# Florida Statewide Assessments 

## 2021-2022

# Volume 6 <br> Score Interpretation Guide 

FLORIDA DEPARTMENT OF


## ACKNOWLEDGMENTS

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## 1 Florida Score Reports

The Florida Standards Assessments (FSA) in English Language Arts (ELA), Mathematics, and end-of-course (EOC) subjects (Algebra 1 and Geometry) were first administered to Florida students in spring 2015. The Next Generation Sunshine State Standards (NGSSS) statewide Science assessments were administered on paper in Grades 5 and 8 beginning in spring 2012. The first online administration of NGSSS EOC assessments for Biology 1, U.S. History, and Civics occurred in 2012, 2013, and 2014, respectively. By statute, all Florida public school students are required to participate in the statewide assessments. Since fall 2020, all FSA and NGSSS assessments have been collectively referred to as the Florida Statewide Assessments.

In the spring 2022 testing window, the following FSA and NGSSS tests were administrated to Florida students: Grades 3-10 ELA Reading, Grades 4-10 ELA Writing, Grades 3-8 Mathematics, Grades 5 and 8 Science, and EOC (Algebra 1, Geometry, Biology 1, Civics, and U.S. History). In addition, the Grade 10 ELA Retake and Algebra 1 Retake were offered to students who needed to retake the test for graduation purposes. To receive a valid ELA score, students were required to complete both Writing and Reading components in Grades 4-10/Retake.

Grades 3-6 Reading and Mathematics assessments and Grades 5 and 8 Science assessments were fixed operational paper forms. Grades 7-8 Mathematics assessments, EOC assessments in Algebra 1, Geometry, Biology 1, Civics, and U.S. History, and Grades 7-10 Reading assessments were fixed operational online forms. Grades 4-6 Writing assessments were administered on paper, whereas Grades 7-10 Writing assessments were administered online. In addition, paper-based accommodated test forms were provided to students who had the accommodation listed on their Individual Educational Plan (IEP) or Section 504 Plan.

The purpose of this volume, the Score Interpretation Guide, is to document the features of the PearsonAccess Next Reporting System (PANext Reporting), which was designed to assist stakeholders in reviewing and downloading test results and in understanding and appropriately using the results of the state assessments. Additionally, this volume describes the score types reported for the spring 2022 assessments, the features of the score report, and the appropriate uses and inferences that can be drawn from these score types.

### 1.1 OVERVIEW OF FLORIDA'S SCORE REpORTS

Florida Reading, Writing, Mathematics, Science, and EOC assessments were administered in the spring. Reading and Writing responses were combined to create an overall ELA scale score. Test scores from each assessment were provided to districts and schools through PANext Reporting after the Florida Department of Education (FDOE) verified the student and score information included in the data files and score reports. PANext Reporting provides information on student performance and aggregated summaries at several levels-state, district, and school. Printed individual student reports were delivered to districts, packaged by school, for distribution to parents. Additionally, individual student reports will be released on the Family Portal so that parents and students can access them (accessible at https://fl-familyportal.cambiumast.com).

PANext Reporting (accessible at https://fl.pearsonaccessnext.com/customer/index.action) is a web-based application that provides access to Florida Statewide Assessment results at various, appropriate levels. Access to the reports provided in PANext Reporting depends on each user's
role and its school and district associations. These roles are assigned in CAI's Test Information Distribution Engine (TIDE). For example, district users can view data for all schools in their respective districts; school users can view data only for their school(s). Access to these reports is password protected. Table 1 describes the user roles in PANext Reporting and the reports that are accessible to each applicable user role.

Table 1: User Roles and Access in the PearsonAccess Next Reporting System

| Report Access Levels | District <br> Assessment <br> Coordinator | District <br> Administrator | School <br> Administrator | Private <br> School <br> Administrator |
| :--- | :--- | :--- | :--- | :--- |
| All Files.zip | $\checkmark$ | $\checkmark$ |  |  |
| - State Aggregation Results File (SAR) |  |  |  |  |
| - District Aggregation Results File (DAR) |  |  |  |  |
| - District Student Results File (DSR) |  |  |  |  |
| State Summary Report | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| State Report of Districts | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| District Summary Report | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| District Report of Schools | $\checkmark$ | $\checkmark$ |  |  |
| District Student Results File (DSR)* | $\checkmark$ | $\checkmark$ |  |  |
| School Report of Students for District | $\checkmark$ | $\checkmark$ |  |  |
| School Report of Students | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Student Reports | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Zipped Individual Student Reports | $\checkmark$ |  |  |  |

*DSR.txt files are independently posted for instances of early reporting, specifically Grade 3 Reading

### 1.2 Overall Scores and Reporting Categories

Each student receives a single scale score for each subject tested, if there is a valid score to report. A student's score is based only on the operational items on the assessment. In the State Student Results (SSR) and District Student Results (DSR) data files, the total raw score, theta score, points earned by reporting category, scale score, and performance level are calculated if the test record is assigned a Score Status Flag of 1 or 9, meaning the score is reported. The computation of the various student scores is outlined in Section 2 and discussed further in Volume 1, Annual Technical Report.

Student Reports and the School Report of Students also provide the number of points earned for each reporting category and the possible number of points in each category. The points earned and points possible for each reporting category are established using the same items used to calculate overall scores. The points possible can vary depending on the test forms (e.g., online vs. paper accommodated).

Table 2, Table 3, Table 4, and Table 5 display the reporting categories by grade and subject.

Table 2: Reporting Categories for ELA

| Grade |  | Reporting Category |
| :---: | :--- | :--- |
| 3 | $\bullet$ | Key Ideas and Details |
|  | $\bullet$ | Craft and Structure |
|  | $\bullet$ | Integration of Knowledge and Ideas |
|  | $\bullet$ | Language and Editing Task |
| $4-10$ | $\bullet$ | Key Ideas and Details |
|  | $\bullet$ | Craft and Structure |
|  | $\bullet$ | Integration of Knowledge and Ideas |
|  | $\bullet$ | Language and Editing Task |
|  | $\bullet$ | Text-Based Writing |

Table 3: Reporting Categories for Mathematics

| Grade | Reporting Category |
| :---: | :---: |
| 3 | - Operations, Algebraic Thinking, and Numbers in Base Ten <br> - Numbers and Operations-Fractions <br> - Measurement, Data, and Geometry |
| 4 | - Operations and Algebraic Thinking <br> - Numbers and Operations in Base Ten <br> - Numbers and Operations-Fractions <br> - Measurement, Data, and Geometry |
| 5 | - Operations, Algebraic Thinking, and Fractions <br> - Numbers and Operations in Base Ten <br> - Measurement, Data, and Geometry |
| 6 | - Ratio and Proportional Relationships <br> - Expressions and Equations <br> - Geometry <br> - Statistics and Probability <br> - The Number System |
| 7 | - Ratio and Proportional Relationships <br> - Expressions and Equations <br> - Geometry <br> - Statistics and Probability <br> - The Number System |
| 8 | - Expressions and Equations <br> - Functions <br> - Geometry <br> - Statistics and Probability and The Number System |

