Helping Students Help Themselves
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Review of three resources:

There have been a series of recent reports and articles claiming that students are not significantly learning in the university setting (1). But what is the cause? Are professors overworked and uncaring or can we blame it on the familiar “kill ’em and drill ’em, teach to the test” philosophy? Among many other possibilities is the suggestion that students are underprepared because they lack appropriate study skills.

There are many potential methods to help students once they reach university, including remedial courses, tutoring, and workshops on skills necessary for students to succeed in college. But how does the average faculty member help a student who is struggling? I, myself, have a hard time describing how to study effectively when a student asks for help. And, it’s been almost 20 years since I have taken an exam, so my college and university study methods are quite fuzzy in my mind. Thus, quality resources I can share with a student about how to study effectively in college are useful to me.

Recently the Chronicle of Higher Education discussed using what scientists have learned about memory and cognition to help students learn more effectively (6, 7, 8). The books Brain-Targeted Teaching by Mariale Hardiman (5) and How the Brain Learns by D. Sousa (10) are both reviewed in this journal (3) and focus on how to teach using these models. Here I will review tools that guide student study habits to reflect them.

The first resource to which I like to direct my students is the series of free online videos by Dr. Stephen Chew of Samford University (2). In these, he outlines how to study more effectively in college using what research has revealed about learning and memory. Dr. Chew didn’t just make and place the videos online, he also developed supplementary resources, including a “how to use” guide and an additional reading list. The take-home message of these videos is deceptively simple: students need to adjust the way they...
think about their own learning and understanding, and think more deeply about the material. Dr. Chew gives examples in the videos of how to apply these concepts for more effective studying and also advice on other topics such as what to do if a student fails an exam. This video series is a quick way to get students on track when they ask that familiar question, “What am I doing wrong?”

A book that is similar to the video series, but much more detailed, is Study Smarter, Not Harder (9). This book is designed for high school or college students and discusses a range of study strategies centered on the ideas of focus, preparation, active engagement and organization. This book discusses brain science (Chapter 3) in the context of left/right brain and learning styles. It also has many pages of information that instructs students in how to take control of their learning process and minimize distractions. The most effective portion of this book is the “Toolbox” section where one finds efficient strategies for reading chapters, attending lectures, and studying. This book has suggestions related to active learning (such as reading text effectively, rewriting notes, and mind or concept maps), tying the new material into the old material, and revisiting the material frequently before exams. It also contains tips for taking exams and writing essays. Although the book is more thorough than the video and gives easy-to-implement tips, I do think it minimizes the amount of time students will need for studying. For example, it’s suggested that a student should review their lecture notes weekly for 20 minutes, whereas I believe weekly review of lecture notes should take several hours. The main point overall is that with a more reasonable approach, a student can make the most out of the time they do have for studying.

Finally, the book How to Study Science (4) is more of a workbook with activities to help students hone their science skills. This book walks students through general skills they will need in college such as study skills (Chapter 7), listening and taking notes (Chapter 6), and outlining strategies to use for effective preparation. These authors, too, touch on brain science when they utilize learning styles and the concept of the learning pyramid (Chapter 3). However, two things set this book apart: reinforcing activities and exercises at the end of every chapter, and chapters dedicated to science-specific topics. Science-specific chapters include “Use of Textbooks” (Chapter 8) and “Analyzing Figures” (Chapter 10). Chapter 11, “Practice Analyzing Figures,” is exceptional in that it gives students training in interpreting figures, graphs, diagrams, and tables, and in generating graphs and figures. This book would be most useful to an instructor teaching a study skills course or a pre-freshman bridge program. It would be less effective as a stand-alone aid, I think, because it requires workbook activities that seem to be best suited for discussion within a group after completion.

These three resources, if utilized by students, should help them to become more effective learners. The videos can help student quickly determine if they are actively or passively studying. Reading Study Smarter, Not Harder will help students develop a plan of action for studying more effectively. Finally, reading and working through the exercises in How to Study Science will give students foundational skills on how to effectively learn in science classes.

REFERENCES


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