

The Research Basis for *P.O.W.E.R. Learning*

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Beginning college students face considerable academic challenges. In fact, the first year of college marks a period of considerable vulnerability for students. Retention rates beyond the first year are often disappointing and sometimes dismal. Nationally, one-third of first-year students drop out after their first year, and in public community colleges, the dropout rate approaches 50 percent. Ultimately, only half of all students who start college complete it.

Many, if not most, of the students who fail to graduate from college do not leave because they are intellectually unable to do the work. Instead, they lack basic skills and knowledge of the strategies that lead to success in college, such as time management proficiency, effective writing abilities, understanding of how to read strategically, skills in effective note taking, and knowledge of test-taking strategies. Above all, college students need a systematic approach to tackling the challenges they face, one that provides clear guidance that transfers across educational domains and situations (Barefoot & Gardner, 2005; Feldman, 2005; Jamelske, 2009; Clark & Cundiff, 2011).

That's where the P.O.W.E.R. Learning approach comes in. ***P.O.W.E.R. Learning*** facilitates students success by providing a five-step process embodied in the acronym **P.O.W.E.R.:** ***P***repare, ***O***rganize, ***W***ork, ***E***valuate, and ***R***ethink. Each step in the process provides students with a strategy that will help them achieve success not only in the academic realm but in their careers.

The P.O.W.E.R. Learning process seeks to maximize student success by using a research-based “best practices” approach. It is the first scientifically-based system to promoting student success, with each step in the process based on sound, empirical research findings related to students’ academic performance in a college environment. We will consider each of the five steps in the P.O.W.E.R. Learning process, discussing the scientific basis of each step.

Prepare

The first step in the P.O.W.E.R. Learning process is preparation. Before getting started on any task, preparation is necessary. The most critical facet of preparation is

setting goals. Locke and Latham (2002) describe four reasons why goal setting improves performance. First, students who set goals direct their attention to the task they want to complete. Second, goals provide something to strive for which can motivate students. Third, students who set goals are less likely to be distracted. Finally, students who set goals are more likely than those who do not to use new strategies to reach their goals, especially when old strategies fail. These findings suggest that college students who possess effective goal-setting skills can improve their academic performance.

Research on goal setting also suggests that specific goals that are moderately difficult and attainable can enhance motivation and persistence (Pintrich & Schunk, 1996; Corker & Donnellan, 2011). It is clear that students who set realistic, attainable goals are more likely to adjust successfully to college life than those who do not (Robbins & Schwitzer, 1988). In addition, academic performance is generally higher for students who set appropriate goals (Morisano, Hirsh, Peterson, Pihl, & Shore, 2010). High-goal directed individuals, those who possess the ability to create appropriate goals, are often described as optimistic, persistent, and resourceful. On the other hand, low-goal directed individuals are generally pessimistic, reserved, unassuming, worried, and cautious (Payne, Robbins, & Dougherty, 1991; Robbins, Lese, & Herrick, 1993).

It is clear then that the goal-setting literature supports the view that goal setting is a necessary component for high performance (Latham & Locke, 2007; Latham, Ganegoda, & Locke, 2011). The P.O.W.E.R. Learning process includes goal setting so that students will be better prepared to set goals, and hence have something to strive toward. However, preparing for the future by setting goals is just the first step in the process of becoming a successful student.

Organize

The goals set during the preparation step cannot be accomplished without organization. First-year college students often need to adjust to busier schedules, multiple deadlines, and more difficult coursework in a short period of time. By staying organized, physically as well as intellectually, students will save time and be more likely to accomplish their goals. Whether students are writing a paper, preparing for a presentation, or taking notes, the organization of ideas and information is critical (Nesbit & Adesope, 2006; Simon, 2007). Not surprisingly, students prefer to be taught material that is clearly organized. An organized class structure, which includes specific outlines, notes, assignments, and requirements, helps students to keep themselves organized. Moreover, students who use the organizational patterns in the material can help themselves in activities such as note taking (Matthews, 1991; Stencel, 2001).

Another area of research shows that people with specialized knowledge in a particular field organize information to optimize learning (Anderson, 1993; Thompson & Zamboanga, 2004). In one study (Schneider & Bjorkland, 1992), soccer

experts learned and remembered more new soccer terms than soccer novices. The soccer experts were able to mentally organize the new soccer terms enhancing their abilities to master the material. In short, the results of the expert knowledge studies and certain problem solving studies suggest that mental organization is a key to success.