Table 4: Reporting Categories for Science

| Grade |  | Reporting Category |
| :---: | :--- | :--- |
| 5 and 8 | $\bullet$ | Nature of Science |
|  | $\bullet$ | Earth and Space Science |
|  | $\bullet$ | Physical Science |

Table 5: Reporting Categories for EOC

| Course |  | Reporting Category |
| :---: | :---: | :---: | :---: |
| Algebra 1 | $\bullet$ | Algebra and Modeling |
|  | $\bullet$ | Functions and Modeling |
|  | $\bullet$ | Statistics and the Number System |
| Geometry | $\bullet$ | Congruence, Similarity, Right Triangles, and Trigonometry |
|  | $\bullet$ | Circles, Geometric Measurement, and Geometric Properties with Equations |
|  | $\bullet$ | Modeling with Geometry |
| Biology 1 | $\bullet$ | Molecular and Cellular Biology |
|  | $\bullet$ | Classification, Heredity, and Evolution |
|  | $\bullet$ | Organisms, Populations, and Ecosystems |
| Civics | $\bullet$ | Origins and Purposes of Law and Government |
|  | $\bullet$ | Roles, Rights, and Responsibilities of Citizens |
|  | $\bullet$ | Government Policies and Political Processes |
|  | $\bullet$ | Organization and Function of Government |
| U.S. History | $\bullet$ | Late Nineteenth and Early Twentieth Century (1860-1910) |
|  | $\bullet$ | Global Military, Political, and Economic Challenges (1890-1940) |
|  | $\bullet$ | The United States and the Defense of the International Peace (1940- |
|  |  |  |

### 1.3 ACHIEVEMENT LEVEL DESCRIPTIONS

Achievement Level Descriptors (ALDs) describe a student's level of achievement (e.g., Below Satisfactory, Satisfactory, Proficient) on a large-scale assessment. The FDOE develops ALDs to guide participants during the standard-setting process for its statewide assessments, offer score interpretation on student reports, and further teacher understanding of expectations for the progressions of student performance at each achievement level. The purpose of the ALD development framework is to enable valid inferences about student content-area knowledge and skill in relation to a state's content standards measured on a large-scale assessment.

Volume 3 of the 2014-2015 FSA Technical Report (Appendix E of Volume 4 of the 2021-2022 Florida Statewide Assessments Technical Report) documented the process and results from the FSA standard-setting meetings in 2015. Chapter 5 of the Florida Statewide Science and EOC Assessments 2019 Technical Report (Appendix E of Volume 6 of the 2021-2022 Florida Statewide Assessments Technical Report) summarized the NGSSS standard-setting process. The final cut scores for the FSA and NGSSS were approved by the State Board of Education. Standard setting is a content-centered, as well as empirical, means of identifying achievement level cut scores to delineate and establish levels of mastery and classify students' achievement levels based on their test scores. It provides critical evidence that the State used a technically sound and welldocumented process to develop scoring interpretations and performance standards. Appendices AD in Volume 2: Test Development and Appendix D of this volume include the reporting category and achievement level descriptors, respectively, as evidence to support the proposed use of test scores in regard to the validity argument.

Florida determined that Level 3 on its Achievement Level Scale (which ranges from Level 1 to Level 5) indicates satisfactory performance. Levels 4 and 5 describe growth beyond the Level 3 expectations, and indicate proficiency in the standards.

Achievement Level Descriptions (see Appendix D) provides detailed descriptions for a student's content-area knowledge and skill at each achievement level for each statewide assessment.

### 1.4 Available Reports of the PearsonAccess Next Reporting System

PANext Reporting is hierarchically structured. The interactive home page has drop-down menus with a list of aggregated units (e.g., districts, schools within a district) from which the user can choose. An authorized user can view reports at his or her own aggregated unit and any lower level of aggregation. For example, a school user can view only the reports and data at the school and student level of his or her school. District Assessment Coordinator (DAC) users can view the reports and data for their districts and also the student-level results for all of their schools. PANext Reporting provides access to results in two main formats. The first format is PDF files or Microsoft Excel reports, which provide score data for each of the Florida assessments. Users can compare score data of individual students with the school, district, or overall state average scores. The second format is prepared as downloadable pipe-delimited text data files; this format allows users to download zipped data files containing student-level data and aggregate data for their district and the state. Only state and district users have access to these data files.

Participation reports are also available on the TIDE website (https://fl.tide.cambiumast.com). These reports indicate the students who have completed or need to complete computer-based testing, and allow users to view participation summary statistics (counts and percentages) of students who have tested.

The PearsonAccess Next Reporting System User Guide is included in Appendix A, and the TIDE User Guide is included in Appendix B. The reporting system user guide includes explanations of the reports, information about the content assessed in Mathematics, ELA, Science, and EOC relating to the Florida Standards, and a glossary of terms used in the Florida Statewide Assessments reports.

Table 6 summarizes the types of score reports that are available in PANext Reporting and the levels at which the reports can be viewed. A description of each report is also provided. Data files are also accessible for districts to download.

Table 6: Florida Online Score Reports Summary

| Type of Report | Level | Description |
| :---: | :---: | :--- |
| State Summary (SS) | State, District, School | Summary of overall performance for a <br> subject for all students in the state |
| District Summary (DS) | State, District, School | Summary of overall performance for a <br> subject for all students in the district |
| State Report of Districts <br> (SRD) | State, District, School | List of districts with overall performance for <br> the state |
| District Report of Schools <br> (DRS) | State, District, School | List of schools with overall performance for <br> a district |
| School Report of Students <br> (SRS) for District | State, District | Lists of all students who belong to a district, <br> ordered by school, with their associated <br> subject scores |
| School Report of Students <br> (SRS) | State, District, School | Lists of all students who belong to a school <br> with their associated subject scores |
| All Files (contains SAR, <br> DSRs, and DARs) | State, District | ZIP file containing the State Aggregation <br> Results, District Student Results, and <br> District Aggregation Results in a pipe <br> delimited txt format |
| Student Reports (SRs) | State, District, School | PDF file of all students' score reports for a <br> school |
| Zipped Individual Student |  |  |
| Reports (ISRs) |  |  | State, District $\quad$| ZIP file of individual PDF files for all |
| :--- |
| students' score reports |

### 1.4.1 Participation Reports-TIDE

Once a user logs in, he or she is directed to the home page, which allows users to access the Participation Reports.

The Participation Report, similar to Figure 1, allows teachers, principals, and district staff to see which students have not yet completed their tests. Users can select from a series of options to customize the group of students whose participation status is to be reviewed for a particular grade and subject, such as those who have started but have not completed their test or those who have not yet begun their test. Users can export the list into a Microsoft Excel file and download it.

Figure 1: Participation Report


### 1.4.2 PearsonAccess Next Reporting System Home Page

State, district, and school users can access student performance reports for the Florida assessments through the PANext Reporting home page (https://fl.pearsonaccessnext.com/customer/index.action).

