Narrative	23	4.77	14.10	91.21	39.17	0.94	0.86	0.96
Progress Monitor 7	Expository	23	-2.27	9.52	71.61	47.25	0.95	0.77	0.92
Progress Monitor 8	Narrative	23	-2.97	10.89	79.56	74.80	0.94	0.79	0.93
Progress Monitor 9	Expository	23	7.23	7.84	87.78	21.72	0.95	0.74	0.93
Progress Monitor 10	Narrative	23	1.94	6.80	63.90	39.17	0.97	0.80	0.96
Progress Monitor 11	Narrative	23	-7.92	7.91	87.34	74.80	0.95	0.73	0.95
Progress Monitor 12	Expository	23	4.61	8.95	79.56	30.77	0.94	0.87	0.95
Progress Monitor 13	Narrative	23	-1.08	11.14	82.14	47.25	0.93	0.87	0.92
Progress Monitor 14	Narrative	23	-3.50	14.48	96.69	74.80	0.92	0.74	0.93
Progress Monitor 15	Narrative	23	3.53	15.38	105.14	55.34	0.95	0.77	0.94
Progress Monitor 16	Expository	23	-1.10	7.13	67.34	47.25	0.95	0.78	0.94
Progress Monitor 17	Narrative	23	-3.15	10.06	80.33	74.80	0.94	0.83	0.94
Progress Monitor 18	Expository	23	2.02	9.54	73.93	39.17	0.95	0.84	0.98
Progress Monitor 19	Expository	23	1.44	11.30	80.94	39.17	0.95	0.81	0.94
Progress Monitor 20	Narrative	23	-4.90	14.09	84.81	74.80	0.94	0.87	0.97

Table 25

*First-Grade Passage Selection and Placement Considerations for Three-Passage Triads of Benchmark, Survey, and Progress Monitoring Passages for DIBELS Next*

Triad	N	Mean Residual	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Median Alternate- Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Triad Based on Median of Three Passages							
MOY Benchmark	23	0.29	49.42	55.34	0.98	0.85	0.97
EOY Benchmark	23	-0.39	50.42	55.34	0.97	0.83	0.97
Survey	23	0.20	55.30	39.17	0.97	0.80	0.95
Dyad (PM 1 & 2)	23	0.46	52.40	47.26	0.97	0.83	0.97
Triad 1 (PM 3 - 5)	23	-0.58	60.95	47.25	0.97	0.82	0.95
Triad 2 (PM 6 - 8)	23	-0.76	57.54	47.25	0.96	0.83	0.94
Triad 3 (PM 9 - 11)	23	2.21	60.75	39.17	0.97	0.74	0.94
Triad 4 (PM 12 - 14)	23	0.35	58.16	47.25	0.96	0.87	0.95
Triad 5 (PM 15 - 17)	23	-0.58	55.11	55.34	0.97	0.81	0.95
Triad 6 (PM 18 - 20)	23	-0.25	54.50	39.17	0.97	0.84	0.98
Mean (Average) of Three Passages							
MOY Benchmark	23	0.04	40.62	49.95	0.98	0.84	0.97
EOY Benchmark	23	-0.13	44.56	47.15	0.98	0.82	0.98
Survey	23	0.34	44.13	50.29	0.98	0.81	0.95
Dyad (PM 1 & 2)	23	0.46	47.39	47.26	0.98	0.83	0.97
Triad 1 (PM 3 - 5)	23	-0.12	48.73	44.35	0.98	0.81	0.96
Triad 2 (PM 6 - 8)	23	-0.16	45.77	53.74	0.98	0.82	0.96
Triad 3 (PM 9 - 11)	23	0.42	44.55	45.23	0.98	0.76	0.96
Triad 4 (PM 12 - 14)	23	0.01	51.07	50.94	0.97	0.84	0.95
Triad 5 (PM 15 - 17)	23	-0.24	48.45	59.13	0.98	0.80	0.95
Triad 6 (PM 18 - 20)	23	-0.48	49.22	51.05	0.98	0.86	0.98

*Note.* MOY refers to middle of year and EOY refers to end of year.

Table 26

*Passage Selection and Placement Considerations for Grade 2 DIBELS Next Benchmark and Survey Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
BOY Benchmark 1	Narrative	25	4.18	11.00	87.22	46.20	0.91	0.91	0.93
BOY Benchmark 2	Narrative	24	-0.85	15.53	103.39	57.98	0.83	0.87	0.86
BOY Benchmark 3	Expository	25	-5.44	11.32	87.91	57.98	0.91	0.91	0.91
MOY Benchmark 1	Expository	24	5.23	9.50	86.78	39.45	0.91	0.92	0.93
MOY Benchmark 2	Narrative	25	0.86	10.03	84.64	52.22	0.91	0.92	0.93
MOY Benchmark 3	Narrative	25	-4.47	9.57	81.46	52.22	0.91	0.90	0.92
EOY Benchmark 1	Narrative	25	4.00	14.30	95.67	39.45	0.89	0.85	0.88
EOY Benchmark 2	Expository	25	0.60	11.91	85.51	46.20	0.93	0.89	0.93
EOY Benchmark 3	Narrative	25	-4.93	10.91	91.70	52.22	0.89	0.87	0.90
Survey 1	Expository	25	4.29	13.18	92.47	46.20	0.89	0.86	0.89
Survey 2	Narrative	25	1.66	9.82	77.93	57.98	0.92	0.91	0.93
Survey 3	Narrative	25	-4.50	10.46	84.98	46.20	0.93	0.93	0.96
DIBELS 6 <sup>th</sup> Edition		25	5.90	12.31					0.95
NAEP Passage		25	-6.49	9.80				0.95	

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 27

*Passage Selection and Placement Considerations for Grade 2 DIBELS Next Progress Monitoring Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Progress Monitor 1	Expository	23	-1.50	10.27	85.39	63.76	0.90	0.95	0.95
Progress Monitor 2	Narrative	24	2.39	6.34	71.38	39.45	0.93	0.92	0.95
Progress Monitor 3	Narrative	24	3.00	18.95	120.16	46.20	0.84	0.82	0.88
Progress Monitor 4	Narrative	24	2.20	12.44	94.06	30.88	0.90	0.88	0.95
Progress Monitor 5	Expository	25	-6.14	13.55	100.70	57.98	0.90	0.84	0.89
Progress Monitor 6	Expository	23	3.16	9.61	82.32	30.88	0.92	0.96	0.94
Progress Monitor 7	Narrative	25	-1.72	8.10	78.45	57.98	0.92	0.86	0.92
Progress Monitor 8	Narrative	23	-3.45	10.66	86.85	63.76	0.91	0.89	0.92
Progress Monitor 9	Narrative	24	5.81	13.85	101.77	63.76	0.86	0.87	0.88
Progress Monitor 10	Expository	25	-1.59	8.61	78.82	46.20	0.92	0.90	0.95
Progress Monitor 11	Narrative	25	-2.97	11.83	91.86	63.76	0.87	0.81	0.90
Progress Monitor 12	Expository	25	5.84	13.77	101.00	52.22	0.87	0.91	0.92
Progress Monitor 13	Narrative	25	-1.23	15.59	96.50	52.22	0.88	0.87	0.89
Progress Monitor 14	Expository	25	-5.90	9.58	86.44	57.98	0.91	0.92	0.94
Progress Monitor 15	Expository	24	2.93	9.89	83.29	30.88	0.91	0.92	0.94
Progress Monitor 16	Expository	25	1.72	9.42	78.08	46.20	0.91	0.94	0.95
Progress Monitor 17	Narrative	25	-4.13	10.22	81.29	52.22	0.92	0.92	0.94
Progress Monitor 18	Narrative	25	5.64	10.78	90.47	46.20	0.92	0.87	0.91
Progress Monitor 19	Expository	24	1.99	9.62	84.22	39.45	0.91	0.83	0.89
Progress Monitor 20	Expository	25	-5.90	11.53	90.09	63.76	0.90	0.90	0.94

Table 28

*Second-Grade Passage Selection and Placement Considerations for Three-Passage Triads of Benchmark, Survey, and Progress Monitoring Passages for DIBELS Next*

Triad	N	Mean Residual	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Median Alternate- Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Triad Based on Median of Three Passages							
BOY Benchmark	25	-1.34	64.76	57.98	0.93	0.92	0.93
MOY Benchmark	25	-0.14	57.85	52.22	0.95	0.92	0.94
EOY Benchmark	25	-1.35	70.82	46.20	0.94	0.88	0.91
Survey	25	1.72	55.95	46.20	0.96	0.93	0.95
Dyad (PM 1 & 2)	25	1.18	60.72	51.61	0.94	0.95	0.95
Triad 1 (PM 3 - 5)	25	0.72	87.80	46.20	0.92	0.87	0.93
Triad 2 (PM 6 - 8)	25	-0.44	56.00	57.98	0.95	0.91	0.95
Triad 3 (PM 9 - 11)	25	-0.45	59.98	63.76	0.94	0.90	0.95
Triad 4 (PM 12 - 14)	25	-0.05	62.14	52.22	0.94	0.94	0.96
Triad 5 (PM 15 - 17)	25	0.94	58.79	46.20	0.95	0.93	0.96
Triad 6 (PM 18 - 20)	25	-0.10	66.16	46.20	0.94	0.87	0.92
Triad Based on Mean (Average) of Three Passages							
BOY Benchmark	25	-0.65	60.01	54.05	0.94	0.92	0.93
MOY Benchmark	25	0.41	52.21	47.96	0.96	0.94	0.95
EOY Benchmark	25	-0.11	64.72	45.96	0.94	0.89	0.92
Survey	25	0.48	52.32	50.13	0.96	0.93	0.95
Dyad (PM 1 & 2)	25	1.18	56.62	51.61	0.95	0.95	0.95
Triad 1 (PM 3 - 5)	25	-0.35	75.76	45.02	0.93	0.87	0.93
Triad 2 (PM 6 - 8)	25	-0.83	50.10	50.87	0.96	0.93	0.95
Triad 3 (PM 9 - 11)	25	0.33	55.02	57.91	0.95	0.90	0.95
Triad 4 (PM 12 - 14)	25	-0.43	60.73	54.14	0.94	0.94	0.95
Triad 5 (PM 15 - 17)	25	0.12	53.18	43.10	0.96	0.95	0.97
Triad 6 (PM 18 - 20)	25	0.57	55.96	49.80	0.95	0.89	0.94

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 29

*Passage Selection and Placement Considerations for Grade 3 DIBELS Next Benchmark and Survey Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
BOY Benchmark 1	Narrative	22	6.66	11.22	88.31	42.27	0.94	0.91	0.94
BOY Benchmark 2	Expository	22	0.68	14.02	91.82	50.07	0.88	0.88	0.87
BOY Benchmark 3	Narrative	22	-6.18	11.50	88.34	62.07	0.92	0.93	0.90
MOY Benchmark 1	Narrative	22	7.92	8.77	83.12	6.14	0.93	0.92	0.93
MOY Benchmark 2	Expository	22	-2.95	10.39	84.76	62.07	0.92	0.91	0.94
MOY Benchmark 3	Narrative	22	-6.58	9.79	83.12	62.07	0.92	0.92	0.94
EOY Benchmark 1	Narrative	22	5.60	10.11	84.59	32.89	0.93	0.96	0.92
EOY Benchmark 2	Narrative	22	-1.98	21.39	118.64	42.27	0.80	0.84	0.84
EOY Benchmark 3	Expository	22	-6.38	14.63	97.22	62.07	0.89	0.87	0.91
Survey 1	Narrative	22	5.84	13.36	95.71	32.89	0.89	0.88	0.93
Survey 2	Narrative	22	-0.29	8.76	75.47	42.27	0.93	0.92	0.97
Survey 3	Expository	22	-6.96	10.16	88.67	67.12	0.93	0.92	0.91
DIBELS 6 <sup>th</sup> Edition		22	3.07	12.02					0.92
NAEP Passage		22	4.87	10.47				0.92	

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 30

*Passage Selection and Placement Considerations for Grade 3 DIBELS Next Progress Monitoring Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Progress Monitor 1	Narrative	22	2.97	17.33	104.37	50.07	0.84	0.85	0.83
Progress Monitor 2	Expository	22	-3.66	8.47	73.97	50.07	0.94	0.92	0.96
Progress Monitor 3	Expository	22	8.56	12.07	88.96	21.05	0.93	0.93	0.92
Progress Monitor 4	Narrative	22	-3.97	8.43	75.08	62.07	0.94	0.92	0.96
Progress Monitor 5	Narrative	22	-5.35	10.82	85.72	56.53	0.92	0.90	0.89
Progress Monitor 6	Narrative	22	5.55	8.94	78.65	42.27	0.94	0.94	0.93
Progress Monitor 7	Narrative	22	3.09	16.91	100.23	50.07	0.88	0.86	0.88
Progress Monitor 8	Expository	22	-8.23	11.49	91.54	56.53	0.93	0.90	0.97
Progress Monitor 9	Narrative	22	11.00	9.36	89.05	6.14	0.94	0.94	0.93
Progress Monitor 10	Narrative	22	-3.10	9.28	75.40	56.53	0.94	0.90	0.95
Progress Monitor 11	Expository	22	-4.02	13.24	90.13	56.53	0.90	0.88	0.90
Progress Monitor 12	Expository	22	4.07	7.63	76.08	21.05	0.93	0.90	0.92
Progress Monitor 13	Narrative	22	2.50	10.24	79.13	50.07	0.93	0.92	0.92
Progress Monitor 14	Narrative	22	-6.86	14.11	95.85	67.12	0.88	0.91	0.87
Progress Monitor 15	Expository	22	10.84	12.98	100.96	21.05	0.93	0.90	0.92
Progress Monitor 16	Narrative	22	-3.76	14.12	92.98	62.07	0.91	0.89	0.91
Progress Monitor 17	Narrative	22	-7.20	11.76	91.12	56.53	0.92	0.93	0.96
Progress Monitor 18	Expository	22	3.50	9.23	76.14	50.07	0.94	0.91	0.96
Progress Monitor 19	Expository	22	2.98	9.16	75.99	50.07	0.94	0.92	0.93
Progress Monitor 20	Narrative	22	-4.31	11.03	82.43	62.07	0.92	0.90	0.94

Table 31

*Third-Grade Passage Selection and Placement Considerations for Three-Passage Triads of Benchmark, Survey and Progress Monitoring Passages for DIBELS Next*

Triad	N	Mean Residual	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Median Alternate- Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Triad Based on Median of Three Passages							
BOY Benchmark	22	0.21	61.60	50.07	0.94	0.92	0.93
MOY Benchmark	22	0.52	43.07	62.07	0.98	0.94	0.96
EOY Benchmark	22	-0.32	52.29	42.27	0.96	0.93	0.96
Survey	22	-0.35	48.07	42.27	0.97	0.93	0.97
Dyad (PM 1 & 2)	22	-0.34	58.74	50.07	0.94	0.92	0.93
Triad 1 (PM 3 - 5)	22	-1.88	50.23	56.53	0.97	0.94	0.94
Triad 2 (PM 6 - 8)	22	2.11	53.01	50.07	0.96	0.92	0.95
Triad 3 (PM 9 - 11)	22	0.26	43.01	56.53	0.98	0.93	0.96
Triad 4 (PM 12 - 14)	22	1.20	47.20	50.07	0.97	0.95	0.93
Triad 5 (PM 15 - 17)	22	-1.33	50.95	56.53	0.96	0.94	0.96
Triad 6 (PM 18 - 20)	22	-0.10	45.65	50.07	0.97	0.93	0.96
Triad Based on Mean (Average) of Three Passages							
BOY Benchmark	22	0.39	42.94	51.47	0.98	0.94	0.94
MOY Benchmark	22	-0.54	38.08	43.43	0.98	0.94	0.96
EOY Benchmark	22	-0.92	47.77	45.74	0.97	0.95	0.95
Survey	22	-0.47	43.27	47.43	0.97	0.94	0.97
Dyad (PM 1 & 2)	22	-0.34	52.41	50.07	0.96	0.92	0.93
Triad 1 (PM 3 - 5)	22	-0.25	42.12	46.55	0.98	0.94	0.95
Triad 2 (PM 6 - 8)	22	0.13	41.00	49.62	0.98	0.94	0.96
Triad 3 (PM 9 - 11)	22	1.29	39.31	39.73	0.98	0.93	0.96
Triad 4 (PM 12 - 14)	22	-0.10	41.82	46.08	0.97	0.94	0.93
Triad 5 (PM 15 - 17)	22	-0.04	37.33	46.55	0.98	0.95	0.97
Triad 6 (PM 18 - 20)	22	0.73	38.74	54.07	0.98	0.93	0.96

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.



Table 32

*Passage Selection and Placement Considerations for Grade 4 DIBELS Next Benchmark and Survey Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
BOY Benchmark 1	Expository	23	6.34	11.86	87.13	36.28	0.89	0.89	0.92
BOY Benchmark 2	Narrative	23	-0.16	10.38	78.85	48.17	0.89	0.86	0.87
BOY Benchmark 3	Expository	23	-4.17	10.54	79.75	58.41	0.89	0.91	0.93
MOY Benchmark 1	Expository	23	4.38	12.81	84.68	48.17	0.86	0.82	0.90
MOY Benchmark 2	Narrative	23	-0.49	9.05	69.42	48.17	0.91	0.88	0.90
MOY Benchmark 3	Expository	23	-2.97	7.65	70.21	58.41	0.91	0.89	0.94
EOY Benchmark 1	Narrative	23	4.38	11.62	81.59	48.17	0.90	0.92	0.89
EOY Benchmark 2	Expository	23	-0.29	12.03	78.96	42.49	0.87	0.84	0.84
EOY Benchmark 3	Expository	23	-3.23	11.50	80.16	58.41	0.88	0.83	0.88
Survey 1	Expository	23	3.81	10.99	77.06	42.49	0.89	0.84	0.89
Survey 2	Expository	22	-0.43	13.00	81.40	47.64	0.89	0.86	0.90
Survey 3	Narrative	23	-4.73	8.27	69.46	67.86	0.91	0.92	0.90
DIBELS 6 <sup>th</sup> Edition		23	11.15	13.15					0.91
NAEP Passage		23	15.14	10.03				0.91	

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 33

*Passage Selection and Placement Considerations for Grade 4 DIBELS Next Progress Monitoring Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Progress Monitor 1	Narrative	23	1.20	6.98	67.97	53.44	0.93	0.92	0.95
Progress Monitor 2	Expository	23	-2.06	10.99	76.26	53.44	0.89	0.87	0.88
Progress Monitor 3	Narrative	23	6.09	7.29	68.85	42.49	0.92	0.87	0.92
Progress Monitor 4	Narrative	23	-1.57	9.45	72.57	48.17	0.90	0.89	0.89
Progress Monitor 5	Expository	23	-2.61	9.52	76.92	53.44	0.89	0.86	0.87
Progress Monitor 6	Narrative	22	6.82	9.17	79.03	41.49	0.90	0.91	0.90
Progress Monitor 7	Expository	23	0.27	10.55	72.98	42.49	0.89	0.90	0.91
Progress Monitor 8	Expository	23	-7.48	8.04	79.73	72.67	0.90	0.88	0.91
Progress Monitor 9	Narrative	23	1.93	10.79	76.30	29.31	0.91	0.88	0.93
Progress Monitor 10	Expository	22	1.35	10.20	74.50	47.64	0.90	0.85	0.89
Progress Monitor 11	Narrative	23	-2.62	11.39	79.28	48.17	0.91	0.94	0.89
Progress Monitor 12	Narrative	23	7.40	8.81	81.10	29.31	0.91	0.90	0.91
Progress Monitor 13	Narrative	23	0.40	12.16	82.78	58.41	0.88	0.82	0.85
Progress Monitor 14	Expository	23	-8.51	8.84	80.07	67.86	0.90	0.87	0.91
Progress Monitor 15	Expository	22	1.54	10.22	72.49	67.8	0.90	0.88	0.89
Progress Monitor 16	Narrative	23	-0.91	13.47	86.00	48.17	0.91	0.92	0.89
Progress Monitor 17	Expository	23	-2.48	6.44	66.39	48.17	0.92	0.89	0.91
Progress Monitor 18	Expository	23	6.62	11.67	85.77	36.28	0.89	0.92	0.90
Progress Monitor 19	Narrative	23	-2.10	11.69	80.90	48.17	0.87	0.86	0.80
Progress Monitor 20	Narrative	23	-5.29	9.73	75.24	58.41	0.90	0.94	0.89

Table 34

*Fourth-Grade Passage Selection and Placement Considerations for Three-Passage Triads of Benchmark, Survey, and Progress Monitoring Passages for DIBELS Next*

