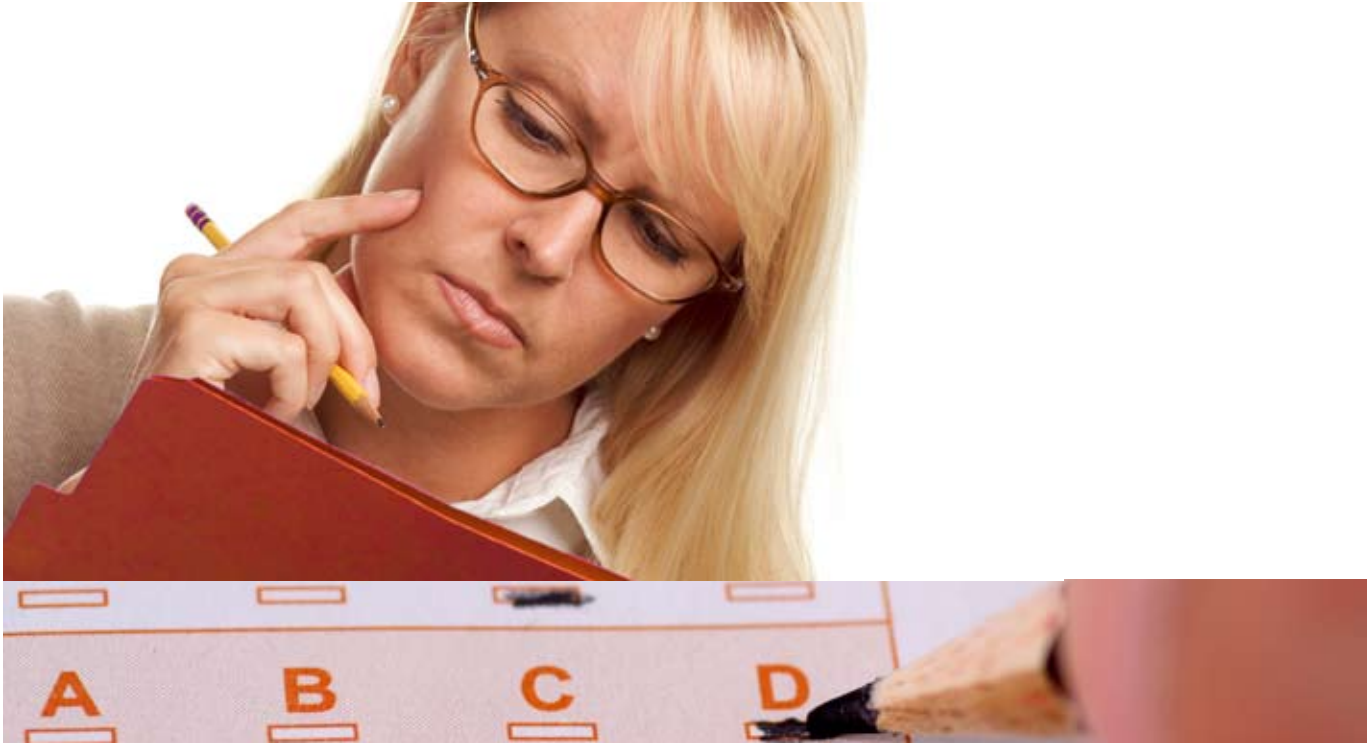


Using Standardized Test Scores

for Instructional Modification

By: Michelle Eichel and Debbie Thompson



MANY teachers recognize that students' standardized test scores represent more than just their academic performance in comparison to peers. These scores are also a wealth of information that can be used to modify teaching practices or even implement an intervention to increase comprehension in areas of severe difficulty. For homeschool teachers, this recognition is equally important. Although many homeschool students are likely to experience one-on-one, specialized attention from teachers, using standardized test scores to analyze the efficacy of that attention can further improve students' educational experiences. Score reports are a form of feedback on teaching as well as an indicator of the students' performance, so taking advantage of this information is key to instructional modification and providing a more effective education. The following are some suggestions for maximizing correct interpretation, assessment, planning, implementation of new strategies, and understanding of students' reasoning abilities.

Correct Interpretation

Examining score reports beyond the summary section is important to make sure that you are getting a full

understanding of your students' performance. Because machines are incapable of interpreting everything about a student's academic aptitude, you might consider going over the report in greater detail to check the true meaning of raw scores and subscores. Checking the number of items in each subscore section is a good way to gain relative perspective on summary scores. For example, as you look at a graphical representation of scores, you might see that a student performed below average in Word Analysis. However, checking the raw scores and taking notice of the fact that the Word Analysis section contains only seven items while other sections contain more than 20 could give you a more focused interpretation. Sections with low numbers of items are less reliable than sections with many items when it comes to accurately assessing a student's academic performance. It can be easy to become alarmed by sections that appear to show low scores, but if these sections contain only a few items, you can turn to further assessment to supplement your understanding of a student's performance.