Figure 2 displays the pages where a user can select options to access his or her assessment data. The following instructions describe how to access the school-, district-, and state-level reports available in PANext Reporting:

- Select the desired test administration from the drop-down menu in the bar at the top of the screen.
- Use the Find Reports search field to find a specific report.
a. Users can search for part of the report file name and can use a wild card " $\%$ " in between words to view matches that contain both what is before the wild card and after without needing to input the words in between.
- Add additional filters to narrow the results if necessary.

Figure 2: PANext Reporting Screen Capture

```
2021-2022*
FL Summer 2022 EOC
FL Spring 2022 ELA Retake and EOC
FL Spring 2022 ELA, Mathematics and Science
FSAA Spring 2022 Performance Task
FSAA Spring 2022 Datafolio
FL Winter 2021 EOC
FL Fall 2021 EOC and ELA Retake
FSAA Fall 2021 Performance Task Makeup
2020-2021=
2019-2020=
2018-2019*
2017-2018=
2016-2017=
2015-2016
```



### 1.4.3 PDF/Microsoft Excel Reports

For reports available in both PDF and Microsoft Excel (XLSX) formats, these will be listed as separate downloadable files. Here are example file paths: Data/State Report of Districts/Algebra 1/Excel, and State Report of Districts /EOC/Algebra 1. The contents of these reports are the same with the exception that some of the Microsoft Excel reports include additional information.

The summary reports, including State Summary, District Summary, State Report of Districts, and District Report of Schools, are created for the initial score release. The School Report of Students is created for both the initial and late score releases.

State Summary reports provide grade-level aggregated data for the state, and display overall student performance for the selected test. All data are based on the total number of students who have taken and completed the test, submitted it for scoring, and received a reported score (e.g., a score flag status of 1). One PDF and one Microsoft Excel file per subject is posted to PANext Reporting for school and district access. For example, a district may receive up to 11 State Summary reports for the spring test administrations: Grade 3 Reading, Grades 4-10 ELA, Grade 10 ELA Retake, Grades 3-8 Mathematics, Grades 5 and 8 Science, Algebra 1, Algebra 1 Retake, Geometry, Biology 1, Civics, and U.S. History. Microsoft Excel spreadsheets containing the same information in a modified format accompany the PDF files. Most PDF files and Microsoft Excel spreadsheets are produced for the initial reporting only and created based on the approved SAR file. The School Report of Students and Student Reports are produced for both initial results release and late waves of reporting.

As shown in Figure 3, the State Summary report PDF file displays the following data:

- Number of Students: Total count of students who took the test and had a score reported in the selected grade, subject, and test administration
- Mean Scale Score: Mean scale score of students tested in the selected grade, subject, and test administration
- Percentage Passing: Only applicable for assessments with a graduation requirement, such as Grade 10 ELA, Grade 10 ELA Retake, Algebra 1, Algebra 1 Retake, and Geometry
- Percentage in Each Performance Level: Percentage of students in each level (Levels 1, 2, 3, 4, and 5, and Levels 3-5 combined)

For the EOC assessments, counts are broken down by grade for first-time testers, but not for retakers, for all summary reports.

Figure 3: A Sample State Summary Report for Mathematics


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The District Summary Report is similar to the State Summary, except that it displays summary data for all of the students in the selected district who have completed the selected test and have a valid score reported. A sample report is shown in Figure 4.

Figure 4: A Sample District Summary Report for Mathematics


FSA Mathematics Performance Levels by Soale Soore Ranges

|  | Level 1 | Level 2 | Level 3 | Level 4 | Leve 5 |  | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grade 3 | $240-284$ | $285-296$ | $297-310$ | $311-326$ | $327-360$ | Grade 6 | $260-309$ | $310-324$ | $325-338$ | $339-355$ | $356-390$ |
| Grade 4 | $251-298$ | $299-309$ | $310-324$ | $325-339$ | $340-376$ | Grade 7 | $269-315$ | $316-329$ | $330-345$ | $346-359$ | $360-391$ |
| Grade5 | $256-305$ | $306-319$ | $320-333$ | 334349 | $350-388$ | Grade 8 | $273-321$ | $322-336$ | $337-352$ | $353-364$ | $365-393$ |



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The State Report of Districts, shown in Figure 5, provides both district- and state-aggregated data and contains the summary performance for each district in the state, by grade. State totals are also provided for all fields on the report. Similar to the State Summary, the State Report of Districts is generated by subject and contains the same data elements as the State Summary but is ordered by district number.

Figure 5: A Sample State Report of Districts for Grade 3 Mathematics


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Peniormance teiris 75are proped kge ter ion compriteon, since te
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- When bited, percentiges maj nol and bo 1 四due brounding.

The District Report of Schools, shown in Figure 6, provides aggregated data and contains summary performance for each school in a district, by grade. In these reports, the schools in the given district are sorted based on the school number. The same data elements that appear on the State Summary Reports are provided in these files. District totals are provided at the bottom of the report.

Figure 6: A Sample District Report of Schools for Grade 3 Mathematics



The School Report of Students (SRS), shown in Figure 7, is available for individual schools and can be accessed by each school or by district administrators in one report that combines data for all schools in their district. Districts have access to both the SRS for the district and the SRS at the school level. Schools have access only to the SRS that contains test results for the students reported in their school. The SRS is created from the approved State Student Results (SSR) files and provided on PANext Reporting to districts and schools.

The SRS is created by subject for each school and includes score flag status and scores (when score flag status is equal to 1 or 9 ) for all students in any given school. Students are not listed on the SRS if their score flag status is 4 (the PreIDlabel does not match TIDE for students testing on paper) or 0 (not tested). For students assigned an NR (not reported) score status, footnotes on the bottom of each page of the Mathematics and EOC PDF reports explain the NR codes. For the ELA SRS, if no valid ELA score is reported for a student, the score flag statuses for ELA, Reading, and Writing are all presented on the Microsoft Excel version of the report so that the district and school users can determine why no score is reported for that student.

For both initial and late reporting, one PDF file report and one Microsoft Excel spreadsheet for each tested subject per school is posted in PANext Reporting. Additionally, one PDF file and one Microsoft Excel spreadsheet that combine all schools in a district are posted to PANext Reporting for district access only. Reports created for late reporting do not include students from the initial reporting, and the file names for these PDF reports and Microsoft Excel spreadsheets denote that these documents contain only students for late reporting. These reports sort student records first by ascending grade, followed by student last name, then first name, and finally, Florida Education Identifier (FLEID). The district-level reports follow the same sort order after first sorting by school.

