Title: Integrating Executive Functioning and Life Skills Curricula for Gifted Students: A Comprehensive Approach to Readiness

The purpose

The project proposal explores the significance of executive function skills in children's academic success and proposes an intervention through an Educational Executive Function and Life Skills curriculum. It emphasizes the importance of developing these skills, particularly in gifted students and those with autism spectrum disorder, High Functioning Autism, or attention deficit hyperactivity disorder. The intervention aims to assess and enhance EF skills in 3rd to 8th-grade students, focusing on inhibition, cognitive flexibility, and planning/working memory. Impaired EF skills can affect students' integration in conventional classrooms, leading to social and academic challenges. Teachers are encouraged to understand and address these issues to effectively support students' academic and social development. The problem is the organizational and attention problems gifted children experience. Organization, time management, study habits and skills, mentality, stress, sleep, and screens are the seven areas where disintegrating students exhibit skill deficiencies and unproductive practices. Executive functions (EFs) are high cognitive functions that enable individuals to respond to stimuli in different ways under different circumstances, delay responses, or not respond at all. These pathways promote goal-directed behavior planning. EFs grow progressively with life, some appearing as early as seven months. Children around four or five years of age have a significant increase in their capacity to block irrelevant information, recall and manage knowledge, and shift between tasks. EFs continue to grow and mature until people reach their mid-20s. EFs are also crucial for learning, and this proposal aims to introduce and demonstrate their importance in daily life. Enhancing early childhood executive function (EF) skills can help students regulate impulsivity and make choices that support goal achievement.

Higher-order cognitive functions, such as self-regulation abilities, substantially influence children's academic development. According to this project, Executive Functions directly affect critical abilities such as reading, arithmetic, and problem-solving. Academic success is related to motivation, effort, and self-efficacy. Recognizing oneself as a learner and creating effective tactics might help improve attitudes and school performance. Schools should teach students about their gifts, weaknesses, and techniques for empowering them. Students' task orientation, confidence, peer social skills, and self-regulation are predicted by EFs and challenge selection. Classrooms should push students to make difficult decisions by emphasizing work and learning. Training using an Educational Executive Functioning and Life Skills curriculum (intervention) can help children prepare for success in a gifted program.  The incorporation of executive function intervention into the curriculum has the potential to significantly improve academic content standards and give assistance to all students.

**WHAT IS AN Educational Executive Functioning Curriculum: This involves teaching students strategies to improve their executive functioning skills. Executive functions encompass cognitive processes like organization, planning, time management, self-regulation, and task prioritization. These skills are crucial for academic success and life in general.**

Students should ideally develop executive function abilities throughout their formative years through daily experiences. Research indicates that this does not occur enough among gifted children and students with autism spectrum disorder, High-Functioning Autism, or attention deficit hyperactivity disorder. Various executive function skills impact educational results, and instructors must know how to assist students who lack these skills to enhance their academic ability. An executive function program should be developed and executed to address these essential shortcomings.

This project introduces an intervention to assess executive function skills, specifically in potentially gifted and twice-exceptional students from 3rd to 8th grade. It is anticipated that most students will possess a level of knowledge commensurate with peers of the same age. The project will be utilized for an experimental investigation on a sample of middle school children, aiming to examine the impact of executive function on academic achievement within the school setting. Gaining a deeper understanding of each topic standard's executive function and prerequisites will enable educators to design more efficacious curricula and customize targeted interventions for students, considering their individual EF profiles.

Impaired executive function skills such as self-awareness, organizing and planning, focus, working memory, mental flexibility, problem-solving, and prospective memory can hinder the integration of gifted students, students with autism spectrum disorder, High Functioning Autism (HFA), or attention deficit hyperactivity disorder 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. Autism Spectrum Disorder 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. 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 these diagnoses 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 High Functioning Autism and Attention Deficit Disorder.

 Providing significant activities is essential for a school system based on self-determination since meaning drives involvement. Participating in an educational program focused on executive function skills will impact students' preparedness to succeed. One type of educational method that supports this is Montessori education it provides children with purposeful activities with an obvious underlying rationale, giving individuals meaning and direction. This project employs an action research methodology, using an executive function skills curriculum as a practical intervention to enhance practical life skills in schooling. It will assess self-reported awareness levels before and after the intervention.

