Module 7

GROUP-LEVEL DECISION MAKING

In this section of the book, we begin to take the information we have learned about standardized test reports and apply it to curricular and instructional decision making. Specifically, this module begins with a discussion of data-driven decision making and continues with an examination of a basic process for using standardized test results for making decisions. As you will see, the sequential, linear process (as shown in Figure 7.1) focuses on the identification of critical content or subtest areas, the determination of where and how these are taught within the curriculum, and the development of new or different methods of instruction, reinforcement, and so on. The explanation of this process is followed by some examples that demonstrate the application of this process through the use of several sample test reports previously examined in earlier modules.

DATA-DRIVEN DECISION MAKING

Since the beginning of formalized education in this country, teachers have used information about students to help inform decisions about their instruction. Quality teachers tend to gather information from a wide variety of sources. However, from a historical perspective, teachers typically have not incorporated data resulting from the administration of standardized tests into this process. As we have discussed in earlier modules, they admittedly do not like standardized tests (although who among us *really* does?). However, due to the advent of No Child Left Behind (NCLB) and its associated Adequate Yearly Progress (AYP) requirements, utilization of standardized test data has become an accountability requirement. It has

" . . . with No Child Left Behind, we don't have a choice. It's not a choice to change; there is no choice. You have to change. Your choice is how you want to change."

—Martha Fether,
Elementary School Principal

become crucial that classroom teachers and building-level administrators understand the importance of and how to make data-driven instructional decisions (Mertler & Zachel, 2006).

Data-driven instructional decision making is a process by which educators examine the results of standardized tests to identify student strengths and deficiencies. The ultimate goal of this process is for teachers to critically examine their curriculum and their instructional practices relative to their students' actual performance on standardized tests. This, in turn, provides teachers with another level or type of information to help them make instructional decisions that are more accurately informed; in other words, these decisions are, at least in part, driven by student performance on statewide as well as national assessments of learning (Mertler & Zachel, 2006).

" . . . if you really want to make your classroom as a teacher as effective as it possibly can be, and your teaching as effective as it can be, you have to accept the fact that we need to look at it from more of a scientific angle, analyze the data, make decisions based on that data."

—Hugh Caumartin,
District Superintendent

The notion of data-driven instructional decision making has gained importance over the past several years. With each passing year, there seems to be an increasing amount of accountability requirements being placed on school districts, their administrators, and their teachers. NCLB and AYP compliance have become critical focal points for school districts. In the state of Ohio, for example, state ratings for school districts and individual school buildings are based on 25 performance indicators—23 of which are based on standardized test performance. Nine of these occur at the elementary level (i.e., Grades 3 through 6) (Ohio Department of Education, 2004).

The concept of teachers using assessment information to make decisions about their instructional practices and intervention strategies is nothing new; teachers have been doing that forever. It is an integral part of being an educational professional. In the past, these types of decisions were based on instinct. However, the old tools of education—intuition, teaching philosophy, and personal experience—do not seem to be enough anymore (LaFee, 2002). What occurs less frequently in schools and individual classrooms is the use of standardized test results as an additional source of information about students and as a source upon which such curricular and instructional decisions can be

" . . . teachers are going from what was considered the art of teaching to much more of a science of teaching."

—Hugh Caumartin,
District Superintendent

based. There are two main ways that classroom teachers can make use of standardized test results. These results can be used to assist teachers in (1) revising instruction for entire classes or courses and (2) developing specific intervention strategies for individual students (Mertler, 2002, 2003).

This infrequent use typically occurs as a result of the seemingly overwhelming amount of information provided on test reports. I have heard teachers comment that "there is so much information here! I don't know where to start!" In addition, many educators believe that this idea of using test performance to help guide decision making reduces the educational process to something more business like. In business settings, data is absolutely essential. Information about aspects such as customers, inventory, and sales are crucial in determining a business's success or failure. In contrast, in education we tend to focus on the more human side of things, and rightfully so. Kids are real, living, breathing entities; data is abstract. For many educators, this truly makes data a four-letter word (LaFee, 2002). This idea of data-driven instructional decision making is not new, but it does take some practice on the part of the classroom teacher. Focusing on a few key pieces of information on test reports and essentially ignoring other data is one method of avoiding this overwhelming feeling.

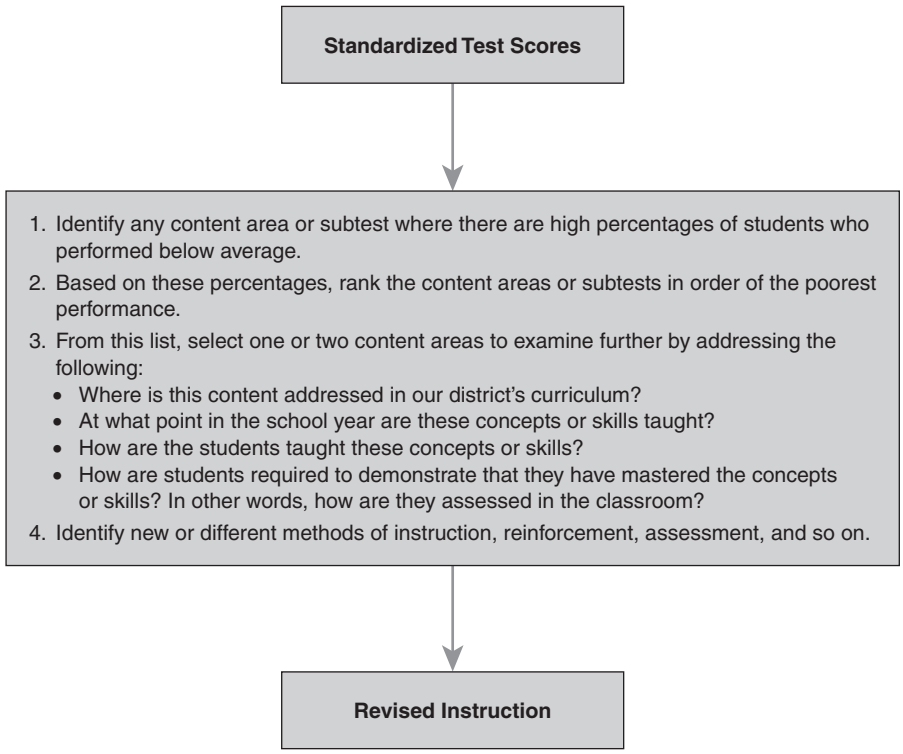
> *"Don't try to do it all in one year. Pick either a subject area or a test. Start with 'baby stuff.' I mean you can't do it all. But if you can see the advantage of doing it with a subject area or with a particular test and really work to maximize that information and use it and really, really stay consistent to it for a year, then I think you can build on that, from year to year."*
>
> —Ellen Sharp,
> *First- and Second-Grade Teacher*

