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INTERACTIVE GAMIFIED WEB-BASED APPLICATION FOR ADHD CHILDREN

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ABSTRACT - The web-based application, was created especially for kids with attention deficit hyperactivity disorder (ADHD), is described in this study. This web application makes use of gamification to create a dynamic and interesting learning environment. It seeks to improve cognitive abilities in children with ADHD by combining game features. Children and parents may access and use the platform from a variety of devices. The application has a number of features, such as an interactive game part, a helpful resource, and a section devoted to information on ADHD. An agile methodology was applied to this project. The phrase "agile methodology" describes a method of creating software that is based on the idea of iterative development. This gamified web application effectiveness will be assessed based on user acceptance test and functionality, assuring ongoing development and optimisation for ADHD kids.

Keywords: Web-based application, ADHD, Gamification, Agile Methodology

1. INTRODUCTION

ADHD is a neurodevelopmental disorder characterized by issues with attention, impulse control, and hyperactivity (CDC,2022). Traditional learning environments can be difficult for children with ADHD, needing creative solutions to help them succeed in school and in life. This study provides a web-based interactive game application created with children with ADHD in mind. It seeks to deliver an interesting and customized learning experience that develops focus, attention, and the development of cognitive skills by utilizing the power of gamification (Moore,2016). Due to the application's web-based design, it is accessible and flexible, allowing kids to use it on a variety of devices. This study intends to meet the particular needs of children with ADHD and contribute to their academic and social success by using a user-centered design approach and using parts of the agile methodology.

2. METHODOLOGY

User acceptance testing and functionality testing are included in the creation of the interactive, gamified web application for ADHD children in addition to the user-centered design approach and agile methodology. Children with ADHD, their parents, and experts in the field are involved in user acceptability testing to evaluate the application's usability, performance, and general user satisfaction. This feedback-driven methodology enables small updates and guarantees that the web application satisfies the unique requirements and tastes of its intended users. Functionality assessment involves putting the application's multiple features and functionalities to the test to make sure they work as intended and accomplish the goals. The development team may better understand any problems, flaws, or usability concerns by thoroughly testing and evaluating the web application. This will improve the application's overall quality, usability, and beneficial effects on ADHD children's educational experiences.

3. RESULT AND DISCUSSION

ADHD children and their parents actively participated in the user acceptance test and functionality test of the gamified web-based application for ADHD children. The findings and discussions revealed positive review and general satisfaction with the application, engagement, and effectiveness of the web application in addressing the learning needs of ADHD children. The gamified aspects were considered motivating and helpful for sustaining attention and focus by ADHD children and their parents. The website's capacity to provide an engaging and encouraging environment for children with ADHD was successfully demonstrated by the user acceptance test and functionality testing, which also showed that it had the potential to improve the educational experience of kids with ADHD.

4. NOVELTY OF RESEARCH / PRODUCT

The unique aspect of this research is how it combines an enjoyable, gamified technique with a web application made especially for children with ADHD. The possibility of internet-based therapies in psychological problems has been recognized by previous research (Ritterband et al., 2003). However, a web-based tool for ADHD instruction that specifically combines gamification, user-centered design, and agile methodology is an important milestone in the field. This study expands on the growing interest in novel methods for treating ADHD and is consistent with the potential presented in earlier research (Ritterband et al., 2003). By including these components, the application seeks to improve cognitive skill development, engagement, and attention in children with ADHD while also providing a fresh and effective approach to meeting their educational demands.

5. CONCLUSION

In conclusion, the web-based interactive gamified application for ADHD kids shown in this study offers a promising approach to addressing the particular educational requirements of kids with ADHD. It offers an interesting and personalized learning experience by incorporating gamification aspects, user- centered design, and agile methodology. The system attempts to improve children with ADHD's attention, focus, and cognitive abilities through ongoing feedback, cooperation, and iterative improvement. The combination of these methods is a new development in education and has the potential to improve the educational experiences of children with ADHD.

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