



Cyprus
University of
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Sciences

Master's Thesis

**THE EFFICACY OF THE “TESTING OF
PHONOLOGICAL SKILLS” (TOPS) TOOL: FROM THE
ASSESSMENT TO CLINICAL DECISION**

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Limassol, May 2024

CYPRUS UNIVERSITY OF TECHNOLOGY

FACULTY OF HEALTH SCIENCES

DEPARTMENT OF REHABILITATION

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Approval Form

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ABSTRACT

This study explores the innovative application of the “Testing of Phonological Skills” (TOPS) tool for assessing phonological disorders in Cypriot Greek-speaking children aged 4 to 6 years old. By employing a carefully selected list of Cypriot Greek words, the TOPS algorithm generates a detailed phonological profile that identifies the unique challenges encountered by each child. Children were presented with images and asked to verbally identify them, enabling the recording of vocal and phonological features. The study utilized two types of analysis: independent analysis, which explored the diversity of vocal profiles and sounds produced without reference to adult models, and phonological field analysis, which examined how children use and differentiate sounds in words and spontaneous speech. The phonological profiles were carefully analyzed for patterns and processes indicative of disorders, such as syllable deletion and assimilation. Data analysis was conducted using an Excel macro specifically designed to examine phonological processes.

Validity, sensitivity, and specificity are essential parameters for assessing the effectiveness and reliability of this diagnostic tool. The TOPS tool is designed to provide a reliable method for phonological assessment. Nonetheless, like any diagnostic tool, it requires ongoing evaluation and comparison with established standards to maintain its accuracy and reliability over time.

This research aims to underscore the vital need for further data dissemination in order to highlight the efficacy of the algorithm and its potential to revolutionize therapy program development for Cypriot Greek-speaking children with phonological disorders.

Keywords: TOPS tool, Validity- Sensitivity- Specificity, Phonological Processes, Assessment, Computer Assisted Analyses