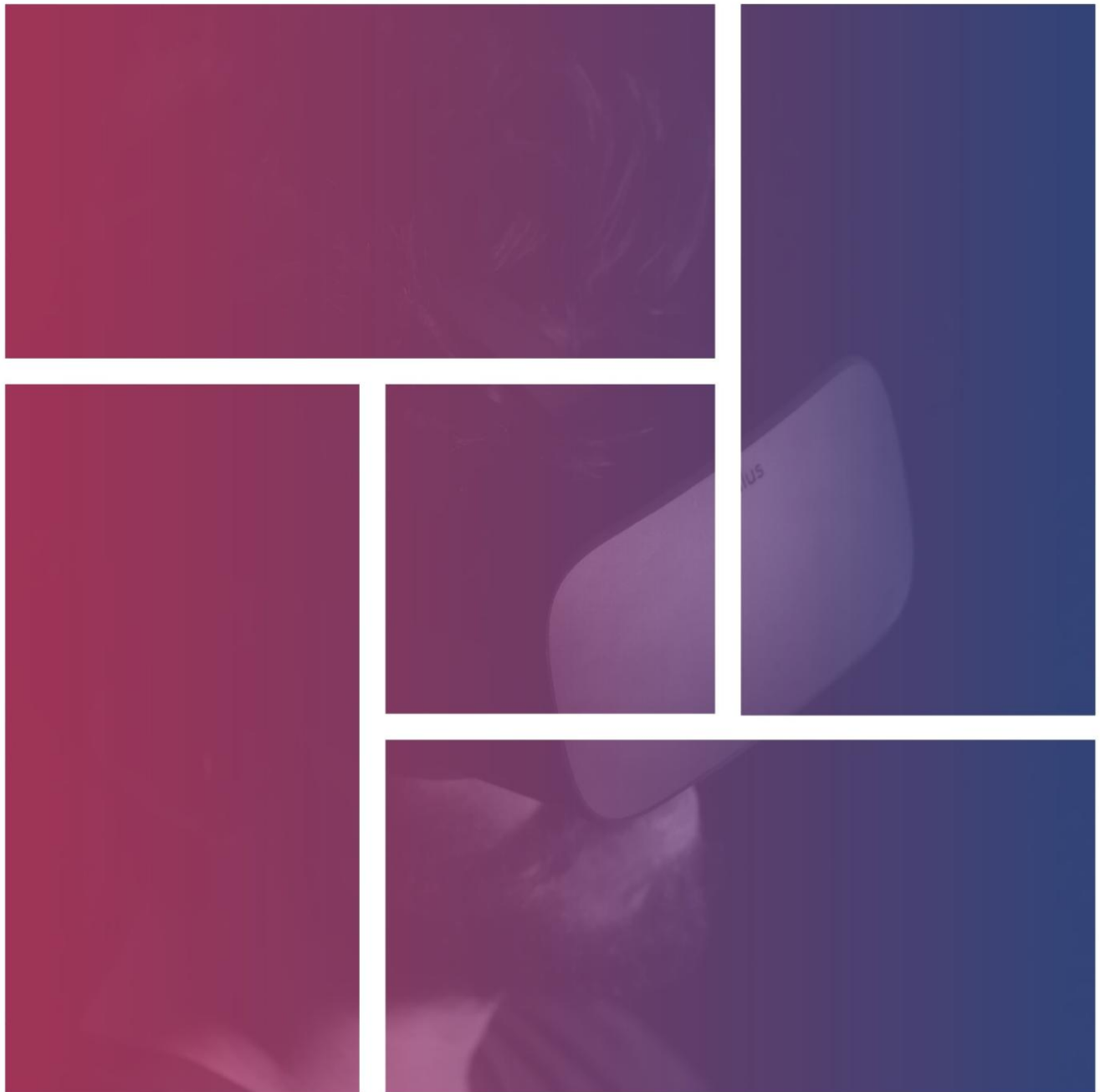


VR4React: Reducing Reactive Aggression through Virtual Reality

Train of Trainers Manual



October 2024

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Introduction

The Purpose of this Manual

The present **Train of Trainers Manual** was developed under the scope of the **VR4REACT project**, serving as a comprehensive resource for training facilitators and prison/probation technical staff (such as educators, case managers, psychologists and social workers) who will implement and oversee the **Virtual Reality (VR) interventions** aimed at reducing reactive aggression among inmates.

This manual is instrumental in supporting the capacity-building efforts of these professionals, enhancing their competencies to provide an intervention opportunity for inmates with a history of reactive aggressive behaviours. By equipping trainers with a thorough understanding of the project's goals, methodologies, and expected outcomes, this manual ensures that all participants — trainers and inmates — benefit most from the VR4React project resources. Additionally, it provides essential guidelines on how to foster an environment conducive to learning and behavioural change, which is crucial for the rehabilitation and reintegration of the inmates.

This manual outlines the **practical applications, and step-by-step procedures necessary for effectively delivering the VR4React psychoeducational intervention programme.**

The VR detailed within offers a dynamic and immersive training experience, simulating real-life scenarios for reactive individuals, in which they have the opportunity to learn **prosocial and adaptative competencies and practice in a safe environment through VR exposure.** This not only prepares them to handle difficult situations more effectively but also promotes a safer, more understanding interaction between staff and inmates.

By documenting best practices, troubleshooting common issues, and offering evaluative tools to measure training efficacy, the manual acts as both a guide and a record for **ensuring consistent and impactful training delivery across different institutions participating in the VR4REACT project.**

The VR4React Project

The [VR4React - Reducing Reactive Aggression Through Virtual Reality](#) (2022-1-ES01-KA220-ADU-000089886) is an Erasmus + project that brings together 8 countries from all over Europe, specifically the coordinator University Rey Juan Carlos (**Spain**), IPS_ Innovative Prison Systems (**Portugal**), KMOP Education and Innovation Hub (**Greece**), National Administration of Penitentiaries (**Moldova**), University St. Kliment Ohridski Bitola (**North Macedonia**), Ankara Probation Directorate (**Turkey**), Polish Platform for Homeland Security (**Poland**) and Administration of Penitentiaries (**Romania**).

Due to its seriousness and unpredictable nature, the consortium recognises that reactive aggressive individuals pose a risk of victimisation for them and those around them.

In fact, reactive aggression poses a significant concern to public health, capable of being prevented. Such type of aggression, typical in individuals who committed offences, is characterised by uncontrolled and exaggerated responses to stimuli, including emotion-driven reactions to perceived threats, also referred to as hostile, impulsive, or angry aggression.

At the same time, effective interventions can lead to positive outcomes in reducing aggressive behaviours. Therefore, interventions directed at reactive aggression must be a critical priority in correctional settings, as a precondition for successful release and reintegration.

