Interpretation of CogAT Scores

The CogAT (Cognitive Abilities Test) is a test that measures both general and specific reasoning abilities. Students are assessed in the areas of verbal, quantitative, and nonverbal abilities. There are three purposes in administering and using the CogAT test in the school setting. The first reason is to help teachers adapt their instructional goals, objectives, and methods to meet the individual needs of each student. Second is to look at an individual student’s cognitive development which is not measured in academic grades and achievement. Finally, it is used to identify students whose academic achievement is higher or lower than expected given the results of the test scores. On the first grade administration of the CogAT, keep in mind that every question is read out loud and the students choose an answer from the picture choices that are given in the individual test booklets. Teachers can only read each question one time to the class. Below is a brief explanation of the three ability areas that students are assessed on the CogAT: verbal, quantitative, and nonverbal.

VERBAL BATTERY

The Verbal Test is comprised of two subtests (Verbal Reasoning and Oral Vocabulary) which assess a student’s verbal inductive reasoning, problem solving, and verbal comprehension skills. The Oral Vocabulary test shows the ability to infer the meaning of words from the contexts which is an excellent indicator of a student’s ability to learn from general experience. The Verbal Reasoning test uses situations that are common to young children and requires them to make inferences, transformations, judgments, or to remember sequences.

QUANTITATIVE BATTERY

There are two subtests that comprise the Quantitative Battery which include Relational Concepts and Quantitative Concepts. This battery assesses a student’s ability in general abstract reasoning skills, particularly inductive reasoning and specific mathematical reasoning skills. The Relational Concepts test appraises the understanding of relational concepts, the ability to discover relationships, and to infer a rule or principle that explains the relationship. The Quantitative Concepts test requires students to solve simple story problems and to complete mathematical series problems. All of the story problems can be solved by using counting strategies that a majority of children have developed by the time they enter kindergarten.

NONVERBAL BATTERY

Figure Classification and Matrices are the two subtests found on the Nonverbal Battery. These two subtests assess a student in the area of inductive reasoning. This battery is different from the Verbal and Quantitative Battery’s because it does not require the student to use information gained from other experiences to solve the problem. All of
the information that is needed to solve the problem is given in the item itself. The Figure Classification test requires students to find the similarities among three given shapes or figures, to determine the rule that best explains the relationship, and to select the picture that fits best with the given figures. The Matrices test is basically an analogical reasoning test. Students are given a four cell matrix with one cell empty. They must determine the relationships among the three given and then select the picture that best completes the matrix.

**COMPOSITE**

The Composite score indicates the strength and variety of a student’s cognitive abilities for learning.

**SCORE INTERPRETATION**

There are three score columns that you will need to focus on when interpreting your student’s scores. These score columns are the SAS (Standard Age Score), PR (Percentile Rank), and the S (Stanine).

**SAS (Standard Age Score)**

The Standard Age Score scale is a normalized standard score scale for each individual battery as well as for the composite. Keep in mind that the average range falls between 90-110. This means that a student that falls in this range on any battery has a rate and level of development in this particular area that is typical of a student their age. The higher the score the faster the rate and higher the level of development than the typical student in the same age group. Just the opposite is true for the student that scores below the average range; they would have a slower rate and lower level of development than the typical student in the same age group.

**PR (Percentile Rank)**

A percentile rank indicates the percentage of students in the same age group whose scores fall below the score obtained by the individual student. An example would be if a student scored a 91% this reflects the percentage of students in this particular age group that scored below this individual student. The average range for the percentile score is between 25%-75%. The percentile rank correlates to the SAS scale.

**S (Stanine)**

The stanine scale is a normalized score divided into nine broad levels numbered from 1-9. Since the stanines consist of broad groupings this helps to discourage the over interpretation of small, insignificant differences among the various tests.