Triad	N	Mean Residual	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Median Alternate- Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Triad Based on Median of Three Passages							
BOY Benchmark	23	0.77	58.78	48.17	0.93	0.89	0.92
MOY Benchmark	23	0.05	48.66	48.17	0.94	0.90	0.94
EOY Benchmark	23	0.95	52.25	48.17	0.93	0.88	0.89
Survey	23	-0.94	49.91	47.64	0.94	0.90	0.92
Dyad (PM 1 & 2)	23	-0.43	50.71	53.44	0.95	0.92	0.93
Triad 1 (PM 3 - 5)	23	-0.26	49.04	48.17	0.94	0.90	0.91
Triad 2 (PM 6 - 8)	23	-0.46	49.87	42.49	0.95	0.93	0.93
Triad 3 (PM 9 - 11)	23	0.83	50.68	47.64	0.96	0.92	0.93
Triad 4 (PM 12 - 14)	23	-0.46	52.36	58.41	0.94	0.87	0.90
Triad 5 (PM 15 - 17)	23	0.46	49.53	48.17	0.95	0.92	0.92
Triad 6 (PM 18 - 20)	23	-0.38	49.45	48.17	0.94	0.94	0.90
Triad Based on Mean (Average) of Three Passages							
BOY Benchmark	23	0.67	54.94	47.62	0.94	0.91	0.93
MOY Benchmark	23	0.31	44.13	51.58	0.96	0.90	0.95
EOY Benchmark	23	0.29	43.48	49.69	0.96	0.91	0.92
Survey	23	-0.47	45.25	52.66	0.95	0.90	0.92
Dyad (PM 1 & 2)	23	-0.43	46.97	53.44	0.95	0.92	0.93
Triad 1 (PM 3 - 5)	23	0.63	42.03	48.03	0.96	0.90	0.92
Triad 2 (PM 6 - 8)	23	-0.06	44.56	52.22	0.96	0.93	0.93
Triad 3 (PM 9 - 11)	23	0.19	46.06	41.71	0.97	0.92	0.93
Triad 4 (PM 12 - 14)	23	-0.24	46.46	51.86	0.95	0.89	0.92
Triad 5 (PM 15 - 17)	23	-0.69	42.28	54.71	0.96	0.93	0.92
Triad 6 (PM 18 - 20)	23	-0.26	47.15	47.62	0.95	0.95	0.90

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 35

*Passage Selection and Placement Considerations for Grade 5 DIBELS Next Benchmark and Survey Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
BOY Benchmark 1	Expository	23	8.12	9.37	81.63	25.10	0.93	0.95	0.94
BOY Benchmark 2	Narrative	23	-1.22	10.43	80.10	52.00	0.93	0.94	0.94
BOY Benchmark 3	Expository	23	-6.63	12.21	90.13	46.08	0.90	0.90	0.91
MOY Benchmark 1	Expository	23	7.64	10.05	88.52	35.39	0.92	0.94	0.91
MOY Benchmark 2	Narrative	23	-0.43	7.89	71.94	46.08	0.93	0.96	0.92
MOY Benchmark 3	Expository	23	-7.84	14.07	98.93	77.83	0.89	0.87	0.89
EOY Benchmark 1	Expository	23	9.41	9.44	92.63	40.57	0.92	0.92	0.95
EOY Benchmark 2	Narrative	23	-1.55	11.89	82.46	58.31	0.92	0.91	0.94
EOY Benchmark 3	Expository	23	-8.07	13.46	100.48	71.40	0.88	0.92	0.88
Survey 1	Narrative	23	9.13	11.16	88.52	25.10	0.91	0.92	0.96
Survey 2	Expository	23	-0.05	9.36	77.79	46.08	0.92	0.90	0.95
Survey 3	Expository	23	-6.40	11.25	85.66	71.40	0.92	0.91	0.90
DIBELS 6 <sup>th</sup> Edition		23	2.51	10.22					0.95
NAEP Passage		23	16.11	9.11				0.95	

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 36

*Passage Selection and Placement Considerations for Grade 5 DIBELS Next Progress Monitoring Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Progress Monitor 1	Expository	23	0.69	7.33	70.02	52.00	0.94	0.93	0.95
Progress Monitor 2	Narrative	23	1.01	12.05	84.10	58.31	0.92	0.93	0.91
Progress Monitor 3	Expository	23	11.78	8.19	93.69	19.31	0.93	0.93	0.94
Progress Monitor 4	Narrative	23	-1.64	8.73	75.47	64.85	0.92	0.94	0.95
Progress Monitor 5	Expository	23	-8.48	11.10	90.75	58.31	0.92	0.93	0.93
Progress Monitor 6	Expository	23	9.48	12.69	95.64	30.33	0.92	0.93	0.95
Progress Monitor 7	Expository	23	-2.22	8.70	72.84	58.31	0.94	0.93	0.96
Progress Monitor 8	Narrative	23	-6.17	9.79	84.23	52.00	0.91	0.94	0.92
Progress Monitor 9	Narrative	23	5.23	11.82	85.91	46.08	0.93	0.91	0.92
Progress Monitor 10	Expository	23	2.32	10.60	79.62	40.57	0.90	0.93	0.92
Progress Monitor 11	Expository	23	-8.28	10.21	85.64	64.85	0.92	0.92	0.89
Progress Monitor 12	Narrative	23	11.30	7.38	92.37	25.10	0.94	0.96	0.97
Progress Monitor 13	Expository	23	-5.08	12.00	86.68	52.00	0.89	0.91	0.85
Progress Monitor 14	Expository	23	-5.88	12.16	87.35	77.83	0.90	0.92	0.92
Progress Monitor 15	Expository	23	3.36	11.67	85.85	35.39	0.90	0.95	0.92
Progress Monitor 16	Expository	23	2.72	11.74	81.97	40.57	0.91	0.91	0.94
Progress Monitor 17	Narrative	23	-8.29	8.64	85.60	64.85	0.94	0.96	0.96
Progress Monitor 18	Narrative	23	5.68	10.72	85.62	40.57	0.91	0.91	0.91
Progress Monitor 19	Narrative	23	-3.82	12.35	84.47	52.00	0.92	0.94	0.94
Progress Monitor 20	Expository	23	-5.78	7.88	78.17	71.4	0.93	0.93	0.94

Table 37

*Fifth-Grade Passage Selection and Placement Considerations for Three-Passage Triads of Benchmark, Survey, and Progress Monitoring Passages for DIBELS Next*

Triad	N	Mean Residual	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Median Alternate- Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Triad Based on Median of Three Passages							
BOY Benchmark	23	-0.25	52.48	46.08	0.96	0.93	0.95
MOY Benchmark	23	0.39	57.19	46.08	0.95	0.94	0.93
EOY Benchmark	23	0.35	51.41	58.31	0.96	0.94	0.96
Survey	23	1.09	49.97	46.08	0.95	0.92	0.96
Dyad (PM 1 & 2)	23	0.85	44.43	55.16	0.97	0.95	0.95
Triad 1 (PM 3 - 5)	23	0.91	48.80	58.31	0.96	0.96	0.96
Triad 2 (PM 6 - 8)	23	0.45	43.34	52.00	0.97	0.96	0.97
Triad 3 (PM 9 - 11)	23	0.20	45.92	46.08	0.96	0.95	0.95
Triad 4 (PM 12 - 14)	23	-1.10	53.38	52.00	0.95	0.95	0.92
Triad 5 (PM 15 - 17)	23	0.30	50.90	40.57	0.95	0.96	0.96
Triad 6 (PM 18 - 20)	23	-2.35	47.53	52.00	0.96	0.95	0.95
Triad Based on Mean (Average) of Three Passages							
BOY Benchmark	23	0.09	41.38	41.06	0.97	0.96	0.95
MOY Benchmark	23	-0.21	46.17	53.10	0.97	0.95	0.93
EOY Benchmark	23	-0.07	37.10	56.76	0.98	0.96	0.97
Survey	23	0.89	38.50	47.53	0.98	0.94	0.97
Dyad (PM 1 & 2)	23	0.85	39.22	55.16	0.97	0.95	0.95
Triad 1 (PM 3 - 5)	23	0.55	35.68	47.49	0.98	0.96	0.97
Triad 2 (PM 6 - 8)	23	0.36	37.90	46.88	0.98	0.96	0.97
Triad 3 (PM 9 - 11)	23	-0.24	41.19	50.50	0.97	0.95	0.94
Triad 4 (PM 12 - 14)	23	0.11	39.97	51.64	0.97	0.97	0.95
Triad 5 (PM 15 - 17)	23	-0.74	39.62	46.94	0.97	0.97	0.97
Triad 6 (PM 18 - 20)	23	-1.31	38.93	54.66	0.98	0.96	0.96

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 38

*Passage Selection and Placement Considerations for Grade 6 DIBELS Next Benchmark and Survey Passages*

Passage	Genre	N	Mean Residual	Standard Deviation of Residuals	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
BOY Benchmark 1	Narrative	24	7.09	13.56	95.52	26.24	0.79	0.81	0.79
BOY Benchmark 2	Expository	23	2.23	14.43	97.52	41.21	0.73	0.83	0.69
BOY Benchmark 3	Expository	23	-8.51	10.44	93.76	69.46	0.85	0.84	0.72
MOY Benchmark 1	Narrative	24	8.42	9.86	92.41	45.21	0.89	0.90	0.80
MOY Benchmark 2	Expository	22	-0.35	10.59	85.17	41.89	0.83	0.89	0.82
MOY Benchmark 3	Expository	24	-8.80	11.50	97.96	60.64	0.85	0.88	0.76
EOY Benchmark 1	Expository	23	8.97	8.11	90.63	32.12	0.85	0.87	0.83
EOY Benchmark 2	Narrative	22	1.45	12.62	88.29	52.87	0.81	0.83	0.75
EOY Benchmark 3	Expository	24	-9.08	12.98	100.73	56.69	0.83	0.84	0.81
Survey 1	Narrative	24	7.80	10.52	91.03	41.21	0.88	0.89	0.80
Survey 2	Expository	23	2.09	11.01	85.68	36.93	0.82	0.88	0.73
Survey 3	Expository	23	-8.30	10.44	94.19	69.46	0.84	0.78	0.77
DIBELS 6 <sup>th</sup> Edition		24	-15.16	10.01					0.80
NAEP Passage		24	23.68	12.79				0.80	

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 39

*Passage Selection and Placement Considerations for Grade 6 DIBELS Next Progress Monitoring Passages*

Passage	Genre	N	Mean Residual	Standard	Mean Euclidean Distance	IRT Rasch	Alternate-Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
				Deviation of Residuals		Model Difficulty Parameter			
Progress Monitor 1	Expository	24	3.64	9.65	82.13	45.21	0.86	0.87	0.88
Progress Monitor 2	Expository	24	-5.19	11.33	92.31	69.46	0.80	0.84	0.70
Progress Monitor 3	Expository	23	10.08	12.61	109.20	32.12	0.82	0.78	0.80
Progress Monitor 4	Expository	23	-1.74	13.21	91.91	49.07	0.82	0.89	0.75
Progress Monitor 5	Narrative	24	-9.34	12.51	100.91	56.69	0.84	0.86	0.82
Progress Monitor 6	Expository	23	5.33	8.01	85.78	45.21	0.87	0.90	0.92
Progress Monitor 7	Expository	23	2.58	11.36	83.57	52.87	0.83	0.78	0.90
Progress Monitor 8	Narrative	24	-9.89	11.74	102.94	64.84	0.84	0.81	0.77
Progress Monitor 9	Expository	23	4.43	9.12	84.15	52.87	0.86	0.86	0.81
Progress Monitor 10	Narrative	23	0.18	11.62	85.52	45.21	0.83	0.87	0.79
Progress Monitor 11	Expository	23	-6.89	11.44	91.81	64.84	0.83	0.84	0.73
Progress Monitor 12	Expository	23	12.50	9.68	104.61	32.12	0.83	0.82	0.87
Progress Monitor 13	Narrative	24	-1.63	9.40	82.50	49.07	0.86	0.91	0.83
Progress Monitor 14	Expository	24	-10.55	12.28	101.29	56.69	0.84	0.90	0.71
Progress Monitor 15	Expository	23	6.44	9.84	89.36	41.21	0.84	0.89	0.74
Progress Monitor 16	Narrative	22	3.20	10.03	79.07	54.43	0.87	0.90	0.81
Progress Monitor 17	Expository	24	-6.89	9.61	85.82	69.46	0.88	0.88	0.82
Progress Monitor 18	Narrative	24	9.57	9.34	95.36	36.93	0.85	0.93	0.80
Progress Monitor 19	Expository	23	-1.25	12.61	94.03	49.07	0.83	0.82	0.76
Progress Monitor 20	Expository	23	-6.33	9.25	86.16	58.71	0.86	0.90	0.80



Table 40

*Sixth-Grade Passage Selection and Placement Considerations for Three-Passage Triads of Benchmark, Survey, and Progress Monitoring Passages for DIBELS Next*

Triad	N	Mean Residual	Mean Euclidean Distance	IRT Rasch Model Difficulty Parameter	Median Alternate- Form Reliability	Correlation with 6 <sup>th</sup> Edition	Correlation with NAEP Passage
Triad Based on Median of Three Passages							
BOY Benchmark	24	0.96	61.67	41.21	0.90	0.91	0.80
MOY Benchmark	24	-1.37	58.98	45.21	0.90	0.92	0.83
EOY Benchmark	24	1.17	54.91	52.87	0.92	0.91	0.83
Survey	24	1.97	54.99	41.21	0.92	0.90	0.80
Dyad (PM 1 & 2)	24	-0.78	52.69	57.34	0.93	0.90	0.84
Triad 1 (PM 3 - 5)	24	-1.97	62.33	49.07	0.90	0.91	0.84
Triad 2 (PM 6 - 8)	24	-0.42	59.53	52.87	0.90	0.85	0.93
Triad 3 (PM 9 - 11)	23	-0.56	60.17	52.87	0.90	0.90	0.80
Triad 4 (PM 12 - 14)	24	-0.71	56.57	49.07	0.93	0.93	0.83
Triad 5 (PM 15 - 17)	24	0.24	63.27	54.43	0.88	0.89	0.75
Triad 6 (PM 18 - 20)	24	-0.02	58.17	49.07	0.93	0.90	0.84
Triad Based on Mean (Average) of Three Passages							
BOY Benchmark	24	0.14	54.09	45.64	0.91	0.90	0.81
MOY Benchmark	24	-0.05	45.82	49.25	0.94	0.94	0.83
EOY Benchmark	24	0.17	46.25	47.23	0.94	0.91	0.84
Survey	24	0.61	42.45	49.20	0.94	0.90	0.81
Dyad (PM 1 & 2)	24	-0.78	47.52	57.34	0.93	0.90	0.84
Triad 1 (PM 3 - 5)	24	-0.47	50.94	45.96	0.93	0.91	0.84
Triad 2 (PM 6 - 8)	24	-0.57	50.41	54.31	0.93	0.88	0.90
Triad 3 (PM 9 - 11)	23	-0.76	44.03	54.31	0.94	0.91	0.82
Triad 4 (PM 12 - 14)	24	-0.24	44.21	45.96	0.95	0.93	0.83
Triad 5 (PM 15 - 17)	24	0.00	51.48	55.03	0.93	0.91	0.77
Triad 6 (PM 18 - 20)	24	0.70	47.70	48.24	0.94	0.93	0.83

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

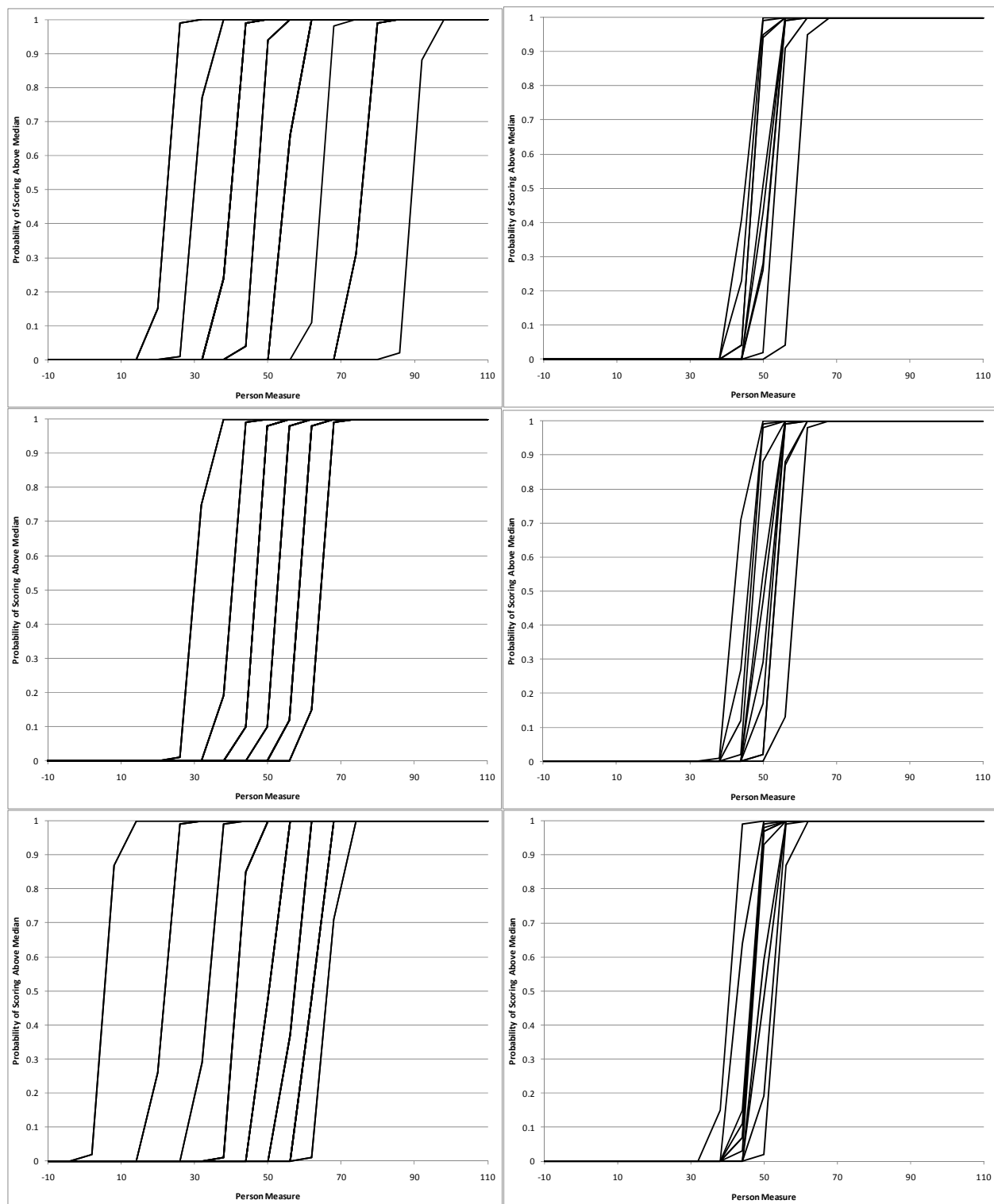
Table 41

*Standard Error of Measurement for Single Probes and Three-Probe Triads and Standard Error of the Mean for Individuals by Grade*

Grade	Median SEM for a Single Passage	Median SEM for Three- Passage Median	Median SEM for Three- Passage Mean	Standard Error of the Mean based on $n = 3$ Passages and Individual Root Mean Square Error				
				Minimum	Median		Maximum	
				RMSE	Q1 RMSE	RMSE	Q3 RMSE	RMSE
Grade 1	10.33	7.87	6.27	3.04	5.29	6.30	7.94	10.29
Grade 2	11.29	8.13	7.50	4.16	5.92	6.75	7.49	11.58
Grade 3	11.12	6.89	6.16	4.36	5.74	6.59	8.12	17.66
Grade 4	10.50	7.27	6.44	4.10	5.60	6.42	7.49	8.27
Grade 5	10.39	7.21	5.46	4.04	6.17	7.38	8.22	9.46
Grade 6	10.96	8.08	6.92	4.45	6.72	7.61	8.62	10.80

*Note.* The Standard Error of the Mean is based on the number of passages and the variability of those passages estimated from the

individual root mean square error:  $SE(\bar{X}) = \frac{\hat{\sigma}}{\sqrt{n}}$  .



*Figure 1.* Item response curves for individual passages (left panels) and for the 10 triads and one dyad formed from the mean of three benchmark passages and two or three progress monitoring passages. From top to bottom the panels represent first grade (nine triads), second grade, and third grade. Some curves are hidden due to identical item measure estimates.

