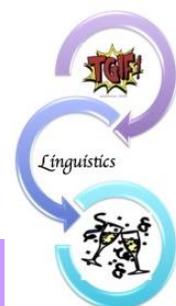


# TGIF:

## The NTU Linguist Chatroom



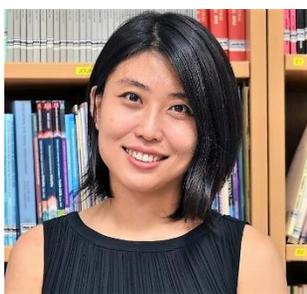
**Join us! Friday, 25 October 2019, 3.30pm  
@ HSS Conference Room (HSS-05-57)**

### What animated feature(s) in eBooks could help children to learn their mother tongue language better? Evidences from an eyetracking study

Features of animated storybooks (e.g., motion, music) are assumed to provide richer sensory information to children than traditional print books, and enable to help them better understand and retain the story and ultimately enhance language acquisition (Bus, Takacs, Kegel, 2015). Animated storybooks have been shown to be promising for child bilingual learners in particular (Verhallen & Bus, 2011), as these young language learners might need additional cues to comprehend the story plots and grasp the new words and grammar. Most of the existing studies focus on Germanic languages, such as Dutch and English, and little is known about whether such an “animated advantage” could be extended to other languages, such as Chinese.

The current study intends to explore if and how the promising features such as motion and sound may assist English- Chinese bilingual preschoolers to acquire Chinese in Singapore. There are two objectives of this study. The first is to examine whether animated storybooks would promote children’s learning outcomes, compared to the traditional book format. The second objective is to find out whether the special features of e-storybooks (i.e., sound and motion) could help retain longer visual attention from children. 102 four to five year old children were screened for their Chinese proficiency (i.e., receptive vocabulary, receptive grammar, and verbal fluency) and cognitive skills (i.e., nonverbal intelligence and phonological short term memory). They were then assigned to four conditions: 1) eBooks with both sound and motion (N=32), 2) eBooks with sound only (N=29), 3) eBooks with neither sound nor motion (N=28) and a control condition where children played a math game on an iPad (N=13). Three prize winning stories, Little Kangaroo (Genechten, 2007), Imitators (Veldkamp, 2006) and Cycling with Grandpa (Boonen, 2004) were displayed to children in the three experimental groups in a random order over two weeks, each book read for four times. During the reading, children’s visual attention was traced with a Tobii X3-120 eyetracker. After the experiment, the children were assessed with the target verbs and adjectives and story retelling. The results revealed that children in the first condition (motion + sound enhanced storybook) outperform their peers in the other three conditions in terms of total fixation duration, target word production, target word contextualization, and storytelling of Cycling with Grandpa. There were no significant differences between children in the “sound only” group and “eBook with neither sound nor motion” group. Keeping in line with precious studies, we confirmed the importance of motion in promoting children’s new word learning. Motion may not only facilitate better acquisition of verbs but also adjectives. In terms of story retelling, motion may promote the memory of complicated story plots in particular. In comparison, the contribution of sound per se is limited. The application of the current findings on eBook design and early Chinese pedagogy will be discussed.

### Speaker



**Dr. Sun He** is a research scientist at National Institute of Education, Nanyang Technological University, Singapore. Her major interests are 1) effective mother tongue language and English development with eBook/paper reading, 2) parental tips provided with Apps for scaffolding children’s early bilingual development, 3) individual differences in early bilingualism from the perspective of cognitive and environmental factors, and 4) harmonious bilingual education and children’s social-emotional wellbeing. Her work uses corpus (e.g., video observations), experiment (e.g., eye-tracking, skin conductance, test), and questionnaire to explore the impact of home and school environment on the variability and stages of early bilingual teaching and acquisition. Dr. Sun He has published her work in distinguished journals, such as *Bilingualism: Language and Cognition*, the *International Journal of Bilingual Education and Bilingualism*, *Applied Psycholinguistics*, and *Frontiers in Psychology*.

The TGIF seminar series is organised by  
the Division of Linguistics and Multilingual Studies, SoH

