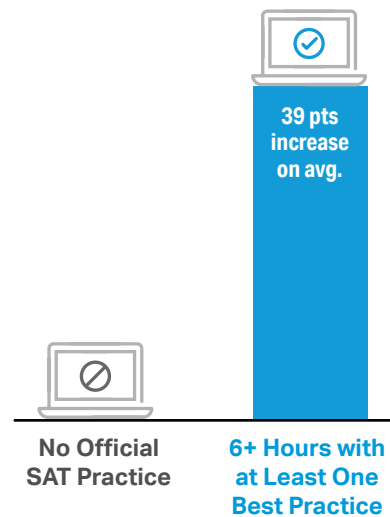# Executive Summary

At a time when more education is taking place online than ever before, students and educators need targeted guidance to make the most of their instructional time. SAT® preparation and the journey to college is no exception. Since 2015, Official SAT Practice (OSP) on Khan Academy® has provided free, personalized practice in an online format to help all students build their skills and prepare for the SAT. More than 10 million students have used OSP since the launch.

In this report, Khan Academy and College Board jointly analyze OSP usage by more than half a million students in the class of 2019 between their PSAT/NMSQT® and their first SAT in order to associate the use of OSP with their SAT performance. This builds on our prior work that showed a positive association between OSP use and higher scores. While our previous work focused on practice between the PSAT/NMSQT and the last SAT, we are now focusing our interval to the first SAT in order to better isolate the impact of OSP, particularly from the intervening SAT assessments a student may have taken.

In our 2017 study with approximately 250,000 "early adopter" students, we observed a 90-point score increase overall (from PSAT/NMSQT to the last SAT) for students using OSP. After removing the typical growth between PSAT/NMSQT and the last SAT to examine the impact of OSP directly, the specific added growth from spending 6–8 hours practicing on OSP was 30 additional points on their last SAT compared to students who did not OSP. In this current study, with wider-spread adoption of OSP, we found similar results for the PSAT/NMSQT to the first SAT interval. Specifically, we find that students who spent 6 hours of practice on OSP scored an additional 21 points higher on their first SAT than students who did not OSP, but **39 points higher when students used at least one of the best practice behaviors**. These findings hold true across student demographics, including gender, race/ethnicity, and level of parental education.

SAT ACHIEVEMENT ASSOCIATED WITH OFFICIAL SAT PRACTICE ON KHAN ACADEMY

39 pts increase on avg.

No Official SAT Practice

6+ Hours with at Least One Best Practice

*These associations control for student demographics and PSAT/NMSQT scores.

This report looks at how OSP works for a broader population of students and outlines new insights on three best practices of meaningful OSP use, which can optimize student time on the platform. OSP best practice behaviors are actions any student can take during their practice that are associated with greater scores on the SAT. These behaviors were operationalized based on how the product is designed, the data elements available, and prior research

concerning the effectiveness of test preparation strategies. We also find that the best practice behaviors are correlated, but students show selective strategies of how they engage with OSP. The three best practice behaviors include:

LEVELING UP SKILLS: As students progress through OSP material, they can achieve new levels in the skills practiced. Overall, leveling up provides a signal that students are consistently advancing in the content tested on the SAT, and is a marker for learning progress on OSP. This best practice behavior also helps students learn how to monitor their progress.

TAKING A FULL-LENGTH PRACTICE TEST: Taking a full-length practice test simulates the real test experience and helps students see what they do know and don't know. Eight full-length online practice tests, which can be taken in one sitting or over time, are available on OSP.

FOLLOWING PERSONALIZED SKILL RECOMMENDATIONS: OSP provides personalized skill recommendations based on a student's previous scores and performance on any PSAT-related test or SAT assessment or through mini-diagnostic quizzes. Following the personalized skill recommendations helps a student learn how to stay focused when they study and work on areas where they need the most help.

More time spent on OSP is associated with higher scores on the SAT. However, time spent is not enough. Best practice behaviors can help guide students and ensure that the time spent on practice is productive.

Although engaging in best practice behaviors was associated with improved performance, students varied considerably in their adoption. Indeed, the majority of students in our sample unfortunately did not engage in any of the best practice behaviors (roughly 8% of students in our sample spend 6+ hours and complete a best practice on OSP). Differences in student background, household, and demographics were associated with the likelihood to engage in a best practice behavior. Although these characteristics are associated with student behavior, they are likely rough indicators of other factors, including different educational environments, that may impact how students' practice. It is also important to note that these between-group differences were small and did not result in meaningful differences between groups in terms of their benefits from using OSP. These results signal that more work is needed to point students to best practice behaviors and to motivate their usage across the platform. In coming years, College Board and Khan Academy will work diligently with our partners across the country through programmatic supports and platform refinements to ensure all students can follow these best practices.

Although the data associating best practices with score increases are promising, we need more research on implementation to ensure that when best practices are used more broadly, the associations remain as strong. Further research will help to build our understanding of student progress; any differences in adoption of best practice behaviors; and how supports such as school-day implementation, and educator tools, and innovations like virtual tutoring can help keep all students engaged and on track. In the ever-evolving educational landscape, it is our hope that sharing and continuing this research on the evidence for the use of best practice behaviors can make a difference for the millions of students who use the platform on their path to college, and that students can make the most effective use of their time on OSP and, ultimately, be successful in their efforts.