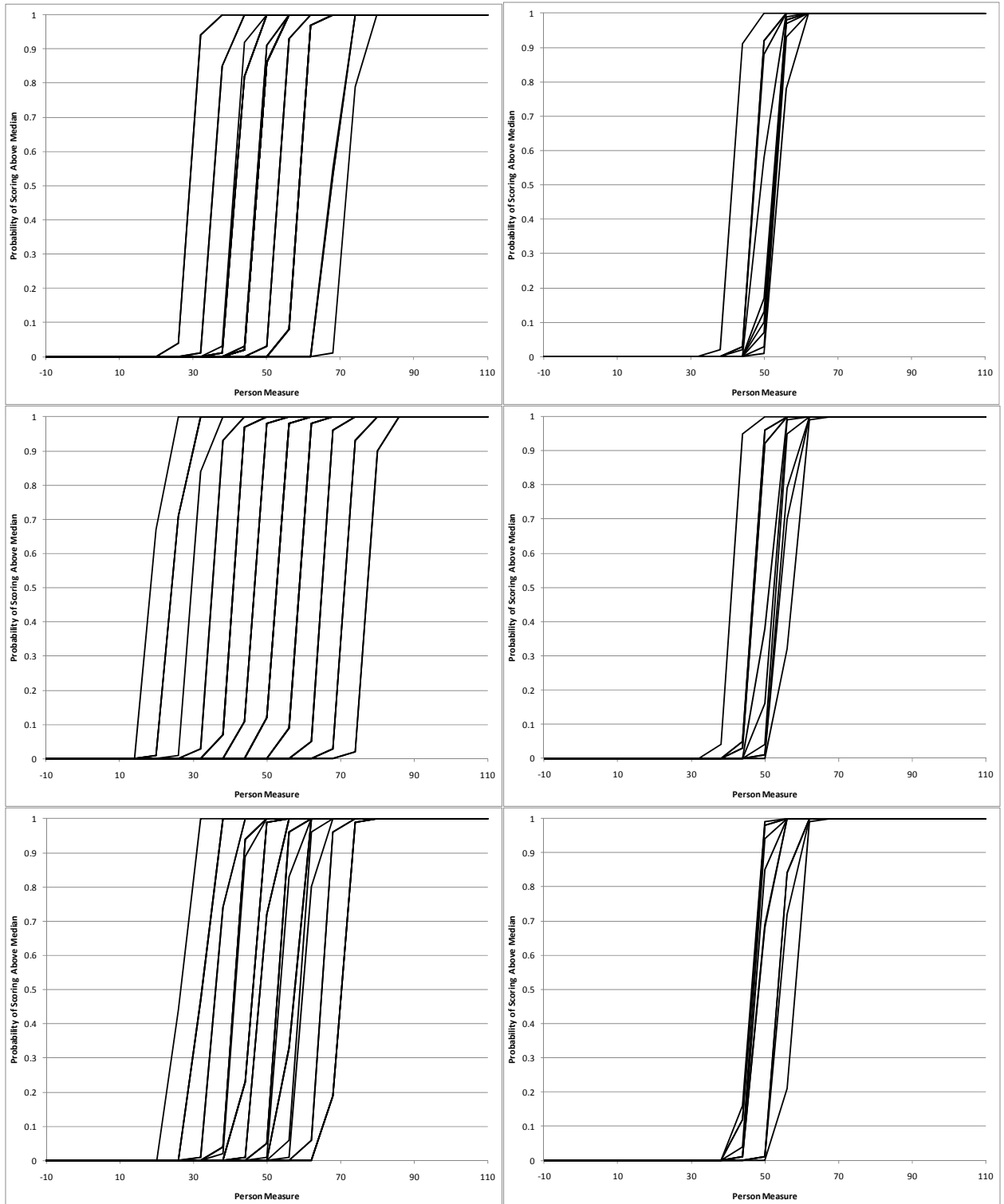


Figure 2. Item response curves for 32 individual passages (left panels) and for the 10 triads and one dyad formed from the mean of three benchmark passages and two or three progress monitoring passages. From top to bottom the panels represent fourth grade, fifth grade, and sixth grade. Some curves are hidden due to identical item measure estimates.

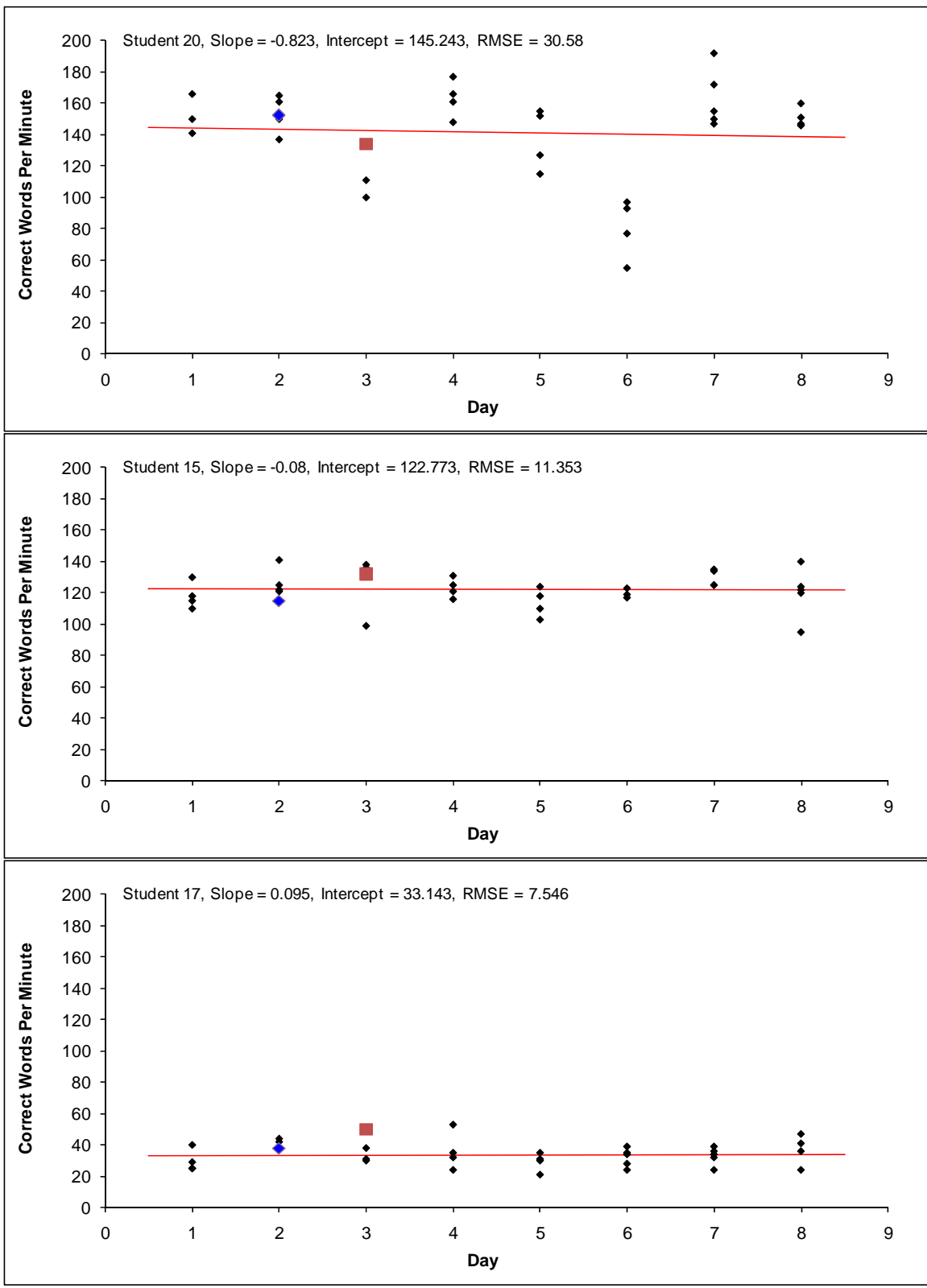


Figure 3. Individual third grade student performance profiles illustrating maximum (top, not included in the final data analysis), median (middle), and minimum (bottom) within-student variability in performance across repeated assessments with alternate forms.

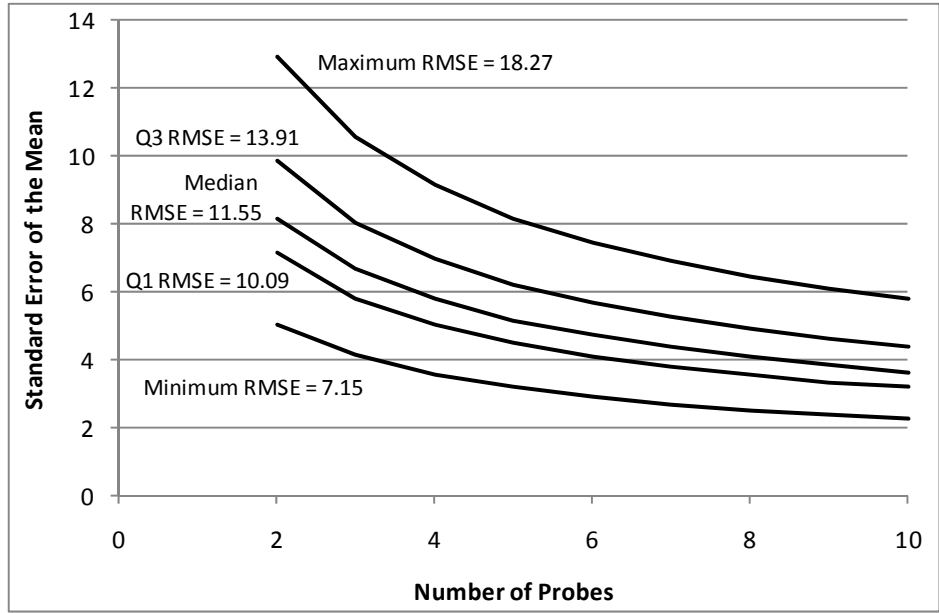


Figure 4. Standard error of the mean for individual confidence intervals based on the within-student variability in performance across repeated assessments with alternate forms (root mean square error) and the number of data points upon which the student's mean is computed. The across-grade median RMSE illustrating the typical minimum, first quartile, median, third quartile, and maximum within-student variability in performance across repeated assessments with alternate forms.

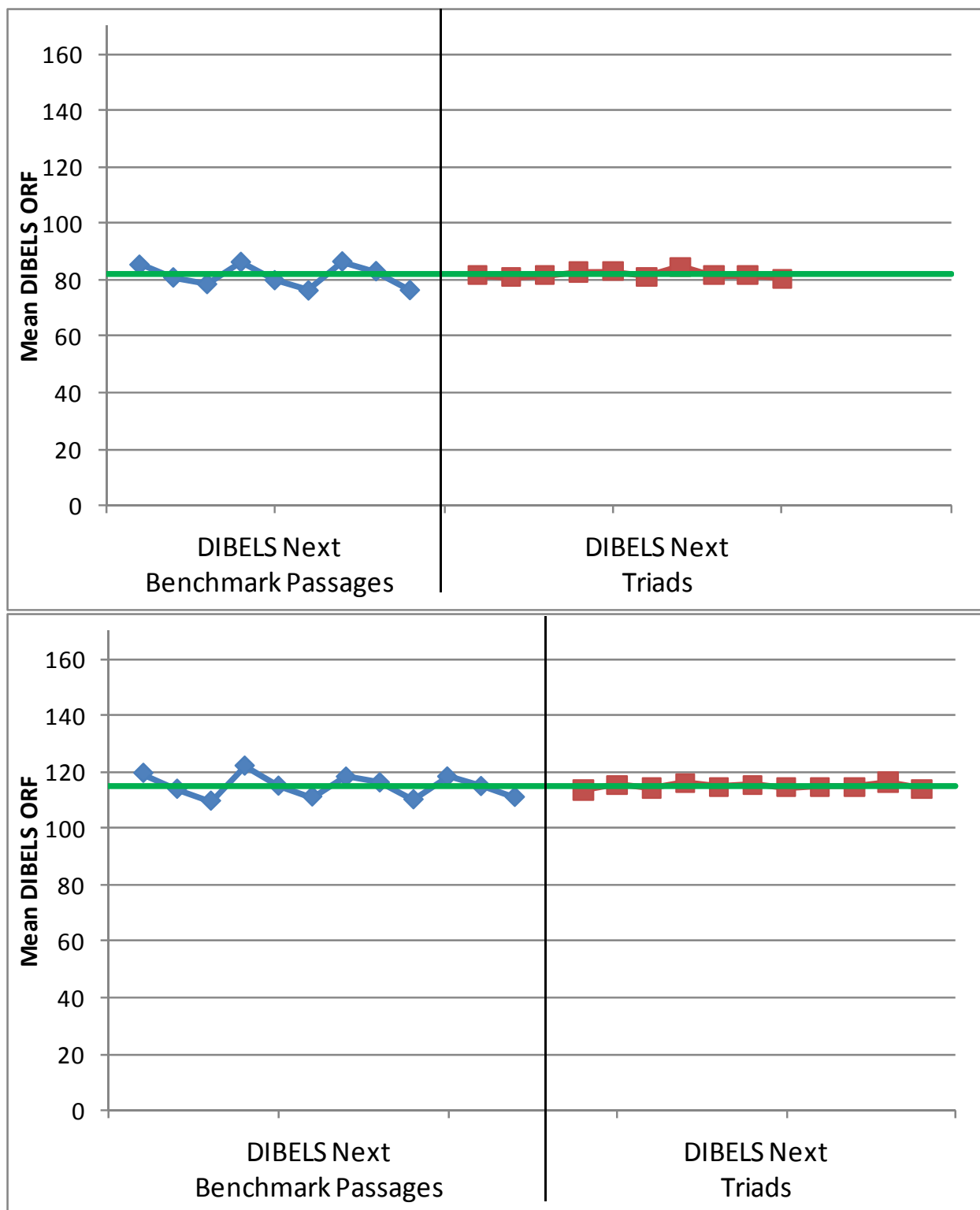


Figure 5. Mean performance on DIBELS Next benchmark passages and DIBELS Next triads for first grade (top panel) and second grade (bottom panel).





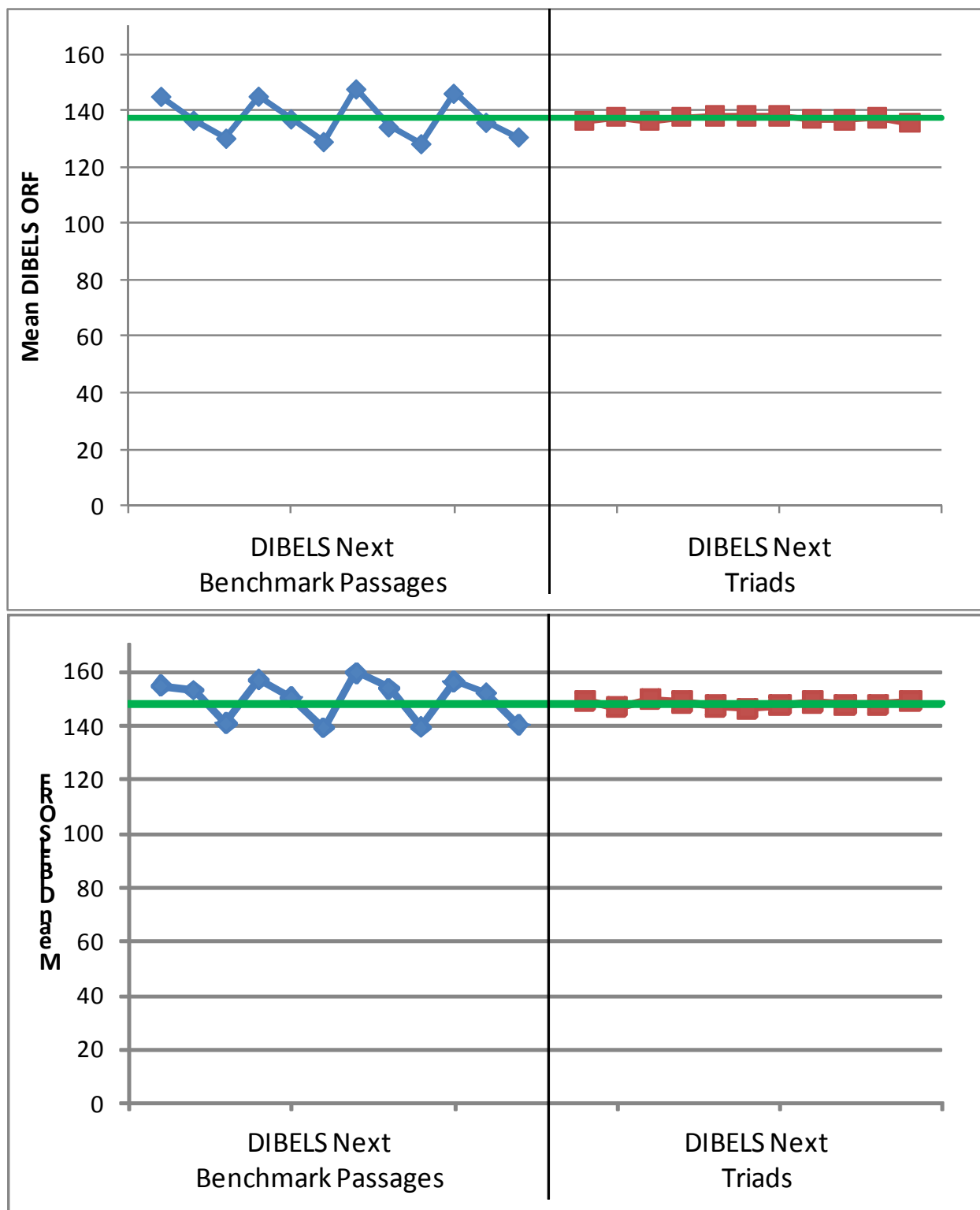


Figure 7. Mean performance on DIBELS Next benchmark passages and DIBELS Next triads for fifth grade (top panel) and sixth grade (bottom panel).

## References

- Ardoin, S. P., Witt, J. C., Suldo, S. M., Connell, J. E., Koenig, J. L., Resetar, J. L., Slider, N. J., & Williams, K. L. (2004). Examining the incremental benefits of administering a maze and three versus one curriculum-based measurement reading probes when conducting universal screening. *School Psychology Review, 33*, 218-233.
- Ardoin, S. P., Suldo, S. M., Witt, J. C., Aldrich, S., & McDonald, E. (2005). Accuracy of readability estimates' predictions of CBM performance. *School Psychology Quarterly, 20*(1), 1-22.
- Betts, J., Pickart, M., & Heistad, D. (2009). An investigation of the psychometric properties of CBM-R passage equivalence: Utility of readability statistics and equating of alternate forms. *Journal of School Psychology, 47*, 1-17.
- Christ, T. J., & Ardoin, S. P. (2009). Curriculum-based measurement of oral reading: Passage equivalence and probe-set development. *Journal of School Psychology, 47*, 55-75.
- Compton, D. L., Appleton, A. C., & Hosp, M. K. (2004). Exploring the relationship between text-leveling systems and reading accuracy and fluency in second grade students who are average and poor decoders. *Learning Disabilities Research and Practice, 19*(3), 176-184.
- Cummings, K. D., Wallin, J., Good, R. H. III, & Kaminski, R. A. (2007). The DMG Passage Difficulty Index [Formula and Computer Software]. Dynamic Measurement Group, Eugene, OR.
- Daane, M.C., Campbell, J.R., Grigg, W.S., Goodman, M.J., & Oranje, A. (2005). Fourth-Grade Students Reading Aloud: NAEP 2002 Special Study of Oral Reading (NCES 2006-469). U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office. Available

<http://nces.ed.gov/nationsreportcard/pdf/studies/2006469.pdf>. Accessed 6/22/2010.

- Deno, S. L. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children, 52*, 219-232.
- Francis, D. J., Santi, K. L., Barr, C., Fletcher, J. M., Varisco, A., & Foorman, B. R. (2008). Form effects on the estimation of students oral reading fluency using DIBELS. *Journal of School Psychology, 46*, 315-342.
- Hintze, J. M., & Christ, T. J. (2004). An examination of variability as a function of passage variance in CBM progress monitoring. *School Psychology Review, 33*, 204-217.
- National Reading Panel (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. Bethesda, MD: National Institute of Child Health and Human Development.
- National Center for Education Statistics (NCES) (2006-2007). Retrieved online 10-19-2009 from website <http://nces.ed.gov/>
- Powell-Smith, K. A., & Bradley-Klug, K. L. (2001). Another look at the "C" in CBM: Does it really matter if curriculum-based measurement reading probes are "curriculum-based?" *Psychology in the Schools, 38* (4), 299-312.
- Shinn, M. R. (1989). *Curriculum-based measurement: Assessing special children*. New York: Guilford.

## Appendix A

### Sample Student Testing Schedule

**Readability Study Student Testing Schedule  
Grade 1, Schedule 1**

**Day 1**

Passage #26  
Passage #22  
Passage #31  
Passage #19

**Day 2**

Passage #10  
NAEP Passage  
Passage #25  
Passage #27  
Passage #28

**Day 3**

Passage #15  
6th Edition Passage  
Passage #11  
Passage #40  
Passage #29

**Day 4**

Passage #37  
Passage #14  
Passage #18  
Passage #3

**Day 5**

Passage #17  
Passage #23  
Passage #16  
Passage #5

**Day 6**

Passage #33  
Passage #34  
Passage #36  
Passage #1

**Day 7**

Passage #6  
Passage #39  
Passage #38  
Passage #35

**Day 8**

Passage #7  
Passage #9  
Passage #21  
Passage #8

**Day 9**

Passage #13  
Passage #12  
Passage #2  
Passage #24

**Day 10**

Passage #30  
Passage #4  
Passage #32  
Passage #20

## Appendix B

### Sample Data Recording Form

**Data Recording Page**  
**First Grade**

Student ID#: \_\_\_\_\_

**Important Note:** Before each testing session, use the student's *Testing Schedule* to identify the passages to be administered in that session, and write that day's date next to those passages on this *Data Recording Form*.

