



**GRE**<sup>®</sup>

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## A Comprehensive Review of Published GRE<sup>®</sup> Validity Data

**ASSESS ABILITY. PREDICT PERFORMANCE.**

A Summary from ETS

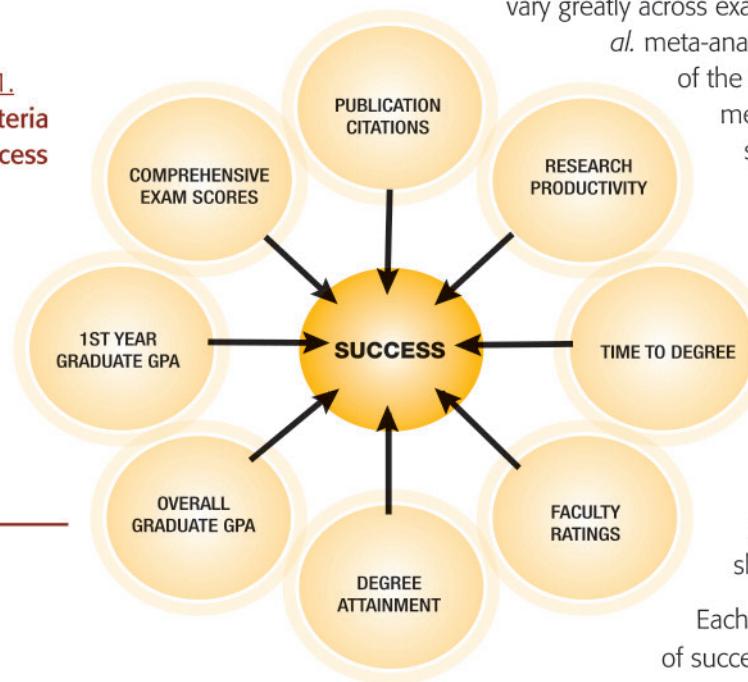
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Although the GRE Program has many studies of the predictive validity of the GRE General Test (which are available on the GRE website: [www.ets.org/gre](http://www.ets.org/gre)), a recent meta-analysis by non-ETS researchers Nathan Kuncel, Sarah Hezlett and Deniz Ones provides additional positive evidence of the relationship of the GRE General Test to various criteria of graduate school success.<sup>1</sup> This meta-analysis is important because predictive validity studies are often difficult to conduct for a variety of reasons (e.g., insufficient data, test scores or predictors of success that do not vary greatly across examinees). Compared with earlier research, the Kuncel et al.

meta-analysis improved on these studies by examining the validity of the GRE General Test for multiple disciplines using multiple measures of success, and by addressing statistical artifacts such as range restriction.

**Figure 1.**  
**The criteria  
for success**



One strength of the Kuncel et al. research is that the meta-analysis analyzed data from a very large data set involving more than 1,753 independent samples based on a pool of more than 80,000 students. In addition, the study looked at five predictors of success and eight criteria for success. The predictors included the three measures of the GRE General Test (verbal reasoning, quantitative reasoning and analytical reasoning), GRE Subject Test scores and undergraduate grade point average (UGPA). The criteria for success are shown in the figure to the left.

Each of these criteria can be considered a different dimension of successful performance in graduate school.

## Results of the Kuncel et al. study

### Results from this study show that:

1. The GRE General Test is a “generalizable predictor of first-year graduate GPA, overall graduate GPA, comprehensive exam scores, publication citation counts and faculty ratings.”
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This meta-analysis study is important because these results apply across a range of intended academic majors, across native speakers of English and nonnative speakers of English, across traditional and nontraditional students and across master’s and doctoral programs.<sup>2</sup>

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## Validity of the Analytical Writing Measure

