 Action Research Prospectus

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# Assignment 4

**Reflection of Research Process**

The aim of this research was to evaluate the effectiveness of a curriculum intervention designed to improve executive function skills among students, specifically focusing on planning and organization, focus, problem solving, prospective memory, mental flexibility, and working memory.

**Expected and Achieved Outcomes**

The expected outcomes targeted a substantial 40-70% enhancement in these skills for each student. However, the achieved outcomes varied across categories, with an overall improvement ranging from 30% to 60%. This variance suggests that while the intervention showed promising results, the extent of improvement varied among different executive function domains.

**Challenges Faced**

Several challenges emerged during the implementation of the curriculum intervention. One significant challenge was the discrepancy between the anticipated and actual time commitment required from students. Initially projected at one hour per week, the actual time needed was closer to four hours weekly. This increased demand highlighted the necessity for adequate support and guidance to assist students in effectively navigating the curriculum and maximizing its benefits.

Students exhibited varying levels of proficiency in navigating the online platform, particularly those who were less mathematically inclined. These students faced additional difficulties in engaging with the game-based sections of the curriculum, which were evidently tailored towards a more numerical and logical thinking approach. The need for personalized coaching and support became evident in order to bridge this gap and ensure all students could fully access and benefit from the curriculum's interactive components.

**Personal Learning Outcomes**

Engaging in this research process yielded several personal learning outcomes. The curriculum's mini lessons were instrumental in fostering students' ability to reflect on their own learning processes and encouraged them to seek assistance when needed. Importantly, these lessons helped dispel the misconception that asking for help indicated a lack of intelligence—a barrier that many students face when navigating academic challenges. However, it became apparent that the curriculum's emphasis on mathematical concepts within its game sections posed a challenge for students who did not naturally gravitate towards mathematical reasoning. This observation underscored the need for future curriculum iterations to incorporate elements that cater more comprehensively to diverse learning styles and cognitive preferences. A curriculum that encompasses a broader range of activities and exercises could potentially enhance engagement and effectiveness across a wider spectrum of students. While the research revealed positive outcomes in enhancing executive function skills through targeted interventions, it also illuminated areas for refinement and improvement. Addressing the identified challenges and leveraging the insights gained from this research will be crucial in developing more inclusive and effective educational strategies tailored to meet the diverse needs of students in enhancing their executive function skills.

The data analysis chart illustrates the impact of the intervention curriculum on enhancing various executive function skills for students.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Game Performance** | | | **Self-awareness** | | | **Learning from mistakes** | | |
| **Student** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** |
| A | 10 | 90 | **80** | 20 | 70 | **50** | 40 | 92 | **52** |
| B | 30 | 80 | **50** | 20 | 70 | **50** | 30 | 70 | **40** |
| C | 40 | 90 | **50** | 30 | 80 | **50** | 30 | 79 | **49** |
| D | 20 | 70 | **50** | 10 | 80 | **70** | 20 | 80 | **60** |
| E | 30 | 90 | **60** | 20 | 90 | **70** | 20 | 64 | **44** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Strategic Thinking** | | | **Work Habits** | | |
| **Student** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** |
| A | 40 | 94 | **54** | 10 | 88 | 78 |
| B | 30 | 80 | **50** | 20 | 50 | 30 |
| C | 20 | 68 | **48** | 20 | 60 | 40 |
| D | 20 | 90 | **70** | 40 | 90 | 50 |
| E | 30 | 90 | **60** | 30 | 80 | 50 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Organization and Planning** | | | **Focus** | | | **Working Memory** | | |
| **Student** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** |
| A | 0 | 80 | **80** | 40 | 90 | **50** | 20 | 78 | **58** |
| B | 20 | 70 | **50** | 30 | 70 | **40** | 40 | 96 | **56** |
| C | 20 | 80 | **60** | 20 | 70 | **50** | 45 | 94 | **49** |
| D | 40 | 90 | **50** | 20 | 90 | **70** | 40 | 80 | **40** |
| E | 20 | 80 | **60** | 30 | 80 | **50** | 50 | 92 | **42** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Problem Solving** | | | **Prospective Memory** | | | **Mental Flexibility** | | |
| **Student** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** | **Beginning** | **End** | **Growth** |
| A | 20 | 75 | **55** | 20 | 70 | 50 | 50 | 90 | **40** |
| B | 40 | 82 | **42** | 40 | 77 | 37 | 22 | 80 | **58** |
| C | 40 | 91 | **51** | 30 | 63 | 33 | 20 | 70 | **50** |
| D | 47 | 98 | **51** | 34 | 92 | 58 | 34 | 92 | **58** |
| E | 30 | 75 | **45** | 45 | 98 | 53 | 22 | 89 | **67** |

# Constructive Social Change

When considering the future of clinical and applied sociology through the establishment of an executive function curriculum, the potential for transformative impact on students is significant. Such a program would combine spiritual and functional supports to improve students' cognitive and emotional abilities, allowing them to successfully navigate academic and social hurdles. This intervention provides students with crucial tools for success in a variety of domains by focusing on executive function skills and supporting the spiritual connection as well.  
Studies indicate that strong executive function skills are associated with greater academic success, social competence, and general well-being among students. A curriculum designed to develop these skills benefits not only individual students but also contributes to larger social transformation. By teaching students how to better moderate their impulses, emotions, and actions, the curriculum fosters a positive school environment conducive to learning and growth. This constructive social change would be evident by improved graduation rates, reduced disciplinary issues, and increased engagement in community activities among students who benefit from such interventions.

In addition, the intervention's impacts extend beyond the classroom. Students with high executive function skills are more likely to become productive members of society, able to make important contributions to their communities and beyond. Clinical and applied sociology can help shape a future in which all people, regardless of background or circumstance, have the tools they need to thrive personally and contribute to a more equitable and prosperous world by promoting the development of these critical competencies early on. Consequently, incorporating an executive function curriculum provides a potential avenue to attaining these objectives and fostering positive social change in education and beyond.

# Alignment and Divergence from Initial Expectations

Developing a comprehensive executive function skills curriculum that integrates spiritual scripture-based values and caters to diverse learning styles represents a compelling avenue for future research and educational development. By incorporating spiritual principles into the curriculum, educators can offer a holistic approach that not only fosters cognitive skills but also nurtures students' moral and ethical development. Moreover, addressing diverse learning styles ensures that the curriculum is accessible and effective for a broader range of learners, accommodating variations in cognitive processing and preferences for learning modalities. This endeavor aligns with the educational goal of promoting both academic achievement and character formation, thereby enriching students' overall educational experience and preparing them for lifelong success. This structured approach will systematically allow one to assess the impact of the curriculum on enhancing executive function skills in middle school students.

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