Psg. #	Title	Day#	Date	WRC	Errors	Notes
NAEP	The Box in the Barn					
6th ed	Our Sick Kitty					
1	A Busy Bee					
2	A Busy Saturday					
3	A Cob House					
4	A Compost Bin					
5	A Jump Rope Contest					
6	A Night at Grandma's House					
7	A Pancake Breakfast					
8	A Train Under the City					
9	Clams					
10	Dad's Surprise					
11	Dog at the Park					
12	Go Fish					
13	Go to Sleep					
14	Going to Market					
15	Into the Cave					
16	Kinds of Hats					
17	Let's Make a Smoothie					
18	My Mom Is an Artist					
19	My New Fish					
20	Parts of a Tree					
21	Picking Apples					
22	Puzzles					
23	Rain Makes the World Green					
24	Shape Art					
25	Star Pitcher					
26	Taking Eggs to Market					
27	Tap Dance					
28	The Cocoa Stand					
29	The Kite Contest					
30	The Noise Under the Bed					
31	The Parade					
32	The Puppet Show					
33	The School Bus					
34	The Talking Stone					
35	The Yellow Snake					
36	To the Store					
37	Trucks, Trucks, Trucks					
38	Twins Learn To Surf					
39	Watch Them Change and Grow					
40	Ziping Through the Forest					

**Reminder:** If you administer the wrong passage on a particular day, transpose the one you used with the one you should have administered, so all are eventually administered. If a passage is given more than one time by accident, continue with the passage that should have been administered.

## Appendix C

### Complete Set of Examiner Directions



## *DIBELS Oral Reading Fluency Directions--Readability Study*

1. Position the scoring booklet on the clipboard so that the student cannot see what you record and have your stopwatch ready.

2. Say these specific directions to the student:

*I would like you to read a story to me. Please do your best reading. If you do not know a word, I will read the word for you. Keep reading until I say "stop." Be ready to tell me all about the story when you finish.* (Place the passage in front of the child.) *Put your finger under the first word* (point to the first word of the passage). *Ready, begin.*

3. Start your stopwatch after the student says the first word of the passage.

- Do not read the title to the student. If the student reads the title, do not start the stopwatch until after they read the first word of the **passage**.
- If the student does not read the **first word of the passage** after 3 seconds, tell them the word and mark it as incorrect, then start your stopwatch.

4. Follow along on the examiner scoring page. Words read correctly should be left blank. Put a slash (/) over words read incorrectly or skipped.

5. The maximum wait time for each word is 3 seconds. If the student does not provide the word within 3 seconds, say the word and mark the word as incorrect.

6. At the end of **1 minute**, place a bracket ( ] ) after the last word provided by the student, and say "**Stop**". (Remove the passage). Reset your stopwatch.

*Note: If the student is in the middle of a sentence at the end of 1 minute, you may allow the student to finish the sentence but only score the words said up to the end of 1 minute.*

7. Shortened directions for additional passages given on the **SAME** day:

*Now read this story to me.* (Provide next passage.) *Please do your best reading. Ready, Begin.*

8. Discontinue Rules:

Grades 1 and 2: If a student reads fewer than 15 words correctly on any two of the first three passages administered on the first day, discontinue administering any further passages to the student.

Grades 3 through 6: If a student reads fewer than 20 words correctly on any two of the first three passages administered on the first day, discontinue administering any further passages to the student.

## Appendix D

### 9-Item Assessment Integrity Checklist

**DIBELS® – Oral Reading Fluency and Retell Fluency  
Assessment Integrity Checklist**

Directions: As the observer, please observe setup and directions, time and score the test with the examiner, check examiner’s accuracy in following procedures, and decide if examiner passes or needs more practice.

Fine	Needs Practice	√ box to indicate Fine or Needs Practice
<input type="checkbox"/>	<input type="checkbox"/>	<p>1. Performs standardized directions verbatim. <i>I would like you to read a story to me. Please do your best reading. If you do not know a word, I will read the word for you. Keep reading until I say “stop.” Be ready to tell me all about the story when you finish. (Place the passage in front of the child.) Put your finger under the first word (Point to the first word of the passage.). Ready, begin.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	2. Holds clipboard and stopwatch so student cannot see what he/she records.
<input type="checkbox"/>	<input type="checkbox"/>	3. Starts stopwatch after student says the first word of the passage.
<input type="checkbox"/>	<input type="checkbox"/>	4. For all words, if student hesitates or struggles for 3 seconds, says the correct word and scores the word as incorrect. If necessary, uses the standard DIBELS prompts for written measures. Says, “Keep going.” and/or points to the next word of the passage.
<input type="checkbox"/>	<input type="checkbox"/>	5. Puts a slash through words read incorrectly.
<input type="checkbox"/>	<input type="checkbox"/>	6. Follows discontinue rule if student does not get any words correct in the first row. Follows the second part of the discontinue rule regarding administering the second and third passages and recording scores appropriately.
<input type="checkbox"/>	<input type="checkbox"/>	7. At the end of 1 minute, places a bracket (e.g., ] ) after the last word provided and says “Stop.”
<input type="checkbox"/>	<input type="checkbox"/>	8. Records the number of correct words.
<input type="checkbox"/>	<input type="checkbox"/>	9. Shadow score oral reading fluency with the examiner. Is he/she within 2 points on the final score?

## Appendix E

### Examiner's Anecdotal Comments

Grade	Passage #	Comment	# of times
1	1	Topic impact on fluency: Neutral. Topic is appropriate for age-grade level: Y. Topic is of interest to target age-grade level: Y	1
1	3	Proper names: Said "Emma" instead of "Emmy" each time.	2
1	5	Proper names: "Anna" - Student kept saying "Ann"	1
1	14	Note: Regarding the sentence, "They used the boat to sail to Market." Seems to trip a lot of students up. I think it would sound better if it was ". . . to THE market."	1
1	15	Challenging words: "'Saying'(line 43, "an old saying") - didn't understand meaning."	1
1	27	Challenging words: "Says 'dancing' instead of 'dance'."	1
1	28	Challenging words: "'Cocoa' - She was clearly used to saying 'hot chocolate'."	2
1	35	"Very excited to read about snakes!"	1
1	39	Mistake on line 66, "He'll will grow..."	several
2	2	Sentence structure: "The beginning sentence with the boy's name Will seems to throw a lot of kids off!"	1
2	8	Challenging words: "canoe"	3
2	9	Note: "Student reread 1 whole line."	1
2	10	Note: "Got lost a lot!"	1
2	10	Challenging words: "Protein"	1
2	12	Proper names: "Says 'Jack' instead of 'Jake'"	1
2	16	Proper names: "Gavin"	2
2	17	Note: "Line 1 'Will Lily' - awkward, sounds like 'Willy'"	1
2	22	Proper names: "Vietnam"	1
2	24	Challenging words: "Pioneers"	3
2	24	Note: "Coughing interrupted reading time"	1
2	35	Note: "A boy was skipping through the hall and I had to ask him to walk and be quiet... this may have disrupted reader."	1
2	37	Proper names: "Carlos"	2
2	40	Note: "Lost place."	1
2	6th Ed.	Challenging words: "Student read the word 'read' as 'reed' - tricky context"	2
3	5	Challenging words: "Immunizations"	2
3	6	Challenging words: "read 'Mrs.' as 'Miss'"	2
3	6	Proper names: "Says 'Brenden' as 'Bradon'"	1
3	16	Proper names: "Reads 'Denny' as 'Danny'"	1
3	22	Proper names: "Lan"	1
3	24	Proper names: "Singapore"	1
3	24	Proper names: "Says 'Nellie' instead of 'Nell'"	1
3	26	Note: "Pronounces 'tapa' as 'tape-a'"	1
3	37	Challenging words: "Says 'challenge' instead of 'channel'"	1
4	2	Proper names: "Pronounces 'Carmen' as 'Care-man'"	1
4	3	Note: "Typo 'as long as' 2nd paragraph, line 119"	all
4	5	Proper names: "Daphne"	1
4	7	Proper names: "Pronounced 'Katy' as 'Catty' w/ short a sound"	1
4	9	Challenging words: "Anemone - very difficult for <u>all</u> "	1
4	10	Proper names: "Rhine"	1
4	11	Proper names: "Belize"	1
4	15	Challenging words: "kept saying 'flip-flop book' instead of 'flipbook'"	1
4	16	Challenging words: "Pronounces 'produce' as 'pro-doose' - wrong context"	1
4	26	Challenging words: "'Dairy' instead of 'Diary'"	1

<b>Grade</b>	<b>Passage #</b>	<b>Comment</b>	<b># of times</b>
4	31	Challenging words: "Says 'radio' instead of 'rodeo'"	1
4	32	Challenging words: "Reads 'Mrs.' as 'Miss'"	1
4	33	Challenging words: "emperor"	1
4	34	Note: "Typo - officer, 2nd paragraph, line 152"	all
4	37	Note: "Typo- period, not comma at word 164" Paragraph 3, line 171	all
5	1	Proper names: "Gauss"	1
5	11	Proper names: "'Keb' for 'Kaleb'"	1
5	12	Note: "Typo - grammar error" paragraph 3, line 174	all
5	16	Sentence structure: "While wild" (paragraph 1 line 24)	1
5	16	Note: Typo - "Text error - should be plural ('oceans')" paragraph 1, line 36	all
5	19	Challenging words: "Pronounced 'pulleys' as 'pull-i's'"	1
5	20	Note: Typo - "In the 10th line from the top there is a mistake in the sentence: 'They can [send] use their...'"	all
5	30	Proper names: "Mai"	1
5	30	Note: Typo first paragraph, line 45 - "took out a sheet of paper and [starting] listing some..."	all
5	31	Challenging words: "Pronounces 'Chunnel' as 'Shunnel'"	1
5	33	Note: "Error in text" 2nd paragraph, line 80 "was a dark gray and nothing special"	several
5	39	Proper names: "Kalahari"	1
5	40	Proper names: "Giza"	3
6	2	Challenging words: "cacao"	2
6	4	Proper names: "Shanna"	1
6	5	Proper names: "Pronounces 'Mariko' as 'Mar-i-ko'"	1
6	10	Proper names: "Pronounces 'Diana' as 'Dee-anna'"	1
6	12	Note: "Note the typo at the end of the second paragraph. '...impressive view of city.'"	all
6	12	Proper names: "Dubai"	1
6	16	Proper names: "Murray"	1
6	19	Proper names: "Kilimanjaro"	2
6	31	Proper names: "Abebe Bikila"	4
6	37	Proper names: "Pronounces 'Juan' as 'J-uan' (Phonetically)"	2
6	40	Proper names: "Keenan"	1
6	NAEP	Sentence Structure: "'not at all sure' ... seems confusing to many students"	1

Appendix F

DIBELS Next ORF Passage Difficulty and Readability Results

The DIBELS Next DORF passages were developed to meet grade-specific ranges of difficulty using the DMG Passage Difficulty Index (Cummings, Wallin, Good, & Kaminski, 2007). The DMG Passage Difficulty Index was developed to address our concerns with other readability formulas for developing oral reading fluency passages. Readability formulas commonly use one or two indicators of passage difficulty that represent the (a) decoding difficulty of words in the passage, where longer words are more difficult to decode, (b) semantic difficulty of words in the passage, where passages with many low-frequency words or a high proportion of rare words are more difficult to read, and (c) syntactic difficulty of sentences, where longer sentences generally result in a more difficult passage to read. Selected examples of indicators in each area are provided in Table 42. Common readability formulas and the indicators they incorporate are summarized and compared with the DMG Passage Difficulty Index in Table 43. The readability formulas summarized use indicators in one or two areas of passage difficulty.

Because all three areas (word difficulty, semantic difficulty, and syntactic difficulty) are defensible in estimating passage difficulty, the DMG Passage Difficulty Index utilizes indicators in all three areas. Many readability formulas combine two indicators and provide a single result, which means that the individual indicators are not examined in isolation. Consequently, a passage may be at a third grade level according to the Spache readability index (for example) by offsetting more difficult words with shorter (and thus easier) sentences, or vice versa. The DMG Passage Difficulty Index examines all three aspects of passage difficulty (word difficulty, semantic difficulty, and syntactic difficulty) in isolation, to ensure that each indicator is within a specified range for the grade level, as well as providing an overall composite of the three indicators that also must be in the specified range for the grade level.



Four measures of the decoding difficulty of the passage were obtained: (a) characters per word, (b) percent of words with 3 or more syllables, (c) percent of words with 7 or more characters, and (d) number of syllables per word. The four measures were scaled to be equally weighted and averaged to provide a composite measure of decoding difficulty for the passage. The median words per sentence provided a measure of the syntactic difficulty of the passage, and percent of unique rare words provided a measure of the semantic difficulty of the passage. The composite measure of decoding difficulty, the measure of syntactic difficulty, and the measure of semantic difficulty were equally weighted and averaged to obtain the DMG Passage Difficulty Index.

The target mean DMG Passage Difficulty Index and target mean for each component measure for each grade are reported in Table 44 and the specified ranges of acceptable difficulty for each component and for the overall index are reported in Table 45. The target mean DMG Passage Difficulty Index was specified such that the DIBELS Next passages would be equivalent in difficulty to the DIBELS 6<sup>th</sup> Edition passages for each grade level. The ranges of acceptable difficulty were specified to remove overlap in difficulty between adjacent grades for the overall DMG Passage Difficulty Index and to reduce overlap for each component of the index.

### *First-Grade Passages*

The values of each passage difficulty indicator for benchmark and progress monitoring passages are reported in Tables 46 and 47. The DMG Passage Difficulty Index for each first-grade DIBELS Next benchmark, survey, and progress monitoring passage is also reported in Tables 46 and 47. The mean value for each passage difficulty variable and the DMG Passage Difficulty Index is provided for each of the benchmark and progress monitoring triads in Table 48. The DIBELS Next passages are compared to the DIBELS 6<sup>th</sup> Edition passages with respect

to each passage difficulty variable and the DMG Passage Difficulty Index in Table 49. Other common estimates of readability are provided for each of the DIBELS Next benchmark and progress monitoring passages in Tables 50 and 51. The mean value for other common readability estimates for each of the benchmark and progress monitoring triads is provided in Table 52.

### *Second-Grade Passages*

The values of each passage difficulty indicator for second-grade benchmark and progress monitoring passages are reported in Tables 53 and 54. The DMG Passage Difficulty Index for each second-grade DIBELS Next benchmark, survey, and progress monitoring passage is also reported in Tables 53 and 54. The mean value for each passage difficulty variable and the DMG Passage Difficulty Index is provided for each of the second-grade benchmark and progress monitoring triads in Table 55. The DIBELS Next second-grade passages are compared to the DIBELS 6<sup>th</sup> Edition passages with respect to each passage difficulty variable and the DMG Passage Difficulty Index in Table 56. Other common estimates of readability are provided for each of the DIBELS Next second-grade benchmark and progress monitoring passages in Tables 57 and 58. The mean value for other common readability estimates for each of the second-grade benchmark and progress monitoring triads is provided in Table 59.

### *Third-Grade Passages*

The values of each passage difficulty indicator for third-grade benchmark and progress monitoring passages are reported in Tables 60 and 61. The DMG Passage Difficulty Index for each third-grade DIBELS benchmark, survey, and progress monitoring passage is also reported in Tables 60 and 61. The mean value for each passage difficulty variable and the DMG Passage Difficulty Index is provided for each of the third-grade benchmark and progress monitoring triads in Table 62. The DIBELS Next third-grade passages are compared to the DIBELS 6<sup>th</sup>

Edition passages with respect to each passage difficulty variable and the DMG Passage Difficulty Index in Table 63. Other common estimates of readability are provided for each of the DIBELS Next third-grade benchmark and progress monitoring passages in Tables 64 and 65. The mean value for other common readability estimates for each of the third-grade benchmark and progress monitoring triads is provided in Table 66.

#### *Fourth-Grade Passages*

The values of each passage difficulty indicator for fourth-grade benchmark and progress monitoring passages are reported in Tables 67 and 68. The DMG Passage Difficulty Index for each fourth-grade DIBELS Next benchmark, survey, and progress monitoring passage is also reported in Tables 67 and 68. The mean value for each passage difficulty variable and the DMG Passage Difficulty Index is provided for each of the fourth-grade benchmark and progress monitoring triads in Table 69. The DIBELS Next fourth-grade passages are compared to the DIBELS 6<sup>th</sup> Edition passages with respect to each passage difficulty variable and the DMG Passage Difficulty Index in Table 70. Other common estimates of readability are provided for each of the DIBELS Next fourth-grade benchmark and progress monitoring passages in Tables 71 and 72. The mean value for other common readability estimates for each of the fourth-grade benchmark and progress monitoring triads is provided in Table 73.

#### *Fifth-Grade Passages*

The values of each passage difficulty indicator for fifth-grade benchmark and progress monitoring passages are reported in Tables 74 and 75. The DMG Passage Difficulty Index for each fifth-grade DIBELS Next benchmark, survey, and progress monitoring passage is also reported in Tables 74 and 75. The mean value for each passage difficulty variable and the DMG Passage Difficulty Index is provided for each of the fifth-grade benchmark and progress

monitoring triads in Table 76. The DIBELS Next fifth-grade passages are compared to the DIBELS 6<sup>th</sup> Edition passages with respect to each passage difficulty variable and the DMG Passage Difficulty Index in Table 77. Other common estimates of readability are provided for each of the DIBELS Next fifth-grade benchmark and progress monitoring passages in Tables 78 and 79. The mean value for other common readability estimates for each of the fifth-grade benchmark and progress monitoring triads is provided in Table 80.

### *Sixth-Grade Passages*

The values of each passage difficulty indicator for sixth-grade benchmark and progress monitoring passages are reported in Tables 81 and 82. The DMG Passage Difficulty Index for each sixth-grade DIBELS Next benchmark, survey, and progress monitoring passage is also reported in Tables 81 and 82. The mean value for each passage difficulty variable and the DMG Passage Difficulty Index is provided for each of the sixth-grade benchmark and progress monitoring triads in Table 83. The DIBELS Next sixth-grade passages are compared to the DIBELS 6<sup>th</sup> Edition passages with respect to each passage difficulty variable and the DMG Passage Difficulty Index in Table 84. Other common estimates of readability are provided for each of the DIBELS Next sixth-grade benchmark and progress monitoring passages in Tables 85 and 86. The mean value for other common readability estimates for each of the sixth-grade benchmark and progress monitoring triads is provided in Table 87.

A goal of passage development for DIBELS Next was to keep the overall level of difficulty for DIBELS Next passages equivalent to the overall level of DIBELS 6<sup>th</sup> Edition passages. Across grades 1 through 6, the mean DMG Passage Difficulty Index for all DIBELS Next passages differed from all DIBELS 6<sup>th</sup> Edition passages by only .01 to .06. A second goal in the development of DIBELS Next passages was to reduce the passage-to-passage variability in

passage difficulty. Across grades 1 through 6, the standard deviations of the DMG Passage Difficulty Index were reduced by 31% to 66% for the DIBELS Next passages compared to the DIBELS 6<sup>th</sup> Edition passages. Variability in difficulty is further reduced when DIBELS Next triads of passages are considered. Across grades 1 through 6, the standard deviations of triad mean DIBELS Next Passage Difficulty Index ranged from 0.04 to 0.08. Thus, based on the decoding difficulty, semantic difficulty, and syntactic difficulty of passages, the DIBELS Next Passages are very, very close in level to the DIBELS 6<sup>th</sup> Edition passages for each grade level with substantially reduced variability in difficulty. The equivalent level of difficulty and reduction in variability is illustrated in Figure 8.

Table 42

*Indicators of Passage Difficulty Frequently Incorporated in Readability Formulas*

Indicator Number	Passage Difficulty Indicator
Decoding Difficulty – Word Length	
1	Characters per word
2	Proportion of words with 7 or more characters
3	Syllables per word
4	Proportion of words with 2 or more syllables
5	Proportion of words with 3 or more syllables
Semantic Difficulty or Word Exposure – Rare Words or Word Frequency	
6	Word frequency
7	Proportion of rare words (words not found on a word list)
Syntactic Difficulty or Sentence Complexity – Sentence Length	
8	Words per sentence
9	Number of syllables per sentence

Table 43

*Indicators of Passage Difficulty Incorporated in Selected Readability Formulas and DMG*

*Passage Difficulty Index*

	Decoding difficulty indicator					Semantic difficulty indicator		Syntactic difficulty indicator	
	1	2	3	4	5	6	7	8	9
SMOG					X				
Forcast				X					
Fry								X	X
Lexile®						X		X	
Dale-Chall							X	X	
Spache							X	X	
Flesch			X					X	
FOG					X			X	
Powers			X					X	
DMG passage difficulty index	X	X	X		X		X	X	

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 44

*Target Passage Length and Means for DMG Passage Difficulty Index and Component Measures by Grade*

Grade level	Passage length in words	Target component index values			
		DMG Passage Difficulty Index	Word length composite measure	Proportion of rare words measure	Median words per sentence measure
1	200 to 250	-1.25	-1.25	-1.25	-1.25
2	225 to 275	-0.79	-0.79	-0.79	-0.79
3	250 to 300	-0.20	-0.20	-0.20	-0.20
4	300 to 350	0.32	0.32	0.32	0.32
5	300 to 350	0.69	0.69	0.69	0.69
6	300 to 350	1.10	1.10	1.10	1.10

*Note.* Target values are based on DIBELS 6<sup>th</sup> Edition Benchmark and Progress Monitoring passages for each grade level.