The fields displayed on the SRS PDF file are as follows:

- Grade
- District and School Names and Numbers
- Student Name (in alphabetical order by last name then first name)
- Student FLEID
- Scale Score
- Passed: N/A is shown, with the exception of Grade 10 ELA, ELA Retake, Algebra 1, Algebra 1 Retake, and Geometry, which are displayed as "Y" or "N"
- Performance Level: Numeric value of 1-5
- Points Earned/Points Possible by Content Area: Shown for each content area by subject and grade

Figure 7: A Sample School Report of Students for Grade 3 Mathematics

|  |  | Slatewide Assessments |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mathematios <br> School Report of Students <br> Spring sCCY's <br> Grade 3 |  | School SCHOOLNAME <br> School ID 9999 <br> District DISTRICTNAME <br> District ID 99 |  |  |  |  |
|  |  |  | Performance Level | Points Earned/Points Possible by Content Area |  |  |
| Student Name | FLEID | $\begin{aligned} & 01 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 00 \\ & 00 \\ & 0.0 \end{aligned}$ | Level 1 (240-284) <br> Level $2(285-296)$ <br> Level 3(297-310) <br> Level 4 (311-326) <br> Level 5 (327-360) |  |  |  |
| LASTNAME01ABCD. FIRSTNAME | FL999999999999 | 999 | 4 | 99199 | 9999 | 99/99 |
| LASTNAMEO2, FIRSTNAME | FL999999999999 | NR2 |  |  |  |  |
| LASTNAMECSMAXC HAR, FIRSTNAMEMAX | FL99999999999 | 999 | 3 | 90199 | 9999 | 99199 |
| LASTNAME04, FIRSTNAME | FL999999999999 | NR3 |  |  |  |  |
| LASTNAMEOSMAXC HAR. FIRSTNAMEMAX | FL999999999999 | 999 | 2 | 99199 | 9999 | 99199 |
| LASTNAME06, FIRSTNAME | FL99999999999 | 999 | 1 | 99199 | 9999 | 98190 |
| LASTNAMEOF, FIRSTNAME | FL99999999999 | NR5 |  |  |  |  |
| LASTNAMEOBMAXC HAR. FIRSTNAMEMAX | FL999999999999 | 999 | 1 | 9899 | 9999 | 99199 |
| LASTNAME09, FIRSTNAME | FL999999999999 | 999 | 3 | 99189 | 9999 | 99199 |
| LASTNAME OMAXC HAR, FIRSTNAMEMAX | FL99999999999 | 999 | 2 | 98199 | 9899 | 99199 |
| LASTNAME11, FIRSTNAME | FL999999999999 | NR7 |  |  |  |  |
| LASTNAME 12, FIRSTNAME | FL999999999999 | NR6 |  |  |  |  |
| LASTNAME 13, FIRSTNAME | FL999999999999 | 999 | 4 | 90199 | 9989 | 90199 |
| LASTNAME14, FIRSTNAME | FL999999999999 | NR8 |  |  |  |  |

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### 1.4.4 Data Files

PANext Reporting allows district users to download a compressed file containing data for their district in pipe-delimited text format. These data files are approved by the FDOE before release and are used to populate the PDF files and Microsoft Excel reports.

Downloadable data files (All Files.zip) are packaged into a single downloadable compressed file for each subject for access by DAC users. In spring, similar to the summary reports, there are up to 10 zipped files for each district. Each compressed file contains pipe-delimited .txt files which include the District Aggregate Results (DSR), District Students Results (DSR) and State Aggregate Results (SAR) data files.

### 1.5 INDIVIDUAL SCORE REPORTS

Student Reports are delivered electronically on PANext Reporting and as printed materials to the districts, which then deliver those reports to schools. The primary purpose of the Individual Student Report (ISR) is to provide a document that enables parents to understand their child's performance in the subject in which they tested. The ISR also presents information that indicates how a student's performance compares to that of other students who took the same test.

For all subjects, the spring ISRs have a four-page color design format, though the final page is intentionally left blank for certain subjects. An example of the ISR for performance Level 4 in Grade 10 ELA is displayed in Figure 8. The first section provides identifying information about the student and is followed by an introduction with general information about the Florida Statewide Assessments program. The subsequent sections provide the student's Florida Statewide Assessments results, including overall scale score, performance level details, a chart to show the student's performance over time, a table to compare the student's performance against the aggregate percentages by school, district, and state, reporting category scores, the student's performance on each domain of the Writing component test for the Grades 4-10 ELA and ELA Retake, and a recommended resources section at the end of the report. Only the Grades 4-10 ELA and Grades 4-8 Mathematics reports include a chart to show the students' performance in previous years on the same assessment. The majority of the information on the report is translated into Spanish and Haitian Creole.

- Top of Report: The test, student, student FLEID, school, and district are identified.
- Purpose of the Report: This section provides a description of the Florida Statewide Assessments and purpose of the score report.
- Florida Statewide Assessments Scores: A student's scale score and corresponding performance level are displayed graphically and explained in an accompanying statement in this section. This information is also translated into Spanish and Haitian Creole.
Beginning with the spring 2019 test administration, the Grade 3 ELA ISRs include text for the Reading Scholarship. Students in Grades 3 or 4 that score at Level 1 or Level 2 on the FSA ELA assessment may be eligible for a scholarship that is intended to prepare students for the next grade. The scholarship can be used for instructional material, tutoring, and
summer or after-school educational programs. If a student receives a Level 1 or Level 2, information about the scholarship will appear next to the performance level on the ISR.
- Previous Performance Trend Chart (only for applicable subjects and grades): This section displays the students' performance over time, in the form of a barrel chart.
- Reporting Category Scores: This table displays the reporting categories assessed. The Points Earned column shows the actual number of points earned in each of the reporting categories. The number of points earned is the sum of the scores of the items measuring a given reporting category. The Points Possible column provides the total number of points possible for each of the reporting categories. This information is translated into Spanish and Haitian Creole.
- Student Performance Compared: This section provides a comparison between the student's performance level and that of the student's school, district, and the state as a whole.
- Student Writing Performance (only for Grades 4-10 ELA and ELA Retake reports): This section provides the number of points possible and points earned by the student in each dimension of the writing component of the ELA assessment, along with an explanation of what the results mean. This information is also translated into Spanish and Haitian Creole.
- Recommended Resources: This section provides online resources and links relevant to parents and students.

To better enable educators, parents and guardians, and students to understand the Florida Statewide Assessments results and interpret them in a meaningful way, the FDOE published Understanding Florida Statewide Assessment Reports (see Appendix C), which provides detailed information regarding the report types and results information contained therein. Understanding Florida Statewide Assessment Reports is updated before the release of results each spring.

### 1.5.1 Zipped Individual Student Report

Beginning in spring 2021, Pearson also produces ZIP files containing individual PDF files of ISRs for Florida districts in PANext Reporting. Each district receives a ZIP file for each reported subject that contains PDF files of ISRs. All DAC-level users in a district have access to the ZIP files for that district only, and private school administrators have access to ISRs for their school only.

Figure 8: A Sample ELA Individual Score Report

|  | GRADE 10 ENGLISH LANGUAGE ARTS SCORE REPORT | Grade 10 PertLeuel it text Flerida <br> Statewice Assessments |
| :---: | :---: | :---: |
| DOE, JOSEPH <br> FLEID: FL999999999999 <br> SPRING <CCYY> | SCHOOL: SCHOOLNO ME (9999) <br> SCHOOL DISTRICT: DISTRICTNQ.ME (99) |  |

## Purpose of This Report

The Florida Statewide Assessment Program is meant to help Florida students succeed. and the ELA mathematics, science, and social studies assessments sene Forida students bymeasuring education gains and progress. Assessment supports instruation and student learning, and test results help Florida's educational leadership and stakeholders determine whether the goals ofthe education system are being met.