The project proposal

Considering both offenders' rehabilitation needs (such as addressing reactive aggression-related behaviours) and prison officers' training requirements (namely to better deal with and address inmates' reactive aggressive behaviours), the VR4React project proposes an innovative two-folded intervention programme solution utilising VR and e-learning as the main tools. The primary objectives of this programme are:

- Supporting reactive aggressive inmates in engaging in more prosocial and adaptive behaviours
- Creating a comprehensive training curriculum to equip prison officers with the skills and knowledge necessary to handle and address reactive aggressive behaviours in inmates

To achieve the first objective, the consortium relies on the **expertise and direct involvement of prison/probation staff as facilitators of the intervention programme directly with offenders, specifically by delivering the VR psychoeducation intervention, designed to reduce reactive aggression in offenders**. The intervention programme is free to use and was designed to tackle reactive aggression among offenders and promote their rehabilitation. By leveraging the immersive capabilities of VR, offenders can experience realistic scenarios that help them develop better coping strategies and reduce aggressive tendencies.

Specifically, it has the following objectives:

- Promote the psychological, social, and emotional well-being of offenders.
- Reduce the risks of reactive aggression between prison/probation staff and offenders.
- Promote the capacity-building and training of prison/probation staff for dealing with reactive aggression.
- Develop the offenders' ability to adopt pro-social and adaptive behaviours when facing perceived threats, dangers, provocations, or frustrations rather than engaging in acts based on aggression, anger, hostility, and impulsivity.
- Promote the rehabilitation and social reintegration of offenders who tend to engage in reactive aggressive behaviours.

Virtual Reality

Definition & Applicability

As highlighted earlier, the programme designed for inmates incorporates Virtual Reality (VR). To ensure its success, it's crucial that trainers are not only familiar with VR technology but also confident in using it to deliver a smooth and immersive experience for participants. Mastery of these tools will greatly enhance the effectiveness of the programme and contribute to the participants' overall engagement and learning outcomes. To support you in this process, you can find below some key points to help you navigate the VR component with ease and proficiency.

As a starting point, it is key to know what VR is: VR a technology that creates a simulated environment using computer-generated imagery and sound (Britannica, 2024). Unlike traditional user interfaces that involve viewing content on a screen, VR immerses users directly into a realistic experience.

Through VR exposure, users can look around a virtual world, move within it, and interact with virtual features or items. The environment can be realistic, mimicking real-world places, or entirely fantastical, creating experiences that would be impossible or impractical in the physical world (Britannica, 2024).



Figure 1. Virtual Reality helmet. Source: Freepik

While VR simulations have been used by the criminal justice system for training and investigations, it is only recently that VR is being considered for use in correctional rehabilitation (Cornet & Gelder, 2020). This new exploration into the technology is based on decades of research out of psychology. Programmes that incorporate VR have been strongly supported in the psychology literature for conduct disorders (Ticknor, 2018).

Research (Dellazizzo et al., 2019) has also highlighted **the use of VR as an effective treatment tool to reduce the frequency and intensity of anger**, given its enhancing nature of self-regulation mechanisms (that would later be used, in real situations, by participants). Moreover, VR leads individuals to **recognise the contexts in which the aggression had occurred (i.e., triggers)**, therefore enabling practitioners to take appropriate action (Dellazizzo et al., 2019). In line with this, other studies have also shown that **VR-based role-play scenarios tend to significantly reduce violent recidivism** (e.g., Papalia et al., 2019).

The advantages of using VR in the analysis of people's reactions to violent incidents (which could trigger reactive aggression) have also been highlighted: compared to the limitations of other study methods that use simulations or role-playing in the laboratory, immersive VR simulations provide a valid environmental setting, eliminating other limitations, such as the problem of physical danger (Rovira et al., 2009), and providing sufficient verisimilitude that seems to explain the good results obtained in most of the studies.

Below are key areas for employing VR technology:

Virtual exposure therapy: this uses virtual (secure) environments to recreate situations that trigger aggression. Participants can experience these situations in a controlled and safe environment, allowing them to practice and learn anger management strategies. Repetition of these situations in a virtual environment can help desensitise individuals and improve their ability to control their reactive aggression.

1. Social skills training programmes: VR can also be used to teach and practice social and communication skills. In this way, individuals can participate in interactive simulations where they are presented with challenging social scenarios and taught strategies for handling conflict constructively. This can help improve their ability to deal with stressful situations without resorting to aggression.

2. Empathy and perspective programmes that facilitate understanding of other people: Individuals can participate in virtual experiences that allow them to see the impact of their aggression on others and understand the negative consequences of their actions. This can help them to empathise and thus bring about a change of attitude towards less aggressive and more rational behaviours.

3. Training in emotional control and stress management. Individuals can participate in virtual sessions where they are taught strategies to recognise and regulate their emotions, as well as to manage stressful situations more effectively in safer environments. This can help reduce aggressive responses and control negative emotions.

It is recommended that VR be one more tool in a comprehensive treatment to address reactive aggression in individuals serving a sentence, adapted to the needs and characteristics of each inmate and each prison/probation service, and combined with other therapeutic and intervention programmes.

Can I be a Trainer?

The target audience for delivering the VR4React intervention programme with offenders consists of **professional staff working in prison/probation settings, such as case managers, psychologists and educators**, who come from multidisciplinary backgrounds including psychology, criminology, social work, law, or education.

These professionals should be at the forefront of **rehabilitation and education efforts** within the correctional system, playing roles in addressing the complex needs of inmates. For such professionals, the VR4React programme is a great additional resource as:

- Psychologists in these environments are tasked with assessing, diagnosing, and treating mental health issues, often focusing on behaviour modification and therapy for individuals exhibiting reactive aggression.
- Prison/probation educators are instrumental in providing educational programmes, Vocational Education and Training (VET), and life skills training, critical for inmate rehabilitation and successful reintegration into society. The multidisciplinary nature of their backgrounds allows for a holistic approach to inmate rehabilitation, blending various theories, practices, and methodologies to craft effective and empathetic interventions.

Why should I be a trainer?

Psychologists

The target audience for delivering the VR4React intervention programme with offenders consists of professional staff working in prison/probation settings, such as case managers, psychologists and educators, who come from multidisciplinary backgrounds including psychology, criminology, social work, law, or education.

These professionals should be at the forefront of rehabilitation and education efforts within the correctional system, playing roles in addressing the complex needs of inmates. For such professionals, the VR4React programme is a great additional resource as:



Identifying candidates for VR-based interventions



Integrating VR sessions with traditional therapy



Monitoring progress and adjusting treatment plans



Supporting reactive aggressive individuals to develop more social behavioural patterns and reducing recidivism rates

For Prison/probation Educators



Encouraging engagement and participation



Collaborating with psychologists to align educational content with therapeutic goals



Supporting reactive aggressive individuals to develop more social and adaptive behavioural patterns and reducing recidivism rates

Requirements to Implement the VR4React Programme



Professionals must work directly with individuals serving a sentence, providing hands-on support and guidance throughout the VR sessions.