The problem is significant because

This intervention will focus on teaching practical skills essential for successfully navigating everyday life. These include problem-solving, decision-making, communication, emotional regulation, and interpersonal skills.

The purpose of integrating these curricula is to provide a comprehensive approach to support the readiness of gifted students.

Executive Function skills must be taught directly and individually. Schools provide curriculum in English, History, Math, and Science. Still, no class on How to Learn teaches students WHY Executive Function abilities are important and how to become critical thinkers, self-managers, and independent learners through daily skill training.
The significance of this statement lies in several key areas:

* **Identification of the Problem**: The problem statement highlights gifted children's organizational and attention challenges, which can significantly impact their academic performance and overall well-being.

Executive functioning skills are essential for connecting one's knowledge with its practical application, enabling effective handling of various aspects of daily life. Implementing a program that encourages the development of practical life skills through educational activities is part of the approach. These skills are essential for improving a student's ability to flourish academically and in various aspects of life. These skills are also essential for learning, and this idea seeks to present and illustrate their significance in everyday life. Improving early childhood executive function skills may help children control their impulses and make decisions that promote goal accomplishment. Without strong executive function skills, students may begin school at a disadvantage that worsens with time. Studying these skills and treatments may enhance educational practices and student experience by including mindfulness and social skill programs. Strong executive function skills (cognitive flexibility, inhibitory control, and working memory) are critical for academic performance and relationships. Executive function skill development happens fast between the ages of three and six. Therefore, it is critical to group treatments and methods by age to better understand what works best with various age groups and student demographics Gifted and twice-exceptional students are cognitively advanced and have heightened intensities that interact with their cognitive abilities. This critical distinction between intelligent and gifted students is crucial as it highlights the difference in intensity. Demanding immediate compliance from gifted students may not work, as it may not have the child's heart. The Bible in Isaiah 40:11 emphasizes the importance of a shepherd's care, as he tends to his flock like a shepherd, gathering lambs and carrying them close to his heart. Therefore, it is essential to understand and respect the unique needs and intensities of gifted students to ensure their well-being and success. Christian teachers are responsible for supporting gifted students' social and emotional needs, as they may be susceptible to depression due to their early understanding of moral and intellectual concepts, requiring different and additional support.

Many students struggle with goal setting and funneling thoughts in an organized manner. 1 Corinthians 14:40 emphasizes the importance of order, organization, and support for children's executive function abilities. Educators must develop these deficiencies in order to support academic success.

Goal Setting and Organization: Many students face challenges setting goals and organizing their thoughts effectively. Drawing from 1 Corinthians 14:40, educators are reminded of the importance of order and support in developing children's executive function abilities, which are crucial for academic success. By providing structure, guidance, and support, educators can help students cultivate these skills.

Individual Paths and Identity: Proverbs 22:6 encourages children to follow their unique paths, which becomes especially significant as they grow older. Gifted children often struggle to find peers who share their academic interests, leading to feelings of isolation and identity uncertainty. Helping them recognize their identity in Christ is essential, providing a sense of belonging and connection beyond academic achievements.

Executive Functions and Mental Health: Executive functions like decision-making and impulse control are essential for daily living and independence. However, they can decline with age and be further compromised by depressive symptoms. Educators and caregivers must know these challenges and provide appropriate support and interventions to help individuals maintain their cognitive function and mental well-being.

* **Understanding Executive Functions (EFs):** This project provides a comprehensive explanation of executive functions, crucial cognitive abilities that enable individuals to regulate their behavior, manage time, and adapt to different situations. The developmental trajectory of EFs underscores their importance from early childhood through adulthood.

As a school administrator for gifted education, the awareness that students have become less motivated and are not taking autonomous initiative in their work is increasingly evident. There are advantages of intrinsic instructional goals for teachers who desire to help students become autonomous and intrinsically motivated. Executive function skills serve as a crucial link between one's knowledge and the practical application of that knowledge to handle many aspects of everyday life effectively. These skills include setting objectives, devising strategies, and adjusting plans in response to obstacles, ultimately leading to success in both academic and personal spheres. Healthy executive function skills enable students to cultivate regular study and work habits, diminish distractibility, regulate impulses, and engage in acts advantageous to their current and future well-being.