A PROCESS FOR FOCUSING ON GROUP INSTRUCTION

When examining test results for the purpose of revising instruction, the best—or, at least, most common—practice is to interpret results provided for an entire class or course (Mertler, 2002; Mertler & Zachel, 2006). As you have seen in numerous examples provided throughout this book, this type of test report is one of many that is typically provided to classroom teachers by test publishers. It allows the classroom teacher to see how students are performing across the curriculum as a whole. Areas in which students are deficient may be identified following the process shown in Figure 7.1.

The process itself is admittedly not an extremely difficult one. However, adherence to its steps is critical to clearly see the possible relationships between student test performance and the curriculum and/or instructional practices. The first step in this process is the identification of any content areas or subtests (as well as

Figure 7.1 Steps in a Generic Process for Identifying Curricular Areas in Which Students Are Deficient (Focusing on Group Instruction)



any specific types of skills) where there are high percentages of students who performed below average (in the case of criterion-referenced test scores) or where group performance is low in relation to the norm group (in the case of norm-referenced scores). Secondly, these identified content areas or subtests should then be ranked in order of performance with number 1 on the list being the area with the poorest student performance.

The third step is to flag one or two of these specific content areas (i.e., the areas with the poorest performances) for further examination and to ultimately serve as the focus for any curricular or instructional revisions. This closer scrutiny of any deficiencies, as identified by poor performance across a majority of students, should be targeted by the teacher for instructional revision. As part of this closer examination, it is strongly recommended that teachers consider addressing the following questions for those topic areas or skills identified as deficient:

(1) Where is this content addressed in our district's curriculum?

(2) At what point in the school year are these concepts/skills taught?

(3) How are the students taught these concepts or skills?

(4) How are students required to demonstrate that they have mastered the concepts/skills? In other words, how are they assessed in the classroom?

Answers to these questions, as well as others that are raised during the process, will often provide important information and will ultimately guide decisions regarding instructional revisions. The specification of these revisions—which might consist of the identification of new or different methods of instruction, the incorporation of new supplemental materials or activities, a reorganization of the sequence of instructional topics, or the development of different types of classroom assessments—constitutes the fourth and final step in the process. First, however, a word of caution is in order. It is important to remember that, generally speaking, achievement tests are intended to survey basic skills across a broad domain of content (Chase, 1999). On some subtests of most any standardized achievement test, a specific subtest may consist of as few as five or six items. Careless errors committed or lucky guesses by students may substantially alter the score on that subtest, especially if they are reported as percentages of items answered correctly or as percentile ranks. Therefore, it is important to examine not only the raw scores and percentile ranks, but also the total number of items possible on a given test prior to making any intervention decisions.

As you well know by this point, most publishers of standardized achievement tests provide both criterion- and norm-referenced results on individual student reports. Many results are reported in terms of average performance (i.e., below average, average, above average). It is again important to remember that average simply means that half of the norm group scored above and half scored below that particular score. Teachers should take great care to avoid the over interpretation of test scores (Airasian, 2005).

"We sat together as a department last year and at the beginning of this year when the numbers came out. And we went item by item through each of the test questions and we looked at percentage [passing]. What we really looked at mostly was percentages of kids that passed each question. And then if there's over an abnormal percentage of kids that didn't pass it, then we asked questions. Why? Did we not get to this? Did we cover it differently? Was there an aspect of it that we left out? Do we even offer this at the high school? Do we offer it at the freshman and sophomore levels before they take this test? And what we ended up doing is . . . changing the entire sequence of our whole department. We got rid of a course. We moved world history from the sophomore year to the freshman year and American history from the junior year to the sophomore year."

—Joe Hudok,
High School Social Studies Teacher

Examples

Three examples of test reports and explanations of how teachers might engage in the process outlined in Figure 7.1 are presented next. These examples focus on instructional decisions resulting from group performance on standardized achievement tests. These three examples use the SAT10 and the third- and eighth-grade Ohio Achievement Tests (OAT), respectively.

Example 1: Fourth-Grade Achievement Test Battery

Ms. Smith's fourth-grade class, comprised of 22 students, was tested in April 2003 using the Stanford Achievement Test, version 10 (SAT10). The students were tested in the areas of reading, mathematics, language, spelling, science, social science, listening, and thinking skills. The class results are presented in Figure 7.2.