Possess full knowledge and alignment with the objectives, goals, and relevance of the VR4React programme, ensuring a clear understanding of its purpose and expected outcomes.



Fully aware of the VR content, proficient in managing VR sessions, guiding participants through the experiences, clarifying doubts, and providing feedback.



Capacity to monitor participants closely and ensure their comfort throughout the VR sessions, being vigilant and responsive.



High degree of empathy and sensitivity, being able to understand and respond to the emotional and psychological needs of participants.



Effective management of resources, including VR equipment, time, and participant scheduling, to ensure smooth and efficient operation of the programme.

This manual aims to equip professionals with the knowledge and tools necessary to implement VR4React's methodology using VR technology as an educational intervention, offering new pathways for addressing reactive aggression among individuals serving a sentence.

Implementing the VR4React programme: Guidelines for trainers

By adhering to the following guidelines, you will be able to implement the VR4React's intervention ethically, with respect for participants' privacy and data integrity, while effectively addressing reactive aggression in the offender population.

Installation Procedure

To effectively implement the VR4React intervention, it is key to verify that all equipment is correctly installed and operating seamlessly. This subchapter will provide you with instructions on how to properly configure the equipment and ensure that the VR4React app is successfully downloaded and functioning.

Several VR devices are currently available in the market, such as Meta Quest 2, HTC Vive, Goertek, Samsung, and Valve Index. For the VR4React project, the developers and project partners recommended **Meta Quest 2** based on its cost-effectiveness and ability to **function without an internet connection, key for prison environments**. Although instructions for various brands may have similarities, we advise referring to the official website of the particular brand for precise instructions on how to use their equipment.

In light of this, the subsequent sections will focus on the **installation and configuration of the Meta Quest 2**. We will furnish comprehensive guidelines to guarantee the accurate installation and operation of the VR4React application, thereby facilitating a seamless and efficient intervention procedure.

Characteristics of Meta Quest 2:

- **Price and Storage:** The Meta Quest 2 is currently available in two models, with the 128GB model priced at €349.99 and the 256GB model priced at €399.99 (this may vary based on your country and market oscillations). Both models possess identical technological specifications, encompassing read speeds and data loading capabilities. However, the 256GB model provides a greater amount of storage space, which proves advantageous for users requiring additional capacity for files and applications. The device can be purchased from the official Meta website as well as other platforms such as Amazon.
- The **display and graphics** feature a resolution of 1832x1920 pixels per eye, which greatly enhances the quality of experiences such as multiplayer games and immersive 360° videos. The device is capable of a 90 Hz refresh rate, which indicates that the display updates 90 times every second.
- The **head strap** is equipped with integrated speakers that deliver effective sound, enhancing the immersive experience without the inconvenience of cables. However, it should be noted that the performance of these speakers does not reach the level of high-end headphones.
- The **controllers** are designed with ergonomics in mind, ensuring a comfortable grip. They also have responsive controls, making virtual navigation effortless.

- The **baGery** life of the Meta Quest 2 allows for uninterrupted usage for a duration of 2 to 3 hours. To ensure optimal performance during extended sessions, particularly with multiple participants, it is advisable to employ a rotation system with 2 to 3 headsets or to take periodic breaks to recharge the device and engage in discussions about the experience.

Upon acquiring the Meta Quest 2, users will find the following equipment:



Figure 2. Meta Quest 2 equipment

1. To begin, it is essential to **charge the headset**. Plug the charging cable into a power outlet and insert the USB-C end into the left side of the headset (1). Once the battery reaches full charge, the charging indicator will change from orange to green (2).

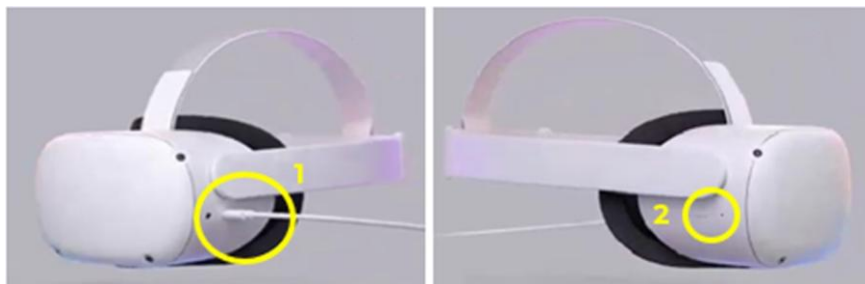


Figure 3. Power connection for VR headsets

2. After the battery is fully charged, proceed to **adjust the headset's** fit to your head size by utilising the top and side straps. Furthermore, adjust the lenses following the distance separating your eyes. If you wear glasses, be sure to utilise the glasses spacer. For further guidance, refer to the concise tutorial videos located in Appendix 1.
3. **Activate the headset** (1) by pressing the button located on the right side (adjacent to the charging indicator) and readjust the straps if needed.



Figure 4. Activating the VR headset

4. Download and install the **Meta Quest mobile app – Oculus** (1), which enables users to configure the headset, browse and manage VR applications, personalise device settings, and stream the VR experience to their phone or any Chromecast-enabled device.

The installation can be accessed on Android devices running Android 5.0 or later through the Google Play Store, and on Apple devices running iOS 12.4 or later through the App Store.

Please be aware that in order to utilise the Meta Quest mobile application, it is imperative that the phone is connected to a Wi-Fi network and that Bluetooth functionality is enabled. To obtain additional information regarding the installation procedure, kindly consult Appendix 2.

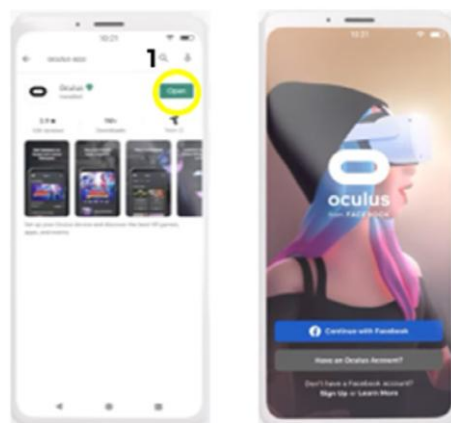


Figure 5. Oculus - mobile app for Meta Quest

5. In order to navigate within the designated play area, it is crucial to set up room scale in Guardian mode, which establishes a secure boundary for gameplay. The user needs a clear area measuring at least 2 meters by 2 meters. If there is not enough space, the user can activate the Stationary Mode and engage in the activity while seated or standing without moving. Users have the ability to effortlessly alternate between Guardian modes or redefine boundaries. Users have the ability to effortlessly alternate between Guardian modes or redefine boundaries. To accomplish this, simply press the Oculus button located on the right touch controller (1) granting you access to the universal menu. Click on the clock icon (2) situated on the left side of the menu and choose the Quick Settings panel. Select Guardian (3) and then choose either Stationary or Room scale, following the on-screen prompts to establish a new Guardian boundary. Consult Appendix 3 for instructions on how to establish the Guardian mode.

