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Creating a personalized picture book

Support for parent-child picture book interaction

Abstract

Previous research on developmental psychology have extensively shown that picture book reading promotes child language development. To support a parent-child interaction for language development, we propose a method to create a **personalized picture book** that suits child's interest and vocabulary level. On the application site, parents answers the words that their child can produce and what they are interested in. Then, we try to estimate the words that the child is likely to produce based on statistical models in **child vocabulary development database**, to arrange each object picture for the estimated words, and to customize a story to match the child's interest. We are currently conducting a field trial in Onna village, Okinawa, to distribute a personalized picture book at a public library for parent and child who participate in health check-up. Through the field trial, we are investigating whether the personalized picture book contribute to the increase of parent-child interaction and book reading activity.

■ Personalized Picture Book

Akio Kashiwara, NTT Print Corp.

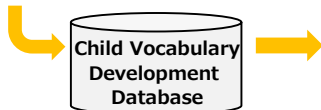


Target Age: 1-2 years of age

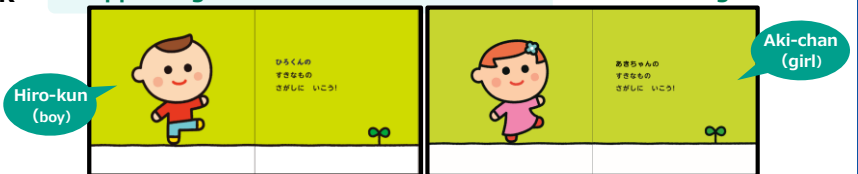
Enter personal information from site

<https://ehon.nttprint.com>

- child's name, boy/girl
- favorite objects
- vocabulary checklist (productive words)



① Appearing a main character to match child's name and gender



② Customizing a story to match child's interests



③ Arranging pictures for words that the child is about to produce



■ Field Trial in Onna Village with the corporation of NTT Print Corp

Feb 2020 – March 2021



Inform parents at health check-up (Onna Health & Welfare Center)

- Lead parent and child to a public library
- Give opportunity to encounter picture books



Apply for personalized picture book (Onna Culture & Information Center)

Familiarize a child with books by personalized picture book



Creating and sending the book for 10 days



Support book reading activity at home

References

- [1] NTT, NTT Print Corp., Onna Village, "Joint field trial about parent-child activity using personalized picture books in Onna Village, Okinawa," *Topics in NTT Group Web Site* (<https://www.ntt.co.jp/topics/oyakoehon/index.html>), 2020.
- [2] NTT Print Corp. & Ehon Navi, "Parent-child interaction using personalized picture books created from psychological research in child language development," *Ehon Navi* (https://style.ehonnavi.net/ehon/2020/03/17_358.html), 2020.

Contact

Tessei Kobayashi Email: cs-openhouse-ml@hco.ntt.co.jp
Interaction Research Group, Innovative Communication Laboratory

