

Parents' and Speech-Language Pathologists' Perceptions of Children's Communication Skills Using a Tablet with Communication App

Declaration of Interest Statement:

The authors are not aware of any financial or conflict of interests at this time.

EXTENDED ABSTRACT:

Presently, with the influx of mobile devices and touch screen technology, the costs associated with AAC applications (apps) are much less and the availability much greater. Given the universal acceptance of this "cool" technology, it is no wonder that the AAC world is experiencing a significant change; a change that is occurring at a pace in which questions of efficacy, reliability, and quality of research and development are being asked and need to be explored.

This project surveys children's parents' and primary speech language pathologists' perceptions of the child's communication skills in three environments - home, preschool/school and community. Within each environment, five variables (motivation, satisfaction, time used, symbol sequencing, and initiation) and eight communication functions (gain attention, express wants and needs, request assistance, request recurrence, make comments, express greetings, ask questions, and state refusal) are examined. Likert scales are employed for the surveys.

Hypothesis or Aim: Children with complex communication needs will demonstrate increased communication functions over a range of environments, after being provided with and using an iOS/Android device with a communication application. Measurements of motivation, satisfaction, and initiation will increase as variety of communication functions increase over time.

Outcome measures: Investigator-created data collection tool of modes of communication abilities, types of communication functions used, symbol sequencing, and initiation.

Research Method:

Target population: Parents and Speech-Language Pathologists (SLPs) of children, ages 1-5 years, who have been provided with an iOS/Android device.

Sample size: n=30, until May 2016

Sampling method: Convenience sample

Type of research design: within subjects, repeated measures design

Ethics: Approval completed by the research ethics board from local University (for specific details contact authors).

Research Procedures: Children are referred to an augmentative communication service by their family doctor or paediatrician. Following assessment and recommendations, if an iOS/Android device has been recommended, the child's parents/caregivers and speech-language pathologists are given an information package outlining the study's purpose. If parents are interested in participating they can contact the research team. A member from the research team then asks the parent for consent to contact the child's SLP.

Parents/Guardians who have verbally agreed to participate based on the introductory letter are mailed a consent form. Upon receipt of the signed consent form, an initial phone call to the family and the child's SLP takes place. (If the child's SLP does not provide consent to participate, then the phone call continues with child's parents/caregivers only). An oral or email based survey is provided to the parent and SLP. The survey is administered at the time the child receives their communication App on their iOS/Android device (Time 01) and then re-administered 6 months (Time 02) and 12 months (Time 03) later.

Statistical analysis: To examine within-child changes over time, differences between total scores on the communication functions assessment form are analyzed between Time 01 (baseline), Time 02 (6 months after initiating use of the iOS/Android device and Time 03 (12 months after initiating use of the iOS/Android device) using repeated measures ANOVA. To examine differences in responses between parents and SLPs on the assessment form, ratings of the children's communication performance at Times 1, 2, and 3, a Mann-Whitney test is to be used.

Results: Data collection is ongoing until May 2016. Results to date indicate perceived changes by parents and SLPs in all three environments (home, school, community); correlations between communication functions and increased time; perceived changes differ with respect to diagnosis, age, and between parents and speech language pathologists.

Conclusions: Emerging trends and outcomes to be discussed.

Learning Objectives/Goals for Participants:

1. What changes do parents and speech-language pathologists perceive in the variety of communication skills used by their child when using an iOS/Android device for communication? Description and statistics to be provided.
2. What changes in the range of settings do parents and speech-language pathologists perceive in which their child communicates using the (iOS/Android) device? Description and statistics to be provided.

3. What differences, if any, exist between parent and speech-language pathologist perceptions? Descriptive analysis to be provided.
4. What are the strengths and weaknesses of iOS/Android-based communication applications as perceived by parents and speech-language pathologists? Descriptive analysis to be provided.

References:

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A/V Requirements:

If poster presentation: no a/v required

If 30 minute presentation: projector; screen; laptop (or authors can bring)



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Program Planner/Instructional Personnel's Name: Karen Derry
 Submission ID # 332

Course Title: Parents' and Speech-Language Pathologists' Perceptions

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Program Planner/Instructional Personnel’s Name: Kathie Marina

Course Title: Parents' and SLPs Perceptions of a Child's Communication Skills after the Child's Use of an iOS/Android Device with a Communication App

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Date: June 29 16