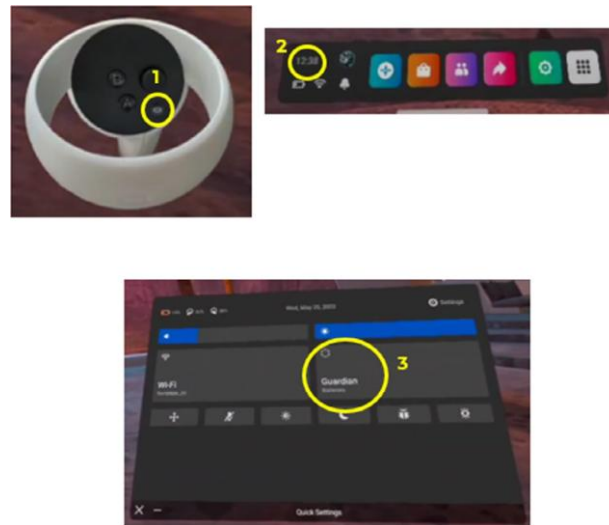


Figure 6. Changing guardian mode

6. Establish a **connection between the VR headset and Wi-Fi** by pressing the Oculus button (1). Next, navigate to the Quick Setting panel (2) and choose the Wi-Fi symbol located adjacent to the battery and time icons. To connect to the Wi-Fi network, choose the network, input the password, and then select the Connect option.

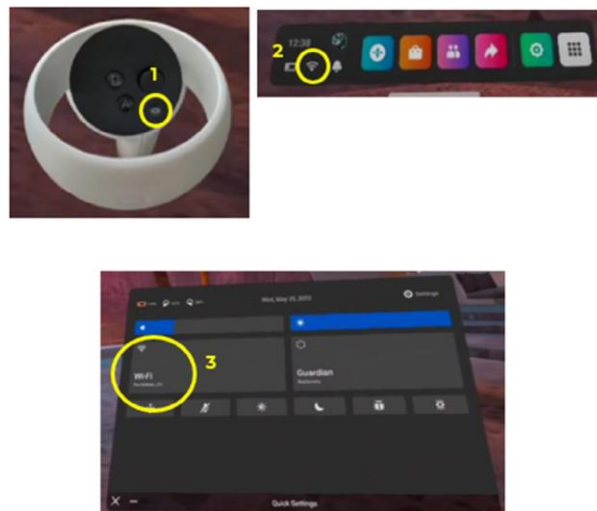


Figure 7. Connecting the VR headset with Wi-Fi

7. **The VR4React VR app** can be downloaded for free from the Meta Quest Store. To directly download it to the headset, simply navigate to the **“Store”** icon (1), search for **“VR4React”**, and choose the version with the project logo. Next, select the **“Get”** button to initiate the download process. Once the download is finished, you will locate the VR4React app icon in the **“App Library”** (2). Tap on the application and subsequently select the **“Start”** option (3).

Figure 8. Downloading the VR4React app

8. When the VR experience is complete, there are two options for concluding it: either the user can put the headset into sleep mode or turn it off. To activate the sleep mode, just press the power button on your headset (1). When you are prepared to continue, simply place the headset on your head, and it will become active. It is worth mentioning that although the headset is in a sleep mode, it still consumes a small amount of power, albeit significantly less than when it is being actively used.

When the headset is powered down, the entire system shuts down and you need to hold the power button to turn it back on.

When your headset is turned off, the amount of power it uses is much less than when it is in sleep mode. To deactivate the headset, firmly press and maintain pressure on the power button for at least three seconds. The occurrence of this action will be signalled by the deactivation of the indicator light and the audible emission of a power-down chime.



Figure 9. Turning off and activating sleep mode on the headset

Participant selection

Selecting suitable participants for the VR4React intervention is a crucial step in guaranteeing the efficacy of the programme. The selection process should be predicated upon **participants' rehabilitation requirements** and the **prospective advantages** they can derive from the VR4React programme. The following are the primary criteria and factors to consider when identifying appropriate participants.

Selection Criteria:



Previous instances of reactive aggressive behaviours: Identify individuals who have a history of reactive aggression, characterised by frequent irritability, difficulty in controlling anger, or engagement in altercations or arguments. These behaviours may be witnessed as a reaction to common stressors or conflicts, which may not necessarily be connected to their criminal actions.



Mental Health Considerations: Participants with severe mental illnesses that may be aggravated by VR exposure should not participate. Individuals with severe schizophrenia, psychosis, or other significant psychiatric disorders are ineligible to participate.



Physical Health: Verify that participants do not possess medical conditions that could be adversely affected by the use of virtual reality, such as severe epilepsy or significant vestibular disorders.



Cognitive Abilities: Participants must have adequate cognitive capacity to comprehend and interact with the VR content. This encompasses the capacity to adhere to instructions and actively engage in the virtual reality sessions.



Motivation for Change: Select individuals who demonstrate a sincere desire to address their reactive tendencies and possess a strong motivation to engage in rehabilitation endeavours.



Age Suitability: Take into account the age of the participants, as virtual reality experiences may be more appropriate for specific age demographics. Generally, individuals who are in the age range of young to middle-aged adults are considered to be best candidates.



Cultural Diversity: The programme welcomes participants from diverse cultural backgrounds, recognising the importance of inclusivity and understanding cultural sensitivities.



Gender Neutrality: Participants are selected based on their rehabilitation needs and suitability for the programme, irrespective of gender.



Sensory Requirements: Participants must possess sufficient visual and auditory abilities to effectively interact with the virtual reality environment.

Informed consent

Obtaining informed consent (refer to Appendix 4) from all participants is crucial, ensuring that they possess a thorough comprehension of the nature of the VR sessions and their rights. The process entails providing a clear and concise explanation of the objectives, procedures, potential advantages, and risks associated with engaging in the VR4React programme.

Facilitators must be capable of addressing any uncertainties and offer comprehensive explanations regarding the programme to participants. Through the process of obtaining informed consent, participants explicitly confirm their voluntary participation, thereby showcasing their comprehension and acceptance of the programme's conditions. This ethical practice guarantees openness and upholds the participants' independence throughout their engagement in the intervention. The documentation of informed consent also serves to maintain ethical standards and safeguard the rights of participants throughout the entirety of the VR sessions.

Pre & post assessments

The VR4React consortium has created pre- and post-assessment questionnaires (refer to Appendix 5) with the purpose of evaluating the differences in participants' competencies before and after their participation in the programme.

These questionnaires are a useful tool for evaluating different aspects, including tendencies towards reactive aggression, skills in emotional regulation, and overall behavioural dynamics.

