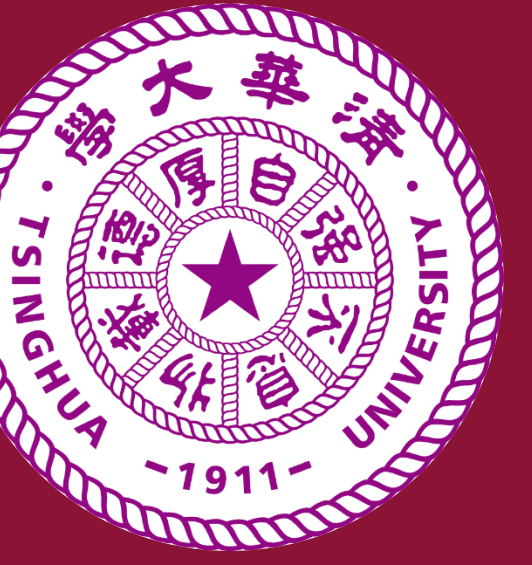




Smart Primer: An Interactive, Narrative-based Learning System

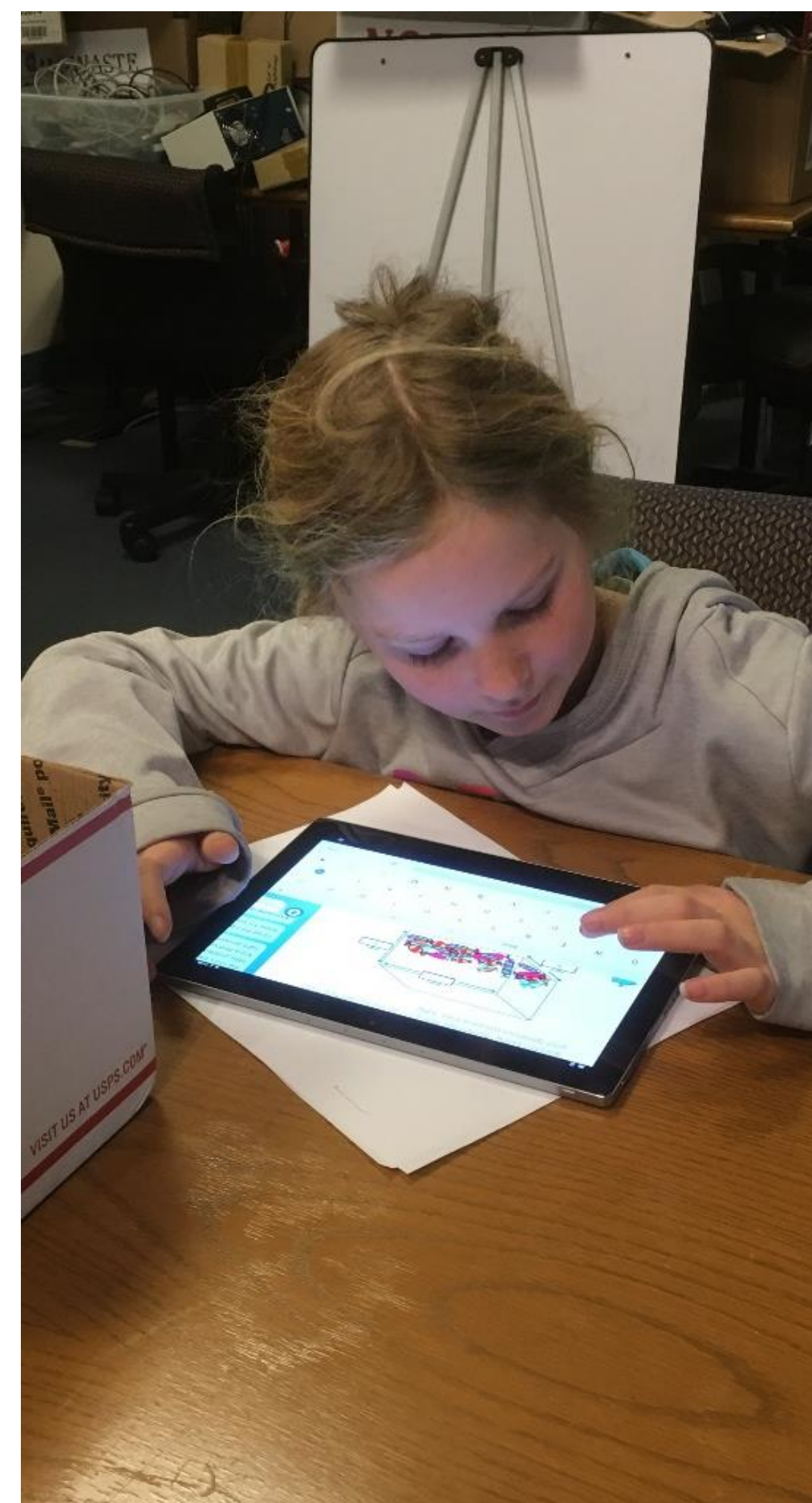


Yufeng Yin, Dunia Hakim, Anna Wang, Justin Xu, Sherry Ruan, Prof. Emma Brunskill and Prof. James Landay

What is Smart Primer?

Neil Stephenson's *The Diamond Age* describes a special electronic book.

