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12th

Virtual Method

Commercialization Plan

Elevator Pitch: Life is stressful, more so now that we are living in a pandemic. This stress impacts our daily performance and we don't all have access to stress reducing products like Rage Rooms. Enter Virtual Method: a completely virtual Rage Room where you can break things until you feel better..

## Part 2. Executive Summary

Stress and intense emotion impacts our daily performance. As a highschool athlete, I see this happen weekly with my teammates: pent up frustration and emotion from the week impacts their gameplay. We all need safe and healthy outlets for this emotion to maintain our mental health and hit our own performance goals. My product aims to reduce stress and give an outlet to release frustrations and built-up anger, while simultaneously boosting morale. By using the concept of a rage room in a virtual reality setting to create the same atmosphere without the dangers of a real one, Virtual Method can help student athletes maintain control over their performance and maintain their mental health..

## Part 3 Problem Summary and Proposed Solution

Student-athletes need healthy ways to deal with and channel extreme emotions, such depression and the overwhelming feeling of anxiety. My solution is to create a virtual simulation of a rage room to give an outlet to relieve stress.

## Plan Part 4: Summarize the STEM Concepts and Principles Underlying the Overall Plan.

Society says violence in video games creates violence in children and young adults but I beg to differ. I propose a way to incorporate a virtual reality game into an outlet to be used for negative emotion. There are studies that support my theory and I truly believe that this technology can help the ongoing problem of depression caused by stress in student athletes. The simulation I will create will explore the psychology of therapy. After conducting an interview with Coach Hecalf I learned that VR uses physics and trigonometry. VR simulations use the basic rules of perception to make us hear, see and to be aware of things in the virtual environment. VR headsets are just machines designed to replace our surroundings with something created in software. Inside the VR are gyroscopic sensors, accelerators, and magnetometers in headsets to determine how you move and track your interactions with a virtual space. Your headset also connects to external cameras and computer systems to access software for your VR experience, or connect with additional programs

## Part 5: Commercialization Assessment of the Overall Plan

**Problem:** Student-athletes need a way to process emotion because I learned that these emotions can lead to mental stress which can affect their game. From the information I gathered from the research I did, most student-athletes' stress comes from the aspect of time management and the overwhelming sensation of multitasking. I understood that feeling because I myself have dealt with this as a student-athlete. I understand that feeling of being overwhelmed.

**Proposed solution:** My solution to this problem is to create a virtual rage room which is a place where people can vent their rage by destroying objects within a room. Rage rooms may consist of fake living rooms and kitchens with replicas of furnishings and objects such as televisions and desks and things along those lines in a virtual environment. I'll also be incorporating another setting as well. It's a more calming setting that focuses on drawing emotions. The idea is another room that's dark with light only coming through slightly closed blinds with you on a couch, with a coffee table in front of you with three things on it. A pen/pencil, a piece of paper, and a tin bin. The idea is to write your feelings down, put it in the bin and burn it. To essentially free yourself from your discretions.

**Target customers and intended users:** My solution is obviously more geared towards student-athletes but this can be used by multiple groups of people. This can be utilized by people with anger issues and or people with depression as well. The athletes this is targeting most are athletes that are in highschool to college.

**Competitors:** Current competitors would be existing, brick and mortar rage rooms. Packages at these range from \$75-\$200, depending on what you want to break and how long you want your session.

**Customer value proposition & competitive advantage:** My product will be competitive due to the virtual nature. There will be no cost to set up supplies, restock breakables, provide protective equipment, etc. Once the program is created, it is maintenance free. Therefore I will be able to charge significantly less.

Principal revenue streams expected: The basic game will be free to play. Profit will occur through microtransactions to allow the user custom rooms, objects, etc. Microtransaction prices will range from \$5.00-\$15.00.

Principal startup and operating costs expected to be incurred: Set-up costs would include purchase of at least one HTC Vive VR system (\$1,400) and a desktop on which to program (\$500). I would also pay a one-time \$100 fee to Steam so that I could sell the game through them.

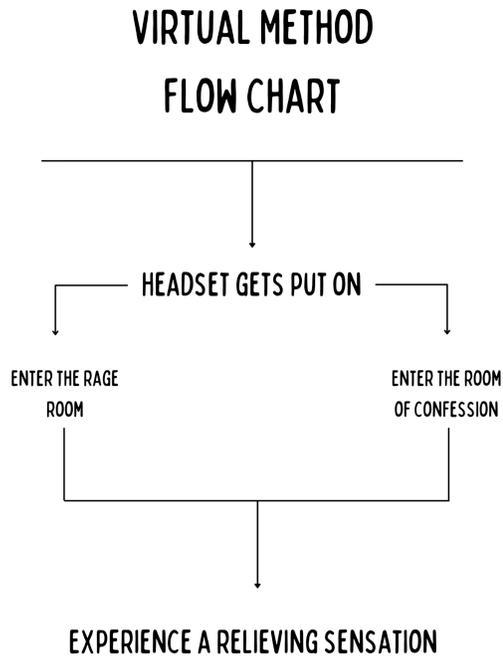
#### Part 6: Science and Technology Proof of Concept

Review and assessment of the scientific literature: There isn't yet much specific research on whether these anger rooms can benefit you by lowering stress levels or increasing anger management skills. These places are relatively new but findings and surveys have shown that it works. So why not combine that with virtual reality technology. I wanted to create a safe virtual space for users to express themselves and release negative emotions.

Hypothesis: If I create a virtual simulation of a Rage Room that is easy to use and engaging and will let athletes release pent up emotion in a safe way, then athletes who use my system will learn to manage their emotions in a healthy way.

Inquiry or design-based discussion: My solution has two modes: the rage room and a more calm setting. This other setting is based on something I learned listening to Phil Jackson. When the 98' Chicago Bulls season was over Phil had everyone on the team write down their feelings and how they felt about the team being over. Everyone read what they wrote out loud and then everyone put it in the bin and Phil lit it on fire essentially releasing the negative energy. This is basically what one mode will be. I'm trying to create a virtual room with a kind of icky and calm setting. As soon as you go in the room there will be a coach, a piece of paper on a coffee table and a pen. This room will be dark with little light and there will be a bin and a lighter to burn what you write and put it in the bin. The other mode is a rage room. You will have multiple options of what you would want to use to literally destroy the whole room. The idea is to really release any built up emotion. It is just a room with breakable objects and different weapons to do so.

Flowchart:



(Figure 1) Virtual Reality Flow Chart

#### Part 7: Acknowledgements

Coach Hecalf is really helping me bring my idea to life. He showed me an application in VR that I can use to accomplish what I want to do and how to use it. He also helped me research what I was looking for and how VR really works. Coach Shecalf helped me formulate my idea from the ground up. I knew my overall premise and the problem I wanted to solve but her input helped me come up with a solution to that problem.

#### Part 8: References

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