All responses are kept anonymous, guaranteeing the confidentiality of participants and promoting sincere feedback. By conducting the **pre-assessment questionnaire prior to the commencement of the programme** and the **post-assessment questionnaire two weeks once more upon its conclusion**, facilitators can accurately monitor progress and assess the programme's influence on participants' behavioural outcomes.

Providing structured Virtual Reality experiences

Enabling a structured VR experience in the VR4React intervention entails not only leading participants through immersive situations but also offering extensive assistance to guarantee their involvement and welfare throughout the sessions.

This process also involves establishing a setting that promotes learning and active involvement, while prioritising the comfort and safety of the participants.

Furthermore, the space for the sessions should be **devoid of any disturbances** and offer **ample space** for participants to manoeuvre comfortably during virtual reality sessions. Other important considerations are:



Deliver prompt and constructive feedback when required to strengthen desirable actions and direct participants towards accomplishing session goals.



Customise the support provided to each participant based on their individual requirements, such as helping with virtual reality equipment, providing clear instructions, managing emotional responses during the experience.



Be ready to intervene in case they encounter any discomfort or emotional distress.



After each VR experience, it is important to hold comprehensive debriefing sessions to discuss the reactions of the participants, the insights they have gained, and any challenges they have encountered. Utilise this period to strengthen comprehension goals and tackle any inquiries or apprehensions.



Regularly sanitising VR equipment with non-alcoholic wipes between sessions is essential for maintaining cleanliness and hygiene.

Certificate of Participation

The Certificate of Participation (Appendix 6) in the VR4React programme is a recognition of participants' commitment and advancement in their rehabilitation journey. In order to guarantee the significance of these certificates, explicit criteria for eligibility are established, usually relying on attendance and active engagement in programme activities. This guarantees that the participants have actively participated in the VR sessions and have successfully achieved predetermined goals.

Chapter II. Overview of the VR4React VR Programme

Guidelines

Upon entering the VR4REACT app, an introductory video will guide users through the basic functionalities of the app, providing a comprehensive overview of how to use Virtual Reality (VR) for training. This video will explain the goals of the training and what participants can expect throughout the process. Hence, trainers must make sure that each participant watches the video.

Since the VR4REACT programme is specifically designed for both reactive aggressive individuals and also prison officers, users will be presented with two main training options:

- Manage Personal Reactiveness
- De-escalate Aggressive Behaviour (for prison guards)

Each option requires a specific access code to proceed. In your case, you will select the “**Manage Personal Reactiveness**” option and enter the code “**XXX.**” This will give you access to the training scenarios, which are divided into two distinct environments:

- Prison setting: Comprising three scenarios.
- Garden setting: Comprising another three scenarios.

The VR4REACT programme consists of **six immersive scenarios**. These scenarios are designed to simulate real-life situations individuals may encounter, with the goal of enhancing their skills in a controlled, secure, and safe environment. The structure of the training is as follows:

- Prison Scenarios (1, 2, 3): These are set in the familiar environment of a prison. By training in this context, participants can focus on actions and decisions they are likely to face on their day-to-day,
- Garden Scenarios (4, 5, 6): These scenarios take place in a more relaxed, open setting, offering a contrasting environment to the prison. This shift is designed to challenge participants’ adaptability and help them develop skills in managing reactive behaviours.

Participants need to **complete all six scenarios in the predefined order (1 through 6)**, as the scenarios build on each other in a cascading fashion. Each scenario introduces new challenges and dynamics, but all are interconnected, meaning that the successful completion of one scenario will inform how participants approach the next.

The goals, rationale, and specific dynamics of each scenario will be described in the subsequent subchapters, providing detailed insights into how they are structured and what is expected from participants.

Interactiveness and Visual Cues in the VR Environment

Every scenario in this immersive VR experience follows a specific situation that requires user interaction, whether with virtual avatars or virtual objects in the space.

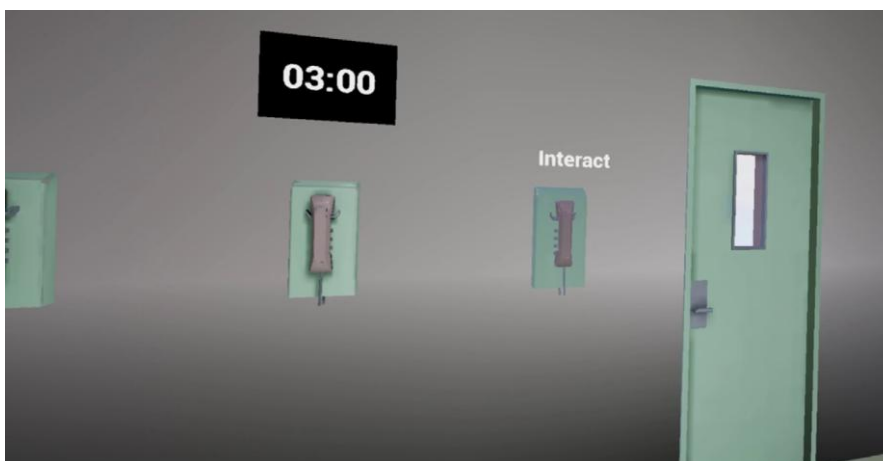
Participants will encounter a mix of interactable and non-interactable objects throughout the virtual environment, so to help distinguish between them, interactable objects are designed with special visual feedback, making them stand out from their surroundings. This feedback might include subtle highlighting, a gentle glow, or a change in appearance when you look at or approach them. As soon as the participant looks at a digital interactable object, they will see the visual cue.



To interact with these objects, simply press the A button on your controller when you're in close proximity.



This intuitive system allows you to easily identify and engage with key elements in the virtual world, enhancing your exploration and interaction within the experience.



Many of these interactions involve engaging in dialogues with pre-defined outcomes, adding depth to your virtual encounters. For enhanced accessibility, these dialogues feature audio with synchronised facial and body animations on the speaking avatars, as well as subtitles displayed near them. This comprehensive approach ensures that all users can fully enjoy and participate in the interactive elements of the experience, regardless of their sensory preferences or needs.



Building upon the interactive elements of the VR experience, each dialogue you encounter follows a sophisticated dialogue tree structure. This dynamic system allows for branching conversations, where every dialogue line presents multiple choices to the user. Your decisions at these junctures lead to different outcomes, shaping the course of the conversation and potentially influencing the broader narrative. This branching structure not only enhances the sense of agency within the virtual world but also encourages exploration and replayability.

As you navigate through these dialogue trees, you'll discover that your choices can lead to varied responses from characters, unlock different pieces of information, or even alter the direction of your virtual journey. This level of interactivity adds depth to each encounter, making every conversation a unique and engaging experience that responds directly to your input.



Below, we detail the available VR scenarios.