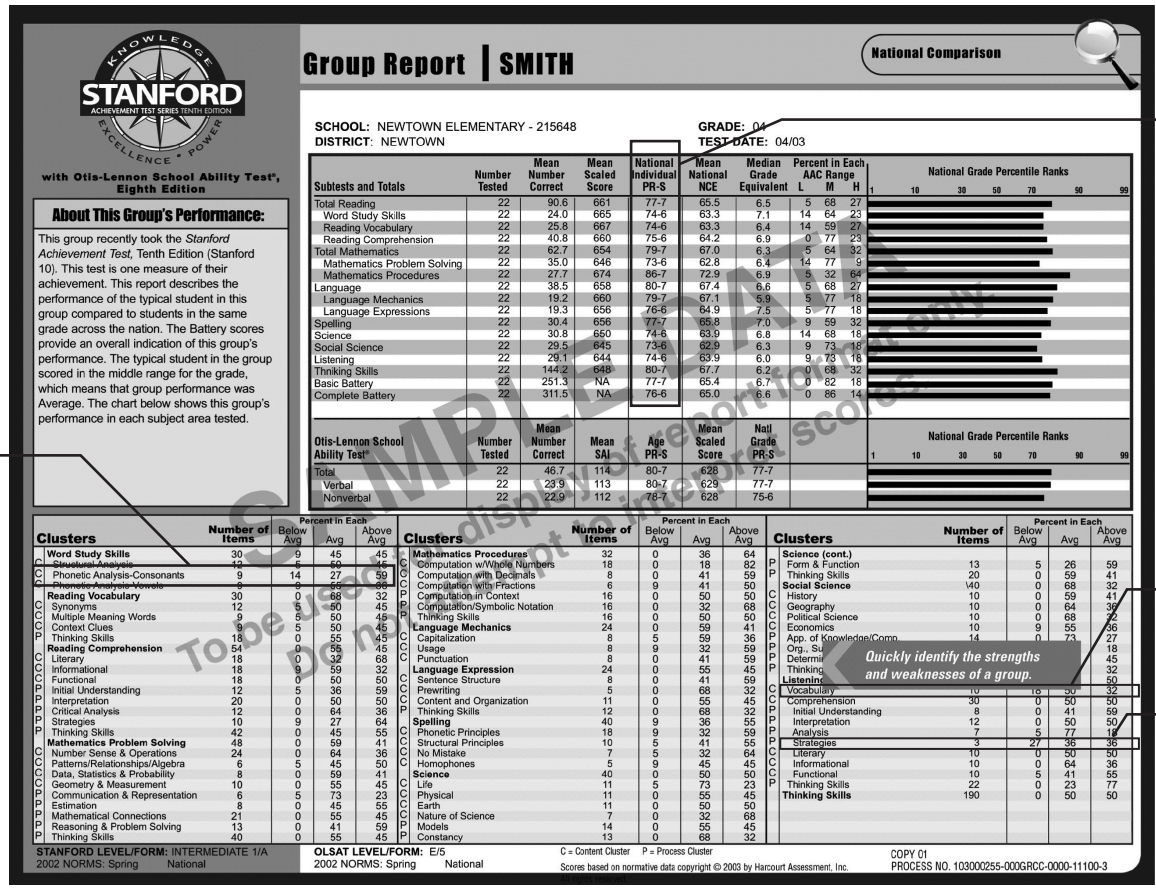
As Ms. Smith observed in the norm-referenced portion of the report, her students performed above average across all of the subtests on the total test battery. This is evidenced by the percentile rank scores (which range from 73 on "Social Science" to 86 on "Mathematics Procedures") and the stanine scores (all of which are equal to 6 or 7; this information is highlighted in boxed area #1 of Figure 7.2). She was pleased that, compared to the national norm group of fourth-grade students, her students performed relatively well.

She then turned her attention to the criterion-referenced portion of the test report. She quickly scanned the "Below Average" column for each of the clusters, making a list of those areas where higher percentages of her students were classified as performing below the average number of items answered correctly. She quickly noticed that 14% of her class scored below average on the nine items comprising the "Phonetic Analysis—Consonants" portion of the Word Study Skills cluster (shown in boxed area #2 of Figure 7.2). Although this is not a huge percentage of her students, she realized that it does represent an area where at least some of her students seemed to struggle.

She also noticed that 18% of her students were below average on the "Vocabulary" portion of the Listening cluster (highlighted in boxed area #3 of Figure 7.2). Finally, Ms. Smith noted that her students did not perform well on the "Comprehension—Strategies" portion of the Listening cluster, with 27% performing below average (shown in boxed area #4 of Figure 7.2). However, she realized that that score included only three items. Although she decided to add that cluster to her list of deficient areas, she also made a note to remind herself to keep her students' performance on this portion in perspective, so to speak, since it was based on such a small number of test items.

Based on the information provided on the test report and the relative importance in her district's curriculum, Ms. Smith decided to prioritize the deficient content areas/skills in the following manner:

Figure 7.2 Sample Class Test Score Report



1. Phonetic Analysis—Consonants
2. Listening—Vocabulary
3. Listening—Comprehension Strategies

Furthermore, since her students seemed to be deficient in an area (i.e., phonetic analysis focusing on consonant sounds) that they should have previously mastered, she decided to focus her attention on revising how she teaches and assesses that content and skill.

Normally, Ms. Smith teaches consonant blends and digraphs early in the school year. In fourth grade, this typically involves some basic review of these letter and sound combinations. Students typically learn various consonant blends (e.g., *bl, fr, cl, sn, sk*) and digraphs (e.g., *sh, ch, th, wh, ng*) in the early elementary grades, but this year's students seemed to still be having difficulty with them. Therefore, she decided that it may be necessary for her to reinforce both consonant blends and digraphs through the use of word families with weekly spelling lists that contain these letter and sound combinations and to do so throughout the entire school year.

In addition to changing how and when she teaches these consonant sounds, Ms. Smith also concluded that she should revise how she assesses her students' learning of this material. Each week during the next school year, she plans to provide her students with random lists of words that they may not necessarily recognize from their weekly spelling lists, but that contain those various letter and sound combinations. The students will then be assessed by requiring them to sort these words according to blend or digraph family. The extent to which they are able to perform these sorts with unfamiliar words will serve as an indication to Ms. Smith of her students' competency with regard to phonetic consonant analysis.

In addition to the instructional and assessment changes she plans to make for her own classroom for next year, Ms. Smith is highly aware of the fact that some of her current students (who will soon be leaving her classroom for the fifth grade) are moving on with this deficiency intact. She planned to meet with the fifth-grade teachers in order to share these test results and her plan for revising her instruction, in the hopes that it will provide some guidance for their instruction, as well.

