



Research on Item Alignment

The following quotes were adapted and taken from a work by T.K. Wishnick, Relative Effects on Achievement Scores of SES, Gender, Teacher Effect and Instrumental Alignment: A Study of Alignment's Power in Mastery Learning (Unpublished Doctoral Dissertation, University of San Francisco, 1989).

Does Alignment Have an Effect?

The results indicate that instruction and alignment are powerful predictors of standardized test performance in this study. The power of instruction as measured by the Unit Tests accounted for 40.32% of standardized test performance variance, and the alignment effect accounted for 36.72% of standardized test performance variance. Other variables gender, teacher effect and SES accounted for 3% of the standardized test performance. (P. 150)

The higher the degree of [item] alignment between the Unit Test and Standardized test clusters, the higher the performance on the Standardized test. [addition to quote] (P. 154)

What Scores on Unit Tests Will Indicate a Passing Score on the Standardized Test?

The results indicate that setting the Unit Test criterion performance level at 86% is sufficient to generate high standardized test performance... Low achievers do better when the instructional outcomes are clear, and instruction is congruent with post-instructional assessment. (P. 159)

Is SES an Influence When Curriculum and Testing are Aligned?

Using free lunch as an SES indicator, simple correlations between SES and total standardized test performance was $r = .109$, indicating that Standardized test performance was not a function of SES. Apparently, SES is a potent factor in school performance when instruction is generated from a model of education that assumes a normal distribution of scholastic performance. But when the educational model assumes that all students can demonstrate mastery, and when instruction is designed to cause students to perform well on competency tests, SES loses its impact on school performance. Under competency-based criterion reference instruction, instruction is more potent than SES. (P. 165)

Is Gender an Influence When Curriculum and Testing are in Alignment?

In this study, no evidence was found to support previous research that gender accounted for differences in Standardized test performance. (P. 166)



Do Some Teachers Get Better Results Than Others When Curriculum and Testing are Aligned?

This study found no evidence to support previous research that teachers interact differently with these fourth grade students. The simple correlations between teacher and total Standardized test performance approached 0. (P. 167)

What Had the Strongest Effect on Standardized Test Scores?

These results indicate the strongest predictor of Standardized performance was the Unit Test Score, because when the Unit Test Score, gender, SES and teacher effect were regressed against the standardized test criterion item cluster, there was little change from the simple correlation to the multiples correlations. When students were taught well enough to perform well on the unit tests, and the unit tests were aligned with the standardized test item clusters - i.e., when students demonstrated mastery of behaviors measured on the standardized tests - not only did SES and gender, but teacher differences also had little to no effect on their performance. (P. 168)

What Happens if There is Poor Alignment?

On the other hand, these demographics (gender, SES, and different teachers) significantly effected standardized test performance when the unit tests were poorly aligned with the Standardized test. This finding indicates the obvious, but usually overlooked fact that instruction is more potent than SES, gender, and teacher differences. (P. 169)