This report reflects your student's performance on the Spring <CC YY> ELA assessment. t also allows you to compare your student's score to the performance of other students across the state. h addition, bylooking at the points eamed in each reporting category, you can identify shill areas that may need improvement.

日 Programa de Evaluación Etatal de Florida tiene el propósito de ayudar a los estudiantes a tener éxito, ylas pruebas de Artes del Lenguaje en Ingles (ELA), matematicas, ciencias y estudios sociales permiten a los estudiantes de Forida medir sus logros y progresos en educacion. Las pruebas respald an la instrucción yel ap rendizaje del estudiante y los resultados de estas ayudan a que los líderes e interesados en la educación de Florida determinen silos objetivos del sistema educati vo se están cumpliendo.

Ete informe reteja el rendimiento del estudiante en la prueba de Artes del Lenguaje en hglés (ELA) de la primavera de <CCYY>. También permite compararel puntaje del estudiante con al rendimiento de otros estudiantes a nivel estatal. Además, al mirarlos puntos ganados en cada categoría del informe, usted puede identificar las áreas de habilidades que deben méorarse.

Pwogram Exalyasyon Toupatou nan Eta Florida a (Forida Statewide Assessment Program) gen kòm objektifpou ede elèv Florida yo reyisi, epitou evalyasyon ELA Matematik, Syans ak Syans Sosyal yo asiste elèv Florida yo nan evalye benefis ak pwogre edikatif yo. Evalyasyon yo sipote ansèyman ak aprantisaj elèv, epi rezilta egzamen yo ede dirijan edikatif nan Florida yo ak pati konsene yo detemine si y ap atenn objeltif yo tabli pou sistem edikasyon an.

Rapó sa a montre pètormans elèv ou nan evalyasyon Prentan <CCYY> pou ELA ن pèmèt tou ke ou tonp are rezitha elèvou a parapò ak pèomans lòt elèvnan tout eta a. Metsouli, lè ou gade pwen li ê nan chak kategori rapò yo, ou kapab id antifye domèn konpetans ti ka bezwen amelyorasyon.

## JOSEPH'S PERFORHANCE ON THE GRADE 10 ELA ASSESSMENT



102721 Z99960m-99999e-0000000

## JOSEPH'S PREVIOUS PERFORMANCE ON THE ELA ASSESSMENT

This chart displays Joseph's performance on the ELA assessments over time. It reports the performance levels for the most recently completed tests in ELA (if available).

|  | Grade 6 Spring 2018 | Grade 7 <br> Spring 2019 | Spring 2020 | Grade 9 Spring 2021 | Grade 10 <br> Spring 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Level 5 Mastery highly likely to excel in the next grade | 5 | 5 |  | 5 | 5 |
| Level 4 Proficient likely to excel in the next grade | 4 | 4 |  | 4 | 4 |
| Level 3 Satisfactory may need additional support for the next grade | 3 | 3 | No Test Administered | $3$ | 3 |
| Level 2 <br> Below Satisfactory likely to need substantial support for the next grade | 2 |  |  | 2 | 2 |
| Level 1 Inadequate highly likely to need substantial support for the next grade | 1 | 1 |  | 1 | 1 |
|  | Level 1 Inadequate | Level 2 <br> Below Satisfactory |  | Level 3 Satisfactory | Level 4 Proficient |

** No information is available for Spring 2020 due to the cancellation of statewide assessments.

## JOSEPH'S PERFORMANCE COMPARED

This table shows the percentage of students in each performance level in your student's school, district, and the state.

|  | School | District | State |
| :--- | :---: | :---: | :---: |
| Level 5 | - | $\mathbf{2 0 \%}$ | $\mathbf{2 0 \%}$ |
| Level 4 | - | $20 \%$ | $20 \%$ |
| Level 3 | - | $\mathbf{2 0 \%}$ | $\mathbf{2 0 \%}$ |
| Level 2 | - | $\mathbf{2 0 \%}$ | $\mathbf{2 0 \%}$ |
| Level 1 | - | $\mathbf{2 0 \%}$ | $\mathbf{2 0 \%}$ |

To protect personal student information and provide meaningful results for the public, no data are reported if the number of students is less than ten or all reported students fall into the same performance level. A dash ( - ) appears when data are suppressed or not available.

## JOSEPH'S PERFORMANCE DETAILS

The ELA assessment measures what students know and are able to do in the broad reporting categories listed below. The difficulty of the concepts assessed on the ELA assessment progresses systematically from grade to grade, as does the complexity of the text presented to the student at each grade level.
This table describes the knowledge and skills assessed in each reporting category on the assessment. The columns to the right display the number of points possible and number of points earned by your student in each category.


* Please note that FDOE uses a scoring method called pattern scoring. As a result of this method of scoring, students with the same raw score (number of points earned) may have similar, but not necessarily identical, scale scores. Different scale scores result because the students' patterns of correct answers were different. See the Statewide Assessment Guide for more information.


## JOSEPH'S WRITING PERFORMANCE

This table shows the number of points possible and number of points earned by your student in each domain of the writing component of the ELA assessment. For more information, please see the rubrics and scoring samplers on the Florida Statewide Assessments Portal.

| STATEMENT OF PURPOSE, FOCUS, AND ORGANIZATION | EVIDENCE AND ELABORATION | CONVENTIONS OF STANDARD ENGLISH |
| :---: | :---: | :---: |
| Your student earned 1 out of 4 possible points. The response is related to the topic but may demonstrate little or no awareness of the purpose, audience, and task. It may have little or no discernible controlling idea/claim or organizational structure. | Your student earned 1 out of 4 possible points. The response provides minimal support/evidence for the controlling idea/writer's claim, including little, if any, use of sources, facts, and details. | Your student earned 0 out of 2 possible points. The response demonstrates a lack of command of conventions, with frequent and severe errors often obscuring meaning. |
| Su estudiante obtuvo 1 de los 4 puntos posibles. La respuesta está relacionada con el tema, pero puede tener poca o nula conciencia del objetivo, la audiencia y la tarea. Puede tener una estructura organizacional o idea de control/afirmación insuficiente o no discernible. | Su estudiante obtuvo 1 de los 4 puntos posibles. La respuesta incluye argumentos/pruebas mínimos para respaldar la idea de control/afirmación del autor e incluye poco o ningún uso de fuentes, hechos y detalles. | Su estudiante obtuvo 0 de los 2 puntos posibles. La respuesta demuestra una falta de dominio de las convenciones e incluye errores frecuentes y graves que suelen confundir el significado. |
| Pitit ou ta te fè 1 pwen sou 4 pwen posib. Repons li a te gen rapò ak sijè a men li pa te montre li te konprann objektif, piblik, ak travay li gen pou fè a byen. Yo gendwa pa te wè gen okenn ide/deklarasyon kontwòl oswa estrikti ki òganize. | Pitit ou ta te fè 1 pwen sou 4 pwen posib. Repons li a te bay sipò/prèv ki pa te ase pou ide kontwòl/deklarasyon ekriven an ki pa te itilize sous, enfòmasyon, ak detay yo si li te itilize. | Pitit ou ta te fè 0 pwen sou 2 pwen posib. Repons la montre li manke metriz nòm yo, epi te gen anpil fòt ki fè li souvan difisil pou konprann. |