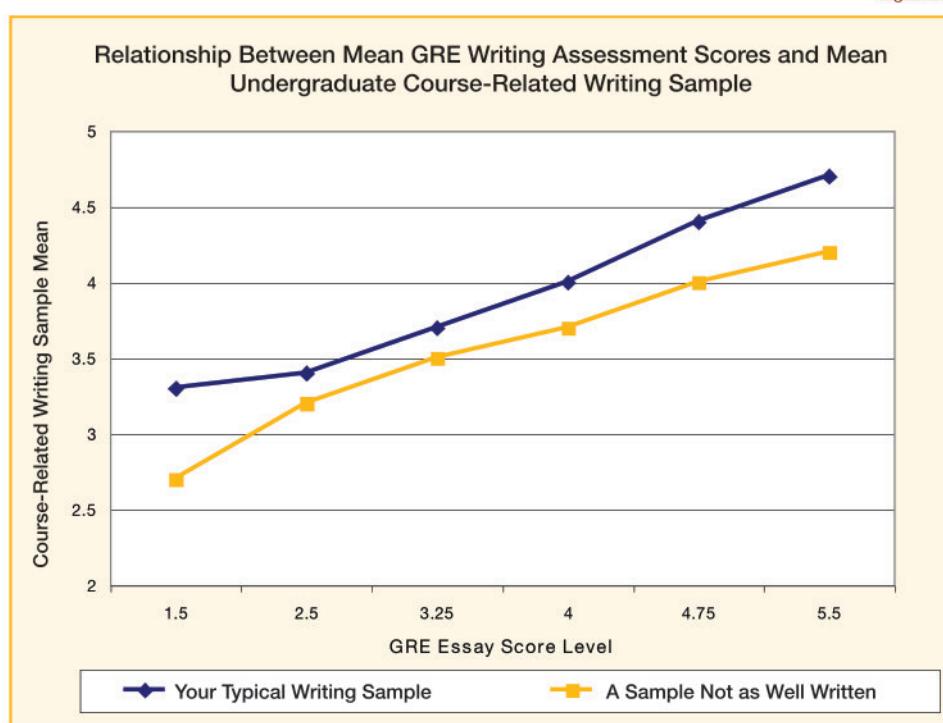
Because the Kuncel *et al.* meta-analysis was conducted before the Analytical Writing (AW) measure was introduced into the GRE *General Test*, it may be useful to include validity information for this measure. The two tasks that comprise the AW are both considered essential in many fields of graduate study. These two tasks are complementary in that the first requires the writer to construct his/her own argument about an issue, and the second requires a critique of someone else's argument by assessing its claims. For virtually all disciplines, AW adds value to the GRE *General Test* because it provides unique information about test-taker abilities over and above skills measured in the Verbal and Quantitative measures.

Demonstrating the construct validity of the writing measure can be done by showing how AW correlates with other measures it is intended to resemble. As an illustration, AW correlates positively with other samples of academic writing produced by examinees<sup>3</sup> as shown in the figure below. Examinees in this study were asked to provide two writing samples: one representing their typical written work and one not quite as well written.

This graph shows that there is a strong positive relationship between the GRE essay scores and both of the writing samples from examinees. It should be noted that the AW correlates with these other indicators of writing skill more closely than does the personal statement that many students submit with their applications.<sup>4</sup>

Furthermore, data indicate that AW has a low correlation (.21) with the quantitative measure and a moderate correlation (.60) with the verbal measure – a finding that is consistent with the structure and intent of those measures.<sup>5</sup> Thus, AW is providing unique and valuable information beyond the multiple-choice GRE *General Test* measures.

Figure 2.



## Summary

Because faculty want to make the best possible admissions decisions about graduate school applicants, it is important to look objectively at the predictive value of the GRE *General Test*. The Kuncel *et al.* study used all existing data to arrive at the study's conclusions that the GRE *General Test* is a valid predictor of many criteria of graduate school success. In addition, other research has demonstrated that the Analytical Writing section of the GRE *General Test* can provide valuable information about applicants' abilities to produce analytical essays. For these reasons, the GRE *General Test* is a valuable asset in the graduate admissions process.

