

What do Teacher Assigned Grades Measure?

A One Page Research Summary

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Historically, across the research on teacher grading and marking practices, in comparison to standardized test scores, teacher assigned grades have been maligned by researchers and psychometricians as subjective and unreliable measures of student academic achievement, often referred to as “hodgepodge” or “kitchen sink” grading practices (1, 2). However, when teachers are asked what they assign grades for, they continuously report that they assign grades based on student academic knowledge and achievement, but also for student persistence, behavior, participation, and effort (3, 4). In comparison to standardized test scores, for which researchers have struggled to find a link between scores and overall student schooling outcomes, grades are one of the strongest predictors of positive student outcomes, such as successfully transitioning from middle school to high school, graduating from high school, college-going and college graduation (5-8). Thus, grades are a useful assessment in education, but what exactly do they measure and is it reliable?

The issue of the validity and reliability of grades has been a topic of the research literature for over 100 years (9, 10), especially in relation to standardized test scores, with these two measures moderately correlating at 0.5 (11-13). In an attempt to figure out what teachers are assessing with grades, researchers have worked to compare grades and test scores. In this area there are two arguments on either end of a spectrum. The first is that grades are subjective measures based on the whim of the teacher while standardized test scores are objective measures of student academic knowledge, and thus grades and test scores should correlate at zero. Conversely, some argue that test scores should be the criterion by which we compare to grades, and thus teachers should work to align grades to test scores so that the correlation becomes 1.0, such as in the standardized grading practices literature (14). Despite these arguments in the research, when one examines the actual practice of teachers over the last 100 years, grades and test scores have consistently remained moderately correlated at 0.5, indicating that 25% of the variance in grades is attributable to the fundamental academic knowledge measured by standardized tests (12). But what is the other 75%?

Recent research on grades has shown that the majority of what grades measure is student engaged participation in the act of the schooling process (12, 15-17). It is this engaged participation aspect of grades which most likely gives grades their strong predictive power of positive student outcomes, as students who are well equipped to engage in the institution of K-12 schooling are likely to carry this socio-emotional and behavioral learning forward into future institutions, such as college and future gainful employment.

Therefore grades represent a useful and meaningful assessment of student performance in school in addition to the different information gained from standardized test scores. Together, these two assessments provide a rich description of student performance in the multidimensional aspects of schooling.

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