Example 2: Third-Grade Statewide Reading Achievement Test

Mr. Alvarez received his third-grade students' Ohio Reading Achievement Test results (see Figure 7.3) in the late spring with some degree of disappointment. He examined the scores not only from both norm- and criterion-referenced perspectives, but also in terms of the growth of his students over the course of this academic year since his students also took a similar version of this test earlier in the fall. Although the average scaled score (*SS* = 404) for students in his class was below the average performance of third graders in his school (*SS* = 411), in the

district (*SS* = 411), and in the state (*SS* = 416), his students did demonstrate positive growth over the course of the year, based on the average score of his class in the fall (*SS* = 392) (this information is shown in boxed area #1 in Figure 7.3). This improvement raised his class's performance from the "Basic" level to the "Proficient" level. In the fall, 57% (i.e., 24% + 33%) of his class was classified as below proficient. However, following spring testing that percentage had fallen to 43% (highlighted in boxed area #2 in Figure 7.3).

For obvious reasons, Mr. Alvarez was still concerned with the substantial proportion of his students that were continuing not to meet the state standards in reading. He then decided to take a closer look at the specific strands in hopes of being able to identify the specific reading content and/or skills where his students may be struggling. Although 29% of his students were below proficient, students did not seem to struggle as much with "Acquisition of Vocabulary," relative to the other three strands. Performance on the five released multiple-choice items for this strand indicated that percentage of students answering items correctly ranged from 81% (question 26) to 100% (question 2). The second strand, "Reading Process," proved to be a bit more difficult for Mr. Alvarez's students, with 38% classified as being below proficient. There was a distinct problem with question 12, where only 62% of his students answered the item correctly (see boxed area #3 of Figure 7.3). Question 25, a constructed-response item, also posed a good deal of difficulty for them. On this item, where the total possible points was equal to 4, his students scored an average of 1.3 (shown in boxed area #4 of Figure 7.3).

Although there seemed to be two problematic multiple-choice test questions (questions 14 and 15) in the "Informational Text" strand (as highlighted in boxed area #5 of Figure 7.3), student performance was the highest on this strand. Only 19% were below proficient while 57% were classified as proficient and another 24% were above proficient. The final strand, "Literary Text," was the strand where Mr. Alvarez's students demonstrated their poorest performance. Nearly half (48%) of the students were below proficient. Students had difficulties with three of the released multiple-choice items (see boxed area #6 of Figure 7.3). In addition, the percentage of his class that was below proficient was markedly higher than the percentages of students across his school, the district, and the state.

Based on his interpretation of test results for his class and based on the indicated student weaknesses, Mr. Alvarez ranked the reading strands in the following order:

