

What is a Percentile Rank Score?

Percentile ranks (PR) have a range from 1 to 99 and are referred to as status scores. Because there are unequal intervals between scores, as with all ordinal scores, we cannot add, subtract, multiply or divide them. Percentile ranks and national PR (NPR) scores are frequently reported in large-scale testing, such as the Iowa Assessments and NWEA's MAP tests. The Iowa Assessments PR scores are identified as either NPR or as Iowa percentile ranks (IRP). The NWEA's MAP test identifies NPR as "ile" scores. No matter what the symbol used to report PR or NPR scores, a PR score is universally defined.

Percentile rank scores identify the percentage of a student's peer group (e.g., grade level) that a particular student's raw score surpassed. PR is useful in comparing an individual student's performance with those of other students within a defined group. For example, a student receives a raw test score of 66 and a PR of 83. This means that a raw score of 66 is higher than 83% of the comparison group, or norming group. The comparison or norming group may be local, in which the group represents students within a state; or national, in which the group represents students across the nation. Typically, in education we look at NPR scores. However, a student's performance across these two groups can differ enough that interpretation can be confusing. For example, a raw score of 66 can have a NPR of 83 and an IPR of 54. While the student is in the middle of the group at the state level, nationally the student performed well.

It is critical to identify the norming population when discussing PR scores. It is also critical when comparing two different tests, such as the Iowa Assessments and the NWEA's MAP test, to realize that the national or state norming groups could be different enough to account for some of the variance between PR scores a particular student earns on both large-scale assessments. However, this factor alone will not account for all the variance between scores.

It is also critical to realize that although the Iowa Assessments and the NWEA's MAP both have sub tests within their large-scale assessments, slightly different constructs are usually measured. This is one reason why multiple measures are important to obtain. For example, within reading there is a sub test called "reading comprehension." Within reading comprehension there are different main process skills that comprise reading comprehension. These main process skills, although usually named the same across large scale assessments, measure slightly different constructs. The same example can be made in large scale "mathematics" assessments. These similarly named main process skills across large scale assessments may measure slightly different constructs due to the number of questions for each subskill. Thus each large-scale assessment produces slightly different PR scores for each student, even though both sub tests may be called "reading comprehension" or "math computation." Knowing these differences between large-scale assessments can give you a more complete picture when making instructional decisions, because one test may focus more heavily on algebraic concepts and thus give you a better sampling of algebra questions than the other large-scale assessment does and therefore a lesser sampling of geometry skills on the other large scale assessment. Thus, having at least two quality

sources of data in addition to well-constructed classroom assessments makes facilitation of data-driven decision-making more reliable, which should help make the conclusions that we draw more valid.

For the Iowa Assessments the following are major groups separate NPR. The first group has six categories. They are Weak 1-9 NPR, Marginal 10-40 NPR, Moderate 41-75 NPR, Skilled 76-89 NPR, Accomplished 90-94NPR and Distinguished 95-99 NPR. The second group has three categories. They are Low 1-40 NPR, Intermediate 41-89NPR and High 90-99 NPR.