

# Quantifying the Effectiveness of Coaching for College Students with Attention Deficit/Hyperactivity Disorder

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## EXECUTIVE SUMMARY

**Abstract:** Researchers from Wayne State University in Michigan conducted the study over two years in 10 universities and community colleges throughout the country and tracked the progress of 110 students with ADHD. It is the largest and most comprehensive study of ADHD coaching conducted to-date. The research team measured students' progress through both quantitative and qualitative analysis and determined that the Edge coaching model was highly effective in helping students improve executive functioning and related skills as measured by the *Learning and Study Strategies Inventory* (LASSI; Weinstein & Palmer, 2002).

# Executive Summary

This report describes results from a study to examine the effectiveness of the Edge coaching model on the academic success of students with ADHD in college and university settings. The study clearly demonstrated that Edge coaching services had a significant and meaningful impact on students' self-regulation, executive functioning skills, and well-being.

Students from eight universities and two community colleges from a variety of geographic regions across the United States participated in the study. A total of 127 participated in the study. Students were randomly assigned to either the treatment group (N=88) or the comparison group (N=39). It is the largest study to date to examine the effects of ADHD coaching.

This study demonstrated that coaching services provided according to the Edge model were highly effective in helping students improve their self-regulation, study skills and will. It helped to build students' confidence and enhanced their organizational and time management skills. Participation in Edge coaching services resulted in improvement in students' approach to learning. It also enhanced their sense of well-being and resulted in more positive emotional states, which have been linked by research (Fredrickson & Branigan, 2005) to more effective learning.

This study demonstrated that the coaching services provided according to the Edge model were a highly effective intervention to help students improve executive functioning and related skills as measured by the *Learning and Study Strategies Inventory* (LASSI; Weinstein & Palmer, 2002). The LASSI measures Executive Functioning Skills as they are applied in academic environments. Executive functioning is an umbrella construct reflecting self-regulatory mechanisms that organize, direct, and manage other cognitive activities, emotional responses, and overt behaviors (Gioia, Isquith, & Guy 2001). The difference in gain on total LASSI scores between the Edge coaching group and the comparison group was statistically significant ( $p < .01$ ). The Edge coaching group had a mean gain of 182.67 points pre to post, whereas the comparison group's mean gain was only 64.05 points. The LASSI is comprised of three cluster scores: Self-regulation, Skill and Will. There were also significant differences between the Edge coaching group and the comparison group, in favor of the treatment group, on all three cluster scores. The differences between the treatment and comparison groups were significant ( $p < .05$ ) for the Skill and Will clusters Self-Regulation ( $p < .01$ ) cluster. Partial  $\eta^2$ , is a measure of treatment impact that is useful for determining the practical significance following a statistically significant finding. This analysis revealed that the Edge coaching intervention demonstrated a moderate treatment outcome for the Skills and Will clusters and as a large treatment outcome for the Self-Regulation cluster. For comparison:

- Very large effect size: use of cues, mentoring, reinforcement
- Large effect size: cooperative learning, positive corrective feedback, phonemic awareness

- Moderate: frequent testing, goal setting, staff development, tutoring
- Small: audio-visual aids, parental education, pressure to achieve, school climate, school leadership, student attitude
- Nil or negative: additive-free diet, class size, team teaching

Qualitative analysis of interview findings corroborated the findings from the LASSI. Students' comments and artifacts indicated that Edge coaching services helped them establish more effective goals and pursue those goals in more efficient, less stressful ways. Students attributed this outcome to coaches' proficiency in helping them reflect on themselves and their goals more often, in more realistic and positive ways, and to regulate their feelings and behaviors more effectively while pursuing those goals. Thematic analysis of interviews resulted in a major emphasis on self-regulated behavior with a focus within self-regulation on improved routines and structures and more effective self-talk. Results from this study also demonstrated that participation in Edge coaching services enhanced students' sense of well-being and resulted in more positive emotional states. Edge students' overall mean score on the College Well-being Survey (Field, Sawilowsky, Parker, & Roland, 2010) was statistically significantly higher than comparison students' mean Well Being score, when corrected for initial differences in executive functioning. Again, qualitative analysis corroborated that Edge coaching services increased students' subjective well-being. Thematic analysis of interviews resulted in the designation of positive feelings as an area of major impact of the Edge coaching model. Major themes within the category of positive feelings were less stress, greater empowerment, increased confidence and more balanced lives.

There were no statistically significant differences ( $p > .05$ ) in GPA between the Edge and comparison students, number of credits earned in Semesters 1 or 2 ( $p > .05$ ), or on eligibility to continue ( $p > .05$ ). However, the Edge coaching model as currently implemented was not designed to impact GPA when delivered on a short term basis. It is possible that differences in GPA may be observed in a longitudinal study, or if the model was implemented for a longer duration.

The evidence is abundantly clear that the Edge coaching model made an important difference in the way students approach the learning process. It helped students to be more organized and efficient resulting in increased feelings of control and confidence. Given the difficulty that students with ADHD typically experience in self-regulation and executive functioning, it is anticipated that these findings will be of high importance to those concerned with factors that contribute to success for persons with ADHD.