

VR-Mind Product description

VR-Mind is an application for PC and virtual reality (VR) devices developed by Babeş-Bolyai University (UBB) in collaboration with the multinational company EON Reality. It was designed for promoting mental health and preventing mental health problems or as an adjunctive treatment to standard intervention for emotional issues, such as depression and anxiety. UBB is currently using VR-Mind in applied and advanced research and as an innovative technology to deliver clinical services through the PsyTech University Clinic. Considering the advantages of the application and the interest of the community of practitioners in the product, UBB and EON have decided to make it available for the practitioners who choose to add it to their services portfolio. The product is offered as a package, including both the application and the training course, available through the UBB-EON-XR-Center.

VR-Mind was developed based on fundamental and applied research in the clinical-cognitive sciences, showing the impact of cognitive distortions in developing and maintaining emotional problems (mainly depression and anxiety). These studies indicated that *cognitive bias modification* procedures might enhance the treatment of emotional issues. VR-Mind was developed to assess and modify the main types of cognitive biases that the literature has indicated as being relevant for depression and anxiety: (1) attentional bias, (2) interpretation bias and (3) memory bias.

Product description

The VR-Mind application can be installed on a PC and can be played on the monitor, or it can be used in virtual reality (VR), with an HTC Vive head-mounted display (<https://www.vive.com>). The application has similar functionalities for both use modalities, but the experience is more immersive when using VR technology.

The app has four modules:

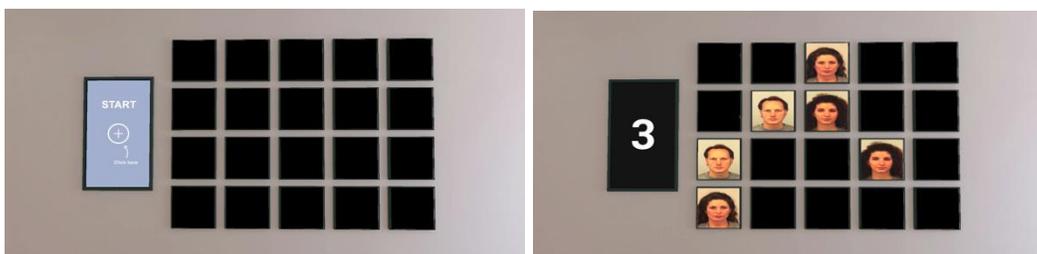
1. One module is designed for administrating clients and monitoring their progress.
2. One module is designed for evaluating and modifying attentional bias using the *dot probe* procedure.
 - The user has to locate the target (the "plus" sign) immediately after the appearance of two simultaneous stimuli, one with a neutral valence and one with a negative valence. In the assessment mode, the target follows the two types of stimuli with similar frequencies. In the intervention mode, the target appears more frequently in the same position as the neutral stimuli.



3. One module is designed for assessing and modifying the interpretation bias, using a scrambled words task.
 - The user has to build a sentence with a prespecified number of words by selecting them from a list of available shuffled ones. On the list there are more words than is needed in the sentence. Using the list, the user can build a negative or a neutral sentence. He receives points for every word used. In the intervention module, words that lead to a phrase with neutral meaning bring more points. The user receives the instruction to make as many points as possible.



4. One module is used for assessing and modifying memory distortions, using a memorization task. The user has to remember the position of relevant stimuli while ignoring the position of irrelevant ones.
 - The user is asked to identify several pairs of identical stimuli, each hidden behind several screens placed on a wall in the virtual room. The stimuli could be photos of human faces or words. If the user checks consecutively two screens that do not hide matching stimuli, the already uncovered ones will be hidden again. If the user consecutively selects two screens that hide the same photos, the already exposed ones remain shown until the task ends. The paired stimuli can be negative or neutral. In the intervention module, the user earns points for uncovering neutral stimuli pairs and loses points for uncovering negative stimuli pairs. Again, the user received the instruction to make the highest score possible.



Minimum requirements for running the application

- PC mode:
 - Intel® Core™ i5-4590 or AMD FX™ 8350 processor or higher
 - Video processor NVIDIA® GeForce® GTX 1060, AMD Radeon™ RX 480, or higher
 - Monitor resolution: minimum 1920x1080
 - Mouse, keyboard, and speakers (or earbuds)
 - Windows 10

- VR mode:
 - PC as previously specified
 - A VR head-mounted device: VIVE, VIVE Pro, or VIVE Pro Eye with controllers and base station:
 - <https://www.vive.com/eu/product/>.

Pricing

- User license + training course in using the application (4 hours): 2000 Lei + VAT. Orders can be placed by email at the following address: produsubb@ubbcluj.ro.