

# Positive Psychology and Self-Efficacy: Potential Benefits for College Students with Attention Deficit Hyperactivity Disorder and Learning Disabilities

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## Abstract

In this article, the authors examine strategies for supporting college students with learning disabilities (LD) and attention deficit hyperactivity disorder (ADHD) from the conceptual frameworks of positive psychology and self-efficacy theory. Higher education professionals can use principles taken from the relatively new field of positive psychology, which focuses on positive emotion and making people's lives rewarding, to improve the self-efficacy of college students with disabilities by creating positive learning environments and focusing on students' strengths. The academic challenges faced by students with LD and ADHD are particularly well-suited to supports provided by both self-efficacy coaching and a positive psychology approach. This is true even though the two groups differ in significant ways because both theories can be integrated and adapted by counselors, tutors, and other service providers to match the needs of individual students. Research studies examining the importance of increasing self-efficacy among students with LD or ADHD are presented and discussed. Current support services are described and recommendations made for practices that both faculty and disability support service offices can implement to help students with LD or ADHD succeed.

*Keywords: disabilities, positive psychology, postsecondary education, self-efficacy*

Prior to World War II, the field of psychology had three primary missions: "curing mental illness, making the lives of all people more productive and fulfilling and identifying and nurturing high talent" (Seligman & Csikszentmihalyi, 2000, p. 6). Psychology in the latter half of the twentieth century tended to focus on negative aspects of human behavior and the treatment of mental illness. In the late 1990's, however, prominent psychologists such as Martin Seligman, Mihalyi Csikszentmihalyi and others began calling for the field of psychology to change its focus to the study of human strengths and optimal functioning (Ambler, 2006; Pajares, 2001). According to Seligman and Csikszentmihalyi (2000), this relatively new focus, termed *positive psychology*, emphasizes traits such as optimism and perseverance, well-being, satisfaction, and interpersonal skills, among others. These subjective traits and experiences play an important role in education because student learning should be both

positive and appropriately challenging (Margolis & McCabe, 2004).

An important idea in the field of positive psychology is flourishing (Ambler, 2006). As Seligman (1998) noted, positive psychology's focus is to make the lives of all people rewarding and to build positive experiences. Seligman's focus of positive psychology can assist faculty, staff, and administrators in fulfilling their mission to help students flourish in college. Ambler (2006) also posits that higher education professionals have a duty to help all students reach their potential by creating environments designed to foster learning. Through applying principles of positive psychology, higher education practitioners can help improve self-esteem, self-concept, and self-efficacy among college students (Pajares, 2001). This applies also to college students with disabilities because positive psychology centers on the strengths and learning styles of all students (Gable & Haidt, 2005).

### Challenges of ADHD and LD in College

College students with ADHD and LD have begun to receive more attention in higher education research because of the increased number pursuing a college degree (Weyandt & DuPaul, 2008). It is important to note that “undergraduates with ADHD are often at risk for becoming overwhelmed by new academic and organizational demands as they transition to post-secondary campuses” (Parker, Hoffman, Sawilowsky, & Rolands, 2011, p. 115). However, the research on college students with ADHD is limited. In addition, many students with LD choose not to report their disability, and there are no mandated processes in higher education for identifying or servicing students with disabilities who do not self-disclose (Tincani, 2004). Students with ADHD and, in particular, students with LD are often described as “invisible scholars” (Stage & Milne, 1996). Faculty are often unable to determine whether a student has one or both of these disabilities, particularly because many students are adept at concealing them. If a student chooses not to self-disclose his or her disability, it often remains hidden. This can be detrimental to their learning experience because many students with ADHD and LD struggle in college, and often struggle on their own.

Students with ADHD and LD frequently have lower grade point averages, more academic problems and are more likely to face the possibility of academic probation than other college students (Weyandt & DuPaul, 2008). In addition, they are less organized and have fewer study skills than their peers. Students with ADHD in particular have a very difficult time sustaining attention. According to Weyandt and DuPaul (2008), the ability to sustain attention is the best predictor of college student grade point average. Frazier, Youngstrom, Glutting, and Watkins (2007) found that a student response inventory paired with a parent response inventory of inattentiveness and impulsivity reliably predicted student grade point averages by the end of the first year in college. In that study (Frazier et al., 2007), students with higher scores on the inattentiveness measure were more likely to have a lower grade point average. Students with ADHD and LD not only have processing difficulties and functional limitations, but also the stigma of having a disability that may prompt them to devalue their own achievements, even when those are significant (Reiff, Gerber, & Ginsberg, 1993).

