

# **Bridging Science and Faith: A Groundbreaking Approach to Executive Function Coaching**

## **Abstract**

This article presents an examination of an innovative executive function program developed by Yessenia Rios of CEF Coaching. The program amalgamates four years of rigorous scholarly scientific research with observational insights to create a comprehensive executive function coaching regimen. It incorporates research-based principles to assist individuals in need of support with executive skills. This article details the program's design, methodology, and its implications for enhancing students' executive functioning skills through structured support and non-judgmental accountability.

## **Introduction**

Executive functions, which encompass cognitive processes such as working memory, cognitive flexibility, and inhibitory control, are crucial for academic success and personal development. Recent advances in educational psychology and cognitive science have provided insights into effective strategies for improving these functions. Yessenia Rios, leveraging a blend of empirical research and practical observation, has developed an executive function program designed to address the unique needs of students struggling with executive dysfunction.

Yessenia Rios began her research after spending a year working with students who struggled with executive skills. During this time, she observed that traditional approaches such as tutoring, simple encouragement, and reteaching were merely temporary solutions that addressed surface-level issues without tackling the root causes of the students' difficulties. Recognizing the need for a more profound intervention, Rios embarked on a research journey to develop strategies that address the underlying issues. Her research led her to understand that the most effective way to reach adolescents, young adults, and the general population is not through direct teaching alone but through a combination of questioning and coaching. This approach allows for a deeper engagement with the students and addresses their executive function challenges more effectively.

## **Program Overview**

Rios's executive function program is grounded in scientific research and is tailored to the specific needs of students. The program integrates strategies based on principles such as

<sup>1</sup>implementation intentions, cognitive-behavioral approaches, multimodal learning, and <sup>2</sup>retrieval practice among others. These strategies are employed to equip students with diverse methods for addressing challenges related to executive functioning.

## Methodology

The program's methodology involves several key components:

1. Integration with Relevant Academic Content: Coaches utilize the current academic material and school related challenges of students to apply the most relevant strategies, ensuring that interventions are contextually appropriate and directly applicable to the student.
2. Weekly Goal Setting and Implementation Intentions: Coaches engage students in weekly goal setting and implementation intentions.
3. Weekly Skill Development: Each week, coaches introduce or review a specific executive functioning skill. Through <sup>3</sup>questioning and dialogue, students reflect on their use of the skill and explore potential strategies for improvement.
4. <sup>4</sup>Active Brain Exercise: During sessions, clients do more than just learn about their executive functions or receive help with challenging tasks such as academics or behavior. They engage in personalized research-based activities designed to exercise and strengthen the specific brain areas responsible for these executive skills. This active engagement means that students are not merely discussing or applying strategies in theory but are actively working to improve the neural pathways that control executive functions. This hands-on approach facilitates tangible improvements in cognitive abilities and executive functioning.
5. Support and Accountability: Coaches provide continuous structured support and non-judgmental accountability, fostering a collaborative environment where students can develop self-efficacy and ownership of their learning processes.

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<sup>1</sup> Peter M. Gollwitzer and Paschal Sheeran. "Implementation Intentions." New York University/Universität Konstanz and University of Sheffield.

<sup>2</sup> Wiklund-Hörnqvist, Carola, et al. "Retrieval Practice Facilitates Learning by Strengthening Processing in Both the Anterior and Posterior Hippocampus." *Brain and Behavior* 11, no. 1 (2021)

<sup>3</sup> Hettrema, Jennifer, Julie Steele, and William R. Miller. "Motivational Interviewing." *Annual Review of Clinical Psychology* 1 (2005): 91-111. <https://doi.org/10.1146/annurev.clinpsy.1.102803.143833>.

<sup>4</sup> Joja, Daniela Oltea. "Learning experience and neuroplasticity—a shifting paradigm." *Nature Reviews Neuroscience* 3, no. 1 (2002): 65-71.

6. <sup>5</sup>Gradual Release of Responsibility: The program is designed to progressively shift responsibility to the student, promoting independence and self-management in academic, emotional, and spiritual domains.