VR Scenario Breakdown and Learning Objectives

Prison Setting

Identifying Emotions Training

Objective of the VR Scenario

The primary objective of this VR scenario is to help inmates develop the crucial skill of identifying and managing their emotions effectively. Through interactive and immersive experiences, participants will explore how their emotions influence their behaviour, learn to recognise and name primary emotions, and practice strategies for regulating these emotions in real-life situations. The ultimate goal is to empower them with emotional awareness and self-regulation techniques that contribute to better decision-making and healthier interpersonal relationships.

Key Points to Focus On



Emotional Identification: It is intended that participants accurately understand the role and functionality of each emotion.

They should be able to identify the six primary emotions-happiness, sadness, fear, disgust, anger, and surprise.



Self-Reflection: Participants are encouraged to reflect on their own emotional experiences, particularly how certain emotions like anger or fear may dominate their responses.



Behavioural Consequences: The scenario emphasises the consequences of letting emotions control actions, reinforcing the importance of channelling emotions constructively.



Coping Mechanisms: The scenario introduces techniques such as deep breathing, mindfulness, and positive self-talk.

Areas for Facilitator Attention and Feedback

- Monitor how engaged participants are with the VR scenario. Are they actively participating, or do they appear disengaged? Provide encouragement and reinforcement to maintain their interest.
- Pay close attention to whether participants can correctly identify and name the emotions presented in the scenario. Offer guidance if they struggle with distinguishing between similar emotions, like anger and frustration.
- Observe the depth of participants' self-reflection. Are they able to connect their emotional experiences with specific behaviours? Facilitate discussions that help them uncover underlying patterns and triggers.

Managing Emotions Training

Objective of the VR Scenario

The primary objective of the second VR scenario, “Managing Emotions Training,” is to help inmates practice and refine their ability to manage emotions in high- pressure situations. Through interactive and immersive experiences, participants will encounter scenarios that challenge their emotional responses, requiring them to make decisions that influence the outcome of a situation. The ultimate goal is to enhance their emotional intelligence by developing skills in negotiation, conflict resolution, and self-regulation, contributing to more effective decision-making and healthier interpersonal interactions.

Key Points to Focus On



Emotional Regulation: Participants must manage emotions under pressure, making thoughtful decisions within a limited time.



Decision-Making and Consequences: Choices—negotiation, confrontation, or avoidance—lead to different outcomes, highlighting the impact of emotional responses.



Conflict Resolution: The scenario emphasises negotiation and de-escalation, demonstrating how these approaches can resolve or exacerbate conflicts.



Self-Reflection: Participants will reflect on their emotional triggers and how these influence their behaviour, with a focus on improving self-regulation.

Areas for Facilitator Attention and Feedback

- Monitor participant engagement, particularly during decision-making moments, and encourage thoughtful choices.
- Help participants identify emotional triggers and offer support if they struggle to articulate their feelings.
- Observe conflict resolution approaches, provide feedback if needed, and discuss real-life applications.
- Ensure participants use coping strategies like deep breathing and discuss how to integrate these into daily routines.

Communication & Conflict Management

Objective of the VR Scenario

The “Communication and Conflict Management” scenario aims to teach inmates effective communication strategies for resolving conflicts. Participants will explore the differences between talking and communicating, learn to manage emotions during conflicts, and practice conflict resolution techniques. The goal is to enhance their communication skills and improve their ability to handle disagreements constructively.

Key Points to Focus On



Talking vs. Communicating: It is emphasised the difference between merely speaking and truly communicating, which involves listening and understanding.



Conflict Reflection: Participants are encouraged to reflect on how they handle conflicts, focusing on the emotional triggers and responses.



Communication Styles: Explored the different communication styles (e.g., assertive, aggressive) and their impact on conflict resolution.



Conflict Resolution Techniques: Explored strategies like assertiveness, negotiation, and finding common ground to resolve conflicts peacefully.



Self-Assessment: Participants are guided in assessing their conflict resolution styles (e.g., avoiding, competing, collaborating) and understanding the implications of each.

Areas for Facilitator Attention and Feedback

- Encourage active participation and thoughtful responses.
- Help participants identify their emotional triggers during conflicts and provide support in articulating these feelings, if needed.
- Observe how participants apply communication and conflict resolution techniques in the scenario.
- Encourage reflection on how these styles affect their interactions.

Community Setting - Garden

Mindfulness & Stress Management

Objective of the VR Scenario

The “Mindfulness and Stress Management” scenario is designed to teach participants how to manage stress through mindfulness. Set in a tranquil garden environment, the scenario uses this peaceful setting intentionally to promote relaxation and focus. By differentiating between stress, anxiety, worry, and depression, participants will learn to recognise personal stressors, understand bodily sensations, and practice mindfulness techniques.

This immersive experience aims to enhance participants’ ability to manage stress and improve their overall well-being in a calming and supportive atmosphere.

Key Points to Focus On



Understanding Stress: It is established the distinction between stress, anxiety, worry, and depression.



Identifying Stressors: Provided strategies for participants to recognise personal stress triggers and their impact.



Bodily Sensations: Provided tools to distinguish bodily sensations from emotions and how they relate to stress.



Mindfulness Techniques: Participants are invited to practice mindfulness exercises to manage stress and enhance relaxation.

Areas for Facilitator Attention and Feedback

- Ensure they are actively participating and reflect on their stress levels and triggers.
- Check if participants accurately identify and differentiate stress-related terms and sensations. Provide clarification as needed.
- Offer support and encouragement during practice, if they struggle to stay focused.
- Assess participants’ emotional responses to the VR experience. Address any negative feelings and encourage positive reflections on the mindfulness practice.

Impulse Control Training

Objective of the VR Scenario

The “Impulse Control Training”, taking place at a garden, aims to teach participants effective strategies for managing their impulses and reactions through interactive gardening activities and conflict resolution. By engaging in practical gardening tasks and handling a critical interaction, participants will develop skills to control their impulses, reflect on their emotional responses, and apply constructive strategies for dealing with criticism and conflict.

Key Points to Focus On



Engagement: The participant is invited to play in a gardening activity to enhance focus and engagement. This engagement helps participants become more attuned to their actions and interactions within the scenario.

The interactive nature of gardening serves as an entry point to foster attentiveness and focus.



Emotional Trigger and Impulse Control Practice: Participants must manage interpersonal conflicts and stress. This element is designed to challenge participants’ impulse control by presenting them with a choice of how to respond to criticism.



Reflection and Evaluation of Emotional Responses: Participants are prompted to reflect on their emotional states and the choices they made. This reflection encourages participants to consider how their emotions influenced their reactions and to explore alternative ways of handling stressors.

Areas for Facilitator Attention and Feedback

- Help participants reflect on how to apply these strategies effectively in real-life situations to manage stress and interpersonal interactions.
- Discuss alternative ways to handle similar situations in the future and promote personal growth and improved emotional regulation.