Table 45

Design Specifications for DMG Passage Difficulty Index and Component Measures of Passage Difficulty

Grade level	DMG Passage Difficulty Index		Word length composite measure		Proportion of rare words measure		Median words per sentence measure	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1	-1.43	-1.07	-1.75	-0.75	-1.75	-0.75	-1.65	-0.85
2	-0.97	-0.54	-1.29	-0.29	-1.29	-0.29	-1.19	-0.39
3	-0.44	0.01	-0.70	0.30	-0.70	0.30	-0.60	0.20
4	0.11	0.45	-0.18	0.82	-0.18	0.82	-0.08	0.72
5	0.55	0.84	0.19	1.19	0.19	1.19	0.29	1.09
6	0.94	1.25	0.60	1.60	0.60	1.60	0.70	1.50

Table 46

*First-Grade Benchmark Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
A Jump Rope Contest	MOY 1	221	8.0	3.87	0.90	7.24	1.15	6.33	-1.40
Go Fish	MOY 2	247	8.5	3.79	0.40	7.69	1.19	8.10	-1.22
A Busy Bee	MOY 3	237	9.5	3.81	0.84	2.53	1.22	6.75	-1.25
The Cocoa Stand	EOY 1	248	9.0	3.72	2.02	6.45	1.21	7.26	-1.20
Parts of a Tree	EOY 2	207	8.0	4.06	0.97	7.25	1.18	6.76	-1.30
Going to Market	EOY 3	250	9.0	4.02	3.20	6.80	1.22	6.4	-1.14
Let's Make a Smoothie	Sur 1	223	8.0	3.81	2.24	8.97	1.23	9.42	-1.09
Taking Eggs to Market	Sur 2	238	9.0	4.13	3.36	6.30	1.24	5.88	-1.14
Twins Learn To Surf	Sur 3	219	9.0	3.96	0.91	8.68	1.18	6.39	-1.22
Mean		232.22	8.67	3.91	1.65	6.88	1.20	7.03	-1.22
Standard Deviation		15.25	0.56	0.14	1.10	1.87	0.03	1.10	0.09

*Note.* MOY refers to middle of year and EOY refers to end of year.

Table 47

*First-Grade Progress Monitoring Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
A Busy Saturday	PM 1	218	8.0	3.94	2.29	9.17	1.19	8.26	-1.16
Tap Dance	PM 2	228	9.0	4.06	0.88	7.02	1.25	7.46	-1.09
The Yellow Snake	PM 3	213	9.0	3.99	0.47	8.92	1.17	6.10	-1.25
A Pancake Breakfast	PM 4	245	8.0	3.98	1.22	8.57	1.20	9.80	-1.08
Picking Apples	PM 5	232	8.0	3.85	1.72	6.47	1.25	5.60	-1.37
The Puppet Show	PM 6	207	8.0	3.95	1.93	10.14	1.23	7.25	-1.18
Puzzles	PM 7	205	8.0	4.02	0.98	8.29	1.30	8.78	-1.07
A Night at Grandma's House	PM 8	224	9.0	3.88	2.68	9.38	1.20	6.25	-1.17
Go to Sleep	PM 9	200	9.0	3.86	1.00	7.00	1.19	7.50	-1.19
Shape Art	PM 10	250	8.0	3.93	2.40	8.40	1.18	7.60	-1.22
Watch Them Change and Grow	PM 11	244	8.0	3.95	3.28	8.20	1.21	9.02	-1.08
Clams	PM 12	246	9.0	3.71	1.22	2.03	1.15	6.91	-1.37
The Talking Stone	PM 13	250	8.0	3.94	2.00	10.40	1.22	5.20	-1.32
The Kite Contest	PM 14	249	8.0	3.64	1.61	4.42	1.16	9.64	-1.26
Dad's Surprise	PM 15	244	8.5	3.63	0.82	5.33	1.15	6.97	-1.39
Kinds of Hats	PM 16	229	8.0	3.89	1.31	6.99	1.17	9.61	-1.16
My Mom Is an Artist	PM 17	246	8.0	3.68	1.63	5.28	1.14	8.54	-1.32
A Train Under the City	PM 18	208	8.0	3.9	0.96	5.29	1.19	5.77	-1.43
The School Bus	PM 19	213	9.0	3.94	1.88	8.45	1.23	7.51	-1.09
Star Pitcher	PM 20	242	9.0	3.89	1.65	11.16	1.24	5.37	-1.19
Mean		229.65	8.38	3.88	1.60	7.55	1.20	7.46	-1.22
Standard Deviation		17.38	0.48	0.12	0.70	2.26	0.04	1.46	0.11

Table 48

*First-Grade Passage Triads Mean Difficulty Variables and Mean DMG Passage Difficulty Index for DIBELS Next*

Triad	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
MOY Benchmark	235.00	8.67	3.82	0.71	5.82	1.19	7.06	-1.29
EOY Benchmark	235.00	8.67	3.93	2.06	6.83	1.20	6.81	-1.21
Survey	226.67	8.67	3.97	2.17	7.98	1.22	7.23	-1.15
Dyad (PM 1 & 2)	223.00	8.50	4.00	1.59	8.10	1.22	7.86	-1.13
Triad 1 (PM 3 - 5)	230.00	8.33	3.94	1.14	7.99	1.21	7.17	-1.23
Triad 2 (PM 6 - 8)	212.00	8.33	3.95	1.86	9.27	1.24	7.43	-1.14
Triad 3 (PM 9 - 11)	231.33	8.33	3.91	2.23	7.87	1.19	8.04	-1.16
Triad 4 (PM 12 - 14)	248.33	8.33	3.76	1.61	5.62	1.18	7.25	-1.32
Triad 5 (PM 15 - 17)	239.67	8.17	3.73	1.25	5.87	1.15	8.37	-1.29
Triad 6 (PM 18 - 20)	221.00	8.67	3.91	1.50	8.30	1.22	6.22	-1.24
Mean	230.20	8.47	3.89	1.61	7.36	1.20	7.34	-1.22
Standard Deviation	10.25	0.19	0.09	0.49	1.25	0.03	0.62	0.07

*Note.* MOY refers to middle of year and EOY refers to end of year.

Table 49

*First-Grade Passage Difficulty Variables and Indices: A Comparison of DIBELS Next and DIBELS 6<sup>th</sup> Edition*

Variable	DIBELS Next					DIBELS 6 <sup>th</sup> Edition				
	Mean	SD	Min	Median	Max	Mean	SD	Min	Median	Max
Number of words	230.45	16.52	200.00	232.00	250.00	209.77	13.74	183.00	209.00	241.00
Median words per sentence	8.47	0.52	8.00	8.00	9.50	7.65	1.09	6.00	8.00	9.00
Characters per word	3.89	0.13	3.63	3.90	4.13	3.77	0.14	3.52	3.79	4.08
Percent of words with 3 or more syllables	1.61	0.82	0.40	1.61	3.36	2.01	1.19	0.00	1.75	5.12
Percent of words with 7 or more characters	7.34	2.13	2.03	7.25	11.16	8.02	1.96	4.93	7.74	11.63
Number of syllables per word	1.20	0.04	1.14	1.20	1.30	1.19	0.03	1.15	1.18	1.26
Percent of unique rare words	7.33	1.35	5.20	7.25	9.80	8.46	2.51	4.04	8.31	14.21
DMG passage difficulty index	-1.22	0.11	-1.43	-1.20	-1.07	-1.25	0.17	-1.71	-1.21	-0.95

*Note.* Comparison is based on  $n = 29$  DIBELS Next Benchmark, Survey, and Progress Monitoring passages and on  $n = 26$  DIBELS 6<sup>th</sup> Edition Benchmark and Progress Monitoring passages.

Table 50

*Other Readability Indices for DIBELS Next First-Grade Benchmark and Survey Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
A Jump Rope Contest	MOY 1	400	5.2	0.9	3.5	3.6	4.5	6.9	0.5	1.9	42
Go Fish	MOY 2	540	5.9	1.8	4.0	3.8	5.3	7.4	1.2	2.3	44
A Busy Bee	MOY 3	610	5.0	2.3	3.8	4.0	4.5	8.1	3.1	2.2	43
The Cocoa Stand	EOY 1	660	5.1	3.0	5.3	4.2	5.6	7.7	2.8	2.4	44
Parts of a Tree	EOY 2	530	4.3	1.7	4.2	3.8	5.0	7.3	2.4	2.2	47
Going to Market	EOY 3	570	5.1	2.5	5.0	4.1	5.8	7.8	3.1	2.2	47
Let's Make a Smoothie	Sur 1	510	5.5	2.3	4.3	4.1	5.6	8.0	2.7	2.4	42
Taking Eggs to Market	Sur 2	510	4.7	2.3	4.8	4.0	5.8	7.7	3.0	2.1	48
Twins Learn To Surf	Sur 3	620	5.2	2.2	4.9	3.9	5.4	7.1	2.8	2.4	47
Mean		550.00	5.11	2.11	4.42	3.94	5.28	7.56	2.40	2.23	44.89
Standard Deviation		76.81	0.45	0.59	0.61	0.19	0.51	0.41	0.92	0.17	2.37

*Note.* MOY refers to middle of year and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 51  
*Other Readability Indices for DIBELS Next First-Grade Progress Monitoring Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
A Busy Saturday	PM 1	480	4.6	1.8	4.8	3.9	5.9	7.3	2.3	2.3	44
Tap Dance	PM 2	610	4.4	2.3	4.5	4.0	5.5	7.6	2.9	2.2	47
The Yellow Snake	PM 3	480	5.1	1.8	4.3	3.8	5.0	7.3	2.5	2.1	45
A Pancake Breakfast	PM 4	500	4.2	1.9	3.7	3.9	4.8	7.9	2.4	2.3	45
Picking Apples	PM 5	510	5.3	2.2	4.1	4.0	5.1	8.1	2.7	2.1	43
The Puppet Show	PM 6	560	4.4	2.8	4.7	4.2	5.4	8.2	3.2	2.4	46
Puzzles	PM 7	570	4.8	2.3	3.9	4.0	4.7	7.9	2.9	2.3	46
A Night at Grandma's House	PM 8	510	4.8	2.1	4.6	3.9	5.5	7.4	2.8	2.3	45
Go to Sleep	PM 9	530	4.3	1.9	4.8	3.9	5.9	7.3	2.7	2.3	44
Shape Art	PM 10	450	5.2	1.3	3.9	3.7	4.8	7.0	1.9	2.3	44
Watch Them Change and Grow	PM 11	490	4.9	1.9	5.1	3.9	6.0	7.1	2.6	2.3	46
Clams	PM 12	600	5.3	1.6	4.3	3.7	4.9	7.0	2.4	2.3	43
The Talking Stone	PM 13	460	4.7	2.0	4.7	3.9	5.9	7.6	2.4	2.0	44
The Kite Contest	PM 14	520	5.1	1.2	4.2	3.6	4.8	6.6	2.1	2.4	41
Dad's Surprise	PM 15	470	4.7	1.1	3.9	3.6	4.5	6.6	0.9	2.3	41
Kinds of Hats	PM 16	550	4.6	1.8	4.7	3.9	5.8	7.2	2.7	2.4	43
My Mom Is an Artist	PM 17	550	4.4	1.6	4.4	3.7	5.6	6.8	2.3	2.2	47
A Train Under the City	PM 18	550	4.9	2.3	4.3	4.0	4.7	7.7	2.8	2.2	46
The School Bus	PM 19	590	4.2	3.0	5.2	4.2	5.9	8.1	3.8	2.3	47
Star Pitcher	PM 20	560	4.2	2.9	4.5	4.2	5.7	8.3	3.4	2.2	45
Mean		527	4.71	1.99	4.43	3.90	5.32	7.45	2.59	2.26	44.60
Standard Deviation		47.36	0.37	0.52	0.41	0.18	0.51	0.52	0.59	0.10	1.79

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 52  
*Other Readability Indices for DIBELS Next First-Grade Triads*

Assignment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
MOY Benchmark	516.67	5.37	1.67	3.77	3.80	4.77	7.47	1.60	2.13	43.00
EOY Benchmark	586.67	4.83	2.40	4.83	4.03	5.47	7.60	2.77	2.27	46.00
Survey	546.67	5.13	2.27	4.67	4.00	5.60	7.60	2.83	2.30	45.67
PM Dyad	545.00	4.50	2.05	4.65	3.95	5.70	7.45	2.60	2.25	45.50
PM Triad 1	496.67	4.87	1.97	4.03	3.90	4.97	7.77	2.53	2.17	44.33
PM Triad 2	546.67	4.67	2.40	4.40	4.03	5.20	7.83	2.97	2.33	45.67
PM Triad 3	490.00	4.80	1.70	4.60	3.83	5.57	7.13	2.40	2.30	44.67
PM Triad 4	526.67	5.03	1.60	4.40	3.73	5.20	7.07	2.30	2.23	42.67
PM Triad 5	523.33	4.57	1.50	4.33	3.73	5.30	6.87	1.97	2.30	43.67
PM Triad 6	566.67	4.43	2.73	4.67	4.13	5.43	8.03	3.33	2.23	46.00
Mean	534.50	4.82	2.03	4.44	3.91	5.32	7.48	2.53	2.25	44.72
Standard Deviation	29.96	0.30	0.41	0.33	0.14	0.29	0.37	0.50	0.06	1.25

*Note.* MOY refers to middle of year and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.



Table 53

*Second-Grade Benchmark Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
Picture Day	BOY 1	227	10.0	4.11	3.08	13.66	1.26	11.45	-0.54
Going Camping	BOY 2	246	10.0	4.09	4.47	10.98	1.27	9.76	-0.65
The South Pole	BOY 3	260	9.5	4.04	1.92	8.85	1.22	9.23	-0.90
Check Out a Book	MOY 1	255	9.0	3.91	4.31	10.59	1.26	10.59	-0.77
Sue's Goals	MOY 2	265	10.0	3.94	2.64	9.43	1.22	9.43	-0.83
The Best Big Brother	MOY 3	242	9.0	4.10	4.13	11.57	1.33	12.40	-0.54
Gavin's Jump	EOY 1	256	9.0	4.05	3.13	12.89	1.29	7.42	-0.91
The New Year	EOY 2	228	10.0	4.08	2.63	8.77	1.30	8.77	-0.78
Roller Skating Fun	EOY 3	270	8.5	3.99	2.22	12.96	1.22	10.00	-0.89
Helping Readers	Survey 1	247	9.0	4.13	3.64	12.96	1.27	7.69	-0.88
Beach Volleyball	Survey 2	246	9.5	4.07	5.28	9.35	1.26	7.32	-0.89
Juggling	Survey 3	272	9.0	4.11	2.57	11.40	1.27	7.35	-0.96
	Mean	251.17	9.38	4.05	3.34	11.12	1.26	9.28	-0.80
	Standard Deviation	14.68	0.53	0.07	1.03	1.75	0.03	1.67	0.14

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 54

*Second-Grade Progress Monitoring Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
Building Happy Places	PM 1	271	10.0	4.21	2.58	15.13	1.26	7.75	-0.75
Luke Makes His Move	PM 2	251	9.0	4.15	3.98	11.16	1.24	9.96	-0.77
My Pen Pal	PM 3	245	10.0	3.75	2.45	8.98	1.24	8.16	-0.95
Life on the River	PM 4	252	10.0	3.85	3.97	11.11	1.27	9.13	-0.76
A Day for Trees	PM 5	233	9.0	4.15	3.00	10.30	1.25	8.58	-0.89
Making Orange Juice	PM 6	275	9.0	3.99	6.91	6.91	1.33	9.09	-0.78
Kim Gets Ready	PM 7	230	9.0	3.98	4.35	13.91	1.27	12.17	-0.59
Dear Diary	PM 8	266	10.0	4.01	4.51	13.53	1.28	10.53	-0.57
Circus Tickets	PM 9	269	10.5	4.11	3.35	12.64	1.25	8.92	-0.67
Bats Are Not Birds	PM 10	267	9.0	4.05	3.37	11.61	1.21	8.99	-0.89
Cooking School	PM 11	233	10.0	4.14	3.00	12.02	1.27	9.01	-0.71
Writing Your Own Book	PM 12	238	10.0	4.01	2.10	10.50	1.24	9.66	-0.77
In Space for an Hour	PM 13	234	9.0	3.78	4.27	9.83	1.26	11.11	-0.78
Wind Power	PM 14	258	10.5	3.96	2.71	8.14	1.22	10.47	-0.72
Going to School	PM 15	236	9.5	4.22	2.54	11.86	1.25	7.63	-0.87
A Happy House Plant	PM 16	267	10.0	4.02	3.00	6.37	1.21	7.87	-0.96
A Gift of Chores	PM 17	228	9.0	4.13	3.51	12.72	1.28	11.40	-0.63
Canoe Fun	PM 18	260	10.0	3.74	1.15	10.77	1.24	8.08	-0.96
African Drums	PM 19	256	10.0	4.11	5.08	8.98	1.29	10.94	-0.57
Flower Parts	PM 20	274	10.0	4.25	2.19	10.58	1.26	8.39	-0.78
Mean		252.15	9.68	4.03	3.40	10.85	1.26	9.39	-0.77
Standard Deviation		16.27	0.54	0.15	1.26	2.25	0.03	1.33	0.12

Table 55

*Second-Grade Passage Triads Mean Difficulty Variables and Mean DMG Passage Difficulty Index for DIBELS Next*

Triad	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
BOY benchmark	244.33	9.83	4.08	3.16	11.16	1.25	10.15	-0.70
MOY benchmark	254.00	9.33	3.98	3.69	10.53	1.27	10.81	-0.71
EOY benchmark	251.33	9.17	4.04	2.66	11.54	1.27	8.73	-0.86
Survey	255.00	9.17	4.10	3.83	11.24	1.27	7.45	-0.91
Dyad (PM 1 & 2)	261.00	9.50	4.18	3.28	13.15	1.25	8.86	-0.76
Triad 1 (PM 3 - 5)	243.33	9.67	3.92	3.14	10.13	1.25	8.62	-0.87
Triad 2 (PM 6 - 8)	257.00	9.33	3.99	5.26	11.45	1.29	10.60	-0.65
Triad 3 (PM 9 - 11)	256.33	9.83	4.10	3.24	12.09	1.24	8.97	-0.76
Triad 4 (PM 12 - 14)	243.33	9.83	3.92	3.03	9.49	1.24	10.41	-0.76
Triad 5 (PM 15 - 17)	243.67	9.50	4.12	3.02	10.32	1.25	8.97	-0.82
Triad 6 (PM 18 - 20)	263.33	10.00	4.03	2.81	10.11	1.26	9.14	-0.77
Mean	252.06	9.56	4.04	3.37	11.02	1.26	9.34	-0.78
Standard Deviation	7.38	0.29	0.08	0.71	1.04	0.02	1.03	0.08

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 56  
*Second-Grade Passage Difficulty Variables and Indices: A Comparison of DIBELS Next and DIBELS 6<sup>th</sup> Edition*

Variable	DIBELS Next					DIBELS 6 <sup>th</sup> Edition				
	Mean	SD	Min	Median	Max	Mean	SD	Min	Median	Max
Number of words	251.78	15.46	227.00	253.50	275.00	237.34	14.99	215.00	236.00	272.00
Median words per sentence	9.56	0.55	8.50	9.75	10.50	10.53	1.54	8.00	10.50	14.00
Characters per word	4.04	0.13	3.74	4.06	4.25	3.87	0.16	3.48	3.86	4.24
Percent of words with 3 or more syllables	3.38	1.16	1.15	3.11	6.91	3.15	2.29	0.40	2.59	12.27
Percent of words with 7 or more characters	10.95	2.05	6.37	11.05	15.13	9.94	2.35	3.68	9.73	15.00
Number of syllables per word	1.26	0.03	1.21	1.26	1.33	1.24	0.06	1.13	1.23	1.45
Percent of unique rare words	9.35	1.44	7.32	9.11	12.40	8.90	2.08	3.10	9.13	11.93
DMG passage difficulty index	-0.78	0.13	-0.96	-0.78	-0.54	-0.79	0.19	-1.16	-0.76	-0.18

*Note.* Comparison is based on  $n = 32$  DIBELS Next Benchmark, Survey, and Progress Monitoring passages and on  $n = 29$  DIBELS 6<sup>th</sup> Edition Benchmark and Progress Monitoring passages.

