Enhancing Tandem Language Learning Using an Interactive Tabletop

by

Erik Paluka

A thesis submitted in partial fulfillment
of the requirements for the degree of

Honours Bachelor of Science

in

Computer Science

University of Ontario Institute of Technology

Acknowledgements

I would have never joined the vialab if it was not for Dr. Christopher Collins, Brittany Kondo, and Amila Akbar. I would like to thank Dr. Christopher Collins for his support and mentoring, and Brittany Kondo as our friendship helped guide me in the right direction. Thank you Amila Akbar for always being there for me and inspiring me to work hard. I will always look up to Daniel Meng-Wei Chang who was my tutorial assistant, then my peer, but most importantly, he turned into my friend.

Abstract

Language learning takes a lot of time, patience, and effort. Despite this, there exists many language learning models that help learners achieve their goal. One collaborative model is tandem language learning. It is based on the mutual exchange of language between partners. Using the collaborative nature of interactive tabletops, along with computer-assisted language learning software, the tandem language learning process can be enhanced. The goals of the research presented in this thesis are to understand the tasks and context of tandem language learning, and with this knowledge, design and implement a tabletop software prototype that is meant to enhance the tandem language learning model.

To complete this task, I conducted a grounding study where I observed a tandem language learning environment, and interviewed its administrator and four tandem language learners. From this study, I created design guidelines for tandem language learning scenarios. Using my design guidelines, I designed and implemented a software prototype for an interactive tabletop that facilitates communication between learning partners.

Contents

List of Figures