1. Literary Text
2. Reading Process
3. Acquisition of Vocabulary
4. Informational Text

Figure 7.3 Sample Class Test Score Report

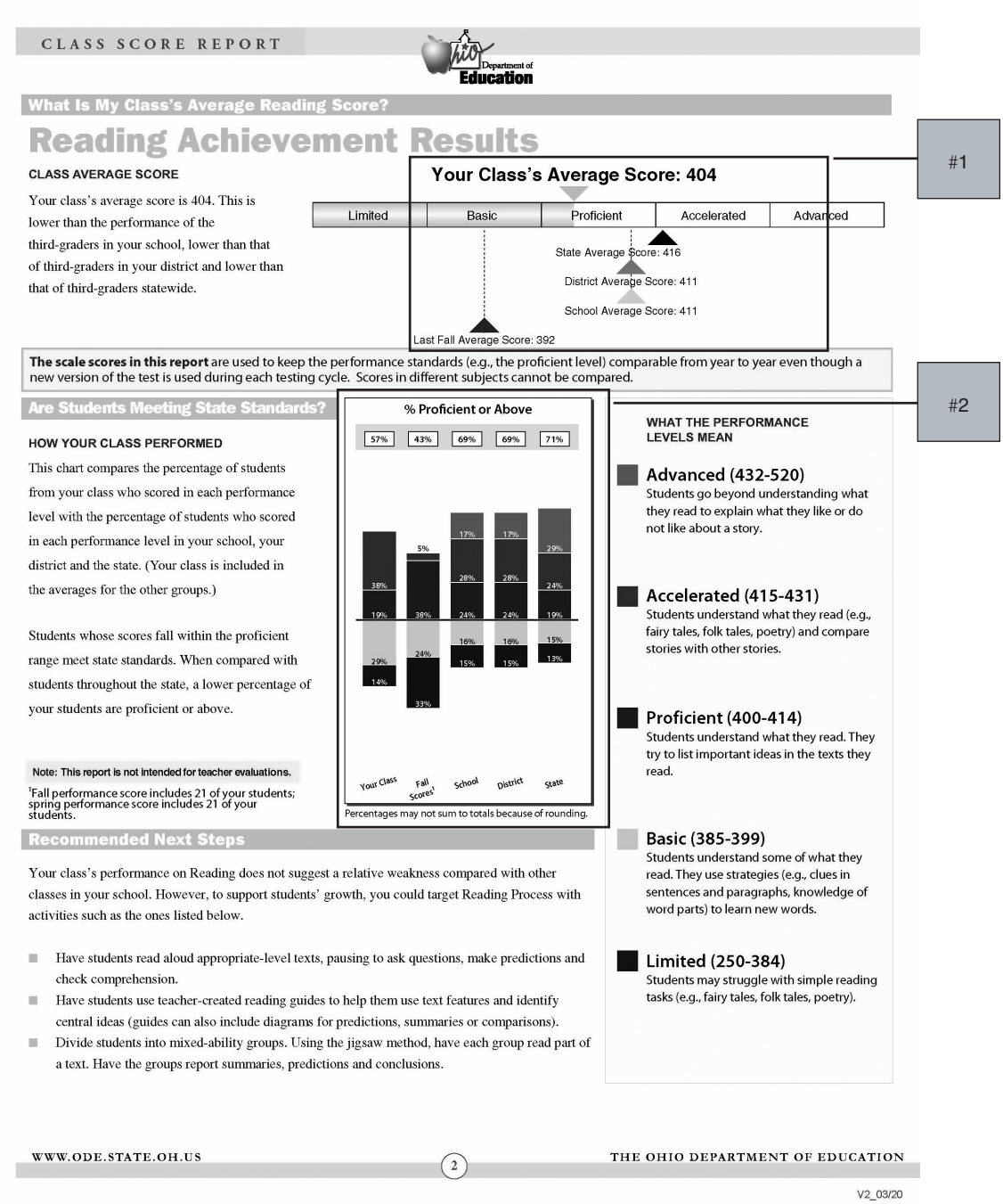
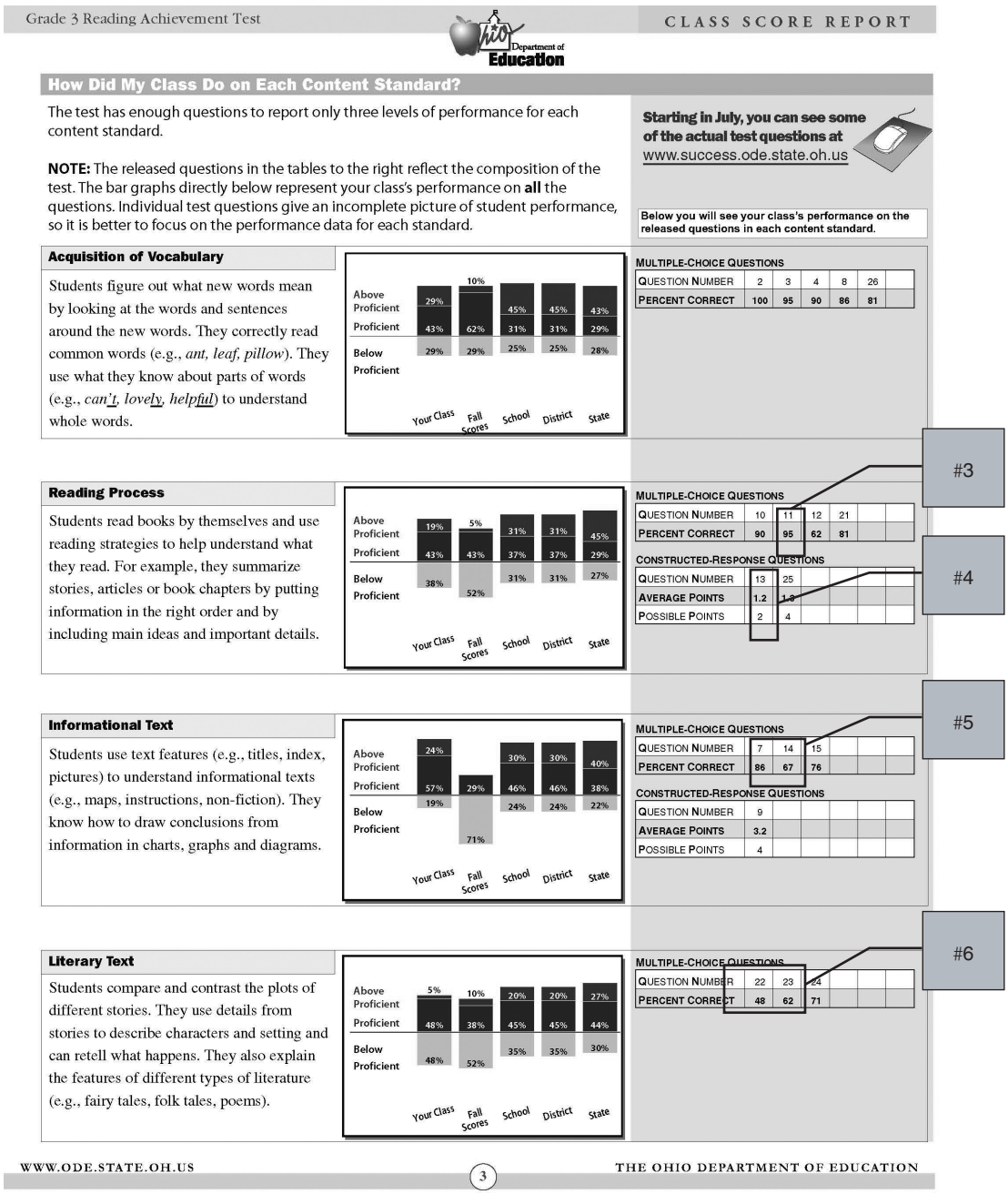


Figure 7.3 (Continued)



Due to the overall class performance being so low on Literary Text, he began by reflecting on how he taught these skills to his students during the course of the school year. He reviewed the contents of his district's curriculum guide with respect to literary text instruction just to refresh his memory and made a list of the types of knowledge and skills in this curricular strand. These included objectives such as

- recognizing and describing similarities and differences of plot across literary works;
- using concrete details from the text to describe characters and setting;
- retelling the plot sequence;
- identifying and explaining the defining characteristics of literary forms and genres including fairy tales, folk tales, poetry, fiction, and nonfiction; and
- identifying stated and implied themes.

Mr. Alvarez also reviewed the three released items from the test and discovered that they all addressed the students' abilities to retell, in detail, the plot of a given story, focusing primarily on the appropriate sequence of events. This seemed to make sense to him as he had also observed his students' struggling a bit with these skills earlier in the school year. Therefore, he decided that these skills would be the focus of his revised instruction.

Mr. Alvarez began searching for alternative lessons, activities, and reading passages to help support his new focus of helping his students become more competent at retelling the details of the plot of given reading passages. He searched a variety of instructional manuals as well as the Internet and consulted with several other third-grade teachers in his district. He also located several ideas for alternative methods of assessing his students' retelling skills including some ideas for developing multiple-choice items that would be similar in format to those appearing on the statewide achievement test. After a short period of time, he felt that he had really begun to put together a thorough series of materials, activities, and assessment formats that would really help support him in this new instructional endeavor.