Another piece of information that can be examined for increased understanding is the percent correct items (%C Stu. on Iowa or OMS on CAT/5, OPI on TerraNova),

which estimates the number of items an average student would answer correctly if asked 100 questions on a given subject. For example, you might notice that one of your students has scored a 65% on a section of his or her standardized test. Before you start thinking about how to change the way you teach this subject, take a look at the national average. You might be surprised to find that students nationwide (%C Nat.) have scored an average of 66% on the same subject matter. While you might have higher expectations for your students, it can be helpful to recognize the level of your students' performance relative to the established norms. Additionally, even if a student seems to have scored fairly well on a given section at 80%, the national average might be 88%, putting your student below the mastery norms. Analyzing the number of questions in each category with the number attempted and number correct is also helpful. Try to determine if the student missed answers due to lack of knowledge, not being taught the subject matter, or didn't attempt them due to running out of time. Perhaps their fluency needs to be addressed. Making sure that you have a grounded perspective on your students' performance is an important part of interpreting standardized test scores.


Further Assessment

If you have identified any areas in which your students might not have scored their best, such as sections with very few items and sections in which they performed below the national average, further assessment might be your next course of action. For any areas of potential weakness you might have identified, you can review any tests you may have administered over the course of the year for a given student on that subject. Low scores even on tests with many items can indicate a real struggle with the subject and warrant further attention. To ensure that you are identifying an area of true weakness, you can re-administer tests on the problem subject or go through your curriculum to find any supplemental tests for that area of study. Most standardized tests require a 6-month period before administering the same test, so you might choose a different test. You can even make up your own test as long as it has a significant number of items (more than 20) and directly addresses the problematic subject material. Again, low scores indicate that you should continue to pursue improved mastery from your student by continuing the process of translating standardized test results to modified instruction. If fluency (automaticity


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or speed) seems to be an issue, testing with a licensed educational psychologist might be warranted so that the student could get documentation and accommodation such that more time would be allowed for standardized tests (IEP - Individualized Education Program). This could be especially important for taking high stake tests like the Scholastic Aptitude Test. Most standardized tests require such an IEP within the three years prior to the test date.

Planning and Implementation

Now that you have identified areas of study that require improvement from some students, you can begin to plan your approach to tailoring your instructional methods to meet these needs. Keep in mind that individual student difficulty should not influence your overall teaching approach if you instruct several students at once. Changing your approach for students who already do well with your teaching style could have negative effects. However, if you find that a majority of students have widespread difficulty with a subject, a full reconsideration of your teaching approach may be warranted.


Once you have decided how many of your students need specialized instruction in a given subject, you can plan your strategy to increase students' understanding and internalization of information. To do this, you can consult with other teachers, asking for tips on teaching specific subjects. Online forums or homeschool associations can provide these connections for you, enabling you to take advantage of a network of experienced teachers. Resources that explain and review curriculum might help you find a program that better fits you and your student. Cathy Duffy's 100 Top Picks or a curriculum review blog like www.dallenhomeschoolreviews.com would be helpful. You might find that successful strategies incorporate more one-on-one attention, interactive projects, field trips, activities, educational games, or puzzles. The more senses of the student that can be involved when they are learning the better. Engaging your students more fully can often increase their understanding of what you teach them.

Testing Students' Reasoning Abilities

Individual students who require tailored instruction may have specific learning style needs. To identify these and incorporate them into your teaching, you can administer the

CogAT (Cognitive Achievement Test), which is appropriate for students in grades K-12. This test type typically takes two hours and 25 minutes. The information you receive can show you a student's strengths and weaknesses in terms of verbal, nonverbal, and quantitative reasoning, which can be used to improve the efficacy of instruction. Cathy Duffy's 100 Top Picks also tries to highlight which types of learners are best suited for certain curriculum.

For example, you might learn that a student is weak in quantitative reasoning, but demonstrates some strength in verbal reasoning. This indicates a struggle in math-related subjects, but you can compensate for this quantitative weakness with verbal story problems. By allowing this student to use strong verbal reasoning to supplement weak quantitative reasoning, you can stimulate more of the student's interest in strengthening his or her quantitative reasoning abilities. When you administer the CogAT, you receive an extensive interpretation of your students' scores, which can help you identify both strengths and weaknesses in reasoning abilities. (Visit <http://www.triangleed.com/cogatsample.pdf> for an online sample CogAT report.) This valuable information can enable you to both increase low abilities and use

high ones to boost students' confidence levels and interest in learning. Taking this extra step to help your students can foster future success in problematic subjects and standardized test situations. 

The more senses of the student that can be involved when they are learning the better. Engaging your students more fully can often increase their understanding of what you teach them.



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