The Smart Primer is a personal tutor using narrative and embedded physical world activities to enhance learning.



The Smart Primer combines a general purpose chatbot, a task assisting chatbot, and speech recognition and synthesis.

Tangerine: Chatbot avatar guides learners through tasks

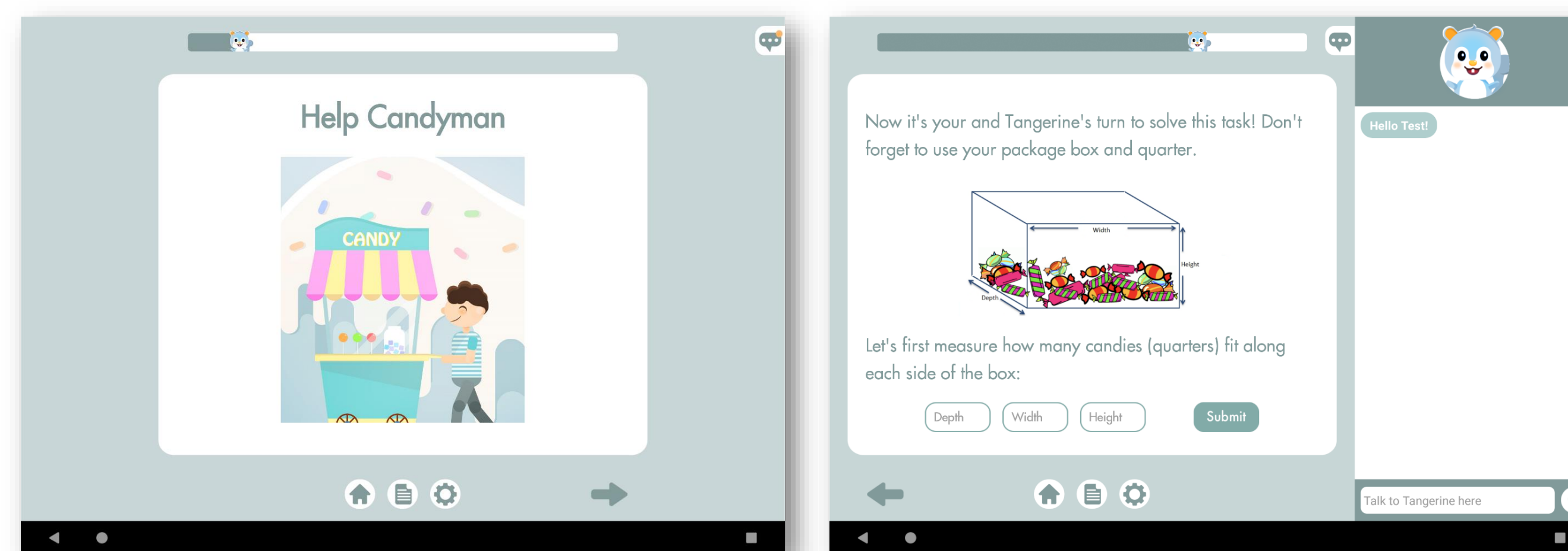
Interface Design



Students select missions containing narrative & tasks

Users chat with Tangerine using voice or text.