Hanafin, Shevlin, Kenny, and Neela (2007) conducted an ethnographic study to learn directly from

individuals with LD about their college learning environments and experiences. Several important concepts emerged from their research. First, they found a student’s attitude about learning and his or her behavioral characteristics significantly impact college experiences. Second, they found a student’s self-perception to be the most important factor for success in academics. Their research also showed that the negative attitudes of peers and faculty play a large role both in academic success and satisfaction with the college experience. Some students in this study (Hanafin et al., 2007) reported that their peers felt they used their disability as an excuse and a tactic to receive preferential treatment. The negative self-perception and negative attitudes of others led many of the students to feel inadequate to the extent they were not comfortable participating fully in class activities. Faculty who understand this could apply positive psychology principles, which promote hope, optimism, and optimal human performance (Ambler, 2006) to substantially reduce these negative perceptions and their impact on students with LD, helping to improve overall self-efficacy.

Current research shows that college students with ADHD have a difficult time with both attention and interpersonal relationships (Weyandt & DuPaul, 2008). It is important for higher education professionals to understand their need for accommodations. According to Weyandt and DuPaul (2008), some of these include books on tape, increased time for exams, alternative exam forms, and adaptive technology. However, some instructional technology may be new or unfamiliar to students with ADHD and LD, causing high anxiety (Parker, White, Collins, Banerjee, & McGuire, 2009). Further challenges for these students include the need for additional time to complete assignments. Many students with ADHD and LD “forsake other learning opportunities, such as attending a lecture, to allow more time to read required course materials” (Hanafin et al., 2007, p. 438). Heiman (2006) found that students with LD often graduate one year behind their peers and have difficulty with regulation (i.e., self-motivation and time-management).

A pressing issue that college students with ADHD and LD face is faculty who are reluctant, or even unwilling, to accept alternative assignments from or provide special assistance to students with these disabilities (Vance & Weyandt, 2008). In addition, many faculty fail to understand the need for accommodating

students with “invisible” disabilities like ADHD and LD (Buchanan, St. Charles, Rigler, & Hart, 2010). Buchanan et al. (2010) also found that younger faculty (<40 years old) were less tolerant and did not consider the common accommodations for students with both ADHD and LD, such as allowing more time to complete tests and assignments, to be appropriate. Although many students do not self-report disabilities in college, for those who do, it is problematic when faculty members do not feel the accommodations are necessary or appropriate.

A very challenging issue for students with ADHD and LD is the typical lecture-style format of most college classes. Students are required to take notes while listening to a lecture for approximately 50 minutes. This can be difficult for students with information processing and/or attentional disorders because they lack the metacognitive skills needed to receive information, evaluate it, select what is important, and produce a written summary within a matter of seconds. In addition, students are expected to progress at basically the same rate during the semester (Tincani, 2004), which is highly unlikely for struggling students. The negative impact one would expect these challenges to have on the self-efficacy of students facing them can be countered by a deliberate and focused positive psychology approach. As Seligman and Csikszentmihalyi (2000) note, positive psychology “is about nurturing what is best; and understanding and fostering interpersonal skills, hope, and perseverance” (p. 7).

### **Positive Psychology and Self-Efficacy**

This article discusses the importance of increasing self-efficacy, and therefore increasing academic success, of college students with ADHD and LD through the paradigmatic lens of positive psychology. It also discusses ways higher education practitioners can use positive psychology to improve academic self-efficacy. It is important to note that research is limited on the application of positive psychology in college settings. Since this is a relatively new field, this article suggests ways that positive psychology could be incorporated into existing practices for college students with ADHD and LD.