Example 3: Eighth-Grade Statewide Mathematics Achievement Test

Mrs. Johnson was initially quite pleased as she looked over the score report from her class's most recent performance on the statewide mathematics achievement test (see Figure 7.4). Her class's average scaled score of 412 was well within the "Proficient" range and equal to the state average and only slightly below that for the entire school and district (this information is highlighted in boxed area #1 of Figure 7.4). In addition, only 21% (i.e., 17% + 4%) of the students in her class scored at a level below the proficient performance level, which was a smaller percentage than the percentages of students in her entire school, the district, and across the state (as shown in boxed area #2 of Figure 7.4). However, she knew that

she needed to examine the results a little closer since it was apparent that there was still room for her students to improve.

The mathematics test is broken down into five strands, and Mrs. Johnson examined each of them next. Nearly one third (30%) of her students were below proficient on the "Numbers, Number Sense, and Operations" strand. Although this performance initially concerned her—especially in light of the students' performance on the released items, particularly question 5 (highlighted in boxed area #3 of Figure 7.4) and question 28 (shown in boxed area #4 of Figure 7.4)—she wanted to examine the results for all strands and put them in an appropriate context prior to making any decisions. Her students' performance on the "Measurement" strand was really quite good, with only 4% of her class being below proficient.

Over one fourth (26%) of her class did not meet the standard for "Geometry and Spatial Sense," which was partially demonstrated in the results for released items (highlighted in boxed areas #6 and #7 of Figure 7.4). However, she was not quite as concerned as she perhaps could have been since her class still outperformed students in the rest of the school, district, and the state. She felt that this might be an area on which to focus some instructional revisions, but at this point it may not be the most critical area. Similarly, although there was still room for improvement on the "Patterns, Functions, and Algebra" strand (see boxed area #8 of Figure 7.4), Mrs. Johnson's students performed better than the comparison groups. Again, she decided to hold off on making a decision about this strand.

The fifth strand, "Data Analysis and Probability," worried Mrs. Johnson even before she looked at her students' results. The reason for this uneasiness was that, although she taught a unit on these very topics each year, the data analysis and probability unit typically fell late in the year in terms of its place in the instructional sequence of topics. Often, she would teach it just prior to, and sometimes just following, the administration of the statewide achievement tests. Her students never seemed to do very well on it, and this really bothered her, especially in light of the fact that it was content that she really enjoyed teaching and with which she believed that she did a good job. She sometimes believed that she was not giving the students a fair opportunity to do well on this strand. When she examined the test results, Mrs. Johnson felt that her prior beliefs had been confirmed. Students seemed to have difficulties with all three of the released items (shown in boxed area #9 of Figure 7.4) and 22% scored below the proficient level.

"Some of the things that we [found with] our data analysis were very eye opening."

—Megan Newlove,
High School English Teacher

Although her class's performance on several of the strands indicated the need for some additional attention or instructional revisions, Mrs. Johnson decided to focus on making some changes to the "Data Analysis and Probability" unit, due not only to her students' test results, but also based on her prior beliefs and experiences over the past several years. Mrs. Johnson