Table 57

*Other Readability Indices for DIBELS Next Second-Grade Benchmark and Survey Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
Picture Day	BOY 1	590	5.1	3.2	5.4	4.3	6.7	8.1	3.0	2.7	49
Going Camping	BOY 2	590	4.6	3.3	6.1	4.4	7.0	8.4	3.1	2.6	48
The South Pole	BOY 3	640	4.8	2.8	4.9	4.1	5.2	7.8	3.8	2.6	49
Check Out a Book	MOY 1	600	4.9	3.5	6.4	4.4	7.4	8.1	4.7	2.8	46
Sue's Goals	MOY 2	560	5.3	3.1	5.0	4.3	6.2	8.2	3.5	2.6	46
The Best Big Brother	MOY 3	550	6.9	3.6	5.4	4.5	6.7	8.7	4.8	2.6	47
Gavin's Jump	EOY 1	570	5.3	3.6	5.5	4.4	6.6	8.5	4.6	2.4	48
The New Year	EOY 2	650	4.7	3.3	5.7	4.3	6.4	8.1	3.2	2.6	49
Roller Skating Fun	EOY 3	530	5.2	2.5	4.8	4.1	6.2	7.9	2.0	2.4	45
Helping Readers	Sur 1	540	4.8	3.1	4.8	4.3	6.1	8.3	3.5	2.3	49
Beach Volleyball	Sur 2	520	4.9	2.6	5.9	4.1	6.9	7.7	3.8	2.4	47
Juggling	Sur 3	630	5.7	2.8	5.1	4.2	6.1	8.0	3.8	2.3	48
Mean		580.83	5.18	3.12	5.42	4.28	6.46	8.15	3.65	2.53	47.58
Standard Deviation		43.37	0.62	0.37	0.53	0.13	0.56	0.29	0.8	0.16	1.38

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 58  
*Other Readability Indices for DIBELS Next Second-Grade Progress Monitoring Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
Building Happy Places	PM 1	710	5.2	3.8	5.9	4.4	6.2	8.3	4.7	2.6	52
Luke Makes His Move	PM 2	570	5.0	3.1	5.9	4.3	6.9	7.9	3.3	2.5	49
My Pen Pal	PM 3	580	4.6	3.0	5.9	4.2	6.7	7.9	3.2	2.5	44
Life on the River	PM 4	570	4.6	3.8	5.9	4.6	7.1	8.8	4.2	2.5	45
A Day for Trees	PM 5	550	4.5	2.7	4.9	4.2	5.9	8.2	3.6	2.4	48
Making Orange Juice	PM 6	620	4.2	2.4	4.1	4.0	4.0	7.9	2.2	2.4	47
Kim Gets Ready	PM 7	500	4.8	2.7	5.1	4.2	6.2	8.3	3.9	2.7	45
Dear Diary	PM 8	560	4.4	3.3	6.0	4.3	6.9	8.2	4.9	2.4	48
Circus Tickets	PM 9	570	4.7	3.3	5.4	4.3	6.4	8.4	4.9	2.5	49
Bats Are Not Birds	PM 10	570	4.6	2.7	5.6	4.2	6.9	7.8	3.6	2.5	47
Cooking School	PM 11	620	5.7	3.0	5.4	4.3	6.5	8.2	3.4	2.6	49
Writing Your Own Book	PM 12	580	4.4	3.2	5.7	4.3	6.4	8.2	3.2	2.6	48
In Space for an Hour	PM 13	480	4.5	2.6	5.0	4.2	6.0	8.1	3.2	2.6	44
Wind Power	PM 14	680	4.6	3.3	5.2	4.3	6.0	8.0	3.2	2.8	47
Going to School	PM 15	540	4.6	3.5	5.3	4.5	6.4	8.8	4.1	2.4	50
A Happy House Plant	PM 16	680	4.6	3.3	5.8	4.3	6.5	7.9	4.8	2.5	49
A Gift of Chores	PM 17	590	5.2	3.4	5.5	4.4	6.4	8.6	3.2	2.6	49
Canoe Fun	PM 18	590	4.6	2.6	4.8	4.1	5.2	7.7	3.7	2.4	45
African Drums	PM 19	730	5.1	3.8	6.5	4.5	7.1	8.4	4.4	2.8	50
Flower Parts	PM 20	680	5.6	4.2	5.1	4.7	5.8	9.7	5.9	2.5	51
Mean		598.50	4.78	3.19	5.45	4.32	6.28	8.27	3.88	2.54	47.8
Standard Deviation		67.14	0.40	0.48	0.54	0.17	0.72	0.46	0.86	0.12	2.28

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 59  
*Other Readability Indices for DIBELS Next Second-Grade Triads*

Assignment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
BOY Benchmark	606.67	4.83	3.10	5.47	4.27	6.30	8.10	3.30	2.63	48.67
MOY Benchmark	570.00	5.70	3.40	5.60	4.40	6.77	8.33	4.33	2.67	46.33
EOY Benchmark	583.33	5.07	3.13	5.33	4.27	6.40	8.17	3.27	2.47	47.33
Survey	563.33	5.13	2.83	5.27	4.20	6.37	8.00	3.70	2.33	48.00
PM Dyad	640.00	5.10	3.45	5.90	4.35	6.55	8.10	4.00	2.55	50.50
PM Triad 1	566.67	4.57	3.17	5.57	4.33	6.57	8.30	3.67	2.47	45.67
PM Triad 2	560.00	4.47	2.80	5.07	4.17	5.70	8.13	3.67	2.50	46.67
PM Triad 3	586.67	5.00	3.00	5.47	4.27	6.60	8.13	3.97	2.53	48.33
PM Triad 4	580.00	4.50	3.03	5.30	4.27	6.13	8.10	3.20	2.67	46.33
PM Triad 5	603.33	4.80	3.40	5.53	4.40	6.43	8.43	4.03	2.50	49.33
PM Triad 6	666.67	5.10	3.53	5.47	4.43	6.03	8.60	4.67	2.57	48.67
Mean	593.33	4.93	3.17	5.45	4.31	6.35	8.22	3.80	2.54	47.80
Standard Deviation	33.8	0.36	0.25	0.21	0.08	0.3	0.18	0.46	0.1	1.48

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 60

*Third-Grade Benchmark Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
Finding a Nest	BOY 1	250	11.0	4.24	3.20	13.20	1.29	11.20	-0.40
A Famous Food: The History of Pizza	BOY 2	254	12.0	4.35	3.54	10.63	1.37	12.99	-0.11
Living in Singapore	BOY 3	262	12.0	4.10	4.20	11.83	1.26	12.21	-0.27
Horseback Treasure Hunt	MOY 1	276	11.0	4.26	3.62	11.96	1.26	14.86	-0.19
Raising a Calf	MOY 2	292	11.5	4.06	3.77	10.27	1.26	11.30	-0.43
Skimboarding	MOY 3	294	12.5	4.33	5.78	12.93	1.34	11.22	-0.11
A Surprising Discovery	EOY 1	299	12.0	4.00	5.35	15.38	1.34	13.71	-0.05
A Day for a Shadow Dance	EOY 2	297	11.0	4.34	4.38	15.49	1.37	10.77	-0.27
A Triple Challenge	EOY 3	292	11.5	4.15	5.82	10.96	1.33	13.01	-0.18
Northern Lights	Survey 1	300	12.0	4.35	5.33	14.67	1.35	11.67	-0.10
Caring for Sheep	Survey 2	253	11.0	4.29	3.56	12.25	1.33	10.67	-0.40
Independence Day in India	Survey 3	251	11.0	4.25	6.77	14.74	1.36	11.16	-0.22
Mean		276.67	11.54	4.23	4.61	12.86	1.32	12.06	-0.23
Standard Deviation		21.08	0.54	0.12	1.16	1.85	0.04	1.31	0.13

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.



Table 61

*Third-Grade Progress Monitoring Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
A New Ball Game	PM 1	273	12.0	4.27	5.13	13.92	1.32	10.62	-0.23
Swimming the Channel	PM 2	259	12.0	4.21	1.93	14.67	1.32	12.36	-0.21
Rooftop Gardens	PM 3	285	12.0	4.21	3.86	15.44	1.32	12.63	-0.12
Learning to Skateboard	PM 4	293	12.0	4.22	4.10	15.02	1.28	11.95	-0.20
Glassmaking	PM 5	297	11.0	4.42	4.04	15.15	1.35	14.81	-0.02
Space Camp	PM 6	290	12.5	4.31	4.83	16.21	1.36	12.07	-0.01
A Woodland Path	PM 7	287	12.5	4.24	3.83	14.98	1.30	11.50	-0.16
How Ryan Made a Difference	PM 8	297	12.0	4.38	5.39	14.81	1.32	10.44	-0.20
Rachel's Box	PM 9	292	12.0	4.14	4.79	12.33	1.31	10.96	-0.28
The Pinecone Feast	PM 10	298	12.0	4.47	5.37	14.09	1.33	11.41	-0.11
Save the Turtles!	PM 11	289	11.0	4.34	5.19	15.92	1.36	13.84	-0.05
Planting a Butterfly Garden	PM 12	284	11.0	4.30	7.04	14.44	1.33	11.27	-0.23
Lan's First Day	PM 13	289	11.0	4.31	5.88	16.61	1.30	12.80	-0.14
Kayla's Special Owl	PM 14	299	11.0	4.24	4.35	11.71	1.32	12.71	-0.27
Amazing Dolphins	PM 15	284	12.5	4.17	1.76	15.49	1.27	10.92	-0.28
Strawberry Festival Day	PM 16	255	10.5	4.26	5.49	15.69	1.32	10.59	-0.36
A Poetry Contest	PM 17	296	11.0	4.31	5.41	16.89	1.33	14.19	-0.04
Keeping the Planet Clean	PM 18	263	12.0	4.09	6.08	11.79	1.29	12.55	-0.18
How Worms Help Gardens	PM 19	295	12.0	4.27	4.41	12.20	1.30	15.25	0.01
A Chess Tournament	PM 20	277	10.5	4.42	4.33	15.88	1.30	14.08	-0.14
Mean		285.10	11.63	4.28	4.66	14.66	1.32	12.35	-0.16
Standard Deviation		13.21	0.67	0.10	1.26	1.56	0.02	1.46	0.10

Table 62

*Third-Grade Passage Triads Mean Difficulty Variables and Mean DMG Passage Difficulty Index for DIBELS Next*

Triad	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
BOY benchmark	255.33	11.67	4.23	3.65	11.89	1.31	12.13	-0.26
MOY benchmark	287.33	11.67	4.22	4.39	11.72	1.29	12.46	-0.24
EOY benchmark	296.00	11.50	4.16	5.18	13.94	1.35	12.50	-0.17
Survey	268.00	11.33	4.30	5.22	13.89	1.35	11.17	-0.24
Dyad (PM 1 & 2)	266.00	12.00	4.24	3.53	14.30	1.32	11.49	-0.22
Triad 1 (PM 3 - 5)	291.67	11.67	4.28	4.00	15.20	1.32	13.13	-0.11
Triad 2 (PM 6 - 8)	291.33	12.33	4.31	4.68	15.33	1.33	11.34	-0.12
Triad 3 (PM 9 - 11)	293.00	11.67	4.32	5.12	14.11	1.33	12.07	-0.15
Triad 4 (PM 12 - 14)	290.67	11.00	4.28	5.76	14.25	1.32	12.26	-0.21
Triad 5 (PM 15 - 17)	278.33	11.33	4.25	4.22	16.02	1.31	11.90	-0.23
Triad 6 (PM 18 - 20)	278.33	11.50	4.26	4.94	13.29	1.30	13.96	-0.10
Mean	281.45	11.61	4.26	4.61	14.00	1.32	12.22	-0.19
Standard Deviation	13.37	0.35	0.05	0.71	1.33	0.02	0.81	0.06

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 63

*Third-Grade Passage Difficulty Variables and Indices: A Comparison of DIBELS Next and DIBELS 6<sup>th</sup> Edition*

Variable	DIBELS Next					DIBELS 6 <sup>th</sup> Edition				
	Mean	SD	Min	Median	Max	Mean	SD	Min	Median	Max
Number of words	281.94	16.79	250.00	289.00	300.00	245.07	14.70	218.00	248.00	264.00
Median words per sentence	11.59	0.61	10.50	12.00	12.50	11.78	1.59	9.00	11.00	16.00
Characters per word	4.26	0.11	4.00	4.27	4.47	4.17	0.27	3.76	4.25	4.73
Percent of words with 3 or more syllables	4.64	1.20	1.76	4.60	7.04	5.13	2.80	1.71	3.98	12.05
Percent of words with 7 or more characters	13.99	1.87	10.27	14.67	16.89	13.64	3.12	7.52	13.65	20.54
Number of syllables per word	1.32	0.03	1.26	1.32	1.37	1.30	0.06	1.21	1.31	1.43
Percent of unique rare words	12.24	1.39	10.44	12.01	15.25	12.12	2.66	6.46	12.11	17.11
DMG passage difficulty index	-0.19	0.12	-0.43	-0.19	0.01	-0.20	0.26	-0.52	-0.29	0.53

*Note.* Comparison is based on  $n = 32$  DIBELS Next Benchmark, Survey, and Progress Monitoring passages and on  $n = 29$  DIBELS 6<sup>th</sup> Edition Benchmark and Progress Monitoring passages.

Table 64  
*Other Readability Indices for DIBELS Next Third-Grade Benchmark and Survey Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
Finding a Nest	BOY 1	700	5.4	4.2	6.0	4.6	7.6	8.3	4.8	2.8	53
A Famous Food: The History of Pizza	BOY 2	820	5.4	5.4	7.0	5.0	7.6	9.7	6.5	3.1	54
Living in Singapore	BOY 3	750	5.3	4.1	7.0	4.5	7.6	8.0	5.0	3.0	51
Horseback Treasure Hunt	MOY 1	830	5.0	3.8	6.3	4.3	6.9	7.7	4.5	3.1	54
Raising a Calf	MOY 2	790	5.3	4.1	6.8	4.5	7.2	8.0	5.1	2.9	50
Skimboarding	MOY 3	730	5.6	5.0	6.8	4.8	7.9	9.0	6.2	2.9	54
A Surprising Discovery	EOY 1	780	5.3	4.9	6.8	4.9	8.0	9.1	6.2	3.0	49
A Day for a Shadow Dance	EOY 2	780	5.6	4.7	6.2	4.8	6.8	9.2	5.5	2.9	55
A Triple Challenge	EOY 3	810	5.6	4.9	7.9	4.7	8.1	8.2	6.2	3.1	53
Northern Lights	Sur 1	810	5.6	5.5	7.3	5.0	8.0	9.1	6.6	3.2	56
Caring for Sheep	Sur 2	680	5.2	4.0	6.0	4.5	6.8	8.7	4.7	2.8	52
Independence Day in India	Sur 3	760	4.8	5.0	7.5	4.9	8.1	8.9	5.9	2.8	53
Mean		770.00	5.34	4.63	6.80	4.71	7.55	8.66	5.60	2.97	52.83
Standard Deviation		47.67	0.25	0.57	0.60	0.23	0.51	0.61	0.75	0.14	2.04

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 65  
*Other Readability Indices for DIBELS Next Third-Grade Progress Monitoring Passages*

Passage Title	Assign-ment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
A New Ball Game	PM 1	710	5.6	4.9	7.5	4.8	8.4	8.8	5.9	2.9	53
Swimming the Channel	PM 2	860	5.4	5.3	6.4	4.8	5.9	9.1	6.7	3.2	55
Rooftop Gardens	PM 3	850	5.3	5.2	7.0	4.9	7.2	9.2	6.4	3.1	53
Learning to Skateboard	PM 4	740	5.6	4.6	6.9	4.6	7.6	8.4	5.4	3.0	53
Glassmaking	PM 5	740	5.6	4.9	6.4	4.8	7.4	9.3	5.9	3.0	55
Space Camp	PM 6	820	5.7	5.4	7.2	4.9	7.8	9.0	6.6	3.1	55
A Woodland Path	PM 7	760	5.8	4.9	6.9	4.8	7.4	8.9	6.1	3.1	54
How Ryan Made a Difference	PM 8	760	5.8	4.7	6.6	4.7	7.6	8.8	5.5	3.1	55
Rachel's Box	PM 9	780	5.3	5.2	7.6	4.8	7.6	8.8	6.0	3.1	54
The Pinecone Feast	PM 10	820	5.7	5.6	8.1	5.0	8.6	9.0	6.6	3.0	58
Save the Turtles!	PM 11	790	5.3	4.9	7.0	4.8	7.5	9.2	6.1	3.0	54
Planting a Butterfly Garden	PM 12	820	5.1	5.2	7.0	4.9	8.6	8.8	6.4	3.0	55
Lan's First Day	PM 13	690	6.0	4.0	6.2	4.6	7.8	8.2	4.6	2.9	53
Kayla's Special Owl	PM 14	790	5.5	4.9	7.1	4.8	7.6	9.0	5.2	3.0	53
Amazing Dolphins	PM 15	830	6.1	4.5	6.1	4.6	6.3	8.7	5.4	2.9	53
Strawberry Festival Day	PM 16	640	5.1	3.7	6.4	4.5	7.2	8.4	4.2	2.6	52
A Poetry Contest	PM 17	660	5.4	4.0	6.7	4.6	7.7	8.5	4.7	3.0	52
Keeping the Planet Clean	PM 18	840	5.3	5.1	7.7	4.8	8.2	8.7	6.3	3.2	52
How Worms Help Gardens	PM 19	840	5.7	4.6	7.2	4.7	7.4	8.4	5.5	3.3	54
A Chess Tournament	PM 20	760	5.7	4.8	6.9	4.8	7.7	8.8	6.2	3.2	56
Mean		775.00	5.55	4.82	6.95	4.76	7.58	8.80	5.79	3.04	53.95
Standard Deviation		63.62	0.27	0.49	0.52	0.13	0.65	0.30	0.71	0.15	1.50

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 66  
*Other Readability Indices for DIBELS Next Third-Grade Triads*

Assignment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
BOY Benchmark	756.67	5.37	4.57	6.67	4.70	7.60	8.67	5.43	2.97	52.67
MOY Benchmark	783.33	5.30	4.30	6.63	4.53	7.33	8.23	5.27	2.97	52.67
EOY Benchmark	790.00	5.50	4.83	6.97	4.80	7.63	8.83	5.97	3.00	52.33
Survey	750.00	5.20	4.83	6.93	4.80	7.63	8.90	5.73	2.93	53.67
PM Dyad	785.00	5.50	5.10	6.95	4.80	7.15	8.95	6.30	3.05	54.00
PM Triad 1	776.67	5.50	4.90	6.77	4.77	7.40	8.97	5.90	3.03	53.67
PM Triad 2	780.00	5.77	5.00	6.90	4.80	7.60	8.90	6.07	3.10	54.67
PM Triad 3	796.67	5.43	5.23	7.57	4.87	7.90	9.00	6.23	3.03	55.33
PM Triad 4	766.67	5.53	4.70	6.77	4.77	8.00	8.67	5.40	2.97	53.67
PM Triad 5	710.00	5.53	4.07	6.40	4.57	7.07	8.53	4.77	2.83	52.33
PM Triad 6	813.33	5.57	4.83	7.27	4.77	7.77	8.63	6.00	3.23	54.00
Mean	773.49	5.47	4.76	6.89	4.74	7.55	8.75	5.73	3.01	53.55
Standard Deviation	27.55	0.15	0.34	0.32	0.10	0.29	0.23	0.47	0.10	0.97

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 67

*Fourth-Grade Benchmark Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
How to Make Dill Pickles	BOY 1	329	13.0	4.19	6.38	13.98	1.35	17.63	0.38
Water Skiing	BOY 2	340	13.0	4.11	7.06	14.71	1.34	13.82	0.13
The Power of Magnets	BOY 3	330	13.5	4.44	3.33	16.36	1.37	16.97	0.42
Your Nervous System	MOY 1	342	14.0	4.41	4.09	14.91	1.34	16.67	0.42
The Story Tree	MOY 2	350	13.0	4.40	7.43	16.29	1.33	14.57	0.28
A Grand Old Clock	MOY 3	347	13.0	4.22	4.03	14.70	1.29	15.56	0.15
A Wild Ride for Bella	EOY 1	306	13.0	4.42	3.92	16.34	1.36	16.67	0.35
Rainbows	EOY 2	314	13.0	4.33	3.50	17.20	1.35	13.38	0.11
A New Kind of Family	EOY 3	342	12.0	4.34	8.77	15.50	1.43	13.45	0.18
Tea Around the World	Survey 1	349	12.0	4.32	8.31	15.76	1.41	16.91	0.38
Performing Magic	Survey 2	341	13.5	4.42	9.38	16.42	1.40	14.37	0.43
A Pen Pal Surprise	Survey 3	348	13.0	4.44	4.31	16.38	1.34	15.23	0.26
Mean		336.50	13.00	4.34	5.88	15.71	1.36	15.44	0.29
Standard Deviation		14.17	0.56	0.11	2.25	0.95	0.04	1.51	0.12