Seligman (2007) defines positive psychology as “the study of positive emotion, of engagement, and of meaning, the three aspects that make sense out of the scientifically unwieldy notion of happiness” (p. 266). Self-efficacy has been defined as a person’s belief in his or her abilities (Bandura, 1997). Self-efficacy plays a

role in the way people feel, think, behave, and motivate themselves. According to Bandura (1997), people with low self-efficacy tend to doubt their capabilities and often avoid circumstances where they think they will fail. Using Bandura’s theory of self-efficacy, one can infer that learners who have experienced numerous academic failures will have low self-efficacy in this domain (Margolis & McCabe, 2004). Self-efficacy is synonymous with what positive psychologists have termed “subjective well-being” (Diener, 2000). Diener (2000) describes subjective well-being as the way people feel about their lives and the quality of their experiences. Self-efficacy and positive psychology both seek to evoke human strengths such as optimism, perseverance, and interpersonal skills (Seligman & Csikszentmihalyi, 2000).

The degree and direction of self-efficacy impacts students in several ways. According to Jackson (2002), self-efficacy influences the environment in which students choose to place themselves and how they handle failures. Students with low self-efficacy tend to avoid learning experiences where they feel inadequate and become frustrated when faced with the possibility of failure (Pajares, 1996). Higher education professionals can use the field of positive psychology to improve levels of self-efficacy by creating positive learning environments and focusing on students’ strengths.

Another way of improving self-efficacy through the use of positive psychology is to increase the student’s feeling of authenticity. Pajares (2001) defines authenticity as the belief that “one’s achievement/success is deserved” (p. 28). Using this definition of authenticity, student success is directly impacted by the belief of personal success or failure (Bandura, 1986). Many struggling learners often have “low rather than high self-efficacy for academics” (Margolis & McCabe, 2004, p. 241).

This article focuses on two categories of college students who may also struggle with learning: those with ADHD and those with LD. Taken together, students reporting one or both of these disabilities form the largest segment of students receiving disability services on college campuses. Tincani (2004) notes LD are the largest category of disabilities reported by students receiving services in college – approximately 29%. According to Weyandt and DuPaul (2008), the numbers of college students with ADHD are less precise, but it is “estimated that 25% of students receiving disability support receive services for ADHD” (p. 312).

Although people with LD or ADHD are generally of average or above-average intelligence, and college students with ADHD show greater ability than people with ADHD in the general population (Frazier, Youngstrom, Glutting & Watkins, 2007), these students typically do not believe that they can succeed academically and often “fail to make appropriate efforts to master academics” (Margolis & McCabe, 2004, p. 241). In short, they do not believe they deserve success.

Students with LD may have one or more of the following difficulties: dyslexia or other reading problems; dysgraphia, which can include difficulties ranging from forming letters and spelling to organizing thoughts in written work; and dyscalculia, which can include math procedural difficulties, semantic memory problems, and difficulty forming or recognizing numbers (Turnbull, Turnbull, & Wehmeyer, 2010). Students with LD may also exhibit problems with memory, whether short-term, long-term, or working memory. Turnbull et al. (2010) also note these students can struggle with certain executive functions, such as organizing, prioritizing, and evaluating academic work. People with ADHD are usually described as having one of three types of attention difficulties: predominantly inattentive, predominantly hyperactive and impulsive, or combined inattentive/hyperactive (Turnbull et al., 2010). Attention deficit hyperactivity disorder adversely affects a student’s academic achievement because it causes difficulties with memory, executive functioning, self-regulation, and concentration (Turnbull et al., 2010).

Students with LD or ADHD share some of the same characteristics, primarily in the area of executive functioning. They also usually have demonstrated a gap between intelligence and achievement (Turnbull et al., 2010). This discrepancy can produce frustration with academic work, even in students who decide to pursue postsecondary education, leading to reduced self-efficacy for academics. Table 1 shows the difficulties typically encountered by students with LD and ADHD, listed by those they have in common and those unique to each disability.

