



Criterion-Referenced and Norm-Referenced Scores

Criterion- and norm-referenced scores provide important (but different) information to educators. This FAQ explains why *i-Ready* includes both types of data to create a well-rounded view of student performance.



Criterion-Referenced Scores



Norm-Referenced Scores

Simple Definition

Describes a student's performance based on proficiency on a specific set of skills and concepts. Measures what the student knows and doesn't know at the time of assessment. The student's performance is **not** compared to other students' performance on the same assessment.

Describes a student's performance in comparison to the performance of grade-level peers. Students are compared to one another, without indicating expected level of proficiency in skills or concepts.

Used For

Determining if students are proficient in grade-level skills and concepts

Determining how students compare to one another

i-Ready Examples

i-Ready Diagnostic's grade-level placements

i-Ready Diagnostic's percentile ranks

Real-World Examples

Driving Test:

Driving tests are designed to determine if a driver has mastered proficiency with the skills and concepts required to safely drive on the road. Driving tests do not rank drivers against other drivers. All drivers can get 100% if they master the skills required (and we hope they do)!

End-of-Unit Exams in School:

These exams are designed to determine whether students have mastered the material presented in a specific unit. Each student's performance is measured based on the material presented (i.e., what the student knows and what the student doesn't know). Again, all students can get 100% if they have fully mastered the material.

Pediatric Growth Charts:

Growth charts are commonly used by pediatricians to track a child's growth compared to the growth of other children of the same age. Growth charts compare a child's height, weight, and body mass index to the height, weight, and body mass index of same-age and same-gender children.

The SAT®:

A classic example of a norm-referenced test, the SAT is designed to determine one high school student's proficiency compared to the proficiency of other high school students.

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Why does *i-Ready* have both criterion- and norm-referenced scores?

Having both criterion- and norm-referenced scores provides educators with a well-rounded view of student performance. *i-Ready*'s key criterion-referenced measure is the placement level. This is a standards-based interpretation of the scale score. A student's performance is interpreted to offer an understanding of what the student knows or can do and what the student still needs to work on. *i-Ready*'s normed scores, which are reported as percentile ranks, measure a student's performance against the performance of their grade-level peers. Therefore, if a Grade 4 student scores at the 98th percentile rank, that student is scoring better than 98% of Grade 4 students nationally. Norms are also reported out by season, such that they depend not only on a student's grade, but also on when during the school year the Diagnostic was administered.

How can an assessment serve as both a criterion-referenced and a norm-referenced assessment?

i-Ready Diagnostic describes student performance using both criterion-referenced scores (i.e., grade-level placements) and norm-referenced scores (i.e., percentile ranks). *i-Ready* scale scores and placement levels offer an understanding of which skills a student has mastered and which areas to focus on next for instruction. *i-Ready*'s normed scores were derived by analyzing a sample of students from across the country to understand their performance relative to grade-level peers on the *i-Ready Diagnostic*.

What is the difference between grade-level placements and norm-based grade-level equivalency scores?

The *i-Ready* grade-level placements were developed with the help of educators to indicate the level of knowledge and skill that students need for various levels of proficiency. Most norm-based grade-level equivalency measures, on the other hand, only show how students in a grade relate to one another but actually do not indicate anything about whether a student has achieved the necessary skills for grade-level proficiency.

Why are my most advanced students placing into a lower instructional level than expected?

The placement level, a criterion-referenced score, offers an understanding of which skills a student has mastered and which areas should become instructional priorities. The determination of *i-Ready* placement levels was made through a multiyear standard-setting process that leveraged content experts and a broad range of educators with an understanding of grade-level expectations. This expertise was applied to determine how to translate a scale score into a placement level to best represent a student's skill level across core standards. The placement levels, therefore, represent performance against a set of criteria or expectations for performance at each grade level. In contrast, a student's normed scores reflect performance relative to that of their grade-level peers (not relative to a set of criteria for skill mastery). *i-Ready* was built on a rigorous set of standards, so it is possible that there are foundational or grade-level skills even top-performing students have yet to master. For example, a Grade 4 student may be in the 90th percentile in geometry, meaning they are performing higher than most of the Grade 4 students in the country. However, if the majority of Grade 4 students have significant gaps in their knowledge of geometry skills required by the standards, a student might still have a placement that is below their chronological grade, even though they're performing so well relative to their national peers.