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 68

*Fourth-Grade Progress Monitoring Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
An Island Festival	PM 1	320	12.0	4.55	6.88	18.75	1.39	15.94	0.37
Exploring South America	PM 2	349	13.0	4.23	6.02	12.89	1.30	16.91	0.27
A Gift from the Past	PM 3	348	13.0	4.39	4.89	15.52	1.35	13.22	0.12
A Home for Freckles	PM 4	334	12.0	4.39	7.49	18.56	1.39	13.47	0.18
Art in Action	PM 5	335	14.0	4.21	4.18	13.43	1.32	15.52	0.26
Empty Lot to a Garden Spot	PM 6	349	13.0	4.15	5.73	15.76	1.31	14.61	0.15
The Little Hero	PM 7	349	12.0	4.29	6.02	14.90	1.36	15.19	0.14
A Surprising Little Fish	PM 8	301	12.0	4.45	8.64	15.95	1.37	15.95	0.33
On the Road to Success	PM 9	350	12.5	4.31	6.57	18.86	1.34	17.71	0.43
Growing a Rosebush	PM 10	350	13.0	4.16	4.86	13.43	1.33	16.00	0.20
Rainy Day Savings	PM 11	326	13.0	4.49	4.91	17.79	1.33	13.19	0.17
A Vacation Adventure	PM 12	350	14.0	4.07	5.71	17.14	1.35	14.86	0.31
Sunnydale Stars	PM 13	309	12.0	4.35	5.18	17.15	1.32	14.89	0.12
Wonderful Water	PM 14	305	13.0	4.41	6.23	13.44	1.41	14.75	0.27
Healthy Choices	PM 15	310	13.0	4.39	10.32	16.13	1.41	14.19	0.38
A Trip into History	PM 16	347	12.0	4.37	4.90	16.14	1.34	15.27	0.14
Keeping Oil on the Job	PM 17	346	13.0	4.12	5.20	14.45	1.32	16.18	0.21
Gail Devers	PM 18	329	13.0	4.34	6.38	16.11	1.38	13.07	0.17
A Day of Surprises	PM 19	349	13.0	4.27	5.44	15.47	1.33	16.62	0.31
Rodeo Dreams	PM 20	333	13.0	4.30	4.80	14.41	1.34	14.71	0.17
Mean		334.45	12.78	4.31	6.02	15.81	1.35	15.11	0.24
Standard Deviation		17.15	0.62	0.13	1.46	1.83	0.03	1.29	0.09



Table 69

*Fourth-Grade Passage Triads Mean Difficulty Variables and Mean DMG Passage Difficulty Index for DIBELS Next*

Triad	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
BOY benchmark	333.00	13.17	4.25	5.59	15.02	1.35	16.14	0.31
MOY benchmark	346.33	13.33	4.34	5.18	15.30	1.32	15.60	0.28
EOY benchmark	320.67	12.67	4.36	5.40	16.35	1.38	14.50	0.21
Survey	346.00	12.83	4.39	7.33	16.19	1.38	15.50	0.36
Dyad (PM 1 & 2)	334.50	12.50	4.39	6.45	15.82	1.35	16.43	0.32
Triad 1 (PM 3 - 5)	339.00	13.00	4.33	5.52	15.84	1.35	14.07	0.19
Triad 2 (PM 6 - 8)	333.00	12.33	4.30	6.80	15.54	1.35	15.25	0.21
Triad 3 (PM 9 - 11)	342.00	12.83	4.32	5.45	16.69	1.33	15.63	0.27
Triad 4 (PM 12 - 14)	321.33	13.00	4.28	5.71	15.91	1.36	14.83	0.23
Triad 5 (PM 15 - 17)	334.33	12.67	4.29	6.81	15.57	1.36	15.21	0.24
Triad 6 (PM 18 - 20)	337.00	13.00	4.30	5.54	15.33	1.35	14.80	0.22
Mean	335.20	12.85	4.32	5.98	15.78	1.35	15.27	0.26
Standard Deviation	8.48	0.29	0.05	0.73	0.50	0.02	0.70	0.05

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 70

*Fourth-Grade Passage Difficulty Variables and Indices: A Comparison of DIBELS Next and DIBELS 6<sup>th</sup> Edition*

Variable	DIBELS Next					DIBELS 6 <sup>th</sup> Edition				
	Mean	SD	Min	Median	Max	Mean	SD	Min	Median	Max
Number of words	335.22	15.89	301.00	341.50	350.00	337.62	19.76	300.00	341.00	379.00
Median words per sentence	12.86	0.60	12.00	13.00	14.00	11.97	1.68	9.00	12.00	15.00
Characters per word	4.32	0.12	4.07	4.34	4.55	4.42	0.18	4.06	4.44	4.89
Percent of words with 3 or more syllables	5.96	1.76	3.33	5.72	10.32	6.39	2.35	1.70	6.75	11.58
Percent of words with 7 or more characters	15.78	1.54	12.89	15.86	18.86	16.73	3.78	8.05	15.96	25.15
Number of syllables per word	1.35	0.03	1.29	1.35	1.43	1.38	0.06	1.26	1.38	1.51
Percent of unique rare words	15.23	1.36	13.07	15.21	17.71	16.61	2.64	12.53	16.62	21.50
DMG passage difficulty index	0.26	0.11	0.11	0.26	0.43	0.32	0.23	-0.15	0.30	0.77

*Note.* Comparison is based on  $n = 32$  DIBELS Next Benchmark, Survey, and Progress Monitoring passages and on  $n = 29$  DIBELS 6<sup>th</sup> Edition Benchmark and Progress Monitoring passages.

Table 71  
*Other Readability Indices for DIBELS Next Fourth-Grade Benchmark and Survey Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
How to Make Dill Pickles	BOY 1	920	6.0	5.4	8.3	4.9	8.5	8.9	6.6	3.6	53
Water Skiing	BOY 2	880	5.7	5.7	8.3	5.0	8.7	8.8	6.6	3.4	53
The Power of Magnets	BOY 3	880	5.6	5.8	7.3	5.1	7.5	9.5	6.8	3.6	57
Your Nervous System	MOY 1	910	5.5	5.5	7.2	4.9	7.8	8.9	6.5	3.6	57
The Story Tree	MOY 2	770	5.5	5.1	7.1	4.9	8.3	8.9	6.2	3.2	55
A Grand Old Clock	MOY 3	910	6.0	5.1	7.3	4.7	7.6	8.3	6.3	3.6	55
A Wild Ride for Bella	EOY 1	820	6.1	5.3	6.8	4.9	6.8	9.2	6.4	3.3	56
Rainbows	EOY 2	900	5.5	6.0	7.7	5.1	7.8	9.4	7.0	3.4	56
A New Kind of Family	EOY 3	780	5.8	6.1	8.5	5.3	8.9	9.9	7.3	3.1	54
Tea Around the World	Sur 1	850	5.9	6.6	8.0	5.4	8.8	10.4	7.6	3.6	55
Performing Magic	Sur 2	840	6.2	6.2	8.9	5.3	9.0	9.4	7.4	3.3	56
A Pen Pal Surprise	Sur 3	900	6.4	5.2	6.9	4.9	7.5	9.2	6.2	3.3	56
Mean		863.33	5.85	5.67	7.69	5.03	8.10	9.23	6.74	3.42	55.25
Standard Deviation		51.40	0.30	0.48	0.69	0.21	0.70	0.55	0.48	0.18	1.36

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 72  
*Other Readability Indices for DIBELS Next Fourth-Grade Progress Monitoring Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
An Island Festival	PM 1	810	5.4	5.6	7.7	5.0	8.5	9.3	6.6	3.3	58
Exploring South America	PM 2	850	5.6	5.5	8.6	4.9	8.7	8.4	6.4	3.5	55
A Gift from the Past	PM 3	820	5.8	5.7	7.8	5.0	8.3	9.3	6.8	3.2	56
A Home for Freckles	PM 4	790	5.8	4.8	7.2	4.8	8.1	9.0	6.0	3.0	54
Art in Action	PM 5	750	5.6	4.7	6.6	4.7	7.1	8.6	5.9	3.3	53
Empty Lot to a Garden Spot	PM 6	780	5.3	5.0	7.4	4.8	7.8	8.3	6.3	3.3	53
The Little Hero	PM 7	900	6.3	5.7	8.5	5.0	9.0	8.6	6.7	3.2	55
A Surprising Little Fish	PM 8	830	6.2	5.5	9.3	5.1	9.4	8.9	6.6	3.2	55
On the Road to Success	PM 9	820	5.8	5.7	8.1	5.0	8.7	9.0	6.8	3.5	55
Growing a Rosebush	PM 10	870	5.9	5.2	7.8	4.9	8.0	8.8	6.4	3.4	53
Rainy Day Savings	PM 11	890	5.6	5.8	7.5	5.0	7.7	9.1	6.6	3.3	59
A Vacation Adventure	PM 12	890	5.8	6.0	8.6	5.1	8.7	8.9	6.9	3.6	53
Sunnydale Stars	PM 13	950	5.8	5.1	6.9	4.8	7.4	8.8	6.3	3.4	56
Wonderful Water	PM 14	860	5.9	6.5	8.4	5.4	8.7	9.9	7.5	3.4	57
Healthy Choices	PM 15	1000	5.5	6.7	8.7	5.3	9.9	9.3	7.5	3.4	57
A Trip into History	PM 16	770	5.3	5.0	6.5	4.8	7.0	9.3	6.2	3.2	55
Keeping Oil on the Job	PM 17	860	5.4	5.0	7.2	4.8	7.5	8.9	6.2	3.5	52
Gail Devers	PM 18	830	6.1	5.3	7.7	4.9	8.1	8.8	6.6	3.1	56
A Day of Surprises	PM 19	810	5.7	5.1	7.3	4.9	7.7	8.7	6.3	3.4	54
Rodeo Dreams	PM 20	860	5.8	5.1	6.9	4.9	7.3	9.2	6.3	3.2	54
Mean		847.00	5.73	5.45	7.74	4.96	8.18	8.96	6.55	3.32	55.00
Standard Deviation		60.45	0.28	0.53	0.77	0.17	0.77	0.37	0.42	0.15	1.84

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 73  
*Other Readability Indices for DIBELS Next Fourth-Grade Triads*

Assignment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
BOY Benchmark	893.33	5.77	5.63	7.97	5.00	8.23	9.07	6.67	3.53	54.33
MOY Benchmark	863.33	5.67	5.23	7.20	4.83	7.90	8.70	6.33	3.47	55.67
EOY Benchmark	833.33	5.80	5.80	7.67	5.10	7.83	9.50	6.90	3.27	55.33
Survey	863.33	6.17	6.00	7.93	5.20	8.43	9.67	7.07	3.40	55.67
PM Dyad	830.00	5.50	5.55	8.15	4.95	8.60	8.85	6.50	3.40	56.50
PM Triad 1	786.67	5.73	5.07	7.20	4.83	7.83	8.97	6.23	3.17	54.33
PM Triad 2	836.67	5.93	5.40	8.40	4.97	8.73	8.60	6.53	3.23	54.33
PM Triad 3	860.00	5.77	5.57	7.80	4.97	8.13	8.97	6.60	3.40	55.67
PM Triad 4	900.00	5.83	5.87	7.97	5.10	8.27	9.20	6.90	3.47	55.33
PM Triad 5	876.67	5.40	5.57	7.47	4.97	8.13	9.17	6.63	3.37	54.67
PM Triad 6	833.33	5.87	5.17	7.30	4.90	7.70	8.90	6.40	3.23	54.67
Mean	852.42	5.77	5.53	7.73	4.98	8.16	9.05	6.61	3.36	55.14
Standard Deviation	32.59	0.21	0.30	0.40	0.11	0.33	0.32	0.26	0.12	0.72

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 74

*Fifth-Grade Benchmark Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
The Land Bridge	BOY 1	318	15.0	4.45	5.35	14.78	1.40	16.04	0.58
The Crow and the Pitcher	BOY 2	308	14.0	4.36	6.49	17.86	1.38	16.56	0.55
Recycling Tires	BOY 3	336	14.0	4.39	7.74	15.18	1.38	18.15	0.65
A Genius at Work	MOY 1	323	14.0	4.47	8.67	17.96	1.42	15.48	0.59
A Special Song	MOY 2	314	13.5	4.52	8.92	19.43	1.42	16.24	0.63
The Chunnel	MOY 3	313	14.0	4.67	6.07	21.09	1.47	15.02	0.64
Build a Thermometer	EOY 1	324	14.5	4.31	7.41	14.81	1.41	16.36	0.57
How Kangaroo Got Her Pouch	EOY 2	344	14.0	4.37	6.98	16.57	1.40	16.57	0.56
An Amazing City	EOY 3	348	15.0	4.37	6.61	16.67	1.39	16.95	0.67
Benjamin's Treehouse	Survey 1	308	13.0	4.68	7.79	20.78	1.40	17.53	0.68
Ancient Trees	Survey 2	337	13.5	4.47	6.82	20.18	1.39	18.99	0.73
The Respiratory System	Survey 3	306	15.0	4.42	6.86	14.38	1.37	16.67	0.62
Mean		323.25	14.13	4.46	7.14	17.47	1.40	16.71	0.62
Standard Deviation		14.70	0.64	0.12	1.03	2.45	0.03	1.10	0.05

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 75

*Fifth-Grade Progress Monitoring Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
Ride the ICE	PM 1	350	14.0	4.31	9.43	17.14	1.37	16.86	0.61
The Best Present Ever	PM 2	348	13.5	4.47	8.91	17.82	1.41	15.80	0.55
Exploring Australia	PM 3	338	13.5	4.44	8.88	18.05	1.45	19.23	0.81
Dinner Is Served	PM 4	311	15.0	4.32	8.36	13.83	1.38	16.40	0.62
How Water Moves Through Plants	PM 5	304	14.0	4.43	4.93	16.12	1.40	17.43	0.57
How Pulleys Work	PM 6	306	15.0	4.24	6.86	16.34	1.40	16.34	0.61
All About Shoes	PM 7	343	15.0	4.48	4.37	18.08	1.36	18.95	0.77
The Outback Adventure	PM 8	347	14.0	4.42	10.95	19.60	1.44	15.27	0.67
Watching a Soccer Game	PM 9	309	14.0	4.50	8.74	15.21	1.40	15.86	0.57
Exploring Europe	PM 10	310	14.0	4.45	6.45	18.06	1.42	19.35	0.78
Chinese Kites	PM 11	339	13.5	4.35	7.67	14.16	1.36	18.58	0.57
The Talent Show	PM 12	309	14.0	4.58	7.44	19.74	1.38	15.86	0.61
Fish Farms	PM 13	306	15.0	4.40	7.19	13.73	1.35	19.93	0.81
How Technology Shrinks the World	PM 14	327	13.5	4.62	10.09	15.90	1.49	15.60	0.64
Protein	PM 15	318	14.0	4.57	5.03	21.07	1.42	18.55	0.77
Early Bikes	PM 16	327	13.0	4.55	10.70	15.90	1.44	18.35	0.73
Owl Houses	PM 17	335	15.0	4.44	7.16	16.42	1.34	15.82	0.59
A Trip to an Aquarium	PM 18	330	13.5	4.34	7.27	17.58	1.36	18.79	0.63
Welcome to Giza	PM 19	331	14.0	4.47	6.65	16.92	1.36	17.52	0.61
Being a Bird Keeper	PM 20	341	14.0	4.36	8.50	13.49	1.36	17.30	0.56
Mean		326.45	14.08	4.44	7.78	16.76	1.39	17.39	0.65
Standard Deviation		15.99	0.61	0.10	1.82	2.08	0.04	1.48	0.09

Table 76

*Fifth-Grade Passage Triads Mean Difficulty Variables and Mean DMG Passage Difficulty Index for DIBELS Next*

Triad	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
BOY benchmark	320.67	14.33	4.40	6.53	15.94	1.39	16.92	0.59
MOY benchmark	316.67	13.83	4.55	7.89	19.49	1.44	15.58	0.62
EOY benchmark	338.67	14.50	4.35	7.00	16.02	1.40	16.63	0.60
Survey	317.00	13.83	4.52	7.16	18.45	1.39	17.73	0.68
Dyad (PM 1 & 2)	349.00	13.75	4.39	9.17	17.48	1.39	16.33	0.58
Triad 1 (PM 3 - 5)	317.67	14.17	4.40	7.39	16.00	1.41	17.69	0.67
Triad 2 (PM 6 - 8)	332.00	14.67	4.38	7.39	18.01	1.40	16.85	0.68
Triad 3 (PM 9 - 11)	319.33	13.83	4.43	7.62	15.81	1.39	17.93	0.64
Triad 4 (PM 12 - 14)	314.00	14.17	4.53	8.24	16.46	1.41	17.13	0.69
Triad 5 (PM 15 - 17)	326.67	14.00	4.52	7.63	17.80	1.40	17.57	0.70
Triad 6 (PM 18 - 20)	334.00	13.83	4.39	7.47	16.00	1.36	17.87	0.60
Mean	325.97	14.08	4.44	7.59	17.04	1.40	17.11	0.64
Standard Deviation	11.15	0.31	0.07	0.69	1.26	0.02	0.74	0.04

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.



Table 77  
*Fifth-Grade Passage Difficulty Variables and Indices: A Comparison of DIBELS Next and DIBELS 6<sup>th</sup> Edition*

Variable	DIBELS Next					DIBELS 6 <sup>th</sup> Edition				
	Mean	SD	Min	Median	Max	Mean	SD	Min	Median	Max
Number of words	325.25	15.35	304.00	325.50	350.00	339.24	16.97	300.00	343.00	368.00
Median words per sentence	14.09	0.61	13.00	14.00	15.00	14.95	1.74	12.00	14.50	19.00
Characters per word	4.44	0.10	4.24	4.44	4.68	4.44	0.21	3.93	4.46	4.86
Percent of words with 3 or more syllables	7.54	1.59	4.37	7.34	10.95	7.19	2.19	3.77	7.21	10.73
Percent of words with 7 or more characters	17.03	2.22	13.49	16.80	21.09	18.10	3.44	11.55	17.61	26.84
Number of syllables per word	1.40	0.04	1.34	1.40	1.49	1.40	0.06	1.25	1.39	1.55
Percent of unique rare words	17.14	1.37	15.02	16.77	19.93	16.27	2.63	9.86	16.24	21.14
DMG passage difficulty index	0.64	0.08	0.55	0.62	0.81	0.69	0.23	0.18	0.64	1.08

*Note.* Comparison is based on  $n = 32$  DIBELS Next Benchmark, Survey, and Progress Monitoring passages and on  $n = 29$  DIBELS 6<sup>th</sup> Edition Benchmark and Progress Monitoring passages.