Positive psychology is a logical lens through which to view the importance of increasing self-efficacy because research has shown strong connections between academic motivation, success, and positive beliefs (Pajares, 2001). Pajares (2001) notes students with positive self-efficacy toward academics tend to seek challenges while those with negative self-efficacy to-

ward academics choose not to seek challenging tasks because they are afraid of failure. As Margolis and McCabe (2004) discussed for elementary and secondary teachers, if a learning experience is to be rewarding, it is important that academic tasks are at the appropriate level and, to the extent possible, structured to reduce task anxiety levels. This is also important for the college learning experience. Putting the principles of positive psychology into practice, faculty and administrators must create a learning experience that helps students reach their fullest potential. By working to minimize a climate of anxiety and seeking to understand individual differences and difficulties, faculty are utilizing positive psychology to help students improve their self-efficacy toward academics.

It is important to note that self-efficacy is task specific; thus, strengthening self-efficacy for academics requires focusing on specific subject areas where students feel they are not excelling (Margolis & McCabe, 2004). For example, Margolis and McCabe (2004) note students can be strong in one area, such as reading, and lack confidence in other areas, such as mathematics. Therefore, it is vital for higher education professionals such as disability coordinators, counselors, advisors and support services staff to individualize learning experiences for each student.

Students with LD tend to attribute their academic failures to a lack of aptitude and a lack of effort (Tabassam & Grainger, 2002). Scarpati, Malloy and Fleming (1996) found that students with LD attribute success to external factors and failures to internal factors. Zajacova, Lynch and Espenshade (2005) note “the extent to which a person feels confident about his or her competence to handle a given situation affects whether a given task is perceived as stressful or threatening, or as a challenge” (p. 680). Thus, self-efficacy can be predicted to impact coping strategies as well as the perception of external factors.

ADHD is “widely viewed as a disorder of executive functioning” (Parker et al., 2011, p. 115). Salthouse, Atkinson, and Berish (2003) describe executive functioning as “control processes responsible for planning, assembling, coordinating, sequencing and monitoring other cognitive operations” (p. 566). Students with LD also experience significant difficulties with executive functioning. It is important to note that shifting the primary view of ADHD from behavioral to functional requires a change in the way these students are evaluated and treated (Parker, et al., 2011).

Table 1

*Difficulties Typically Encountered by Students with LD and ADHD*

Learning Disabilities	Shared Difficulties or Characteristics	Attention Deficit Hyperactivity Disorder
Metacognitive difficulties	Average or above-average intelligence	Difficulty sustaining attention
Dyslexia	Gap between intelligence and achievement	Impulsivity
Dysgraphia	High levels of frustration, especially with academic work	Problems with self-regulation
Dyscalculia	Tendency to devalue own achievements	Difficulty concentrating
	Anxiety	
	Need additional time for reading and assignments	
	Memory difficulties	
	Difficulty organizing and prioritizing work	
	Problems with interpersonal relationships	

*Note:* Characteristics listed are typical but not exhaustive and may not apply to some individuals with these disabilities. Also, this table does not address the difficulties encountered by individuals with multiple disabilities.

### Promising Practices

This section will review some emerging practices that can enhance current disability services for college students with ADHD and LD. “Techniques such as differentiated instruction and stepwise learning (e.g., memorizing and drilling), which are often employed in elementary and secondary classrooms, may be helpful to students with disabilities at the postsecondary level (Heiman, 2006; Reaser, Prevatt, Petscher, & Proctor, 2007). However, due to the different environments and expectations in the college classroom, such individualized approaches are often implemented through the disability services office rather than by faculty members (Allsopp, Minskoff, & Bolt, 2005; Parker & Boutelle, 2009).

Another approach is life coaching, a relatively new field which is grounded in behavioral science. The aim of coaching, by definition, is to enhance a person’s self-concept, abilities, and personal interactions (Griffiths & Campbell, 2009). Unfortunately, the reputation of coaching has suffered due to the extravagant claims of popular motivational speakers, many of whom identify themselves as “life coaches” but who do not adhere to sound, evidence-based psychological methods (Green, Oades, & Grant, 2006). When practiced according to professional standards, coaching in its various forms, whether life coaching, executive skills coaching, or academic skills coaching, is one example of how college support services staff can practically apply the tenets of positive psychology.

