How Can VR Help Kids Escape the Confines of Hospitals by Entering New Worlds?

The Problem Extended hospital stays often isolate students, causing them to fall behind academically while missing out on experiences beyond the hospital walls. This isolation can result in academic struggles, emotional challenges, and added stress during recovery, making reintegration into school even more difficult.

Our Approach We propose creating a Virtual Reality (VR) environment tailored specifically to hospitalized students. This platform will provide an engaging way to keep up with schoolwork while offering immersive experiences that replicate the outside world. By combining education with exploration and fun, VR aims to make learning more interesting and meaningful while breaking the monotony of hospital stays.

The Impact Our VR system will help students stay on track academically, reducing the anxiety of returning to school after prolonged absences. Beyond academics, VR experiences can boost mental well-being, which plays a key role in physical recovery. The system will also incorporate moments of "boredom," encouraging students to reflect on and process their learning experiences in a restorative way.

Measuring Impact Using data on hospitalized students—including the number of students, average stay lengths, and academic outcomes—we will assess how hospital stays impact their education. From this analysis, we will evaluate the VR system's effectiveness and simulate its potential benefits for future students.

Next Steps

1. Research the Field
We will investigate existing VR initiatives in healthcare, particularly those supporting pediatric patients. For example, Einstein Magazine highlights VR's success in alleviating pain and stress. Building on these advancements, we aim to create a platform focused on education and exploration.

2. Engage with UNM Children's Hospital
We will collaborate with UNM Children's Hospital to present our vision and gather input. By connecting with nurses, parents, and hospitalized children, we can identify their educational needs, recreational preferences, and ideas for enhancing their experience through VR. Surveys and feedback will provide valuable insights to inform our development process.

3. Explore Technology Options
We will research VR technologies that are user-friendly, durable, and compatible with educational content. Programs from companies like Best Buy or Apple may provide affordable or donated equipment. Identifying the best hardware and software will ensure seamless integration and usability.

4. Analyze Data
Survey insights will help us identify trends in educational gaps and desired experiences among hospitalized students. Using statistical analyses, we will tailor VR content to address specific academic challenges and recreational interests. Research resources such as PubMed Central will guide our data-driven approach.

5. Design the VR Experience
We will develop prototypes of VR environments, including classroom simulations, interactive lessons, and immersive journeys to parks, museums, or outer space. By blending captivating explorations with academic content, we aim to inspire curiosity, joy, and a sense of connection to the outside world.

Impactful Innovation Our VR platform can transform hospital stays by transporting students to new worlds where they can learn, explore, and dream. This initiative extends beyond education—it fosters hope, resilience, and a vital connection to life beyond hospital walls.

1. https://pmc.ncbi.nlm.nih.gov/articles/PMC10276472/
2. https://magazine.einsteinmed.edu/winter-spring-2019/pediatric-patients-use-virtual-reality-to-find-real-comfort/
3. https://pmc.ncbi.nlm.nih.gov/articles/PMC10264860/

OpenAI, 2024. ChatGPT (12/17/2024, GPT-4) [Large Language Model] https://chatgpt.com/

I used chat GPT to make the proposal into my start of the interim report. Then I asked Chat GPT to put it into more understandable words. Then I asked it to cut out 67 words.