FOCUS POCUS™

Training children with ADHD through gaming software.

UNIVERSITY OF WOLLONGONG AUSTRALIA

Identification of Need

Few alternatives to pharmacological mediation exist in the treatment of children with Attention Deficit Hyperactivity Disorder (ADHD).

University of Wollongong researchers have been researching the brain activities of children with ADHD for 14 years.

According to lead researcher A/Prof Stuart Johnstone, investigations into alternative ADHD treatments for children began after parents expressed worry about over-medication.

"Parents of children in our research studies would frequently express concerns about medicating their children, and would ask about non-drug alternatives that were based on research." said A/Prof Johnstone.

"Our targeted cognitive training minimised the effects of distraction, improving overall concentration and behaviour," A/Prof Johnstone said.

The Solution

Research findings provided a basis for the development of a commercially available training system now on the market.

The training system comprises software that helps children improve their attention, memory and impulse control skills and is used in conjunction with a headset, which allows for electroencephalogram (EEG) data to help monitor and improve cognitive training outcomes.

In 2009, UOW's patent rights for the training system were licensed to NeuroCog, an Australian-based neurocognition software company. University researchers, NeuroCog and Roll7 (a UK based gaming developer) worked together to develop the training system into a commercial product marketed as Focus Pocus.

Focus Pocus brings children aged 7-13 years into a wizard wonderland, integrating cognitive training and brainwave-assisted "state-training" of attention and relaxation.

In the game the player takes on the role of apprentice wizard, who works to their way through 12 mini games, some of which are controlled entirely by brainpower via the EEG NeuroSky Mindwave. Parents can monitor their child's performance using an online reporting and feedback system called FocusIn™, which highlights areas for improvement.

"Focus Pocus is the first in a line of researched-based products our company is producing." said Dr Joseph Graffi, CEO of NeuroCog. "We are very excited about giving children the opportunity to improve their behavior while having fun".

- Games powered by the brain!
- 12 mini-games plus boss game
- Training, challenge, multiplayer modes
- Performance tracking
- Customisable wizard characters

Focus Pocus

Learn more: www.neurocog.com.au

UOW CASE STUDY

To learn more about this and other opportunities to engage with University of Wollongong and our researchers contact the Innovation and Commercial Research Unit on 02 4221 5086 or icr-enquiry@uow.edu.au