Exploring the Views of Service Users on a Novel Intervention for Children with Speech Sound Disorders: Design and Pretesting

Luis M.T. Jesus
School of Health Sciences (ESSUA) and Institute of Electronics and Informatics
Engineering of Aveiro (IEETA)
University of Aveiro
Aveiro, Portugal
Imtj@ua.pt

Joana Martinez
Institute of Electronics and Informatics Engineering of Aveiro (IEETA)
University of Aveiro
Aveiro, Portugal
joanamartinez@ua.pt

Joaquim Santos Institute of Electronics and Informatics Engineering of Aveiro (IEETA) University of Aveiro Aveiro, Portugal jnsantos@ua.pt

Victoria Joffe School of Health Sciences City University London London, UK vjoffe@city.ac.uk

Children with Speech Sound Disorders (SSD) represent a significant proportion of speech and language therapists' paediatric caseload and present difficulties in discriminating and/or producing different phonemes. Several off-the-shelf tabletop and digital materials are used by speech and language therapists (SLTs) to support intervention, but information about their differential effectiveness and efficiency is limited, particularly for non-English speaking populations.

This abstract reports the feedback results regarding Table to Tablet (T2T), an intervention for Portuguese SLTs. T2T integrates proven methodologies and aims to develop evidence based tabletop SSD intervention materials for SLTs and to emulate them in a digital version (app/web based); and provides a critical analysis of the design and piloting phase of development. An important aspect of this development is to create a set of materials that are engaging and appealing to children, and to do this, the process included obtaining feedback directly from service users. Studies including the perspectives of children are rare, and those that do, rely on their ability to express their opinions. This is a particular challenge for children with SSD who might struggle to understand and express themselves. To overcome this difficulty, a beta test approach (empirical evaluation of the quality of the product or service with respect to what it was designed to operate) was adapted and used to obtain feedback, and will be discussed.

The T2T materials include eight intervention areas: Auditory bombardment; Hearing and discriminating; Grapheme-phoneme correspondence; Phoneme identity; Segmentation; Blending; Rhyme; Phoneme manipulation. There are a total of eighteen activities (with at least one activity for each area) and a generalisation task with a total of nineteen of the most common European Portuguese phonological processes targeted. A range of illustrations, animations and scenarios are included.

The T2T materials have been tested on nine children with phonologically based SSD (mean age = 56 months). Feedback was obtained using direct observation and discussion with the children on a likert style scale with smiles (a *smileyometer*) and the children were asked a series of questions to target their views of the materials used.

Results showed a high level of satisfaction across the activities with children liking the activities  $(4.6\pm0.1)$  and finding them fun  $(4.5\pm0.2)$ , both questions ranging from zero to five. When asked if they wanted to play them again, the result was positive  $(2.3\pm0.1)$ , ranging from zero to three. Direct observation of the children also revealed some clear areas for enhancement, when misunderstandings were explicit.

This method of obtaining feedback was found to be facilitative, quick and efficient and provided important opportunities for the children to input into their intervention, as well as for ongoing refinement of the materials. Further implications and directions for the design of the intervention will be discussed.

## **Learning Outcomes**

Participants will reflect on the role and importance of including service users in providing feedback on materials used for intervention.

Participants will critically evaluate different methods for obtaining feedback on the intervention from children with speech, language and communication difficulties.

Submission topic/category: Speech Sound Disorders in Children

**Presentation type:** Oral Presentation