Action Research Prospectus

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# Designing the Intervention (3-4 pages)

Executive functioning challenges can be experienced by individuals with various disorders, including autism spectrum disorder, oppositional defiant disorder, bipolar disorder, Tourette's syndrome, traumatic brain injury, and learning difficulties. As these students are increasingly included in general education classrooms, instructors must be knowledgeable about evidence-based strategies to support them effectively. Implementing executive function interventions should involve systematic instruction of metacognitive strategies relevant to the curriculum. The acquisition of strategic skills requires scaffolding, modeling, and deliberate practice. Instructors should incorporate students into the process to enhance strategy use. Children and adolescents must understand their cognitive aptitudes and deficiencies and actively address and ameliorate them. Identifying learning styles helps young students understand their strengths and weaknesses, enabling them to identify situations that require appropriate techniques (Childers, 2020). These disorders are not evident within some educational methods, such as the Montessori Method, as the curriculum and classroom are set up to normalize and support students.

Impaired executive function skills can hinder the integration of gifted students, students with autism spectrum disorder (ASD), High Functioning Autism (HFA), or attention deficit hyperactivity disorder (ADHD) in conventional classrooms. Researchers have debated these individuals' specific executive function profiles, leading to efforts to separate them. The three essential executive function processes are inhibition, shifting/cognitive flexibility, and planning/working memory. ASD is associated with cognitive flexibility issues, leading to rigidity and repetitive behaviors. Poor cognitive flexibility preserves stereotypical behaviors and self-control issues, hindering daily life adaptation. Effective planning and working memory are essential for setting goals, prioritizing tasks, and initiating responses (Cohene, 2019). Students with low EF skills often have trouble making friends because their peers and teachers do not understand what is happening. This can make it harder for people to get to know each other in the classroom. Teachers should determine how to help students with HFA/ADHD fit in with their peers. A student's ability to get along with others in class could improve if they learned ways to deal with and lessen the effects of their lack of EF skills. If teachers knew more about students' lack of EF skills, they would be ready to teach differently by scaffolding and incorporating those methods into their regular lessons. If students with normal development knew about these problems caused by poor EF skills, they might be more willing to talk to and connect with students with HFA/ADHD in the classroom (Lima, 2021). The development of Executive function assistance within a curricular format has the potential to effectively enhance class content standards and provide help to all students. Using a curriculum that leads to improved performance is a growing necessity to support a growth mindset and strengthen executive function deficiencies.

NT Wright’s seven signpost themes of justice, love, spirituality, beauty, freedom, truth, and power are broken signs that indicate the presence of God and the new creation. Living an informed life involves understanding these signs, recognizing their relevance, and considering others' unique ways. These seven entities act like safety measures, allowing access to the innermost safe only when all seven are present and working together. However, the signs could be clearer and more satisfactory. This project focuses on the themes of freedom and power, aiming to help students develop essential executive function skills and autonomy, enabling students to thrive. Schools need to develop unique ways to support students with the implementation of executive function assistance in curricular formats, which can significantly improve class content standards and support student growth, making it a crucial tool to strengthen executive function deficiencies and enhance overall performance.

~~I expect to explore how an executive function skills curriculum can improve students' academic success. This will be done using strategies, techniques, and overall learning preparedness.~~ This intervention uses structural functionalism to address executive function skill needs in the educational system. It aims to transform education systems, promoting stability and growth within curricula and supporting student success. The study emphasizes the importance of shared values for autonomous functioning within society. It highlights the sociology of education and the link between society and education and suggests educational institutions adopt transformational management models and leadership styles to address these challenges.

 Christian educators are responsible for assisting gifted children in addressing their social and emotional needs. These students may be more prone to experiencing depression as a result of their advanced comprehension of moral and intellectual ideas. Consequently, they need distinct and additional support. I Corinthians 14:33 states that God is not the originator of disorder or chaos. Students need resources that enable them to enhance their comprehension and operate autonomously. According to 1 Corinthians 14:40, all actions should be appropriate and organized. This further underscores the need for a well-structured system and assistance to enhance children's executive function skills.

In the context of this project, these interventions may be implemented by incorporating them into the age-appropriate online curriculum within a school environment for 6th-8th grade students. The intervention results of the project will be assessed in terms of effectiveness through the use of pedagogical strategies by online instructors and online platforms and monitored by on-site teachers. These strategies aim to facilitate students' acquisition of skills related to monitoring essential information, planning and monitoring progress, and organizing resources to support the students to independently manage their academic pursuits and effectively manage their social interactions. The individuals will formulate goals, establish a hierarchy of tasks with specified timeframes, and develop strategies to mitigate procrastination effectively. The individuals will ascertain the methods required for project completion and adherence to certain time constraints. Students will understand the importance of working memory about academic and personal accomplishments and acknowledge several strategies that might enhance memory function. The students will experiment with various memory strategies and, after that, assess their efficacy. This online ExQ Program is a complete toolkit designed to assist students in developing critical Executive Function skills such as mental flexibility, memory, and focus.  ExQ will help students optimize their learning. ExQ will support the primary objective for students to learn how to learn. A thorough assessment will be given at the beginning of each student's ExQ training. This assessment will identify each student's strengths and weaknesses and help them set short-term and long-term goals for their learning through videos, diaries, vision boards, graphing, and documenting progress.

