Virtuleap is taking cognitive assessment and training up a notch | Photo source Virtuleap

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A VR BRAIN TRAINING APP TO TEST COGNITIVE SKILLS

HEALTH & WELLBEING

The app is accompanied by a web-based dashboard that lets corporations—such as senior living communities, hospitals, clinics, and educational institutions—access reporting and data tools

Spotted: Lisbon-based Virtuleap is a health and education startup using artificial intelligence (AI) and virtual reality (VR) to elevate the cognitive assessment and training industry. The company believes that VR brain training can add value to any healthy lifestyle as a frequent activity taking up less than 10 minutes per session.

Virtuleap's core product, Enhance, is a VR app with a library of brain training games that test and train various cognitive skills like memory, problem-solving, spatial orientation, and motor control. The company says that VR "engages multiple learning systems, which makes it a more effective and natural environment for cognitive training than 2D screen-based brain training apps".

Enhance's games are designed by neuroscientists and game designers with the intention of being both fun and effective. The app currently offers more than 14 short games across nine different categories: memory, problem-solving, flexibility, working memory, spatial orientation, motor control, auditory cognition, task switching, and planning – with Additional skills to be introduced in the near future.

The app also allows users to track their progress with reporting tools to know how their quality of sleep and moods affect their cognitive performance.

In 2020, the company published a white paper citing 76 peer-reviewed studies explaining why they believe that VR cognitive training systems may transfer and improve specific domains or global

cognition.

Parallel with Enhance, Virtuleap also developed a web-based dashboard for corporations, such as senior living communities, hospitals, clinics, and educational institutions, to access reporting and data tools. The company hopes its platform will provide caregivers with additional capabilities to help the aging population with cognitive conditions such as dementia and Alzheimer's.

Other medical uses of VR spotted by Springwise include a virtual environment for treating phobias, gamified neurology treatments, and a VR live stream of surgical procedures for remote learning.

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Takeaway:

It is predicted that 60.9 million people in the US will use VR by the end of 2022. While research demonstrating the -enhanced-learning capabilities of VR is still scarce, the growing body of evidence looks promising. A study conducted last year by UCLA looked at how lab rats responded to a VR environment projected inside housing compared to rats that ran through housing in the real world. The results suggested that information learned in VR could be broken up into smaller pieces, possibly making it easier to learn and remember. With this, the possible applications are endless. For example, VR could be used to help treat learning impairments or memory-related disorders such as Alzheimer's.