Executive function skills are crucial for developing self-management abilities, resilience, and self-improvement. However, the explicit and systematic instruction of Executive Function skills is not universally provided to all learners. Proficiency in executive functioning results in enhanced achievement in academics, improved interpersonal connections, and crucially, facilitates the personal development of students, consequently promoting heightened self-assurance and self-regulation.

* **Link to Academic Success: The** problem statement emphasizes the critical role of EFs in academic success, including their influence on reading, arithmetic, problem-solving, motivation, effort, and self-efficacy. Recognizing and enhancing EF skills can improve attitudes and performance in school.

Academic and personal success in school relies on students' ability to autonomously develop strategies for completing projects and meeting deadlines, necessitating a high level of competency in executive functioning. By engaging in deliberate practice, executive function skills enable students to overcome the disparity between their abilities and difficulties, teaching them to embrace assistance to become self-reliant. Structured instruction and introspection may enhance executive function skills and can be mastered through practice. Executive function skills enhance cognitive abilities, equipping students with mental strategies and efficient methods to maximize their learning. This empowers individuals to recognize their potential for personal growth and excel academically and throughout everyday practical life.

This link demonstrates how society may impact education, which can affect society. Change can happen with life interactions. Neuro-divergent and gifted students require holistic benefits that can transform academics and cognitive development.

* **Implications for Education:** It suggests practical implications for education, such as teaching students about their strengths, weaknesses, and strategies for success. Incorporating EF interventions into the curriculum is proposed to support students' academic growth and overall development.

Overall, these key areas highlight the importance of addressing executive function skills in educational settings to support the needs of gifted students and enhance academic outcomes for all students.

**Faith-Based Analyzation of the Problem**

The book ***Broken Signposts*** it describes seven universal human longings: justice, love, spirituality, beauty, freedom, truth, and power, which are seen as signs of a good Creator. However, these "signposts" often fall short of delivering on their promises, leading to different interpretations. This idea aligns with Maslow's Hierarchy of Needs, which suggests that humans have basic needs like food and safety and higher needs like love and self-esteem.--- In education, meeting these needs is crucial for learning and development.

There's a connection between these basic needs and executive functioning skills, which are important for managing tasks and behavior. As one progresses up Maslow's hierarchy, higher-order executive functioning skills become increasingly important for achieving goals and personal growth.

Ultimately, the text suggests that when properly understood and utilized, these signposts can point to the presence of God and the new creation. However, they are often misunderstood or neglected, leading to confusion and conflict. Understanding and addressing these signposts is important for living a meaningful life. Christian education emphasizes the importance of developmental considerations, rooted in the command of Moses in Deuteronomy 6 and Jesus' disciple-making. Early educational pioneers struggled to find teachers with the necessary skills for classroom teaching. We continue to need to equip teachers with the skills needed for spiritual nurturing, development, and discipleship of followers of Christ. Christian education is an intentional process that helps individuals be formed in Christ, nurtured through Scripture by the Holy Spirit and the human teacher, and encouraged to continual development into mature disciples of Christ. Children struggle with abstract language, so it is essential to teach them concrete content from the Scriptures. By introducing these concepts, children can better understand and apply the principles of Christianity and the Bible. Jean Piaget's theory suggests that the purpose of education is development, with the ultimate goal of glorifying God by becoming like Christ in every aspect of life. Addressing executive function skills directly in educational settings is paramount to their success. The same can be said for the lack of explicit teaching of executive function skills as it impacts students' ability to become critical thinkers, self-managers, and independent learners. It also affects students' ability to have their basic human needs met when they do not possess the skills to support them. Addressing executive function skills directly in educational settings is paramount to student success.

Research Question

How can the integration of teaching Executive Function and Social-Emotional Skills effectively address the challenges of unfinished learning and structural equity within learning systems while also fostering students' autonomy, educational growth, and success in both academic and personal realms?

School administrators are crucial in fostering executive function skills in students, enabling them to take responsibility for their learning without constant instructor assistance. Enhancing these skills in the early years is essential for academic achievement. Training with an Educational Executive Function and Life Skills curriculum (intervention) can support the readiness of student success in a program for gifted students. Formative activities can improve academic success by addressing childhood development stages. This approach is modeled after the Montessori approach to Practical Life skills.

