

Frequently Asked Questions About CCRC's Assessment Validity Studies

In March 2012, CCRC released two studies examining how well two widely used assessment tests—COMPASS and ACCUPLACER—predict the subsequent performance of entering students in their college-level courses. The studies, *Do High-Stakes Placement Exams Predict College Success?* and *Predicting Success in College: The Importance of Placement Tests and High School Transcripts*, can be found at <http://ccrc.tc.columbia.edu>.

Both studies found that assessment scores are not highly predictive of subsequent student performance and that many students are misplaced in college-level and developmental classes based on their scores on these tests. This document is intended to address some of the frequently asked questions about the studies.

1) What methods and data were used for the predictive validity studies?

Both studies analyzed data from students who had high school grades, placement test scores, and demographic information available and who enrolled directly in college-level courses. The researchers linked students' grades in those courses with their background factors and were then able to make predictions about how entering students with scores below the college-ready cutoff might have performed if they had gone directly into college-level math and English.

2) Explain what the measure of success is in the predictive validity study.

There are several different ways to measure success. For example, should we consider success in college-level math as earning a B or better? Or as merely passing the course with a D or better? Accordingly, the validity studies also use several different definitions of success and examine placement accuracy under each of these definitions. This method allows us to see that placement accuracy changes depending on how success is measured. The test's accuracy at predicting student success in college coursework is higher when the measure of success is higher (e.g., earning a B or better) but lower when the measure of success is lower (e.g., merely passing the course).

3) At my college, we use COMPASS/ACCUPLACER to assess students. Are we placing a large number of students in remediation who could have succeeded in college-level coursework?

Our validity studies show that an assessment and placement process that relies solely on a test score from a computer adaptive exam results in some placement error in two different systems. The exact amount of error will be unique to each community college system. However, both

systems we studied had high rates of “severe underplacement.” In other words, many students who were placed into developmental classes were predicted to have earned a B or better in college-level classes—suggesting that other systems may also wish to examine whether they have issues with underplacement.

4) Why was high school GPA used as an alternative predictor of success in college coursework? There is wide variation in standards across high schools and grade inflation, so why would this be a good measure of academic preparedness?

In the systems we studied, high school GPA was readily available because it was routinely provided by state high schools and recorded in the college system’s administrative dataset. It is true that there may be grade inflation and differences across high schools in terms of standards. Despite these problems, however, high school GPA predicts college performance as well as or better than standardized placement exams. The value of high school GPA is that it signals far more than just math or writing skills; it also signals students’ academic motivation, persistence, and other non-cognitive characteristics. High school grades also measure learning over several years and thus may be more reliable than a relatively short test.

5) Why not use students’ SAT scores or ACT scores instead of high school GPA as a predictor of success in college coursework?

SAT/ACT scores are already used as a placement measure in many college systems (including the systems in the validity studies); typically they are used to determine whether a student is exempt from placement testing. However, because many students do not have SAT or ACT scores, our researchers did not analyze their validity in predicting college performance. The validity studies do make the case for using additional measures of academic preparation for placement, particularly measures that incoming community college students are more likely to have, such as high school GPA.

6) Should we get rid of our placement tests?

The CCRC studies do not, on their own, provide an answer to this question. Colleges may wish to examine the validity of their own assessments and consider whether other measures of academic skill (such as state high school exit exam scores, SAT/ACT scores, or high school performance information) could be used as an alternative. For one of the systems studied by CCRC, using a combination of high school information and placement exam scores resulted in more accurate placement decisions than using either source on its own. Finally, before changing their placement process, colleges may want to consider other factors that were not an explicit focus of these studies, such as the availability and accuracy of high school data for older students.

7) What about older students with no high school GPA? Are they in the study?

Students with no high school GPA are not included in the validity studies. For older students who graduated from high school many years ago, it is not clear how long GPA remains a valid signal of academic performance in college. To the extent that GPA captures academic-related characteristics (such as attending class regularly and completing assignments on time) that are stable within a person across time, it is likely to remain a good predictor of college success. However, its value as a signal of specific academic skills (such as mathematics skills) will likely erode over time.

8) Could there be other explanations for overplacement and underplacement errors?**Perhaps students who scored poorly on the exam were successful in college-level courses because they encountered an excellent instructor who helped them succeed.**

Yes, grades in developmental and college-level coursework are the result of many different factors, including student motivation, out-of-school commitments and stressors, and the quality of instruction and nonacademic supports provided by the program. Given that placement tests and high school GPA together typically explain less than 15 percent of the variance in students' performance, obviously these factors are very important in explaining the remaining 85 percent. Ideally, then, all these factors should be taken into account as part of the placement process. Our studies merely point out that many students deemed by a standardized placement test to be underprepared can in fact succeed in college-level coursework.

9) Aren't there better ways of determining whether students are placed accurately, such as teacher judgment or whether students change courses after placement?

Student reassignment and instructor judgment may not provide a consistent and comprehensive understanding of assessment test accuracy. Many students do not realize that they can change courses, and many others are not permitted to. A particularly rigid system—in which students are never permitted to switch classes—would appear to have perfect placement under the self-reassignment criterion.

In terms of teacher judgment, it is difficult to collect this information across an entire system of colleges in order to conduct a comprehensive and rigorous evaluation of the tests. However, teachers' judgments about student readiness will ultimately be reflected in the grade they award the student; for example, regardless of how hard the teacher works, students who are overplaced will be more likely to fail the course than students who are correctly placed. CCRC was able to observe the grades that hundreds of thousands of students received in their courses and compare those to their test scores.

10) How do we use high school GPA to place students? And what about placing our older students? What does it mean on a practical level to use multiple measures?

This is an important question that needs to be explored further. Some colleges are considering using high school GPA as an exemption criterion, much as the SAT/ACT is currently used at many schools. GPA could also be used in addition to placement test scores. For example, if a student scores low on the placement exam but the student's GPA indicates he or she did reasonably well in high school (perhaps a B or better in math/English), then the student could be placed into an accelerated developmental course or into a college-level course that includes integrated academic support.

One limitation of using high school GPA to make placement decisions is that not all students have this information. But even knowing that an incoming student does not have a high school transcript raises questions about a student, and answering these questions could be helpful in making more informed placement decisions. For example, does the student not have a high school transcript because he or she is a recent immigrant? In such cases, meeting with the student to understand his or her educational background could help inform a much more accurate placement.