There are limited examples in the literature of current positive psychology practices on college campuses. Most of the research has focused on adults or adolescent groups (Norrish & Vella-Brodrick, 2009), and of those studies, few include individuals of any age with disabilities. Griffiths and Campbell (2009) conducted a grounded theory study and found that coaching had positive results for adults without disabilities, including enhanced confidence, reinforcement of previous knowledge or skills, and newly formed habits of positive self-coaching. In one of the few studies involving participants with disabilities, Worrall et al. (2010) found that adults with aphasia following stroke benefited significantly from coaching related to goal-setting and adjustment to a new disability. These findings lead Worrall et al. (2010) to argue for shifting current therapeutic practice of speech-language pathologists from a deficit-based treatment focus to one of life coaching based on hope theory and positive psy-

chology. Although the language and communication difficulties experienced by individuals with aphasia differ in cause from those experienced by individuals with certain types of LD, the reported benefits of coaching and positive psychology for those with aphasia are encouraging enough to warrant closer scrutiny and possible application to the needs of individuals with disabilities such as LD and ADHD.

Numerous studies have shown that high levels of hope and motivation among students without disabilities are linked to higher academic outcomes (Norrish & Vella-Brodrick, 2009; Snyder, Lopez, Shorey, Rand, & Feldman, 2003). Additionally, the research has shown for some time that individualized approaches to teaching and assessing students with LD, ADHD, and other disabilities are not only beneficial, but necessary for academic success (Hanafin et al., 2007; Reiff et al., 1993). Therefore, one can infer that individualized coaching grounded in positive psychology would prove beneficial for college students with disabilities.

In 2009, Parker and Boutelle evaluated a program of executive function coaching for college students with LD and ADHD. This program goes beyond the typical study skills workshops, which are already offered by many colleges to students with and without disabilities. Students with ADHD, and those with LD who have similar challenges, need more support in postsecondary education because of the increased demands on their ability to organize, motivate themselves, and self-regulate their behavior. Parker and Boutelle (2009) suggest that common didactic supports, such as instruction in note-taking or test-taking methods, may not adequately address the needs of students who can grasp the academic content but still have difficulties with self-regulation. Executive function coaching is inquiry-driven and contrasts with the didactic tutoring approach. Coaches in this model were trained staff who spent an average of one hour per week with an individual student (Parker & Boutelle, 2009). Rather than a prescriptive framework, which is common in therapeutic counseling, the executive function coach guides the student’s thinking through asking about the student’s preferences, beliefs, and ideas for solutions to particular learning challenges. The coaching model has been found to support self-determination skills and therefore produces more lasting results for participants.

Students who participated in the coaching experience were interviewed after one or two semesters of involvement (Parker & Boutelle, 2009). When com-

paring coaching to other services, students reported that coaching appeals more to them as adults and encourages more responsibility for decisions and actions. Although therapeutic counseling may be needed in some cases, several students felt they had been sent to therapists erroneously and found coaching to be a better fit. Two students also noted that the coaching model was not helpful to some of their friends who wanted more direction and didactic instruction. When describing the benefits of coaching, students mentioned how the service helps them clarify goals and become more self-aware and self-determined. One major benefit is stress reduction, especially as students began to model the coach's inquiries with positive, self-directed inquiries. Therefore, it seems logical that positive psychology, which focuses on optimism, human strengths, well-being, and perseverance, would be a complementary addition for higher education practitioners to combine with the executive function coaching model. Together, these practices could improve ADHD and LD students' overall self-efficacy for academics.

A study conducted by Reaser et al. (2007) found both differentiated study skills instruction and ADHD coaching are needed, stressing that students with ADHD may have problems in school but they do not lack the ability to learn. In that study (Reaser et al., 2007), students with ADHD were compared to students with LD and to students without disabilities. The results showed that students with ADHD may be similar to students with LD in their knowledge of learning skills, but not in their approach to their learning tasks. This is one reason that students with ADHD should not be categorized or treated in exactly the same way as students with LD, a practice that is common in colleges.