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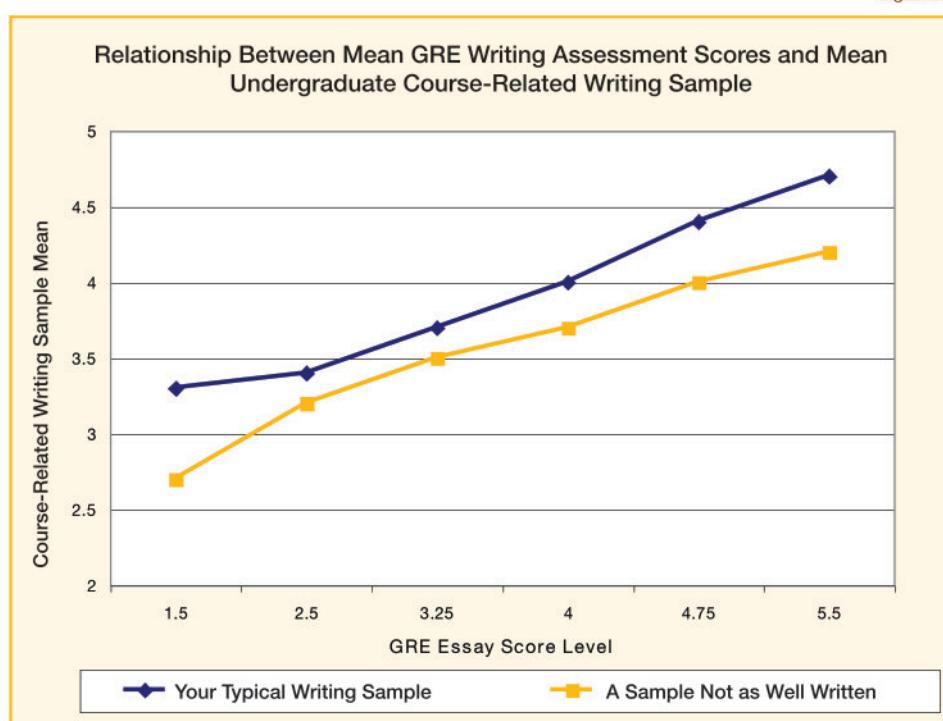
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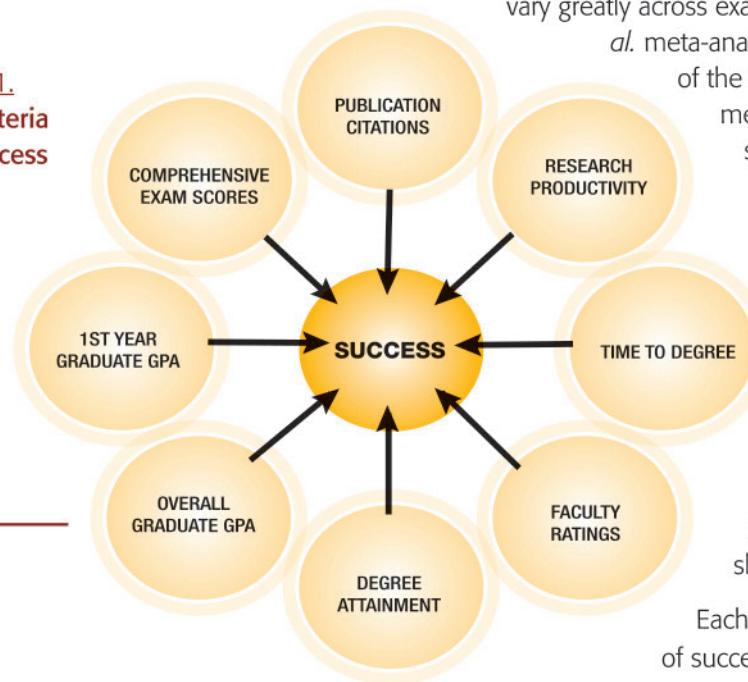
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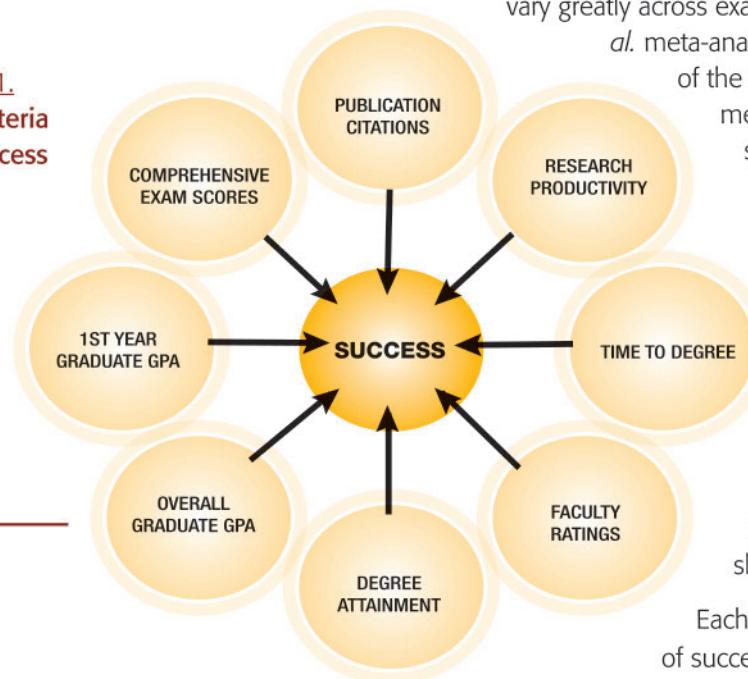
