
CognitV Solutions

VR Game Vision

Version 3.0

CognitV Solutions VR Game	Version: 3.0
Vision	Date: 04/12/2024

Revision History

Date	Version	Description	Author
09/24/2023	1.0	Initial pass of Vision document.	Madi, Anna, Eric, Ofuchi
09/25/2023	1.1	Filling in all fields of Vision document, indicating values we don't know yet.	Ofuchi
09/27/2023	1.2	Revised several sections, primarily sections 3.1 and 2.1. Double-checked that we had filled out all sections we currently have information on.	Madi
10/02/2023	1.2.1	Adding further gathered information	Madi
01/19/2024	2.0	Updating to reflect the altered scope	Madi
04/12/2024	3.0	Finalize Vision document to get ready for handoff	Madi

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Vision

1. Introduction

The purpose of this document is to collect, analyze, and define business requirements, desired ultimate business outcomes and features of the VR Game for CognitV Solutions. It focuses on the capabilities needed by the stakeholders, and why these needs exist in the first place. The details of how the VR Game fulfilled these needs are detailed in the supplementary documentation.

1.1 Background

49 million people in the United States have suffered from anxiety disorder in the past year, and 80 million have suffered in their lifetime. Many traditional methods of treatment, while often helpful, are sometimes inaccessible, time-consuming, expensive, intimidating, or overall impractical. There is also a severe shortage of mental healthcare providers in the US, making it even more difficult to access care that an individual might need. What CognitV strives to create as a solution is a Virtual Reality Exposure Therapy experience and Therapist Companion App where patients can face their anxiety in a safe, controlled environment through a VR headset. This treatment method would be faster and more accessible, is preferred by younger patients, and fills the treatment avoidance gap, all while providing a realistic, immersive experience that can effectively aid in treating mental health disorders, either with or without an accompanying clinician.

1.2 References

1. [CognitV Therapy Game Glossary](#)
2. [CognitV Therapy Game Use Case Document](#)
3. [CognitV Therapy Game Software Requirements Specification Document](#)

2. Business Requirements

2.1 Business Opportunity/Problem Statement

The problem of	The problem of people not being able to go to therapy, people trying other methods that didn't work for them, people adverse to traditional therapy methods, therapy being inaccessible and expensive, and there not being enough therapists to help everyone.
affects	Affects patients who go to therapy, therapists, and people who can't go to therapy but want help.
the impact of which is	The impact of which is that patients are left with no option of a cheap or easy solution to combat their fears and anxieties. Therapists are overwhelmed with patients.
a successful solution would be	<ul style="list-style-type: none"> • People who can't get a therapist can get help. • Therapists have another way of tackling people's fears and anxieties. • Relieves some of the stress from therapists that are overwhelmed with patients • People resistant to traditional therapy methods are still able to get help. • Therapy becomes more affordable and accessible

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2.2 Business Objectives

BO-1: Reduce player's anxiety levels to lower levels than before they played the game. This is subjective because it is based on how patients feel, but patient outcomes are always subjective.

BO-2: Show 25% faster improvement in a 25% shorter amount of time compared to traditional therapy methods.

BO-3: Reduce the average annual health care cost for a person with major mental illness (\$10,836) by 50%.

BO-4: Reduce treatment time by 25%. (players can potentially use VR every day as opposed to meeting with a therapist once a week)

BO-5: Reduce overall worldwide cost of treatment (Right now, anxiety disorders cost \$391.78 B worldwide per year and \$155 B for social anxiety disorders worldwide per year)

BO-6: Reach \$10M profit within the first year after launch.

2.3 Success Metrics

SM-1: The player's anxiety levels were reduced to lower levels than before the initial release.

SM-2: Players showed 25% faster improvement within a 25% shorter amount of time following the initial release.

SM-3: Build a successful and completed proof of concept/MVP to show investors.

SM-4: Receive a Government Grant next year.

2.4 Vision Statement

For	People with anxiety disorder
Who	Cannot access therapists
The (product name)	virtual reality game
That	brings therapy to their homes
Unlike	traditional therapy that is located in offices
Our product	Allows the user to control their treatment by giving them the power to have independent sessions in a gamified manner, thus reducing the need to be in contact with a therapist for self-betterment 24/7.

2.5 Business Risks

RI-1: CognitV is investing money and time into this project and there is a risk of losing \$100,000 of the client's personal money. (Probability = 0.6; Impact = 10)

RI-2: CognitV owners are giving up the opportunity cost of spending time with their family and time to pursue other business ideas. (Probability = 1.0; Impact = 1)

RI-3: CognitV is unable to draw enough players and take enough of the market share from competitors to sustain themselves. (Probability = 0.3; Impact = 9)

RI-4: Too few people own or are interested in owning a VR headset. (Probability = 0.3; Impact = 8)

RI-5: VR has been out for a while and in a few years this will potentially be an outdated form of technology that

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doesn't pique enough interest. (Probability = 0.2; Impact = 7)

RI-6: The implemented AI makes the game run slower and prohibits a smooth and fast-running experience.

