Mobile application for the Picture my Participation-Traditional Chinese version

(PmP-C App)

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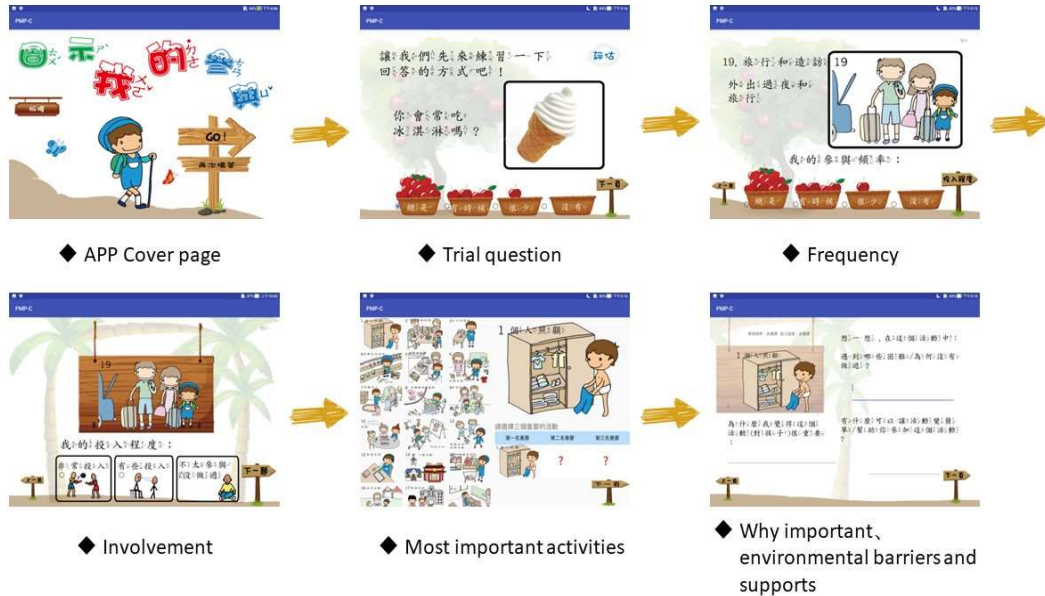
Overview

The PmP-C App is an electronic tool to be used with children with disabilities through interviews by adult caregivers. With adult support, children can respond in variable ways depending on their abilities, including clicking, talking or pointing out their selections, followed by the input of the entries by the adults. The PmP-C App is developed through a multidisciplinary collaboration among rehabilitation sciences, information technology, and special education in Taiwan. The development of the app program includes content design, interface design, and programming. Dr. Lin-Ju Kang leads the content and interface design, and Dr. Ya-Lan Chiu leads the programming of the app program.

Main features

In "My participation," three trial questions and the 22 home, school, and community activities (20 activities from the original PmP and 2 activities amended in Taiwan) are included. Each activity (presented by both text and picture) appears in two separate pages, one for frequency of attendance (presented by both text and symbol for 'Never', 'Seldom', 'Sometimes', and 'Always') and one for involvement (presented by both text and symbol for 'No or minimally involved', 'Somewhat involved', and 'Very involved'). In "My Priority," up to three most important activities can be selected from a scroll-down menu that comprised all the 22 items. In the "Environmental Factor," for each selected important activity, spaces are provided to enter free responses about why this is important and what are possible environmental facilitators and/or barriers. The responses can be instantly saved, then download and imported to statistical software for data management.

Snapshots of the PmPC-APP

◆ APP Cover page   ◆ Trial question   ◆ Frequency

◆ Involvement   ◆ Most important activities   ◆ Why important、environmental barriers and supports

Additional features

Mountain climbing is designed as the theme of the interface background, as nature is a theme the child usually prefers. When using the app, children start a virtual journey of mountain climbing to go though every responding process. The theme is used throughout the app so that the interview process had a sense of continuity. Bright and lively natural colors are used to provide an overall experience of the natural theme. The app also allows enterign demographic information including names, age, gender, living areas, and family members living with the child, and four screening questions for the child's level of development.

Testing

Our pilot works for developing the PmP-C and the usability test for the app version have provided supports for using this instrument to actively engage children with disabilities in the conversation with healthcare providers. Our related publications are listed below:

Kang LJ, Lin PY, Granlund M, Chen CL, Sung WH, Chiu YL. Development and usability of an app-based instrument of participation in children with disabilities *Scandinavian Journal of Occupational Therapy, in press*.

Liao YT, Hwang AW, Liao HF, Granlund M, Kang LJ. (2019). Understanding the participation in home, school, and community activities reported by children with disabilities and their parents: A pilot study. *International Journal of Environmental Research and Public Health.* 16(12):2217.

Kuo CC, Kang LJ, Hwang AW, Fu CP, Chen HJ, Li YC. (2019). Development of the Picture My Participation-Chinese Version: Cross-Cultural Adaptation for School Age Children in Taiwan. *Journal of Taiwan Occupational Therapy Research and Practice,* 15(1):41-54. (in Chinese)

Liao YT, Hwang AW, Liao HF, Kang LJ. Do we hear the child's voice? Using measures of participation to identify needs for participation of elementary school students with special needs: A case report. *Formosa Journal of Physical Therapy.* Sept 2017; 42: 228-233. (in Chinese)