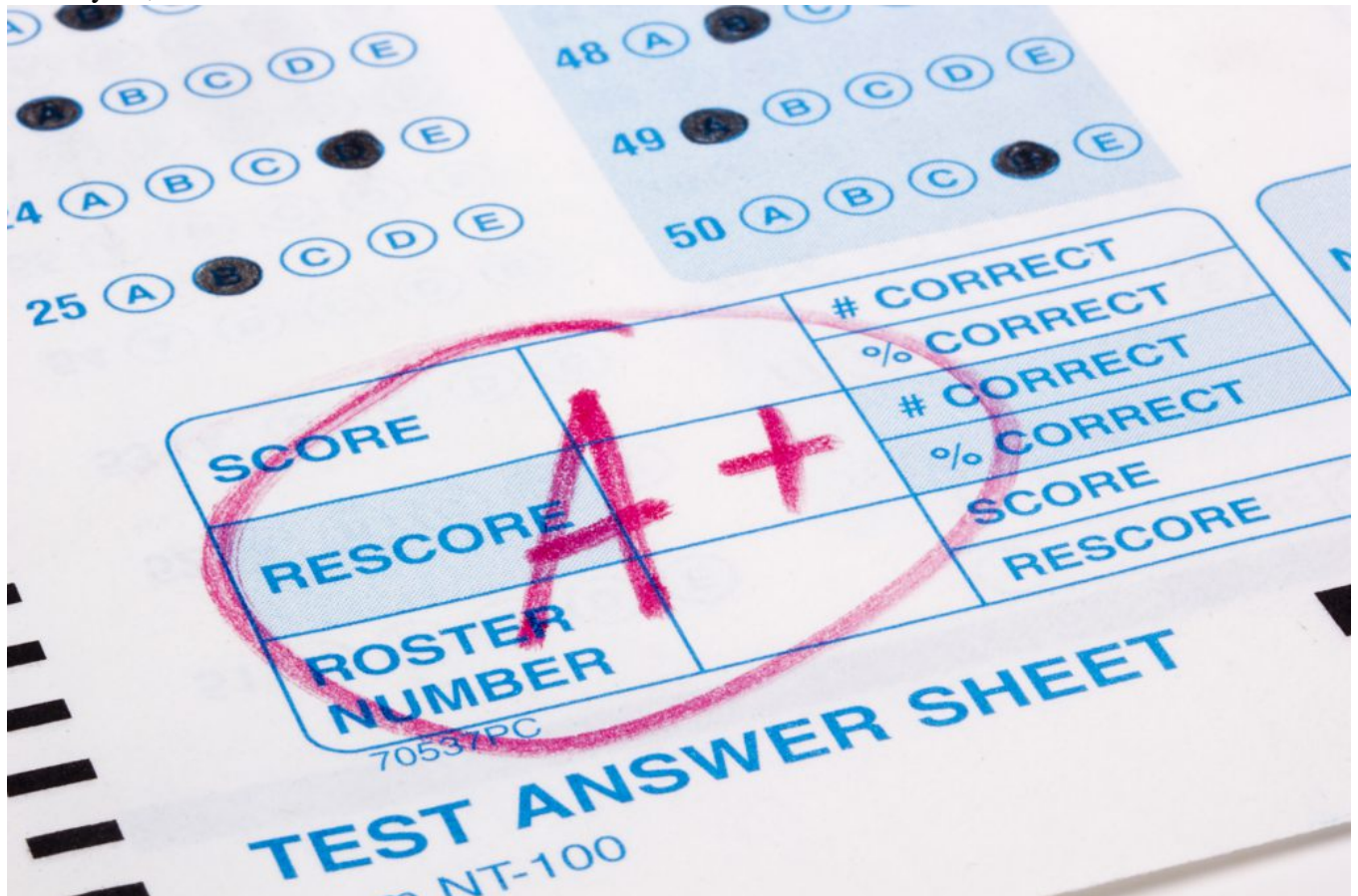


Improving Students' Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology

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Some students seem to breeze through their school years, whereas others struggle, putting them at risk for getting lost in our educational system and not reaching their full potential. Parents and teachers want to help students succeed, but there is little guidance on which learning techniques are the most effective for improving educational outcomes. This leads students to implement studying strategies that are often ineffective, resulting in minimal gains in performance. What then are the best strategies to help struggling students learn?

Fortunately for students, parents, and teachers, psychological scientists have developed and evaluated the effectiveness of a wide range of learning techniques meant to enhance academic performance. In this report, Dunlosky (Kent State University), Rawson (Kent State University), Marsh (Duke University), Nathan (University of Wisconsin–Madison), and Willingham (University of Virginia) review the effectiveness of 10 commonly used learning techniques.

The authors describe each learning technique in detail and discuss the conditions under which each technique is most successful. They also describe the students (age, ability level, etc.) for whom each technique is most useful, the materials needed to utilize each technique, and the specific skills each technique promotes. To allow readers to easily identify which methods are the most effective, the authors rate the techniques as having high, medium, or low utility for improving student learning.

Which learning techniques made the grade? According to the authors, some commonly used techniques, such as underlining, rereading material, and using mnemonic devices, were found to be of surprisingly low utility. These techniques were difficult to implement properly and often resulted in inconsistent gains in student performance. Other learning techniques such as taking practice tests and spreading study sessions out over time — known as distributed practice — were found to be of high utility because they benefited students of many different ages and ability levels and enhanced performance in many different areas.

The real-world guidance provided by this report is based on psychological science, making it an especially valuable tool for students, parents, and teachers who wish to promote effective learning. Although there are many reasons why students struggle in school, these learning techniques, when used properly, should help provide meaningful gains in classroom performance, achievement test scores, and many other tasks students will encounter across their lifespan.

About the Authors ([PDF](#), [HTML](#))

Editorial: Applying Cognitive Psychology to Education: Translational Educational Science

By **Henry L. Roediger, III**

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