It is important to make the distinction between these two disabilities because, as Reaser et al. (2007) discovered, students with ADHD reported levels of time management, concentration, selecting main ideas, and test-taking strategies that were lower than both students without disabilities and students with LD. However, the ADHD group reported scores that, although lower than the group of students without disabilities, were higher than the LD group in four areas: motivation, anxiety, information processing, and self-testing. These findings relate to the framework of self-efficacy in that students with ADHD may not have the same trouble as students with LD in liking classes or finding college to be worthwhile. Their trouble, in

contrast, is optimism and confidence to the point of being unrealistic about their own abilities. It is clear that campus disability providers must treat these two groups of students differently, making sure to tailor services to specific needs (L. Colligan, Director of Disability Services at The College of William & Mary, personal communication, March 7, 2011).

An individualized strategy instruction model that shows promise (Allsopp et al., 2005) was implemented over a three-year period and both quantitative and qualitative data were collected. Although the program operated out of the campus disability support services office, the strategy instructors were graduate students in the department of special education. The study participants were undergraduate students who had either LD or ADHD and were also experiencing academic difficulties; some were on academic probation (grade point average of less than 2.0). The strategy instructor devised an individual plan to help the student with disabilities apply general learning strategies to his or her own particular courses based on a self-evaluation questionnaire of learning skills. The student and instructor met face-to-face, usually weekly, over the course of the semester. At these meetings, the student would model the strategy for the instructor, who would then give feedback.

Allsopp et al. (2005) found that grade point averages were significantly greater the semester following the intervention than the semester before intervention. The qualitative analysis found that one factor related to improvement was the specific nature of strategy instruction. Some students had received generalized study skill instruction, but had been unable to transfer that knowledge to specific course work. The support from the strategy instructor was another factor related to academic improvement for participants. Those students who did not show academic improvement were those who did not independently apply the strategies to their courses. In addition to practicing the strategies, students who experienced academic improvement mentioned critical reflection as a factor for success. Higher education faculty and staff can use the individualized strategy instruction model to facilitate a constructive and challenging learning environment, fulfilling a major goal of positive psychology – to build positive experiences (Seligman, 1998).

### Implications for Practitioners

Students with ADHD and LD need to continue to receive the common services and accommodations provided by college offices of disability services (Weyandt & DuPaul, 2008). Some of these are more time for taking tests and completing assignments (Buchanan et al., 2010; Weyandt & DuPaul, 2008), copies of lecture notes (Vance & Weyandt, 2008; Weyandt & DuPaul, 2008), books on tape (Weyandt & DuPaul, 2008), and alternate formats for assignments and assessments (e.g., oral instead of written) (Sireci, Scarpati, & Shuhong, 2005). Common services need not be abandoned when incorporating positive psychology into disability services. This article suggests that incorporating practices of positive psychology can only enhance the current forms of support for college students with ADHD and LD. In addition, services staff need to be aware that ADHD and LD are not identical disabilities; students with one or the other experience challenges in different areas and should receive services specific to those challenges (Reaser et al., 2007). In the same way, students with multiple disabilities, such as ADHD present in a student with LD, need to be evaluated on a case-by-case basis and given the support and accommodations unique to their needs (L. Colligan, personal communication, March 7, 2011).

Training and professional development for faculty regarding the abilities of students with LD and ADHD, as well as the difficulties they face, should be offered on a regular basis (Heiman, 2006). This training could help improve faculty understanding of disabilities. Positive psychology would be a beneficial framework for this training because it can help foster constructive learning environments for all students and increase interpersonal communication between faculty and students. Unfortunately, some faculty at the postsecondary level do not believe students with LD or ADHD should be given more time to complete assignments or the option to submit them in an alternate format (Vance & Weyandt, 2008). However, Vance and Weyandt (2008) also found that a majority of the faculty in their study sample not only believed that training in disability awareness was important, but they were also willing to receive such training. As faculty awareness grows, their willingness to provide the common accommodations listed above hopefully will increase, further promoting a positive relationship with students.

