



RESEARCH NOTE

Research Services

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Topic: Changes in Determining Gifted Eligibility for Underrepresented Students.

Focus: Substituting SSS scores for NRT scores in the Gifted Plan B Matrix Scoring System.

Purpose: To suggest the specific application of SSS cutoff scores for use in the Plan B Gifted Eligibility Determination Form.

There are a number of detailed requirements for gifted screening, referral and eligibility specified under State Board Rules and School Board Rules. In all of these areas, explicit mention is made of the Florida Comprehensive Assessment Test (FCAT) Norm Referenced Test (NRT) scores as being integral components. Due to budget considerations, the Florida DOE is discontinuing administration of the NRT starting in 2008. With NRT scores no longer available, screening, referral, and eligibility specifications will have to be modified and provisions will need to be made for some kind of substitute measurement of academic achievement.

In anticipation of these needs, members of the Division of Advanced Academic Programs and Assessment, Research and Data Analysis collaborated on the suggestion proposed in this Research Note. (It should be noted that the discontinuation of the NRT impinges on many other areas of operation for M-DCPS and other school districts. Subsequent policy decisions by the Board and possible Legislative actions may affect the ultimate revision of gifted indicators.)

Current Procedures

The impact of NRT scores on gifted identification for this investigation focused on the Gifted Eligibility Determination Form for Use with Underrepresented Students in Kindergarten Through Twelfth Grades currently being utilized by the Division of Advanced Academic Programs. On this form each student collected a certain number of points tallied in a Matrix Scoring System. In this Matrix, students were awarded from 0 to 4 points in specified categories in each of the following areas: Gifted Characteristic Checklist, Achievement Percentile Score, Intelligence Test Quotient, and Creativity Measure Score.

The Achievement Percentile Score applied to the matrix was the highest percentile from the NRT for either the Reading Comprehension Test or the Mathematics Application/Concepts Test. Specifically, points were awarded for highest percentiles of 99 – 95 (4 points), 94 – 90 (3 points), 89 – 85 (2 points), 84 – 80 (1 point), and Below 80 (0 points). The points for the Achievement Percentile Score were added into the points awarded in the other three categories and the total referred to a predetermined cutoff for eligibility.

With the discontinuation of the NRT, a substitute for judging the student's academic achievement is needed. The natural choice and the focus of this investigation is the use of the FCAT Sunshine State Standards (SSS) Test scores.

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Early Attempts at Substituting the SSS

The first methodological approach attempted to predict equivalent NRT percentiles using the SSS score in a standard linear regression. Although the correlation was substantial between the two tests at every grade level, the exact correspondence in the selection of students into the same groupings that would have resulted from the use of the NRT was poor. This was especially true at the extremes of the distribution, precisely where the application was required.

Under the assumption that the NRT was not objectively a better criterion for academic proficiency than was the SSS, the next stage of analysis explored the use of the SSS standing alone, without reference to its association to the NRT. Since the Intelligence Test component of the eligibility Matrix used cutoffs based on standard deviations, the same approach was applied to the SSS. Although this may have been forced to fit, the commonly referenced standard deviation unit ranges did not conform to the desirable quality of having comparable ranges of scores for each level.

Final SSS Implementation Proposal

Although it was not possible using the SSS to construct categories of the same sets of students that would have resulted from using the NRT, it was possible to match the percent of students in each of the point-award groupings.

Eligibility Matrix Points Using NRT

	4 points	3 points	2 points	1 point	0 points
Reading	8.4%	9.8%	6.0%	7.9%	68.0%
Mathematics	9.6%	8.5%	7.5%	7.4%	67.0%

Eligibility Matrix Points Using SSS

	4 points	3 points	2 points	1 point	0 points
Reading	8.0%	7.9%	8.0%	7.7%	68.4%
Mathematics	9.8%	8.3%	7.8%	7.6%	66.6%

The percent of students receiving each point-level award under NRT results and under SSS results using the newly proposed score ranges are compared in the table below.

It can be seen that the percentages across all grade levels match very closely using the SSS test as a substitute for the NRT. To make application easier, the same ranges in SSS scores were used across all grade levels. The exact ranges used were as follows.

Ranges of SSS scores for Point Awards

	4 points	3 points	2 points	1 point	0 points
Reading	377-500	357-376	343-356	332-342	100-331
Mathematics	381-500	363-380	351-362	341-350	100-340

Although the percent receiving each point designation varied somewhat by grade level, on the whole, the correspondence was within acceptable ranges. Using the SSS in the Matrix Scoring System in this manner should ultimately result in the same percentage of students being deemed Gifted Eligible through the M-DCPS Plan B Matrix.