Pro-Social Skills Training

Objective of the VR Scenario

The “Self-Efficacy Development” scenario was crafted to enhance participants’ self-efficacy by promoting self-reflection, recognising personal strengths and areas for growth, and understanding how past experiences shape their present behaviours. Participants will explore their self-identity, reflect on their achievements, and identify both their strengths and areas for improvement. This scenario aims to foster a greater sense of personal capability and confidence in handling life’s challenges.

Key Points to Focus On



Self-Reflection and Self-Awareness: The scenario begins with a dialogue that encourages participants to reflect on their personal achievements and qualities. This process of self-reflection helps participants gain a clearer understanding of their identity and what they value in themselves.



Personal Identity and influence: Participants are guided to consider what defines their identity and how their experiences shape their interactions and choices. This exploration helps participants understand the influence of their past and present experiences on their behaviour.



Reflecting on regrets and learning from past behaviours: Participants are invited to reflect on past behaviours or reactions they regret and consider what they have learned from these experiences. This reflection helps participants understand their patterns of behaviour and develop strategies for improvement.



Setting goals and proactive improvement: The scenario encourages participants to think about practical steps they can take to address their areas for growth. Setting goals and planning proactive actions reinforce the belief in one's ability to effect positive change.

Areas for Facilitator Attention and Feedback

- Encourage participants to engage with the self-reflection interactions. Give them the option to not answer out loud in case they want to keep the answers to themselves
- Offer positive reinforcement and prompts if they seem hesitant or unsure.
- Offer support in processing any difficult reflections and guide participants toward constructive insights.
- Assist participants in formulating actionable plans based on their reflections.
- Encourage them to outline specific steps they will take to address their areas for growth and provide support in setting achievable goals.
- Address any emotional concerns and provide reassurance.

Conclusion

The VR4REACT Train the Trainers Manual has been designed to equip trainers with the necessary tools, knowledge, and guidance to effectively deliver the programme. By following the structured training process outlined in this manual, trainers will be able to foster the development of essential skills, ensuring that participants gain the maximum benefit from the VR scenarios.

As trainers, your role is pivotal in facilitating an immersive and impactful learning experience. By utilising this manual, you are empowered to guide participants through both practical and reflective exercises, helping them build the competencies required to manage and address reactive behaviours in a variety of settings.

Should you have any questions or require further clarification at any point, please do not hesitate to contact the VR4REACT team. We are here to support you in delivering this training to its fullest potential. You can reach us at:

<https://www.vr4react-project.com/contact.html>

Thank you for your commitment to enhancing the skills and knowledge of our participants.

Appendices

Appendix 1. Tutorial videos for the Oculus App



¹ <https://www.youtube.com/watch?v=XpJ2LvS35VE&t=11s>

² <https://www.youtube.com/watch?v=1lqmm0Rv0K0>

Appendix 2. Installation procedure



³ <https://www.youtube.com/watch?v=HjHZHoz53pk>

Appendix 3. Setting up the Guardian mode



⁴ <https://www.youtube.com/watch?v=GojevL05Avw>

Appendix 4. Informed Consent Form

VR4React: A Virtual Reality (VR) Psychoeducational Intervention Programme to Reduce Aggressive Behaviours

Introduction

You are invited to participate in the VR4React VR psychoeducational intervention programme aimed at reducing aggressive behaviours in individuals who have a history of reactive aggression, regardless of the type of crime committed. This informed consent provides information about the programme, your participation, and your rights.

Purpose of the Programme

The purpose of this programme is to present a VR-based intervention to support individuals to manage reactive aggression and be more prompt to engage in healthy and prosocial behaviours. The intervention aims to help participants manage their aggressive behaviours through interactive VR sessions.

Procedures

If you agree to participate, you will be involved in the following activities:

1. **Pre-Assessment:** Completing a questionnaire to assess your current levels of reactivity and other related factors.
2. **VR Sessions:** Participating in six (6) VR sessions over a specified period. The programme will last approximately 30-45 minutes and will include interactive scenarios designed to help you manage aggression.
3. **Post-Assessment:** Completing a follow-up questionnaire to measure any changes in your aggression levels after the intervention.
4. **Feedback:** Providing feedback on your experience during and after each session.

Voluntary Participation

Your participation in this programme is entirely voluntary. You have the right to withdraw from the programme at any time without any consequences.

Potential Risks

The VR intervention is designed to be safe; however, some participants may experience discomfort, dizziness, or emotional reactions during the sessions. Staff will be present to assist and provide support.

Potential Benefits

Participation in this programme may help you develop better strategies for managing reactive aggression, which could lead to improved interactions and relationships.

Confidentiality

Your privacy and confidentiality will be protected throughout the study. All data collected will be anonymised using unique codes instead of names. The results will be stored securely and only accessible to the research team. No personal identifying information will be included in any reports or publications.

The protection of your rights as a participant is governed by the following applicable laws/directives: European legislation: Directive 95/46/EC, Framework Decision 2008/977/JHA; Regulation (EU) 2016/679. National legislation: Organic Law 3/2018, of 5 December, on the Protection of Personal Data and Guarantee of Digital Rights as a guarantor of the protection of personal data.

The VR4React project consortium is committed to ensuring your rights and your protection under these EU laws and directives.

Data Usage

The data collected will be used solely for the purpose of evaluating and improving the VR intervention programme. It will not be shared with any external parties without your explicit consent.

Contact Information

If you have any questions or concerns about the study, please contact the professional supporting you during this process.

Consent Statement

I have read (or have had read to me) the information provided above. I have had the opportunity to ask questions and have received satisfactory answers. I understand that my participation is voluntary and that I can withdraw at any time without any consequences. By signing below, I agree to participate in this study.

Participant's Name:

Participant's Signature:

Date:

Trainer's Name:

Trainer's Signature:

Date:

Appendix 5. Pre/Post assessment questionnaire

Pre assessment questionnaire

Thank you for participating in this pre-test. Your input is crucial in helping us gauge your awareness and perceptions. This assessment aims to better understand your current knowledge and experiences as we embark on this journey to enhance your skills. Please answer the following questions honestly and to the best of your ability.

How often do you feel angry or frustrated in challenging situations?

- Never
- Rarely
- Sometimes
- Often
- Very often

When someone disagrees with you, how do you typically react?

- I stay calm and try to understand their point of view.
- I get defensive but try to control my reaction.
- I become irritated and find it difficult to control my emotions.
- I often react impulsively with anger or aggression.

Are you aware of specific triggers that make you react aggressively?

- Yes, I can identify them easily.
- Sometimes, but not always.
- No, I struggle to identify my triggers.

When you feel yourself getting angry, what do you typically do to manage it?

- I try to take deep breaths and calm down.
- I walk away from the situation.
- I argue or escalate the situation.
- I do nothing and let my emotions control me.