ExQ trains teachers to be an integral part of students' success. Through 10 lessons, students will strengthen skills through mini-video lessons, online games, and goal setting. Each lesson will focus on the seven assessment areas: self-awareness, organizing and planning, focus, working memory, mental flexibility, problem-solving, and prospective memory. Each student will learn how to learn best and support these skills. Each lesson includes a personalized three-part To-Do list, which includes challenging cognitive games related to the seven domains of Executive Function. The second part focuses on coaching by reviewing mistakes and learning from them. The third part, M-E-T-A training, is centered around metacognitive training, which aims to enhance self-efficacy by guiding students through the WHY of learning and prompting self-devised strategic thinking. This meta-approach is designed to help students overcome challenges and improve their overall performance.  Students will be encouraged to practice building skills with commitment and focus. Students will also reflect on goals set and create future videos. This curriculum intervention will run for eleven weeks. Students will need access to chrome books and have headphones. This intervention costs $275 per student and will be covered by the school for 5 students as a trial group. Each student will need to have access to Chromebooks and headphones. The challenge of this intervention is that students will be required to complete the full ten-week sessions. Completion is necessary for measuring the success of the intervention and its results in terms of effectiveness. Make-up sessions may be necessary to support the accuracy of outcomes.

**Ethical Considerations**

The idea of a growth mindset has become more important as educators work to assist students in reaching their goals. This paradigm holds that motivation, consistent effort, and grit may enhance performance, skill acquisition, and ability. In the face of difficulties, adaptable and resilient students are better equipped to continue making personal and academic progress. Supportive educators might benefit from using growth mindset techniques in job descriptions and other contexts to promote resilience and progress (Baker-Hewey,2022). A Growth Mindset is characterized by students who believe their results can be improved through persistence, hard work, and feedback. This mindset outperforms those with a fixed mentality, who view abilities as natural gifts. Students with a Growth Mindset focus on learning and are less concerned with appearing clever. Research psychologist Angela Duckworth defines grit as hard work and passion for long-term goals. Studies show that students with grit are more engaged and motivated and take responsibility for their learning. Educating students about mindsets is crucial for influencing their learning skills and responsibilities. School administrators play a pivotal role in developing strategies to support teachers in developing EFS among students.

 Gifted children often have extraordinary intellectual capacities, although they may encounter difficulties in executive function skills, which might impede their scholastic achievements and social-emotional welfare. Students face significant challenges during middle school as they manage growing academic expectations and social influences. When establishing intervention strategies to help these children, it is crucial to successfully prioritize ethical issues to protect their rights and dignity. This intervention examines the ethical aspects of creating intervention strategies for intellectually advanced middle school adolescents with deficiencies in executive function abilities.
 The executive function skills included in this intervention include planning, organizing, managing time, focusing, exercising self-control, and solving problems. These executive function skills are necessary to support gifted students. Despite their high intellectual capacity, gifted children might struggle with organizational skills, impulsivity, procrastination, and difficulty finishing tasks. Recognizing and solving these challenges is critical for gifted students to improve their academic performance and general development. Furthermore, the design of interventions is inextricably linked to ethical concepts, especially beneficence. Intervention options should put gifted student's academic success and well-being first. Tailored strategies address executive function deficits and promote overall growth and development.
 This intervention aims to minimize any possible risk or negative consequences for the students. It carefully evaluates the intervention approaches to ensure they do not worsen the problems or cause needless stress. Gifted students will be allowed to participate actively in preparing the intervention, giving them a voice in their preferences, worries, and goals. The intervention places a high value on the students' independence and ensures that their evaluation is tailored to their replies to the questions. All students readily participate in this intervention program, regardless of their background or demographic characteristics. It is equitable. Differentiation in instruction helps treat executive function deficits but will not exacerbate current disparities; instead, it will advance equity and inclusion. The EXQ curriculum encourages students to acknowledge the impact of cultural variables on their academic needs. Interventions will be courteous and sensitive to cultural differences as each assessment differentiates learning according to each student’s needs, strengths, and weaknesses.
 In conclusion, this intervention strategy uses the ExQ Program to meet the requirements for executive function skills for gifted middle school students. The intervention aims to improve students' self-discipline and academic achievements by providing focused curricula, teacher training, and intervention assistance.

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