Title of Project
Designing an Interactive Bilingual E-book: Promoting Parent-Child
Shared Reading and Children's English Language Skills in an EFL Setting

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TIRF Research Topic Investigated
Digital Technology in Educational Contexts

Project Summary
With authentic English input and multimedia features, English storybook apps have the potential to be used as a language resource for children learning English as their second language. This cost-effective educational technology may be particularly beneficial for those children from low socio-economic background in developing countries. However, there is dearth of research about how digital storybook apps should be designed to best support this learner population. It also remains unclear about how parents and children interact with each other and with the device during such bilingual story-reading practices. Educators and designers need the information on how these interactions are associated with children's English language learning outcomes in order to better inform future storybook app design.

To this end, this dissertation aims to (a) design an interactive English storybook app for young children and parents whose first language is Chinese to practice dialogic reading and learn English at home; (b) conduct a randomized controlled trial to examine whether and to what extent the embedded discussion prompts with immediate feedback facilitate dialogic reading and impact children's learning; and (c) examine the verbal and non-verbal parent-child-computer interactions during the shared reading practice and how these interactions are associated with children's English vocabulary learning and story comprehension outcomes. This dissertation will contribute to the fields of education, policy, and human-computer interaction by shedding light on the design, affordances, user experiences, and educational effectiveness of interactive bilingual storybooks for children and their parents in non-English-speaking countries.