Table 78

*Other Readability Indices for DIBELS Next Fifth-Grade Benchmark and Survey Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
The Land Bridge	BOY 1	910	5.8	7.0	9.1	5.4	9.0	9.6	7.6	3.6	58
The Crow and the Pitcher	BOY 2	850	5.7	5.8	7.8	5.1	8.6	9.2	6.9	3.5	58
Recycling Tires	BOY 3	960	6.1	6.1	8.1	5.1	8.6	8.9	7.0	3.9	56
A Genius at Work	MOY 1	880	6.5	7.1	9.2	5.4	9.5	9.0	7.6	3.7	59
A Special Song	MOY 2	880	6.0	6.7	9.4	5.4	10.1	9.2	7.5	3.6	59
The Chunnel	MOY 3	920	5.7	7.2	8.1	5.5	8.5	10.3	7.8	3.6	56
Build a Thermometer	EOY 1	910	5.5	6.8	9.0	5.4	8.8	9.6	7.5	3.6	56
How Kangaroo Got Her Pouch	EOY 2	890	6.3	6.3	8.2	5.2	8.4	9.6	7.2	3.7	56
An Amazing City	EOY 3	880	6.6	6.2	8.2	5.1	8.5	9.3	7.1	3.6	57
Benjamin's Treehouse	Sur 1	910	6.3	6.7	9.1	5.3	9.2	9.5	7.4	3.7	62
Ancient Trees	Sur 2	930	6.2	6.1	8.1	5.2	8.5	9.5	7.1	3.8	58
The Respiratory System	Sur 3	950	6.8	6.3	8.8	5.2	9.1	8.7	7.2	3.8	60
Mean		905.83	6.13	6.53	8.59	5.28	8.90	9.37	7.33	3.68	57.92
Standard Deviation		31.75	0.40	0.45	0.56	0.14	0.51	0.42	0.28	0.11	1.88

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 79  
*Other Readability Indices for DIBELS Next Fifth-Grade Progress Monitoring Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
Ride the ICE	PM 1	890	5.9	6.2	9.3	5.2	9.7	8.6	7.4	3.8	57
The Best Present Ever	PM 2	820	6.2	6.4	9.0	5.3	9.3	9.4	7.4	3.4	62
Exploring Australia	PM 3	870	6.6	7.0	9.4	5.5	9.5	9.7	7.7	3.7	58
Dinner Is Served	PM 4	930	6.1	6.3	9.0	5.2	9.1	8.9	7.1	3.5	57
How Water Moves Through Plants	PM 5	900	6.5	6.4	7.9	5.2	8.3	9.2	7.3	3.8	59
How Pulleys Work	PM 6	940	7.4	6.5	8.3	5.3	8.6	9.6	7.5	3.7	60
All About Shoes	PM 7	1050	6.3	6.4	8.1	5.2	8.0	9.3	6.2	3.9	60
The Outback Adventure	PM 8	890	6.1	7.3	9.7	5.6	9.9	9.5	7.9	3.5	58
Watching a Soccer Game	PM 9	940	6.1	6.7	9.9	5.3	10.0	8.8	7.4	3.5	60
Exploring Europe	PM 10	900	6.3	6.9	8.7	5.4	8.8	10.2	7.6	3.8	57
Chinese Kites	PM 11	970	6.4	6.2	9.0	5.2	9.1	8.9	7.2	3.8	56
The Talent Show	PM 12	910	7.0	6.2	8.0	5.1	8.6	9.2	7.1	3.5	58
Fish Farms	PM 13	1000	6.8	6.2	8.4	5.1	8.7	9.1	7.1	4.0	57
How Technology Shrinks the World	PM 14	870	6.2	7.4	9.7	5.7	9.9	9.8	8.2	3.5	58
Protein	PM 15	980	7.0	6.9	8.0	5.4	8.4	10.4	7.6	3.9	57
Early Bikes	PM 16	860	5.9	6.4	8.8	5.3	9.1	9.7	7.4	3.5	58
Owl Houses	PM 17	990	6.2	6.3	8.9	5.1	9.0	8.3	7.1	3.7	60
A Trip to an Aquarium	PM 18	830	6.3	5.2	8.1	4.9	8.6	8.5	6.3	3.6	55
Welcome to Giza	PM 19	910	6.5	6.7	9.0	5.3	9.0	9.3	7.5	3.9	60
Being a Bird Keeper	PM 20	970	6.1	6.4	9.1	5.2	9.3	8.8	7.3	3.8	57
Mean		921.00	6.40	6.50	8.82	5.28	9.05	9.26	7.32	3.69	58.20
Standard Deviation		59.46	0.39	0.47	0.61	0.18	0.56	0.55	0.46	0.18	1.70

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 80  
*Other Readability Indices for DIBELS Next Fifth-Grade Triads*

Assignment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
BOY Benchmark	906.67	5.87	6.30	8.33	5.20	8.73	9.23	7.17	3.67	57.33
MOY Benchmark	893.33	6.07	7.00	8.90	5.43	9.37	9.50	7.63	3.63	58.00
EOY Benchmark	893.33	6.13	6.43	8.47	5.23	8.57	9.50	7.27	3.63	56.33
Survey	930.00	6.43	6.37	8.67	5.23	8.93	9.23	7.23	3.77	60.00
PM Dyad	855.00	6.05	6.30	9.15	5.25	9.50	9.00	7.40	3.60	59.50
PM Triad 1	900.00	6.40	6.57	8.77	5.30	8.97	9.27	7.37	3.67	58.00
PM Triad 2	960.00	6.60	6.73	8.70	5.37	8.83	9.47	7.20	3.70	59.33
PM Triad 3	936.67	6.27	6.60	9.20	5.30	9.30	9.30	7.40	3.70	57.67
PM Triad 4	926.67	6.67	6.60	8.70	5.30	9.07	9.37	7.47	3.67	57.67
PM Triad 5	943.33	6.37	6.53	8.57	5.27	8.83	9.47	7.37	3.70	58.33
PM Triad 6	903.33	6.30	6.10	8.73	5.13	8.97	8.87	7.03	3.77	57.33
Mean	913.48	6.29	6.50	8.74	5.27	9.01	9.29	7.32	3.68	58.14
Standard Deviation	29.33	0.24	0.24	0.26	0.08	0.28	0.21	0.16	0.05	1.09

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 81

*Sixth-Grade Benchmark Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assignment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
Hello, Hong Kong!	BOY 1	339	15.0	4.65	8.55	17.70	1.44	21.24	1.13
Ocean Harvest	BOY 2	337	15.0	4.45	9.20	22.55	1.46	21.66	1.22
River of Grass	BOY 3	306	16.0	4.53	8.82	18.30	1.45	21.24	1.23
Acting	MOY 1	346	15.0	4.48	11.85	17.05	1.46	18.79	1.02
The Mariana Trench	MOY 2	320	15.5	4.61	9.06	20.00	1.44	20.31	1.17
A Delicious Tradition	MOY 3	316	15.5	4.53	10.13	17.09	1.43	21.20	1.17
Sea of Salt	EOY 1	321	16.5	4.41	9.03	16.51	1.46	21.18	1.24
Another World	EOY 2	327	15.0	4.64	8.26	19.57	1.47	20.18	1.10
The Barefoot Runner	EOY 3	312	15.0	4.40	14.74	17.31	1.51	19.23	1.15
A Note of Recognition	Survey 1	320	15.0	4.49	10.00	18.75	1.43	18.75	0.98
Young Reader's Choice Award	Survey 2	341	14.5	4.64	9.09	21.70	1.49	17.60	0.95
The Stream of Life	Survey 3	348	16.0	4.54	7.18	16.67	1.43	20.69	1.11
Mean		327.75	15.33	4.53	9.66	18.60	1.46	20.17	1.12
Standard Deviation		14.00	0.58	0.09	1.96	1.99	0.03	1.29	0.10

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 82

*Sixth-Grade Progress Monitoring Passage Difficulty Variables and DMG Passage Difficulty Index for DIBELS Next*

Title	Assign- ment	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
Kilimanjaro	PM 1	344	15.5	4.57	9.88	20.06	1.46	20.06	1.18
No Dirt Required	PM 2	338	15.0	4.80	9.17	20.12	1.48	18.05	1.05
Making a Comic Book	PM 3	334	15.0	4.66	8.08	20.06	1.43	19.16	1.02
Bike and Build	PM 4	305	16.0	4.66	8.52	17.05	1.45	20.33	1.18
Subway Musician	PM 5	330	15.5	4.52	6.67	20.30	1.41	20.91	1.10
Sailing on Land	PM 6	301	16.0	4.34	9.63	15.95	1.39	21.93	1.17
Let's Look at Asia	PM 7	325	14.5	4.56	9.54	19.38	1.47	19.69	1.03
Ice Country	PM 8	342	15.0	4.48	9.36	18.71	1.44	19.01	0.98
Diana Nyad	PM 9	329	15.0	4.48	12.77	18.54	1.49	20.36	1.20
An Underground Journey	PM 10	333	16.0	4.60	7.51	19.52	1.37	18.32	0.98
The San Juan Islands	PM 11	333	15.0	4.67	7.81	22.82	1.48	21.32	1.24
The Importance of Exercise	PM 12	321	14.5	4.64	5.30	23.36	1.41	20.87	1.03
Drifting Downriver	PM 13	317	14.5	4.66	9.15	19.56	1.48	22.08	1.21
Dubai: A City of Innovation	PM 14	319	15.0	4.49	9.40	18.81	1.45	20.38	1.08
A Web Site for Volunteers	PM 15	325	15.0	4.60	10.46	21.23	1.46	21.23	1.24
Horseback Trekking	PM 16	331	15.5	4.63	9.97	17.82	1.42	19.03	1.06
The Kon-Tiki Expedition	PM 17	314	16.0	4.49	11.78	18.47	1.49	18.79	1.18
The Great Bird Count	PM 18	348	14.5	4.66	10.63	22.70	1.48	20.11	1.17
An Unusual Island	PM 19	321	15.0	4.58	4.98	18.07	1.43	20.25	0.95
How We See	PM 20	304	15.0	4.48	7.89	16.12	1.41	21.71	1.05
Mean		325.70	15.18	4.58	8.93	19.43	1.45	20.18	1.11
Standard Deviation		13.17	0.52	0.10	1.93	2.04	0.04	1.18	0.09

Table 83

*Sixth-Grade Passage Triads Mean Difficulty Variables and Mean DMG Passage Difficulty Index for DIBELS Next*

Triad	Number of words	Median words per sentence	Characters per word	Percent of words with 3 or more syllables	Percent of words with 7 or more characters	Number of syllables per word	Percent of unique rare words	DMG passage difficulty index
BOY benchmark	327.33	15.33	4.54	8.86	19.52	1.45	21.38	1.19
MOY benchmark	327.33	15.33	4.54	10.35	18.05	1.44	20.10	1.12
EOY benchmark	320.00	15.50	4.48	10.68	17.80	1.48	20.20	1.16
Survey	336.33	15.17	4.56	8.76	19.04	1.45	19.01	1.01
Dyad (PM 1 & 2)	341.00	15.25	4.69	9.53	20.09	1.47	19.06	1.12
Triad 1 (PM 3 - 5)	323.00	15.50	4.61	7.76	19.14	1.43	20.13	1.10
Triad 2 (PM 6 - 8)	322.67	15.17	4.46	9.51	18.01	1.43	20.21	1.06
Triad 3 (PM 9 - 11)	331.67	15.33	4.58	9.36	20.29	1.45	20.00	1.14
Triad 4 (PM 12 - 14)	319.00	14.67	4.60	7.95	20.58	1.45	21.11	1.11
Triad 5 (PM 15 - 17)	323.33	15.50	4.57	10.74	19.17	1.46	19.68	1.16
Triad 6 (PM 18 - 20)	324.33	14.83	4.57	7.83	18.96	1.44	20.69	1.06
Mean	326.91	15.23	4.56	9.21	19.15	1.45	20.14	1.11
Standard Deviation	6.88	0.27	0.06	1.09	0.94	0.01	0.74	0.05

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year.

Table 84  
*Sixth-Grade Passage Difficulty Variables and Indices: A Comparison of DIBELS Next and DIBELS 6<sup>th</sup> Edition*

Variable	DIBELS Next					DIBELS 6 <sup>th</sup> Edition				
	Mean	SD	Min	Median	Max	Mean	SD	Min	Median	Max
Number of words	326.47	13.30	301.00	326.00	348.00	339.90	16.19	310.00	337.00	376.00
Median words per sentence	15.23	0.54	14.50	15.00	16.50	15.34	2.09	11.00	16.00	18.00
Characters per word	4.56	0.10	4.34	4.57	4.80	4.51	0.21	4.04	4.50	4.91
Percent of words with 3 or more syllables	9.20	1.94	4.98	9.16	14.74	8.38	2.47	4.91	8.12	14.54
Percent of words with 7 or more characters	19.12	2.03	15.95	18.78	23.36	18.93	3.54	12.07	18.55	28.70
Number of syllables per word	1.45	0.03	1.37	1.45	1.51	1.43	0.08	1.27	1.42	1.58
Percent of unique rare words	20.18	1.20	17.60	20.32	22.08	20.59	3.38	14.03	20.19	28.06
DMG passage difficulty index	1.11	0.09	0.95	1.12	1.24	1.10	0.27	0.55	1.10	1.55



Table 85

*Other Readability Indices for DIBELS Next Sixth-Grade Benchmark and Survey Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
Hello, Hong Kong!	BOY 1	920	6.6	7.2	9.6	5.5	9.6	9.9	7.8	4.1	61
Ocean Harvest	BOY 2	1060	7.1	8.0	10.2	5.7	10.2	10.2	8.6	4.3	59
River of Grass	BOY 3	950	6.7	7.5	9.4	5.6	9.8	10.0	8.2	4.1	60
Acting	MOY 1	890	6.6	6.8	10.2	5.4	9.9	9.4	7.5	3.8	61
The Mariana Trench	MOY 2	1120	7.1	8.4	10.7	5.8	10.5	9.5	8.6	4.3	63
A Delicious Tradition	MOY 3	1030	5.9	7.6	10.2	5.6	10.3	9.7	8.0	4.1	59
Sea of Salt	EOY 1	1000	6.3	8.8	10.2	6.0	9.9	11.2	9.6	4.2	59
Another World	EOY 2	970	7.1	7.6	9.2	5.7	9.3	10.1	8.3	4.1	61
The Barefoot Runner	EOY 3	930	7.1	8.2	12.0	5.9	11.5	9.9	9.2	3.8	58
A Note of Recognition	Sur 1	960	6.4	7.4	10.5	5.6	10.4	9.2	7.2	3.9	60
Young Reader's Choice Award	Sur 2	980	6.5	8.3	10.3	5.9	10.2	10.2	9.1	3.9	62
The Stream of Life	Sur 3	1010	7.2	7.8	9.9	5.5	9.7	9.3	8.0	4.4	62
Mean		985.00	6.72	7.8	10.20	5.68	10.11	9.88	8.34	4.08	60.42
Standard Deviation		64.03	0.41	0.56	0.72	0.19	0.56	0.54	0.71	0.20	1.51

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

Table 86  
*Other Readability Indices for DIBELS Next Sixth-Grade Progress Monitoring Passages*

Passage Title	Assign- ment	Lexile®	Dale- Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
Kilimanjaro	PM 1	940	6.5	7.4	9.8	5.6	9.9	9.5	8.2	4.1	60
No Dirt Required	PM 2	1010	6.9	8.3	10.2	5.8	10.1	10.2	9.0	4.0	64
Making a Comic Book	PM 3	970	7.2	7.1	9.5	5.5	9.8	9.4	7.7	3.9	61
Bike and Build	PM 4	1000	6.5	7.7	9.8	5.7	10.0	9.7	8.3	3.8	62
Subway Musician	PM 5	910	6.7	6.6	8.4	5.3	8.7	9.4	7.4	4.1	60
Sailing on Land	PM 6	1020	6.4	6.8	9.1	5.3	9.3	9.0	7.4	4.2	58
Let's Look at Asia	PM 7	1070	6.7	8.6	11.3	5.9	10.9	10.5	9.4	3.9	61
Ice Country	PM 8	940	6.5	7.6	10.0	5.6	10.0	9.3	8.1	3.9	60
Diana Nyad	PM 9	930	6.3	7.2	10.1	5.5	10.0	9.8	7.8	4.0	58
An Underground Journey	PM 10	1020	6.4	6.8	9.1	5.3	9.4	9.1	7.4	4.1	61
The San Juan Islands	PM 11	1070	6.6	8.1	9.8	5.8	9.7	10.6	8.6	4.1	63
The Importance of Exercise	PM 12	960	6.3	7.6	10.6	5.7	10.3	10.2	8.4	4.0	61
Drifting Downriver	PM 13	950	7.1	7.8	11.1	5.8	11.1	9.8	8.6	4.0	61
Dubai: A City of Innovation	PM 14	960	6.5	7.6	9.7	5.7	9.7	10.0	8.3	4.1	59
A Web Site for Volunteers	PM 15	940	6.6	7.5	10.1	5.7	10.0	9.8	8.4	3.9	59
Horseback Trekking	PM 16	1010	6.2	7.8	10.6	5.6	10.6	9.5	8.1	4.1	62
The Kon-Tiki Expedition	PM 17	970	7.0	8.3	10.8	5.8	10.3	9.5	8.6	4.0	60
The Great Bird Count	PM 18	1000	7.3	8.0	11.1	5.8	11.0	9.7	8.9	3.9	62
An Unusual Island	PM 19	950	6.0	6.9	8.1	5.4	8.1	9.9	7.5	4.0	61
How We See	PM 20	980	7.0	7.0	9.8	5.4	9.7	9.4	7.6	4.0	59
Mean		980.00	6.64	7.54	9.95	5.61	9.93	9.72	8.19	4.01	60.60
Standard Deviation		44.13	0.35	0.56	0.85	0.19	0.72	0.43	0.58	0.10	1.57

*Note.* Lexile is a registered trademark of MetaMetrics, Inc.

Table 87  
*Other Readability Indices for DIBELS Next Sixth-Grade Triads*

Assignment	Lexile®	Dale-Chall	Flesch	FOG	Powers*	SMOG	FORCAST	Fry	Spache	TASA DRP
BOY Benchmark	976.67	6.80	7.57	9.73	5.60	9.87	10.03	8.20	4.17	60.00
MOY Benchmark	1013.33	6.53	7.60	10.37	5.60	10.23	9.53	8.03	4.07	61.00
EOY Benchmark	966.67	6.83	8.20	10.47	5.87	10.23	10.40	9.03	4.03	59.33
Survey	983.33	6.70	7.83	10.23	5.67	10.10	9.57	8.10	4.07	61.33
PM Dyad	975.00	6.70	7.85	10.00	5.70	10.00	9.85	8.60	4.05	62.00
PM Triad 1	960.00	6.80	7.13	9.23	5.50	9.50	9.50	7.80	3.93	61.00
PM Triad 2	1010.00	6.53	7.67	10.13	5.60	10.07	9.60	8.30	4.00	59.67
PM Triad 3	1006.67	6.43	7.37	9.67	5.53	9.70	9.83	7.93	4.07	60.67
PM Triad 4	956.67	6.63	7.67	10.47	5.73	10.37	10.00	8.43	4.03	60.33
PM Triad 5	973.33	6.60	7.87	10.50	5.70	10.30	9.60	8.37	4.00	60.33
PM Triad 6	976.67	6.77	7.30	9.67	5.53	9.60	9.67	8.00	3.97	60.67
Mean	981.67	6.67	7.64	10.04	5.64	10.00	9.78	8.25	4.04	60.58
Standard Deviation	19.79	0.13	0.30	0.42	0.11	0.29	0.28	0.35	0.06	0.76

*Note.* BOY refers to beginning of year, MOY refers to middle of year, and EOY refers to end of year. Lexile is a registered trademark of MetaMetrics, Inc.

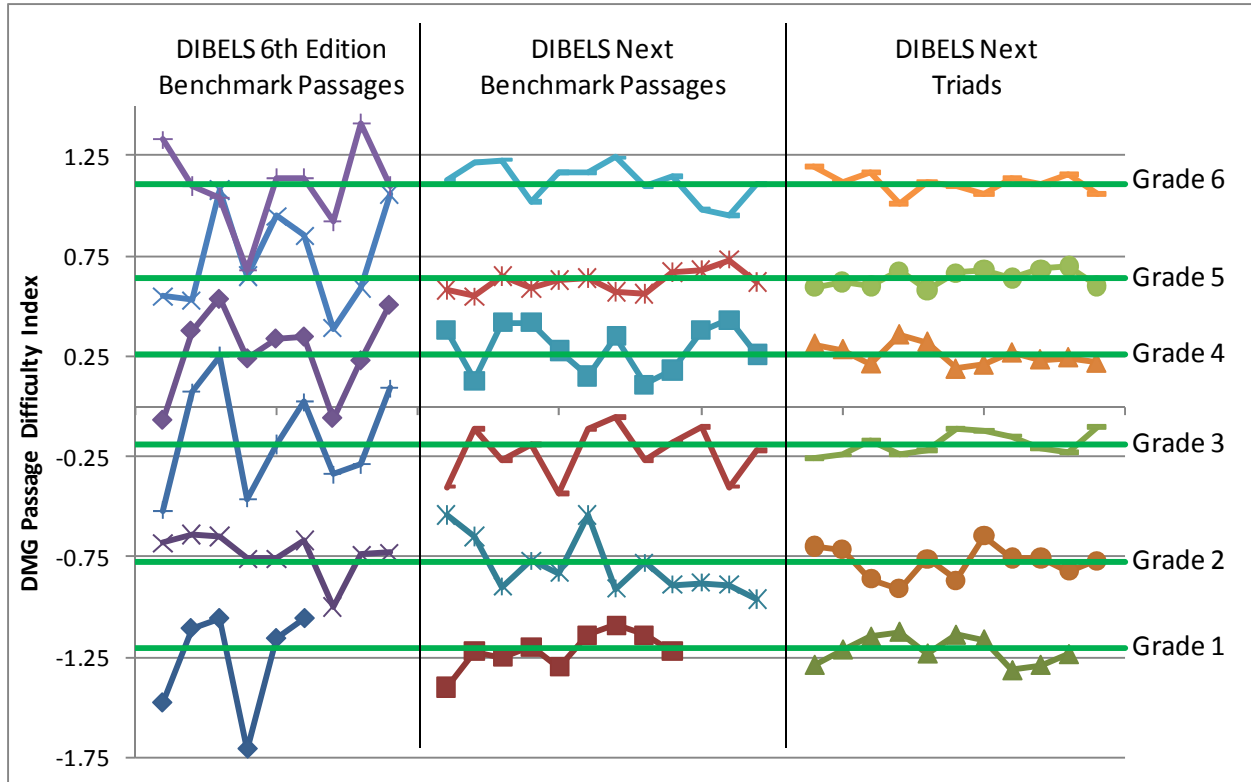


Figure 8. Comparison of mean level of difficulty and variability in difficulty for DIBELS 6<sup>th</sup> Edition benchmark passages, DIBELS Next benchmark passages, and DIBELS Next triads by grade level.