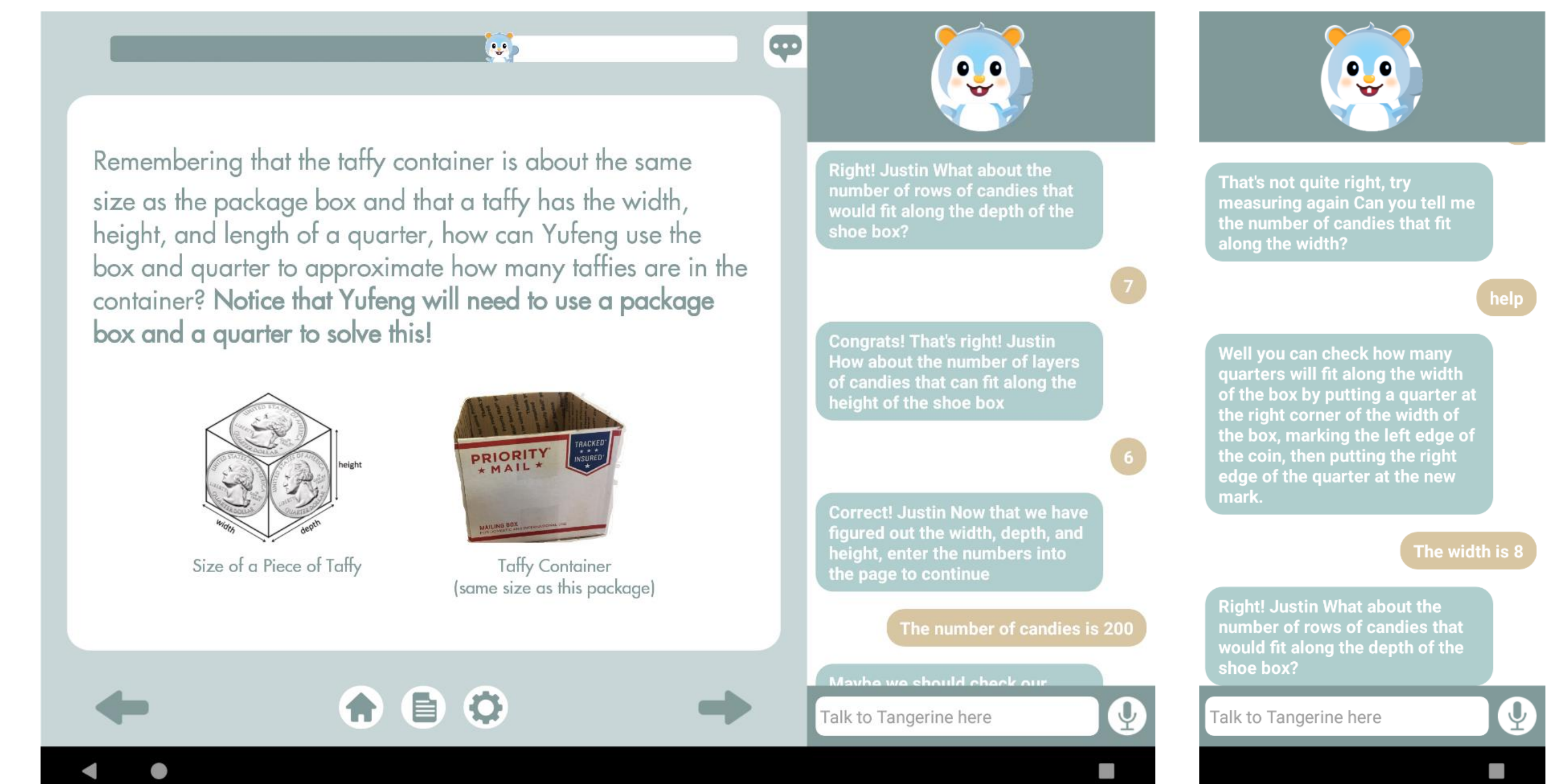
We synthesize a child-like voice to engage users by using Acapela TTS Voices API.



Users can focus on reading (left) or chat with Tangerine for guidance (right)

AI Chat Bot Design

General Purpose Chatbot - Tangerine's personality was added to a general purpose conversational agent.



Tangerine guides student to estimate number of candies

Task Assisting Chatbot - Trained the chatbot with user data from pilot studies and dialog scripts to guide users through specific tasks.

Future Work

- Design more tasks and missions
- Establish an achievement and coin system
- Recognize emotions to drive learning