Attention difficulties are a reliable predictor of a college student's grade point average (Frazier et al.,

2007; Weyandt & DuPaul, 2008). Because of the documented positive effect of individualized interventions on GPA (Allsopp et al., 2005; Parker & Boutelle, 2009), we know that students with LD or ADHD can meet the demands of college-level work when provided with the appropriate supports. This suggests that routine screening for attention difficulties would facilitate service delivery to at-risk students so they may receive support before they are referred for academic probation (Frazier et al., 2007). Such screening could be offered to all incoming students on a voluntary basis through a branch of the student affairs office, such as a center for student success. This confidential service also would need to be couched in a framework of positive psychology so both students and staff understand that the goal of the testing is not to discriminate but to improve students' overall college experience and to help them reach their highest potential.

Both faculty and support services staff can use positive psychology to help college students with LD improve their self-efficacy. In the classroom, faculty can help increase a student's self-efficacy by linking new work to recent successes (Margolis & McCabe, 2004). In addition, Tincani (2004) suggests the following strategies: adding notes to the syllabus that encourage students to talk with instructors about any accommodations they need, making sure the syllabus has clear learning objectives and assignment dates, and providing a list of study objectives to help students understand the material to study for tests and quizzes. Peer mentors, coaches, and counselors can also help students reduce anxiety and frustration – impediments to self-efficacy – by systematic modeling and explanation of learning strategies, guided practice with those individualized strategies, and independent practice on the part of the student (Allsopp et al., 2005; Margolis & McCabe, 2004; Parker & Boutelle, 2009). All of these strategies are rooted in strengthening the learning styles of all students (Gable & Haidt, 2005).

In addition to practicing learning strategies, students with ADHD and LD can benefit from a systematic approach to learning about instructional technology (Parker et al., 2009). Technology use for instructional purposes is becoming the norm on college campuses. However, the intricacies of technology use can prove daunting for students with disabilities. Although students routinely use personal technology, such as cell phones and digital music devices, they often are less comfortable with the types of instructional technology

used in postsecondary education such as performing online literature searches (Parker et al., 2009). Parker et al. (2009) also note individualized skill instruction can be applied to technology use with the same benefits as similar targeted instruction in learning strategies.

Finally, support services staff, faculty, and students themselves, can help increase self-efficacy through setting appropriate, realistic academic goals. Margolis and McCabe (2004) recommend that such goals be personally important to the student, achievable, able to be realized in the short-term, and specific. Although faculty and peer mentors may not be trained as executive function coaches, they can nevertheless employ a similar inquiry-based approach when discussing goals with LD or ADHD students. In an inquiry-based approach, the student has more power to decide what is important and how to achieve it than they usually have in prescriptive, authority-based approaches (Parker & Boutelle, 2009). One can infer that using an inquiry-based approach will increase satisfaction, optimism and help them flourish in college, employing the basic premises of positive psychology (Ambler, 2006).

### **Conclusion**

Positive psychology, though a relatively new branch in the field of psychology, shows great promise for educators. As Seligman (1998) notes, positive psychology strives to make life's experiences more rewarding. Higher education professionals have a responsibility to help students reach their fullest potential. In order to do this, they must promote learning environments that nurture and support students and create positive experiences (Ambler, 2006). Using positive psychology to improve students' self-efficacy in academics takes the focus away from impairments and instead strengthens what is sound. Since many students with ADHD and LD have experienced numerous academic failures, using positive psychology can help students and higher education professionals utilize students' strengths to increase academic success. Self-efficacy practices and positive psychology both aim to increase optimism, perseverance, and personal satisfaction. Many counselors and staff in disability support services are already focusing on student strengths to improve academic outcomes; positive psychology can provide an additional, solid base of research literature to assist them. The Positive Psychology Center provides information and resources

for educators through its web site found online at <http://www.ppc.sas.upenn.edu/>.

Some areas that have not yet been addressed in the literature are effects of race, age, and gender on student responsiveness to the executive coaching and positive psychology approaches described in this article. Another factor that needs to be researched is the type of college or learning environment (e.g., two-year, four-year, or online), as this could impact the types of services provided to students with ADHD or LD. Finally, more research is needed to examine the effect of faculty training and increased disability awareness on both the academic outcomes and attitudes toward learning of students with disabilities. If the ultimate goal of higher education is to produce productive citizens, it would be beneficial to conduct further research into the field of positive psychology and to put into practice what is already known. This can only enhance the overall learning experience for students with and without disabilities.

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