Figure 7.4 Sample Class Test Score Report

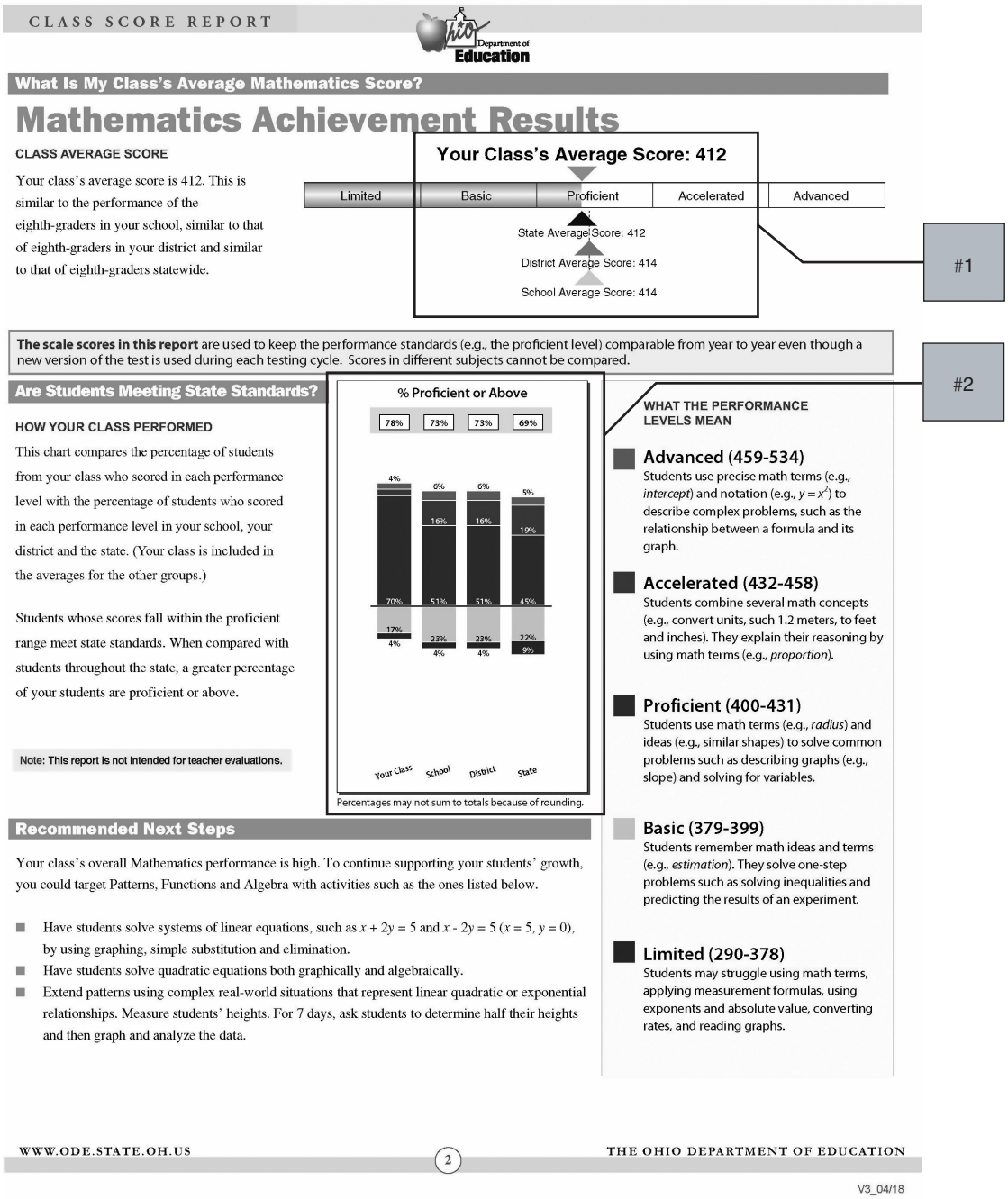
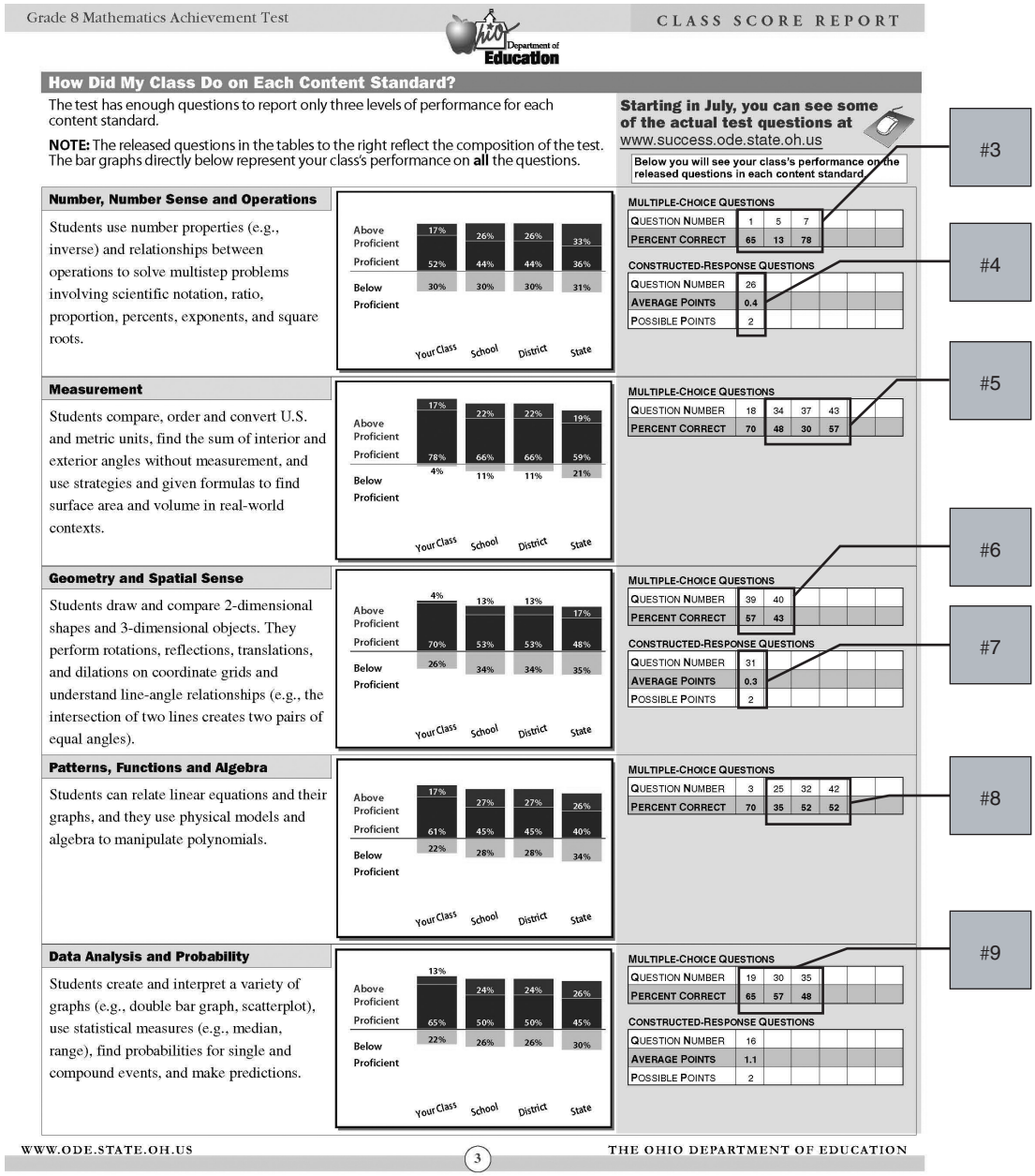


Figure 7.4 (Continued)



decided to revise the order in which she taught several of her units. First and foremost, she decided to move the "Data Analysis and Probability" unit up several weeks so that during the next school year, she would teach it as the first unit in the second semester of the school year. Of course, she reminded herself that she needed to be mindful of some other content being pushed back to a time in the spring, closer to the administration of the test. She knew that when she examined next spring's test results, she would have to take into consideration this fact.

Summary

Teachers have historically used whatever information was available to them to inform decisions they make about students, curriculum, and instruction. However, they typically have not utilized information resulting from the administration of standardized tests. NCLB has forced the use of this type of information for accountability purposes. In addition, more educators are making use of standardized test scores for their own classroom-based decisions. Data-driven decision making is a process by which educators examine the results of standardized tests to identify student strengths and weaknesses. This information can then be used in order to critically reflect on and revise curriculum and instructional practices.