Are you familiar with techniques to de-escalate a tense situation?

- Yes, I know several strategies.
- I know a few, but I'm not confident in using them.
- No, I'm not familiar with any de-escalation techniques.

Post assessment questionnaire

Thank you for participating in this post-test. Your feedback is essential in evaluating the effectiveness of the VR4REACT training programme. This assessment will help us understand how the training has impacted your knowledge and skills related to managing reactive behaviours and conflict situations. Please answer the following questions honestly and to the best of your ability, reflecting on your experiences during the VR training.

After the training, how often do you now feel angry or frustrated in challenging situations?

- Never
- Rarely
- Sometimes
- Often
- Very often

How has your response to conflict changed since the training?

- I stay calm more often and listen to others' perspectives.
- I am still defensive but better at controlling my reactions.
- I still struggle to control my irritation but notice some improvement.
- I react impulsively with anger less frequently.

Can you now better identify the triggers that cause you to react aggressively?

- Yes, I can clearly identify them and manage my responses.
- Sometimes, but I still struggle in certain situations.
- No, I still find it difficult to recognise my triggers.

How do you now manage your emotions when feeling angry or frustrated?

- I use techniques like deep breathing or walking away to calm down.
- I can control my anger better but still react emotionally at times.
- I still have difficulty managing my emotions in tense situations.
- I let my emotions control me most of the time.

Do you feel more confident in using de-escalation strategies after the training?

- Yes, I feel confident and capable of de-escalating tense situations.
- I have learned techniques, but I am still gaining confidence.
- I know a few techniques, but I am not sure how to apply them effectively.
- No, I still struggle with de-escalation strategies.

How realistic did you find the scenarios presented in the VR training?

- Very realistic
- Somewhat realistic
- Neutral
- Somewhat unrealistic
- Very unrealistic

How engaging did you find the VR scenarios?

- Very engaging
- Somewhat engaging
- Neutral
- Somewhat disengaging
- Very disengaging

Were the instructions provided within the VR scenarios clear and easy to understand?

- Very clear
- Somewhat clear
- Neutral
- Somewhat unclear
- Very unclear

How relevant do you feel the scenarios were to real-life situations you may encounter?

- Very relevant
- Somewhat relevant
- Neutral
- Somewhat irrelevant
- Very irrelevant

To what extent do you believe the VR scenarios helped you develop skills related to managing reactive behaviours?

- Very much
- Somewhat
- Neutral
- Not much
- Not at all

Overall, how satisfied are you with the VR training experience?

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

Do you have any suggestions for improving the VR scenarios or training experience?

CERTIFICATE OF PARTICIPATION

The VR4React Consortium certifies that

Has successfully completed the VR4REACT Training Programme,
focused on enhancing skills in managing reactive behaviours and
conflict resolution through immersive Virtual Reality scenarios.

We commend your commitment to personal development and the
pursuit of knowledge in this important area.

Date: __/__/____

(Partner representative
name and position)

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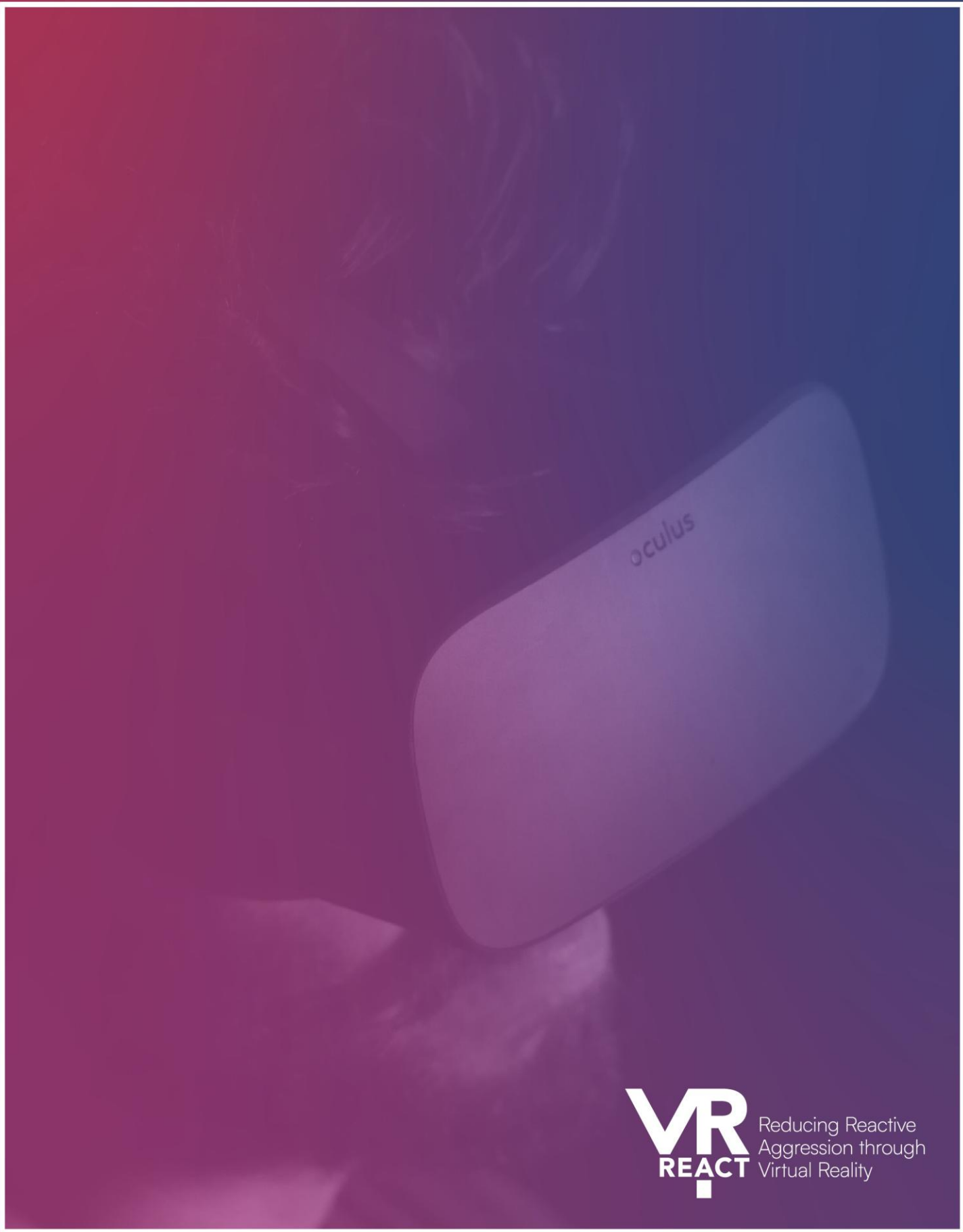
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VR
REACT Reducing Reactive Aggression through Virtual Reality

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