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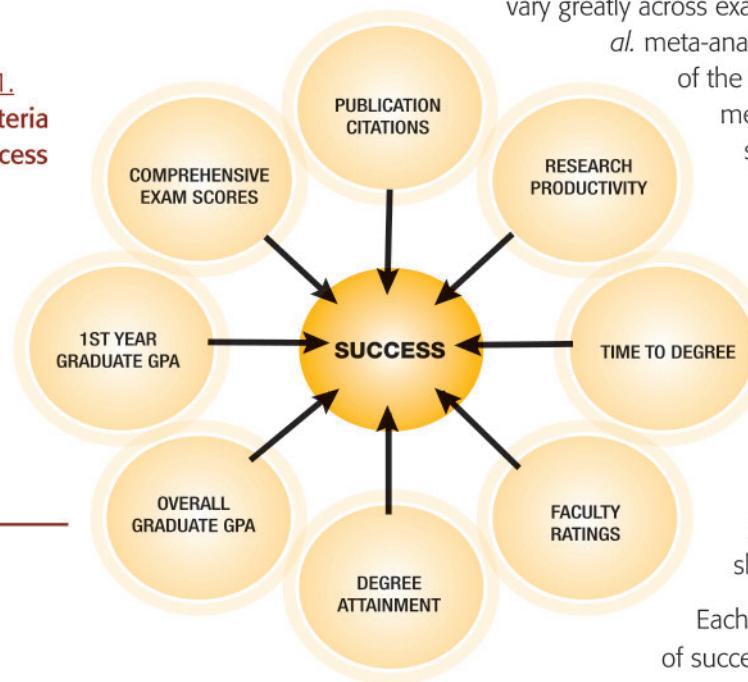
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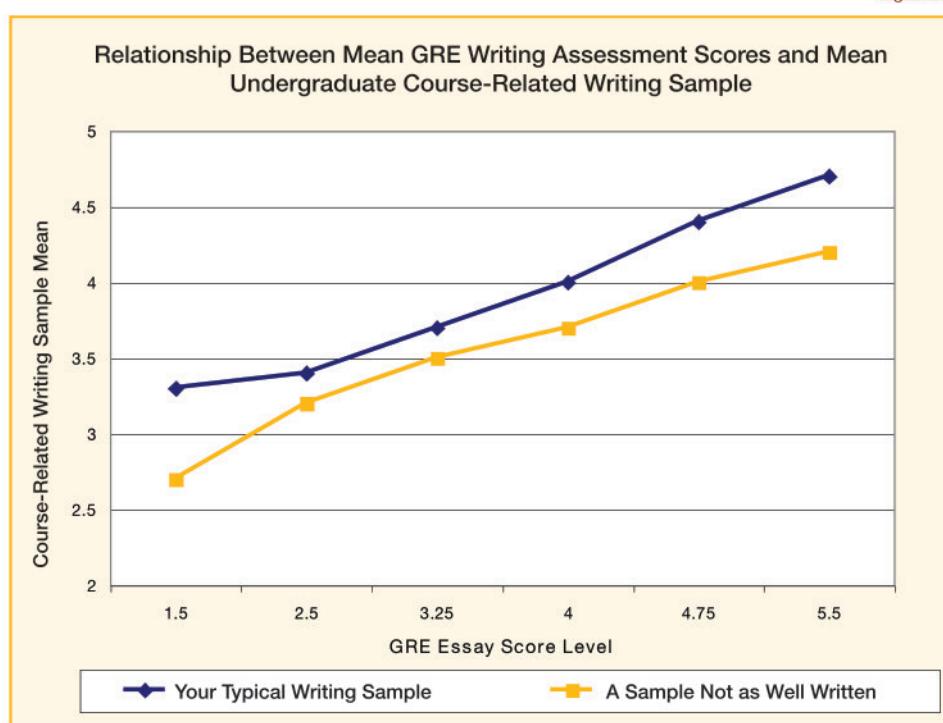
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