(Probability = 0.5; Impact = 3)

RI-7: Only % startups make it past the first few years, and so there is a risk that the business fails and the product doesn't get into the market. (Probability = 0.6; Impact = 10)

RI-8: Since this is a VR game used for therapy there is a risk of violating HIPAA compliance with confidential player data. (Probability = 0.4; Impact = 9)

2.6 Business Assumptions and Dependencies

AS-1: The market is ready to accept this product.

AS-2: CognitV has the capital to publish the VR game through Unity.

AS-3: CognitV ends up receiving the Government Grant they applied for.

AS-4: The Apple app store and the Meta Lab app store won't increase their commission percentage.

AS-5: Players and beta testers will be interested in testing this product.

AS-6: CognitV will be able to secure a partnership with an enterprise once the final MVP is finished.

AS-7: Apple Vision Pro goggles will be popular, and all their operating systems will be up and running soon.

DE-1: Potential interested players have VR headsets that are compatible with CognitV's game.

DE-2: CognitV is relying on the TCU student developers to develop the technology.

DE-3: The FDA will not change its standards and start requiring therapeutic devices to be FDA-approved.

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3. Stakeholder Profiles and User Descriptions

3.1 Stakeholder Profiles

Stakeholder	Major value or benefit from this product	Attitudes	Major features of interest	Constraints	End user or not?
CognitV Management (Nikki Fowler, Ramona Fowler and the entire team of executive advisors)	Success and prosperity of the company, ConitgV Solutions, LLC	Committed to the success of their VR game launch to market.	A great new product to bring to market that helps grow their startup and changes the mental health industry	Waiting on government grant money and experiencing delays in design and development.	No
Therapists	Relieved from the high demand of care that short-staffing has caused	Does not know about the existence of CognitV yet but may be excited in the future about the possibility of helping more patients with fewer hours.	Less burnout from overworking	Some patients may need therapist-assisted sessions	Yes, when the product is used alongside traditional treatment
Players	Increased convenience, flexibility, independence	Does not know about the existence of CognitV yet.	Home treatment decreases the need to commute or find a therapist. Could still be covered under health insurance	For very severe cases, therapist assistance may be needed and the shortage may make this harder to achieve.	Yes
TCU developers	Be able to graduate	Excited and committed to making the best possible product for the project	One level of a virtual reality game and companion app that helps patients with anxiety disorders	Time, resources, prior experience	Potentially
The Mental Health Community	A new form of treatment for social anxiety disorder	Does not know about the existence of CognitV yet, but has been receptive to similar ventures by other companies.	The ability for patients to treat themselves and the potential for VR to bring excitement to the mental health community	Slow to accept a new form of treatment for social anxiety disorder	Yes

3.2 User Environment

There is one player per session and the player will have 2-3 sessions per week. Each session lasts around 10-20 minutes and decreases as the player improves. The expected environment should be indoors with access to a stable internet connection, a PC/laptop, and a compatible VR headset. The player should also ensure they have enough space to navigate a VR environment without running into their surroundings. The system platforms in use today are Unity and the VR app store. The other applications in use are Convai and Amazon Polly. Our VR game will interact with Convai to provide real-time Artificial Intelligence responses to the player. Amazon Polly was used to provide audio files that are hard-coded into the game.

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3.3 Alternatives and Competition

Indirect Competitors:

- Patients continuing to seek out traditional therapy methods
- Patients utilizing prescription medication
- Patients simply choosing to do nothing

