CLINICAL SCREENING TOOL FOR LANGUAGE DEVELOPMENT IN INFANTS
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Industry Sector(s): Healthcare, Pediatric
Product Category: Testing and Assessment

Opportunity Overview

This interactive computerized task measures 1.5- to 2-year-olds' ability to learn novel words. Other assessments evaluate static endpoint outcomes (e.g., vocabulary). This assesses word-learning potential and predicts later outcomes. The tool is currently being developed into a clinical tool to screen children who are at risk for language delay.

Markets & Applications
Auditory rehabilitation, cochlear implants, diagnostic techniques, pediatric audiology, speech perception

Competitive Advantage/Value Propositions

The team used the Intermodal Preferential Looking (IPL) paradigm to investigate the language ability of the children. The IPL paradigm requires the child to listen to a repetitive noun while looking at an object. The child continues to look at the screen that displays the original object and a second object while the speaker repeats the word associated with the object. A hidden camera records the movement of the child’s eyes to see if he identifies the correct picture with the object’s correct name.

Researcher Biography

Derek Houston, Ph.D.
Dr. Derek Houston is an associate professor the Philip F. Holton Scholar of otolaryngology–head and neck surgery at the Indiana University School of Medicine. He received a Ph.D. in Psychology from Johns Hopkins University with Peter Jusczyk, Ph.D. During his graduate training, my research focused on how normal-hearing, typically developing infants segment words from fluent speech and recognize words across different talkers. In 2000, he constructed the first laboratory to investigate the speech perception and language skills of deaf infants who receive cochlear implants. Since then, his work has investigated the effects of early auditory deprivation and subsequent cochlear implantation on speech discrimination, attention to speech, sensitivity to language-specific properties of speech, word learning, and general cognitive skills in deaf infants and toddlers. Dr. Houston’s work has been supported by the NIDCD, the Deafness Research Foundation, and the American Hearing Research Foundation.
Development Plans/Needs

1. Identifying potential partners for commercial development.

2. Explore new directions for development of assessment tools.