NOVA SOUTHEASTERN UNIVERSITY
Office of Research and Technology Transfer

Testing of Visual Fields Using Multimedia

Technology:

Visual Field (VF) testing is used to detect suboptimal central and peripheral visions that are indicative of eye disorders and diseases. Reliable, consistent VF testing is especially required in children to increase definitive diagnosis of, for example, slowly progressive eye diseases, which if left undiagnosed and untreated, may lead to greater vision losses. Most young children however, have insufficient attention spans required for comprehensive VF testing, and dependable test results are difficult to achieve. To address this, a prototype device that makes VF testing more engaging for young children has been built by the NSU inventor and colleagues. The components include a microdisplay video screen as the fixation target displaying video clips of cartoon characters (instead of the standard LED light); audio clips of cartoon character voices presented by the test operator also provide instructional feedback based on the child's performance during testing. Thus, children's attention spans and consistency of responses to test stimuli are increased, thereby improving VF test reliability.

Opportunity:

A non-invasive device to facilitate visual field testing in young children and produce dependable, consistent results has been developed. The device could be readily adapted as an add-on to existing VF testing systems that are commercially available.

Nova Southeastern University is seeking to develop collaborative partnerships and licensing opportunities for this technology.

Inventor: Dr. Ava Bittner an associate professor in the College of Optometry. Dr. Bittner is currently recruiting patients for a clinical trial based on one aspect of this invention (ClinicalTrails.gov Identifier NCT02157025). She has also been a co-investigator on multi-center clinical trials of devices for patients with retinal degeneration.

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