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#### Helping Americans Bridge the Kanji Gap

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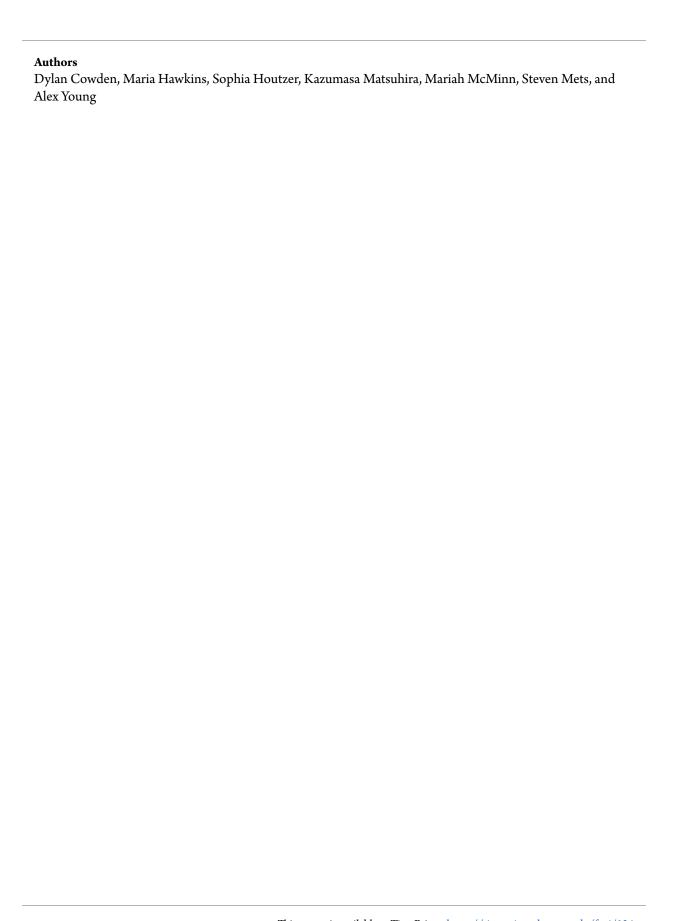
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日直接客観光線路上空論争議事故障壁画面識別表示談笑顔形式典型的確認証書道具象徵稅

CLEMSON° UNDERGRADUATE RESEARCH

# 漢ガエル (Kangaeru)

## Helping Americans Bridge the Kanji Gap

Advisor: Professor Toshiko Kishimoto

Dylan Cowden, Maria Hawkins, Sophia Houtzer, Kazumasa Matsuhira, Mariah McMinn, Steven Mets, Alex Young