## RECOMMENDED RESOURCES

## Florida Statewide Assessm ents Portal

The Florida Statewide Assessments Portal is the gateway for Florida assessment information and resources (wuw.fsassessments.org), including practice tests for both computer-based and paper-based tests, and the Students \& Families page.
The following resources can be found on the Students \& Families page:

- Understanding Florida Reports - this document provides additional information about this report and the scoring process.
- Grade-Level Assessment Fact Sheet - this document contains test administration and policy information for the assessment.
- Statewide Assessment Guide - this guide describes the processes involved in developing, administering, and scoring Florida assessments
- Graduation Requirements for Florida's Statewide Assessments - this document describes assessments required for graduation by student cohort.


## FDOE Website

You are encouraged to browse the department's website ( wnw. fldoe.org) for many useful parent resources, including the following:

- Just Read, Florida!
- Third Grade Guidance and Resources - this web page provides policies and resources related to third grade promotion.
- Just Read, Families! - this web page contains resources for families to promote literacy and reading engagement.
- Middle Grades Prom otion Requirements - this web page provides the courses required for middle grades promotion.


## CPALMS

Florida statewide assessments are written to Florida's educational standards, and CPALMS (http://www.cpalms.org) is the portal for resources related to these standards. You may visit this site to review the standards for each grade level and subject or course to help support your student and understand the expectations for learning at each stage of your student's education.

## Achievement Level Descriptions

For more detailed information about a student's performance level, please see the Florida Statewide Assessments Achievement Level Descriptions document.

### 1.5.2 Family Portal

Starting in Spring 2022, the ISRs are available for parents and students on the Family Portal website (accessible at https://fl-familyportal.cambiumast.com). Figure 9 below shows the Family Portal log-in screen.

Figure 9: Family Portal Log-In Screen


## 2 Calculation of Student Scores

This section provides an overview of the calculation of student scores. More detailed information can be found in Volume 1 of this technical report.

### 2.1 Points Possible

Students receive a raw score for each reporting category, with scores being derived using only the operational items in each reporting category. The number of points earned is the sum of the scores of the items measuring a given reporting category. Raw scores are reported at the individual level and shown in the Points Earned column of the Individual Score Reports (ISRs).

### 2.2 Theta Score Estimation

Student ability estimates, or theta scores, are generated using pattern scoring, a method that scores students differently depending on which items they answer correctly. Some test items provide more statistical information than other items, and when students answer those items correctly, this improves their ability estimate. Because the Florida Statewide Assessments are calibrated and scored based on the three-parameter logistic (3PL) model and generalized partial credit model (GPCM) of item response theory models, with the two-parameter logistic (2PL) model treated as a special case of the 3PL, two students with the same overall raw score but with correct answers to different items may have slightly different ability estimates. Section 8.1 .1 of Volume 1 of this technical report outlines the formulas and rules applied during calculation.

Theta scores are not reported, but are used in the calculation of other scores.

### 2.3 Scale Scores

Scale scores are a linear transformation of a student's theta score onto a consistent scale. Scale scores are calculated as follows:

$$
S S_{i}=a * \widehat{\theta_{l}}+b
$$

where $\widehat{\theta}_{l}$ is an individual student's ability estimate obtained from maximum likelihood estimation in Cambium Assessment, Inc.'s (CAI) scoring engine, and $a$ and $b$ are grade- and subject-specific slope and intercept values. Scale scores are rounded to the nearest whole number for reporting. Section 8.1.2 of Volume 1 of this technical report provides additional details about the calculation of scale scores as well as the grade and subject slopes and intercepts.

Scale scores are reported at the individual level in PANext Reporting. Mean scale scores are also reported at the aggregate level.

### 2.4 Alternate Passing Score

The alternate passing score (APS) is the Florida Comprehensive Assessment Tests (FCAT) 2.0 equivalent score reported as a Florida Standards Assessments (FSA) scaled score. When end-ofcourse (EOC) and Grade 10 English Language Arts (ELA) cut scores were reported in 2015, there was no approved FSA reporting scale, and so cut scores were reported as an FCAT 2.0 equivalent.

The FSA scale transformation constants are now known, and therefore, the passing scores can be reported on the FSA scale. Since the cuts recommended from the summer 2015 standard-setting process have been approved, it is important to note that these APS cuts will be used only with students who are retaking the test and meet specific criteria described in the subsequent paragraphs of this section. Section 8.1.4 of Volume 1 of this technical report provides additional details about the calculation of alternate passing scores.

Students who are eligible for the alternate passing score are flagged on the Student Report PDF file with an asterisk. The APS for the given subject is shown in the footnote of the PDF report for reference. There is no APS for the Science and Social Studies assessments.

Eligibility for using the Grade 10 FSA ELA APS is based on student cohort. Students who entered Grade 9 in 2013-2014 (or prior), regardless of his or her first attempt taking the assessment, are eligible to use the APS for graduation purposes. Students who took the Grade 10 FSA ELA assessment in spring 2015 as above-grade-level testers (e.g., Grade 9 students receiving Grade 10 instruction) are also eligible to use the APS, even though they are NOT in the 2013-2014 cohort.

Eligibility for using the APS for the FSA Algebra 1 and Geometry tests is based on when students first participated in the assessment. Students who took one of these assessments prior to the adoption of the new passing scores (spring, summer, fall, or winter 2015) are eligible to use the APS for Algebra 1 for graduation/college advance placement (CAP) purposes, or the APS for Geometry for scholar designation/CAP purposes. Students who participated in the FSA Algebra 1 or Geometry assessment for the first time in spring 2016 and beyond must obtain new passing scores for graduation/CAP and scholar designation/CAP purposes, respectively.

Table 7 summarizes eligibility requirements and passing/alternate passing scores for these assessments.

Table 7: FSA Eligibility Requirements and Passing Scores

| Assessment | Eligibility | Passing Score (FSA Scale) |
| :--- | :--- | :---: |
| Grade 10 ELA, Grade <br> 10 ELA Retake | Entered Grade 9 in 2014-2015 or after | 350 |
| Algebra 1, Algebra 1 <br> Retake | First participated in spring 2016 or beyond | 497 |
| Geometry | First participated in spring 2016 or beyond | 499 |
| Grade 10 ELA, Grade <br> 10 ELA Retake | Entered Grade 9 in 2013-2014 or prior | 349 |
| Algebra 1, Algebra 1 <br> Retake | First participated prior to spring 2016 | 489 |
| Geometry | First participated prior to spring 2016 | 492 |

### 2.5 STANDARD ERRORS

A standard error is a statistic that measures the uncertainty associated with a student's score. No test is perfectly reliable; therefore, a single test score does not perfectly capture any student's performance. The standard error of a test score can be used to judge the degree to which a student
would perform differently if he or she were to repeat the test administration. For example, if a student has a scale score of 350 with a standard error of 10 , then-applying properties of the normal distribution- $68 \%$ of the time, one can expect that student to score between 340 and 360 on repeated testing administrations.