Test results can be used in two ways: to revise instruction for entire classes and to develop intervention strategies for specific students. The most common practice is to use these results for reflecting on and revising group-level instruction. The process is not a difficult one, but it does require knowledge about the nature of standardized tests as well as a sound understanding about the proper interpretation of the resulting test scores. Teachers should first identify any areas indicated as weaknesses or deficiencies by students' test performance. Those areas are then rank ordered in terms of importance or severity of each deficiency. One or two of these specific areas are then targeted for further investigation, with the ultimate goal of making revisions to the curriculum or instructional practices. Several guiding questions can provide information vital to this step. The final step is to make and implement these revisions. Care should be taken to avoid the overinterpretation of standardized test scores.

Activities for Application and Reflection

1. Obtain an actual test report for an entire class you teach from any test you may use in your school or district. Closely examine the norm-referenced and/or criterion-referenced score information that is provided on the report. Briefly summarize the performance of your class. Follow the four-step

process as outlined in Figure 7.1 and make a list of possible revisions you could make to your instruction.

2. Closely examine the sample test report from the Gates-MacGinitie Reading Tests (GMRT) provided in Figure 7.5, focusing your attention on the overall class (highlighted in the boxed area). Follow the process discussed in this module and demonstrated in the three examples to develop a plan for addressing any student weaknesses you identify from these test results.

3. Carefully read the interview transcript with Joe Hudok, high school social studies teacher at Bowling Green High School, looking primarily at his description of the process his department used to address low student test scores on the statewide achievement test in social studies. Discuss this process with your classmates or colleagues. Are there ways you could adapt this process for your own classroom, academic department, or school?

Figure 7.5 Sample Class Test Score Report

FOURTH EDITION

Gates-MacGinitie READING TESTS

Class/Group: CHAVEZ
Building: RIVERSIDE
Bldg. Code:
System PORT CHARLES
Order No.: 000-A9100133-00-001=

Grade: 6
Test Date: 09/99
Norms: Fall
Level: 5
Form: S
Page: 70

Service 9:
List Report of Student Scores

STUDENT NAME / ID Number / Other Information	Birth Date / Age	Level / Gender	Form / Title I	Vocabulary NCE	Vocabulary National PR	Vocabulary National S	Vocabulary GE	Vocabulary ESS	Comprehension NCE	Comprehension National PR	Comprehension National S	Comprehension GE	Comprehension ESS	TOTAL NCE	TOTAL National PR	TOTAL National S	TOTAL GE	TOTAL ESS
BOWER, BRUCE	05/88 11-04	5 M	S	42	35	4	5.1	499	34	22	3	4.4	487	36	26	4	4.7	492
BUCK, DENIS	01/88 11-08	5 M	S	34	23	4	4.5	486	40	31	4	4.9	496	36	25	4	4.6	491
BYRD, ANDREA	09/87 12-00	5 F	S	87	96	9	PHS	585	69	82	7	9.9	550	80	92	8	PHS	564
CARLOS, LEONARD	06/88 11-03	5 M	S	62	71	6	8.2	535	54	57	5	6.7	521	58	64	6	7.3	527
CHAMBERS, SEAN	11/87 11-10	5 M	S	72	85	7	11.5	554	51	52	5	6.4	517	61	70	6	7.9	533
HOLMES, ANTHONY	04/88 11-05	5 M	S	46	42	5	5.6	505	48	46	5	5.9	511	46	43	5	5.8	508
JENSEN, DONNA	10/87 11-11	5 F	S	7*	2*	1*	2.7*	444*	30	17	3	4.1	481	17*	6*	2*	3.4*	465*
JONES, XAVIER	07/88 11-02	5 M	S	44	38	4	5.4	502	32	20	3	4.2	484	36	26	4	4.7	492
KIRKLIN, ELINA	12/87 11-09	5 F	S	46	42	5	5.6	505	48	46	5	5.9	511	46	43	5	5.8	508
LEAL, ERIKA	03/88 11-06	5 F	S	15	5	2	3.1	457	32	20	3	4.2	484	23	10	2	3.7	472
NORMAN, MAGGIE	08/87 12-01	5 F	S	20	8	2	3.5	465	20	8	2	3.4	465	17	6	2	3.4	465
PISCOPO, TIFFANEY	09/87 12-00	5 F	S	52	53	5	6.4	516	41	34	4	5.1	499	45	41	5	5.6	506
ROLF, LEANN	07/88 11-02	5 F	S	68	81	7	10.0	548	62	71	6	8.2	536	67	79	7	8.9	542
SINGER, LEONARD	09/87 12-00	5 M	S	62	71	6	8.2	535	59	67	6	7.8	532	61	70	6	7.9	533
STARKY, ARTHUR	01/88 11-08	5 M	S	42	35	4	5.1	499	59	67	6	7.8	532	51	51	5	6.3	515
STRAUBE, ROSE	09/87 12-00	5 F	S	75	88	7	PHS	560	66	78	7	9.3	545	73	86	7	10.5	552
WILLIAMS, JORDAN	08/88 11-01	5 F	S	20	8	2	3.5	465	24	11	3	3.6	471	19	7	2	3.5	468
WOODALL, RENO	09/87 12-00	5 M	S	36	26	4	4.6	489	19	7	2	3.3	462	24	11	3	3.8	475
WYSE, RICHARD	08/88 11-01	5 M	S	48	46	5	5.9	509	45	40	5	5.5	505	45	41	5	5.6	506
ZARS, SALLY	06/88 11-03	5 F	S	44	38	4	5.4	502	36	25	4	4.5	490	38	29	4	4.9	495
CLASS SUMMARY N TESTED = 20 NCE, PR, S, AND GE OBTAINED FROM AVERAGE ESS		N AVERAGE ESS		20 47	45	5	5.8	508	20 44	39	4	5.4	504	20 45	40	5	5.6	505

LEGEND: NCE = Normal curve Equivalent; PR = Percentile Rank; S = Stanine; GE = Grade Equivalent; ESS = Extended Scale Score; * = Chance level score