Work

The third step in the P.O.W.E.R. Learning process is work. A student's level of motivation is a particularly important factor in determining success during this step. Motivation is the force that guides people to strive for their goals.

One classic cognitive theory of motivation describes two types of motivation: extrinsic and intrinsic. Extrinsic motivation drives people to do things for a tangible reward, such as grades or money, whereas intrinsic motivation drives people to do something because it is rewarding on its own merits. People motivated intrinsically will strive to reach their goals because they find the work meaningful and interesting. Research suggests that people work harder and perform better when they are motivated intrinsically (Turner, Chandler, & Heffer, 2009; Lei, 2010; Goodman et al., 2011).

Closely related to research on motivation is research on how one's locus of control is related to academic achievement. Students tend to have primarily an internal or an external locus of control, and those with an internal locus of control tend to attribute their success to hard work. On the other hand, students with an external locus of control attribute their success to luck, fate, or chance. Often, students with an external locus of control will put little effort into their work since they do not believe their effort really matters. Not surprisingly, research has found that students with an internal locus of control earn higher grades than students with an external locus of control (Shepherd, Fitch, Owen & Marshall, 2006).

P.O.W.E.R Learning has been designed to improve students' motivation and, in particular, to help students to view success as a product of their hard work and effort. Research suggests that courses stressing study skills and adjustment skills can raise grade point averages and teach students to develop a greater internal locus of control (Cone & Owens, 1991).

Evaluate

Evaluate, the fourth step in the P.O.W.E.R. Learning process, leads students to compare their completed work with the goals they originally set. Students need to understand that completed work is not finished until they have evaluated it. All too often students do not recognize the importance of evaluating their work and often fail to revise their work, which can lead to lower performance. The literature on writing, for example, clearly shows that college students need to revise their writing in order to meet their goals and to achieve good grades (Unsworth & Kauter, 2008; Cho & MacArthur, 2010).

Recent research indicates that it is possible to teach inexperienced writers how to revise their work successfully (Butler & Britt, 2011). In one study, for example, students wrote essays, received and gave peer reviews, received instructors' reviews, and then revised their essays. Students involved in this process showed improved writing skills, which caused them to write better essays (Athhauser & Darnall, 2001).

Building on this literature, P.O.W.E.R. Learning provides students with the necessary instruction and tips for how to evaluate their work. According to the research mentioned above, these instructions and tips can improve students' performance and promote academic success.

Rethink

The fifth step in the P.O.W.E.R Learning process—rethink—consists of bringing a fresh eye to what has already been accomplished. In contrast to evaluation, which involves considering whether the initial goals have been achieved, rethinking consists of a reconsideration of the process that has been used to achieve the goals.

Rethinking requires the use of *critical thinking*, thinking that involves analyzing, questioning, and challenging underlying assumptions. Critical thinking encompasses higher order cognitive skills that students need to possess to achieve academically. Critical thinking is needed to successfully solve problems, formulate hypotheses, make decisions, and evaluate outcomes. With the increasing advances in technology, science, and other fields, college students need to possess critical thinking skills. Students who can think critically will be better prepared for college and for careers after college. This is one important reason why it is vitally important to introduce critical thinking at the beginning of students' college careers (Halpern, 2007; Kusumi, Tanaka, & Hirayama, 2012).

It is increasingly clear that students can become better critical thinkers if they are given the proper instruction and are exposed to a curriculum that stresses critical thinking (Carroll, Keniston, & Peden, 2008). Furthermore, some studies show that critical thinking skills are the best predictor of course grades in various courses. Although such results are correlational, they show a strong relationship between critical thinking skills and grades (Gadzella, Ginther, & Bryant, 1997; Williams et al., 2003; Marin & Halpern, 2011; Halpern et al., 2012).

In sum, the research literature clearly demonstrates that a student's ability to rethink and reanalyze their work is just as important as setting goals and following through with the work. Students who use critical thinking skills can achieve higher grades, solve more difficult problems, and make better decisions.

Conclusion

It is clear that each of the steps embodied in the P.O.W.E.R. Learning process has a firm foundation in the research literature. By using the steps outlined in the

P.O.W.E.R. Learning process, students will be able to maximize their opportunities for success, both in and out of the classroom.

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