## 3 Interpretation of Reported Scores

The following business rules are applied for student scores in PANext Reporting.

### 3.1 Business Rules

### 3.1.1 Inclusion in Aggregation

All aggregate report data are based on the total number of students who took the test and had a reported score. Only students with a score flag status of 1 are included in these data; all other score flags are excluded from aggregation. Thus, students who completed but did not submit their tests for scoring or whose scores were suppressed are not included in the aggregated reports. Students whose scores were suppressed appear on the School Report of Students with an NR (not reported) status.

### 3.1.2 Aggregation

Test data are collected at the individual student level during the testing period. Aggregations to a higher unit, such as a school or district, are calculated directly from the student level. More specifically, state, district, and school aggregates are calculated by aggregating all the students in the state, in the district, and in the school, respectively. For example, the mean scale score is based on the scale scores of the students in their given district, rather than on the average scale scores of each school in the district.

Records are excluded from aggregation based on the Score Status Flag and School Type. Only records for students that have a Score Status Flag of 1 are included in the regular reporting aggregated data. The aggregated data do not include data for the schools that are assigned with a school type of $10,11,17$, or 99 . Table 8 shows the school type information.

Table 8: School Type

| Special School Name | School Type |
| :--- | :---: |
| McKay Scholarship School | 11 |
| Florida Tax Scholarship School | 11 |
| Department of Juvenile Justice (DJJ) School | 10 |
| Private-to-Public School | 10 |
| Brick and Mortar Private School | 17 |
| Home Ed School | 99 |
| Ahfachkee School | 14 |

To provide meaningful results and to protect the privacy of individual students, the aggregation results are suppressed if any of the following criteria are met:

- The number of students with reported scores is less than 10
- All students earn the same performance level

When the aggregated score information is suppressed, the number of students is displayed on the aggregation report but the "-" shows on other score fields.

### 3.1.3 Student Mobility Rules

Scores are reported based on the enrolled school and district in the Test Information Distribution Engine (TIDE) as of the last day of the testing window (e.g., March 11, 2022, for the spring 2022 retake test administration), if available. Otherwise, the student's last known school and district are used.

### 3.1.4 Minimum Group Size

For all grades and subjects, no score data are reported if fewer than 10 students are tested. Interpretations

This section provides guidance for appropriate interpretations and uses of the test results.

### 3.1.5 Scale Scores

As described earlier, scale scores are reported for all Florida assessments, including ELA, Mathematics, Science, and end-of-course (EOC).

Scale scores can be averaged to form overall summaries of student performance within a group.

### 3.1.6 Alternate Passing Scores

Eligible retake students in Grade 10 ELA, Algebra 1, and Geometry receive an alternate passing score. The individual score reports and School Report of Students contain a passing status ("Y" for yes or "N" for no). Student Reports include a statement indicating whether the student met the graduation requirements.

### 3.1.7 Reporting Categories

The Florida Department of Education (FDOE) encourages educators to use assessment results in a statistically appropriate way. The comparisons described in this report provide possibilities for evaluation of reporting category scores at the school and district levels.

Reporting category scores, also known as raw scores, are the totals of the scores earned on the items measuring each specific category. Reporting categories represent groups of student skills, or benchmarks, which are assessed in each grade and subject.

Raw scores, however, cannot be compared between the different reporting categories. For example, suppose a student has a raw score of 8 in one category and a raw score of 3 in another. This alone cannot be used to indicate that the student is relatively weak in the second reporting category vis-à-vis the first. The difficulty of the items must be considered, and raw scores do not factor in this information regarding item difficulty.

## 4 Appropriate Score Uses

The tests in the Florida Statewide Assessments system are designed primarily to measure student achievement and to determine school and district accountability related to the implementation of the Florida Standards. They are summative measures of a student's performance in a subject at one point in time. They provide a snapshot of the student's overall achievement, not a detailed accounting of the student's understanding of specific content areas defined by the standards. Florida Statewide Assessments test scores, when used appropriately, can provide a basis for making valid inferences about student performance. The following list outlines some of the ways the student scores can be used:

- Reporting results to parents of individual students

The information can help parents begin to understand their child's academic performance as related to the Florida Statewide Assessments.

- Evaluating student scores for placement decisions

The information can be used to suggest areas needing further evaluation of student performance. Results can also be used to focus resources and staff on a particular group of students who appear to be struggling with the Florida Statewide Assessments. Students may also exhibit strengths or deficits in reporting categories measured on these tests. Because the reporting categories are based on small numbers of items, the scores must be used in conjunction with other performance indicators to assist schools in making placement decisions, such as whether a student should take an improvement course or be placed in a gifted or talented program.

- Evaluating programs, resources, and staffing patterns

Test scores can be a valuable tool for evaluating programs. For example, a school may use its scores as one piece of evidence in evaluating the strengths and weaknesses of a particular academic program or curriculum in the school or district as it relates to Florida Statewide Assessments.

### 4.1 INDIVIDUAL STUDENTS

Scale scores determine whether a student's performance has met or fallen short of the proficiency criterion level. Test results can also be used to compare the performance of an individual student with the performance of a similar demographic group or an entire school, district, or state group. For example, the score of a Hispanic student in a gifted program could be compared with the average scores of Hispanic students, gifted students, all the students on campus, or any combination of these aggregations.

Reporting category scores provide information about student performance in more narrowly defined academic content areas. For example, individual scores on reporting categories can provide information to help identify areas in which a student may be having difficulty, as indicated by a particular test. Once an area of possible weakness has been identified, supplementary data should be collected to further define the student's instructional needs.

Finally, individual student test scores must be used in conjunction with other performance indicators to assist in making placement decisions. All decisions regarding placement and educational planning for a student should incorporate as much student data as possible.

### 4.2 Groups of Students

Test results may be used to evaluate the performance of student groups. The data should be viewed from different perspectives and compared with district and state data to gain a more comprehensive understanding of group performance. For example, the average scale score of a group of students may show they are above the district and/or state average, yet the percentage of students who are proficient in the same group of students may be less than the district or state percentage. One perspective is never sufficient.

Test results may also be used to evaluate the performance of student groups over time. Average scale scores can be compared across test administrations within the same grade and subject area to provide insight into whether student performance is improving across years. The percentages of students in each achievement level can also be compared across test administrations within the same grade and subject area to provide insight into whether student performance is improving across years.

Test scores can also be used to compare the performance of different demographic or program groups (within the same subject and grade) on a single test administration to determine which demographic or program group, for example, had the highest or lowest average performance, or the highest percentage of students considered proficient on the Florida Statewide Assessments. Other test scores can be used to help evaluate academic areas of relative strength or weakness. Average performance on a reporting category can help identify areas where further diagnosis may be warranted for a group of students.

