Clinical and Applied Sociology

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**Assignment # 3-Essay**

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This paper will address how training with an Educational Executive Functioning and Life Skills curriculum (intervention) can support the readiness of student success in a program for gifted students.

1. **Introduction**

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.

This research introduces an intervention to assess executive function (EF) abilities, 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 data gathered in this research will be utilized for an experimental investigation on a sample of middle school children, aiming to examine the impact of executive function (EF) on academic achievement within the school setting. Gaining a deeper understanding of each topic standard’s executive function (EF) prerequisites will enable educators to design more efficacious curricula and customize targeted interventions for students, considering their individual EF profiles.

1. **Background of Problem and Need for Intervention**

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 (Arar, 2022). Enhancing early childhood executive function (EF) abilities can help students regulate impulsivity and make choices that support goal achievement. Without strong EF abilities, students may start school at a disadvantage that grows over time. Studying EF abilities and treatments can improve educational practices and student experience by including mindfulness and social skill programs. Strong EF skills (cognitive flexibility, inhibitory control, and working memory) are crucial for successful learning and relationships in school. EF development occurs rapidly from three to six years old, and it is essential to group interventions and approaches by age to better understand what works best with different age groups and student populations (McCatharn, 2021).

Studies show that Montessori students exhibit superior academic success, creative talents, and self-reported school well-being compared to traditional students. A multiple mediation model reveals the importance of creative ability in influencing academic results. The study suggests that self-directed creative execution positively impacts the holistic development of children attending Montessori schools. In a professional setting, where artificial intelligence is expected to be superior, pedagogical strategies should foster a workforce capable of engaging in creative endeavors. A distinguishing characteristic is humans’ ability to independently generate and execute innovative concepts. Traditional educational approaches in Western nations emphasize academic accomplishments, but this may overlook comprehensive child development evaluations. Alternative educational systems adopt a more comprehensive and multidisciplinary approach to school courses (Denervaud et al.,2019).

Self-control is a crucial aspect of life, affecting various factors such as achievement, task performance, impulse control, psychological adjustment, interpersonal relations, and moral emotions. A meta-analysis of 102 studies found that self-control significantly impacts school and work performance. In educational research, self-control is linked to academic achievement at all levels of schooling. In primary school students, self-control positively predicted grade point average (GPA) in Math and Chinese and test scores in reading performance. During secondary school, researchers found that having self-control was a better predictor for academic achievement than IQ alone. Additionally, in two studies conducted with undergraduate university students, those with higher self-control levels had better GPAs than those with low levels of self-control. It was discovered that self-control plays a vital role in both objective (GPA) and subjective academic achievement, even when cognitive ability was considered. (Colling et al.,2023).

1. **Intentional “Normalization” in Curriculum**

The Montessori National Curriculum for the Second Plane (ages six to 12 years) aims to develop self-assurance, self-direction, self-responsibility, self-discipline, and focus in students. It aims to help them take responsibility for their learning and collaborate effectively with peers without constant instructor assistance. Montessori believes that typical children with these characteristics can be transformed through intentional, experiential activities. This process involves three phases: planning, performance, and self-reflection. In the planning phase, students define personal objectives and devise tactics. In the performance phase, they use strategies and self-observe their learning time. Self-reflection, including self-evaluation and causal attribution, can lead to self-satisfaction, good emotions, defensiveness, or adaptability, leading to increased learning. Change is referred to as “normalization,” which the Montessori Method views as the most significant result of their efforts. (Shaw,2017).

The successful transition from elementary to middle school necessitates developing and using robust organizational, planning, and prioritization abilities to optimize the learning process. The acquisition performance skills and self-reflection abilities may be facilitated by either modeling or explicit instruction. In this process, students are encouraged to establish personal goals and develop strategies for achieving them during the stages of forethought and performance. Self-reflection can yield positive outcomes such as self-satisfaction, positive emotions, defensiveness, and flexibility, fostering enhanced learning capabilities. The cognitive ability to store and utilize knowledge, known as working memory, plays a vital role in students’ academic development as they transition from elementary to middle school. Middle school children are required to demonstrate proficiency in mathematical ideas and Spelling Conventions. However, weak working memory might impede their capacity to accomplish intricate tasks, such as solving word problems and composing essays. (Nanis, 2019).

1. **Intervention Supports**

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 therapies 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 a Montessori classroom, 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).

School counseling is a complex process focusing on student potential, goal-setting, and positive outcomes. Counselors detect challenges, offer creative solutions, and support students in achieving their goals. Various approaches are used in schools, including support services and classrooms. School counselors are essential in promoting a growth mindset, developing learning techniques, and collaborating with educators to maximize student accomplishment (Baker-Hewey, 2022). 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.

In the context of this project, these interventions may be implemented by incorporating them into the age-appropriate curriculum within a typical classroom environment. The intervention results of the project will be assessed in terms of effectiveness through the use of pedagogical strategies by instructors. These strategies aim to facilitate students’ acquisition of skills related to monitoring essential information, planning and monitoring progress, and organizing resources. The students will 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. Individuals 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.

1. **Curriculum Leading to Improved Performance**

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).

The increasing number of new Montessori elementary students who did not benefit from the Montessori Primary curriculum presents a significant challenge for Montessori teachers. These new students often need more Executive Function skills. EFS is crucial for academic success, and students’ self-regulation strategies are vital. School administrators play a pivotal role in developing strategies to support teachers in developing EFS among new Montessori students. However, more transparent procedures must be used to address students with underdeveloped EFS. Research on EFS in Montessori elementary programs is limited, and veteran educators provide advice based on firsthand experiences. Research shows that colleague suggestions could be more effective and should not replace school administrator mentorship. Therefore, school administrators must develop clear and concise procedures to support teachers in developing EFS among new Montessori students (Brown, 2023).

1. **Conclusion**

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 talents, 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.

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