Implementing a VR-based Parent-child interactive training program to encourage positive parenting

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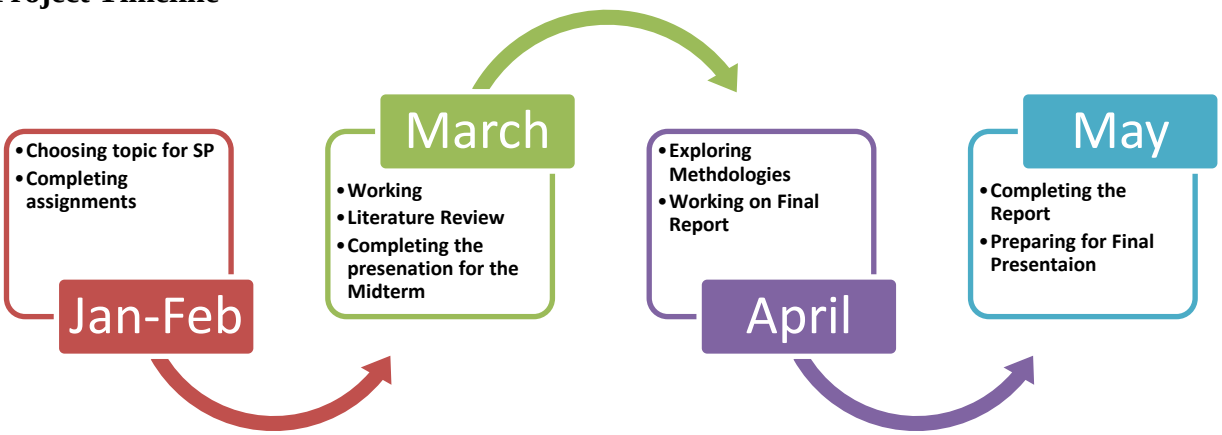
Abstract

Behavioral issues often contribute to the decision to place children in mental health facilities worldwide. Children who exhibit disruptive behavior disorders (DBD) are frequently characterized as aggressive, rebellious, and obstinate. If left unaddressed, such behaviors can result in long-term negative consequences. Studies have shown that the most effective interventions for disruptive behavior involve parents as the primary agents of change. Can implementing a VR-based parent-child interactive training program encourage positive parenting skills effectively, and to what extent? This research project aims to implement a parent-child interactive program based on virtual reality (VR) technology and to evaluate its effectiveness in promoting positive parenting skills. The proposed methodology aims to address the research question through the creation of a virtual reality (VR) environment that features an interactive avatar child powered by machine learning to simulate realistic parent-child interactions. In addition, a child development expert will provide parents with guidance and training through various mediums to equip them with the skills to foster positive skills for effective interactions with their children. This research project on implementing a VR-based parent-child interactive training program has significant potential for impact and value to society. It aligns with Vision 2030's goal of fostering a Vibrant Society with Strong Roots and improving health and well-being (SDG#3), quality education (SDG#4), and encouraging strong institutions (SDG#16). Additionally, it could revolutionize parent training by introducing VR technology as a new tool. The expected results of this project include improvements in children's social behavior and a reduction in negative long-term consequences, such as school dropouts and criminal behavior. The project's value lies in addressing disruptive behavior disorders in children and providing a valuable tool to prevent these adverse outcomes, as it has the potential to revolutionize parent training techniques for interacting with their children.

Keywords

Virtual reality, VR-based Training, Machine learning, Positive Parenting, Child Development

Project Timeline



Title: Implementing VR-based Parent-child interactive training program to encourage positive parenting skills

Research Question: Can implementing a VR-based parent-child interactive training program encourage positive parenting skills effectively and to what extent?

Research Aim: This research project aims to implement a VR-based parent-child interactive program and measure its effectiveness in encouraging positive parenting skills.

Research Objectives:

1. Implement a parent-child interactive VR-based training program
2. Test the program on a selected group of parents
3. Give outlined measurements of the program's effectiveness in encouraging positive parenting skills

Significance:

1. This project contributes to achieving Sustainable Development Goal 3 (Health and Well-being), Target 3.4; Sustainable Development Goal 4 (Quality Education), Target 4.2; and Sustainable Development Goal 16 (Peace, Justice, and Strong Institutions), Targets 16.2 and 16.3.
2. This project aligns with Vision 2030's goal of fostering a Vibrant Society with Strong Roots.
3. This project has the potential to revolutionize parent training by introducing a new application for VR technology.

Methodology: To address the research question, the proposed methodology involves creating a VR environment with an interactive avatar child that uses machine learning to simulate realistic parent-child interactions. Additionally, a child development expert will provide guidance and training to parents through various mediums to equip them with the skills to foster positive interactions with their children.

Impact: This project has the potential to improve children's social behavior by reducing issues related to hyperactivity, emotional symptoms, conduct problems, and peer issues, and improving their prosocial behavior. Research has shown that positive parenting leads to higher long-term productivity and lower healthcare and educational expenditures, resulting in economic benefits.

Value to Society: Addressing disruptive behavior disorders (DBD) in children is important not only for the affected children, but also for preventing negative long-term consequences, including school dropouts, peer rejection, and the development of antisocial personality disorders. Effective interventions require parents to be the primary agents of change, and the project aims to provide a valuable tool for preventing these negative outcomes.

Constraints and Limitations: It may not be feasible to test the project on the selected group of parents within the expected completion timeframe of the project.

Key References:

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