Test results for groups of students may also be used when evaluating instructional programs; year-to-year comparisons of average scale scores or the percentage of students considered proficient in the program will provide useful information. Considering test results by subject area and by reporting category may be helpful when evaluating curriculum, instruction, and their alignment to standards because all Florida Statewide Assessments are designed to measure content areas within the required state standards.

Generalizations from test results may be made to the specific content domain represented by the reporting categories being measured on the test. However, because the tests are measuring a finite set of skills with a limited set of items which vary from year to year, any generalizations about student achievement derived solely from a particular test should be made cautiously and with full reference to the fact that the conclusions were based on only one test. All instruction and program evaluations should include as much information as possible to provide a more complete picture of performance.

## 5 Cautions for Score Use

Test results can be interpreted in many different ways and used to answer many different questions about a student, educational program, school, or district. As these interpretations are made, there are always cautions to consider.

### 5.1 Understanding Measurement Error

When interpreting test scores, it is important to remember that test scores always contain some amount of measurement error. That is to say that test scores are not infallible measures of student characteristics. Rather, some score variation would be expected if the same student is tested across occasions using equivalent forms of the test. This effect is due partly to day-to-day fluctuations in a person's mood or energy level that can affect performance and partly to a consequence of the specific items contained on a particular test form the student takes. At an individual level, one form may result in a higher score for a particular student than would another form. This difference in score may occur even though all testing programs in Florida conduct a careful equating process (described in Volume 1, Section 6: Item Calibration and Scaling) to ensure that test scores from different forms can be compared. Because measurement error tends to behave in a fairly random fashion, when aggregating over students these errors in the measurement of students tend to cancel one another out. Volume 4: Evidence of Reliability and Validity describes measures that provide evidence indicating measurement error on the Florida Statewide Assessments is within a tolerable range. Nevertheless, measurement error must always be considered when making score interpretations.

### 5.2 Using Scores at Extreme Ends of the Distribution

As with any fixed-length test, student scores at the extremes of the score range must be viewed cautiously. For instance, if a student achieves the maximum scale score for the Grade 5 Science assessment, it cannot be determined whether the student would have achieved a higher score if a higher score were possible. Caution should be taken when comparing students who score at the extreme ends of the distribution.

Analyses of student scores at extreme ends of the distribution should also be undertaken cautiously because of a phenomenon known as regression toward the mean. Students who scored high on the test may achieve a lower score the next time they test because of regression toward the mean. (The magnitude of this regression effect is proportional to the distance of the student's score from the mean and bears an inverse relationship to reliability.) For example, if a student who obtained a high score of 38 out of 40 took the same test again, there would be many more opportunitiescompared to a student with a score close to the mean-to incorrectly answer an item that he or she originally answered correctly ( 38 opportunities, in fact), while there would only be two opportunities to correctly answer items missed the first time. If an item is answered differently, it is more likely to decrease the student's score than to increase it. The converse of this is also true for a student with a very low score; the next time the student tests, he or she is more likely to achieve a higher score, and this higher score may be a result of regression toward the mean rather than an actual gain in achievement. It is more difficult for students with very high or very low scores to maintain their scores than it is for students in the middle of the distribution. The
regression toward the mean phenomenon applies to any test and is another reason to be cautious when interpreting any scores at extreme ends of the distribution.

### 5.3 Interpreting Score Means

The scale score mean (or average) is computed by summing each student's scale score and dividing by the total number of students. Although the mean provides a convenient and compact representation of where the center of a set of scores lies, it is not a complete representation of the observed score distribution. Very different scale score distributions in two groups could yield the same mean scale score. When a group's scale score mean falls above the scale score designated as the passing or proficient cut score, it does not necessarily follow that most students received scale scores higher than the cut score. It can be the case that a majority of students received scores lower than the cut score while a small number of students got very high scores. Only when more than half of the students score at or above the particular scale score can one conclude that most students passed or are proficient on the test. Therefore, both the scale score mean and percentage at or above a particular scale cut score should be examined when comparing results from one test administration to another.

### 5.4 Using Reporting Category Information

Reporting category information can be useful as a preliminary survey to help identify skill areas in which further diagnosis is warranted. The standard error of measurement associated with these generally brief scales makes drawing inferences from them at the individual level very suspect; more confidence in inferences is gained when analyzing group averages. When considering data at the reporting category level, the error of measurement increases because the number of possible items is small. In order to provide comprehensive diagnostic data for each reporting category, the tests would have to be prohibitively lengthened. Once an area of possible weakness has been identified, supplementary data should be gathered to understand strengths and deficits.

Also, because the tests are equated only at the total subject-area test scale score level, year-to-year comparisons of reporting category level performance should be made cautiously. Significant effort is made to approximate the overall difficulty of the test from year to year during the test construction process, but some fluctuations in difficulty do occur at the reporting category level across test administrations. Observing trends in reporting category performance over time, identifying patterns of performance in clusters of benchmarks testing similar skills, and comparing school or district performance to district or state performance are appropriate uses of group reporting category information.

Furthermore, for tests under development with new content standards, as with the Florida Statewide Assessments, changes to the test content and the percentage of score points allotted to each reporting category may change. Some of these changes may be significant. When changes in test content occur, comparing student performance across years is particularly difficult, and under these circumstances the advice from measurement professionals is likely to discourage making such comparisons.

### 5.5 Program Evaluation Implications

Test scores can be a valuable tool for evaluating programs, but any achievement test can give only one part of the picture. Standard 13.9 in the Standards for Educational and Psychological Testing (2014) states, "In evaluation or accountability settings, test results should be used in conjunction with information from other sources when the use of the additional information contributes to the validity of the overall interpretation." The Florida Statewide Assessments are not allencompassing assessments measuring every factor that contributes to the success or failure of a program. Although more accurate evaluation decisions can be made by considering all the data the test provides, users should consider test scores to be only one component of a comprehensive evaluation system.

## 6 Test Security Analysis

After the testing window is closed, Caveon Test Security reviews the data for testing irregularities, including student and school scores for anomalous data.

Possible examples of testing irregularities include a student copying another student's answers or a test administrator changing students' answers. Anomalous scores include (1) students with similar response patterns in the same testing group, or (2) an unusual increase in school performance. The data forensic analyses use several statistics to detect the following potential security breaches:

1. Pairs or groups of extremely similar or even identical answers
2. Aberrant response patterns, such as answering difficult items correctly and not providing correct answers for easy items
3. Response time stamps, in the case of computer-based tests, to check whether a pair or a group of students worked in a synchronous manner
4. Unusual gain scores

Through the results of these statistical analyses, it is possible to detect the source of suspect activity and its effect on test results. If an irregularity is found in the data, flagged student records are put on hold and noted on issue logs for the Florida Department of Education's (FDOE) review. The FDOE reviews the data and can either request to release or maintain the hold on the record.

## References

American Educational Research Association, American Psychological Association, \& National Council on Measurement in Education (Eds.). (2014). Standards for educational and psychological testing. American Educational Research Association.


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