Action Plan

When searching for whether to write a certain curriculum or find an existing one, I came across this online platform for schools. After several phone conversations, emails, and online Zoom calls, I was given a sample curriculum trial and utilized the course as a student. ExQ is a patented digital technology designed to directly build the mastery of Executive Function through lessons and teaching methodologies focused on games, error analysis, and metacognitive reflection. With its proven success, the program seemed to check most of the boxes, if not exceeding them, for what I had hoped to find for our gifted students who needed this intervention.

**The Intervention**

* The research-based intervention utilized to address the problem in the action research is an online platform: ExQ for Schools.
* The location of the intervention will be The Lewis Center for Gifted Learning Potential
* Teacher training is necessary in order to support the curriculum and to analyze the data.
* The duration of the intervention will be ten weeks
* A beginning and ending assessment through the EXQ program will be given, and field notes observation will be used to collect data showing intervention progression.

**Designing the Intervention**

Executive functioning challenges can be experienced by individuals with various diagnoses, 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. We see this with gifted students who may be gifted in one or more areas but deficient in other areas. 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 them. Identifying learning styles helps young students understand their strengths and weaknesses, enabling them to identify situations that require appropriate techniques. 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.

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 in independently managing their academic pursuits and effectively managing 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 in terms of 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 of students learning 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 ten 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.

PERMISSION AND PROTECTION OF PARTICIPANTS

* Permission from the Valley Christian Schools administration has been secured in writing.
* Confidentiality will be maintained by collecting anonymous data unassociated with anything personally identifiable about particular individuals.
* **Ethical Considerations**

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. they 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. Intervention options should put gifted children'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 viewpoints and help-seeking tendencies. Interventions will be courteous and sensitive to cultural differences as each assessment differentiates learning according to each student’s needs, strengths, and weaknesses.

Collection

An assessment and field note observations will collect data throughout the intervention.

* The researcher's Role in the intervention is to and how observations and notes will support ending data.
* To teach students how to learn and insights to help you encourage their optimal potential by enabling them to be more aware of the mental processes they employ and new thought processes that are likely to lead to success in all areas of life.
* To provide the technology and an environment conducive to providing the targeted training exercises with progressive complexity and built-in distractions to help student re-channel their thinking and learn strategies to remember how to remember. To explicitly teach executive function, to involve the students first to help them understand where the weaknesses are and to encourage students in their weekly lessons on the EXQ online platform. Support students when things get challenging not to give up. To remind them to look at their journals to remind them of their goals and to see their progress.
* Teach that everybody has weaknesses. Everybody’s not perfect. We’re all different and unique. We don’t have the same differences and weaknesses, but we all have them. Remind students that we all bring our own skills, such as focus, motivation, planning, flexibility, and problem-solving, that allow us to successfully manage goals while striking a work-life balance.
* Make observations and notes that will support ending data.

DATA COLLECTION AND ANALYSIS

* Five participants are expected.
* Data will be collected throughout the ten-week weekly lessons to monitor progress and changes.
* The results of the pre- and post-intervention assessment will be evaluated for patterns and growth themes using field notes, observations, and data growth analysis.
* The expected results should show improvement in the individual areas focusing on improvement. The hope is that through the student lessons, games, and reflections, each will begin to feel empowered in their weak areas and increase their areas of strength.
* Executive function skills are vital in children's autonomy and educational growth. Through curricula, teacher training, and intervention assistance, students can begin to thrive in their self-discipline and become autonomous in their education.

Final comments

Ultimately, this intervention approach addresses the needs of gifted middle school students for executive functioning skills by utilizing the ExQ Program. The intervention seeks to enhance students' academic performance and self-discipline using targeted curriculum, teacher preparation, and intervention support.
Everyday executive function skills are essential for a child's autonomy, academic development, focus, and organization. Provide an academic-focused curriculum, teacher preparation, and intervention support to promote academic success and self-control.

• I appreciate the chance to deliver this prospectus.
• I hope that by addressing the unique needs of gifted students, this presentation has fully explored the objective, significance, approach, and expected outcomes of integrating educational executive functioning and life skills curriculum.