

Students Tend to Perform as Expected when Retesting in a Single ACT Subject Area

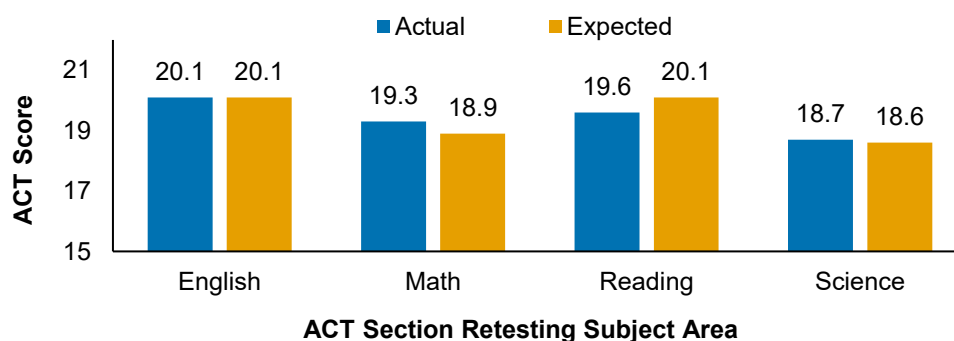
Krista Mattern, PhD, and Justine Radunzel, PhD

Beginning in September 2020, students will have the option to retest on one or more single-section ACT® tests at a time instead of needing to take the entire battery again. Initially, this option is restricted to students retesting online only. Given this administrative change, questions about whether section retesting will result in larger score gains as compared to traditional retesting (taking the entire battery) have been raised. Results from a recent study suggest that students' performance when retesting in a single ACT subject area tended to be consistent with expected performance estimated from standard retesting, providing evidence in support of offering ACT section retesting.

As part of the study, roughly 500 high school seniors per subject area retested on a single ACT subject test in August or September of 2019.¹ These students had previously taken the entire ACT battery in the spring of their junior year (February to April 2019) and then again in the fall of their senior year (September or October 2019). Our analyses indicated that a significant number of the study participants (nearly 30% in English, math, and reading; 11% in science) were not motivated to perform well on the section retest, which could have been due to students not receiving college-reportable scores for the testing event. Therefore, analyses were conducted on the full group as well as the subsample of engaged students.

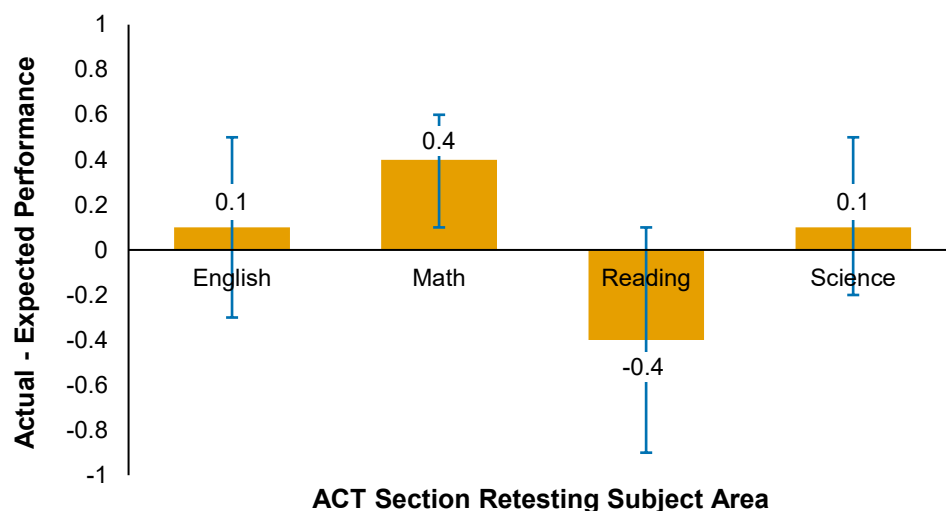
Figure 1 compares how engaged students performed on the section retest administration in relation to how they were expected to perform given their prior ACT score from the spring. Actual scores did not differ significantly from expected scores on average for English, reading, and science (Figure 2), as evidenced by the 95% confidence intervals (C.I.) including zero. That is, students did not earn higher than expected scores when testing in a modular fashion for these three subject areas.

Figure 1. Actual versus Expected ACT Score on the Section Retest by Subject Area



Math was the only subject where students tended to perform better than expected on their single-subject retake, and this was by only 0.4 points in the engaged sample (95% C.I. for average difference between actual and expected performance was 0.1 to 0.6). However, these students also performed better than expected in math on their senior fall retake with the full battery (by 0.6 points; data not shown). These findings suggest that the slightly higher than expected performance on the math section retesting may reflect true learning gains as the effect carried forward to the subsequent testing event.

Figure 2. Differences in Actual and Expected Performance on Section Retest by Subject Area²



Notes

1. For more details, refer to the full report: Radunzel, J., & Mattern, K. (2020). *Section retesting: Do students perform as expected?* Iowa City, IA: ACT.
2. The line extending above and below each bar represents the 95% C.I. for the average difference between actual and expected ACT scores. C.I.s that include zero indicate that students performed consistent with expectations. Differences shown in Figure 2 may differ from those that can be computed from the scores in Figure 1 due to rounding.

Krista Mattern, PhD

Krista Mattern is a senior director in Validity and Efficacy Research whose research focuses on predicting education and workplace success through evaluating the validity and fairness of cognitive and non-cognitive measures. Also known for work in evaluating the efficacy of learning products to help improve intended learner outcomes.

Justine Radunzel, PhD

Justine Radunzel is a principal research scientist in Validity and Efficacy Research specializing in postsecondary outcomes research and validity evidence for the ACT test.