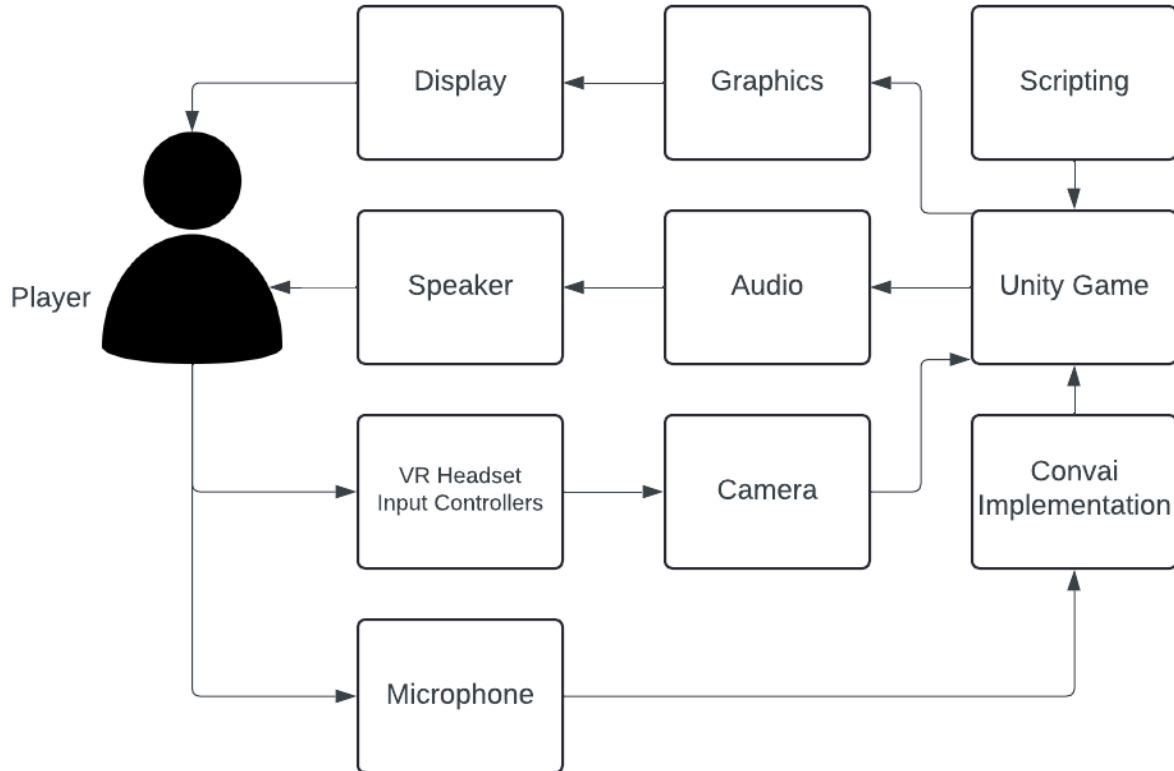
Direct Competitors:

COMPANY	BUSINESS MODEL	PRODUCT FOCUS	DIFFERENTIATION
CognitV	B2C & B2B: subscription via VR app stores and direct-sell to enterprises	Anxiety disorders to include panic & phobias, depression later	AI integration creates personalized experiences that adapt real-time, making this ideal as a stand-alone or complementary treatment option
Amelia by XRHealth	B2B; subscription to licensed professionals only	phobias and anxiety	A significant amount of content; Therapists can manually modify elements of the experience in real-time
BehaVR	One-time purchase to B2B; B2C users can also purchase, though expensive for non-enterprises	educational content, emotional regulation, stress resilience, phobias	Nothing in particular
Virtually Better	One-time purchase to professional only, B2B	phobias, anxiety, and depression	Nothing in particular
Oxford VR	B2B in UK only	Serious Mental Issues, in particular psychosis and social engagement avoidance	Nothing in particular
oVRcome	B2B & B2C; subscription from their website	Mindfulness-Based Stress Reduction, phobias, and depression	Uses a custom-made VR headset that is compatible with most smartphones (a Google Cardboard-style headset) reducing the cost to entry for B2C
Novobeing	B2C; currently free via VR app stores for testing	Mindfulness-Based Stress Reduction	Nothing in particular
C.A.R.E. Rx	B2B & B2C; subscription via website	Relaxation via interact with virtually nature, sleep	Gaze-based navigation allows patients to interact with the app through slight movements of their head; also has 2D available on multiple platforms

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4. Scope and Limitations

4.1 Product Perspective



4.2 Major Features / Scope

FE-1: Introduce yourself to an NPC character.

FE-2: Listen to an HR Presentation Speech given by an NPC character.

FE-3: Give a speech to a room full of NPC's.

FE-4: Have a real-time interaction with an Artificial Intelligent powered NPC character.

FE-5: View social anxiety disorder information and coping mechanisms.

4.3 Deployment Considerations

The project is exported as a .exe and everything runs locally. The only thing the user would need is internet access for the AI to respond.

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5. Other Product Requirements

Legal Requirements:

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) is a federal law that required the creation of national standards to protect sensitive patient health information from being disclosed without the patient's consent or knowledge. The US Department of Health and Human Services (HHS) issued the HIPAA Privacy Rule to implement the requirements of HIPAA. The HIPAA Security Rule protects a subset of information covered by the Privacy Rule. For more information see the link on HIPAA included in references.

Platform Requirements:

- Unity

Documentation Requirements:

- User Manual

VR Headset Requirements:

- Oculus headset