7. Biblical Integration: The program emphasizes the integration of biblical principles, encouraging students to develop habits that resonate with their personal identities and visions of their future selves while promoting a supportive environment for ongoing growth and accountability. This accountability is grounded in Proverbs 24:16, which states, "For though the righteous fall seven times, they rise again," and similar teachings. This reflects the consistency and patience of Jesus, who is the same yesterday, today, and forever. Coaches embody this spirit by maintaining professionalism, non-judgment, and positivity, regardless of whether the student arrives having accomplished everything they set out to do or having done nothing at all.

## Objectives and Outcomes

The primary objective of the program is to create a consistent, research-based structure that enhances executive functioning skills while aligning with the student's values and beliefs. The curriculum aims to:

1. Promote Intrinsic Motivation: By focusing on purposeful learning rather than mere grade attainment, the program encourages students to develop a growth mindset and intrinsic motivation.
2. Foster Lifelong Learning: The program is designed to prepare students to be independent, lifelong learners, equipping them with the skills necessary for effective problem-solving and application of knowledge they can use in all aspects of their life moving forward.
3. Empower Through Self-Efficacy: Students are empowered to take ownership of their academic, emotional, and spiritual lives, supported by strategies that address limiting beliefs and enhance performance.
4. Faith Based Support: Students enhance emotional regulation, response inhibition, metacognition, and perseverance through the integration of biblical principles. With consistent, biblically founded support, the program helps students cultivate habits that resonate with their <sup>6</sup>identities and future aspirations.

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<sup>5</sup> Rashidova, Munavvar Xaydarovna. "Instructional Scaffolding to Improve Learning." *Innovative Development in Educational Activities* 2, no. 7 (2023): 135-40. <https://openidea.uz/index.php/idea/article/view/1002>.

<sup>6</sup> Clear, James. *Atomic Habits: An Easy & Proven Way to Build Good Habits & Break Bad Ones*. New York: Avery, 2018. 20-25.

## **Implementation and Fidelity**

The success of the program is contingent upon its fidelity of implementation. Building systems that support executive functions requires time and consistent practice, akin to the formation of new habits. The program emphasizes the importance of systematic application and ongoing adjustment to ensure effective outcomes.

## **Case Studies and Practical Application**

The program is applied through various coaching techniques, including cognitive restructuring, behavior replacement, implementation intentions, weekly goal setting, and reflective practices among many others. For instance, students with difficulties in working memory might engage in teaching what they know as a form of retrieval practice while the coach asks follow-up questions to reinforce memory consolidation. Those struggling with inhibitory control may work on cognitive restructuring, behavioral replacement and implementation intentions among many other strategies.

This program also integrates biblical principles and scriptural insights, suggesting that God, as the creator of human cognition, has provided fundamental truths about executive functions in His Word. This approach helps students solidify their identities based on their unique talents, beliefs, and experiences, allowing them to create habit-building plans that align with both their self-concept and their biblically affirmed identities. Additionally, the coaching framework offers a structured method where coaches help students identify and implement strategies that foster habits in line with their personal identities and visions for their future selves. The program creates a safe, non-judgmental environment for weekly accountability, encouraging consistent practice of these new habits and promoting overall development in both academic and spiritual areas.

## **Conclusion**

Yessenia Rios's executive function program represents a significant advancement in the field of executive function training. By combining research-based strategies with practical, context-specific interventions, the program offers a robust framework for addressing executive dysfunction. Through structured support, accountability, and gradual release of responsibility, the program not only enhances students' executive functioning skills but also fosters their overall growth and development.

## **Author Information**

Yessenia Rios holds a master's degree in educational leadership and is a graduate of an ICF-accredited coaching school. She spent over 12 years working as an educator and now continues to work with students as an executive function coach. She also provides professional development for educators, trains aspiring executive function coaches, and offers parent trainings. Her work is characterized by a commitment to leveraging individual values and strengths to foster holistic development and empower students to achieve their fullest potential.

## **CEF Coaching**

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