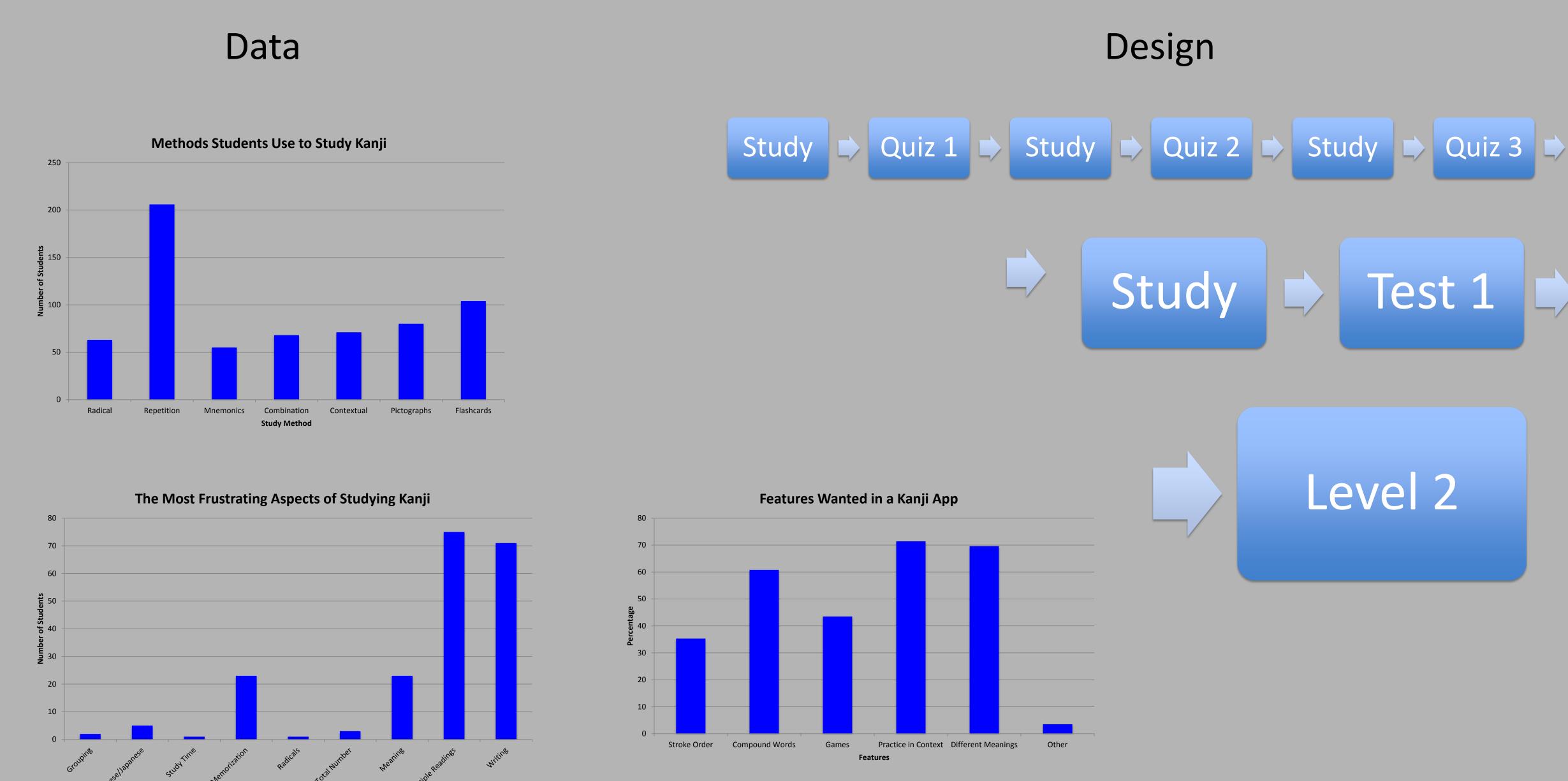
#### Abstract

For native English speakers, Japanese is one of the hardest foreign languages to master. One major culprit is kanji, a Japanese ideographic writing system. With over 2100 kanji in everyday use, mastering them all is a daunting task. The way Japanese children and American students learn to use kanji is different, but often the same teaching methods are used with both groups. Our goal was to design a smart phone application to facilitate better learning methods for American students of Japanese. This app will feature games for learning kanji in context, a reinforcement system to repeat previously mastered kanji for maximum retention, and writing practice.

#### Previous Work

When Japanese language students at seven different U.S. universities were surveyed, it was found that many of these Japanese programs used the same methods for teaching kanji as are commonly used to teach Japanese elementary school students: rote memorization through repetition. While this method can be effective for both, there are numerous discrepancies between the two groups of students, such as their learning environment, age, and regular use of kanji outside of class. American students were being overwhelmed with kanji and needed encouragement to study more frequently, since they don't see kanji in their everyday lives and are learning the vocabulary and kanji simultaneously. A study program that was tailored to American students needed to be created.

A survey went out to Japanese language students at nine different U.S. universities, asking what types of features they would most like to see in a study app for kanji. It was found that students wanted an app for both study and reinforcement with features such as compound words, practice in context, and different meanings for the same kanji. A variety of currently available smartphone apps for studying kanji were found and analyzed. Many dictionary apps and a few flashcard apps were studied, but few were found with good writing practice or both modifiable and prebuilt lists. Many apps also utilized games for reinforcements, which was found to be a positive feature. Students learn better when they're having fun and it encourages them to study more often.

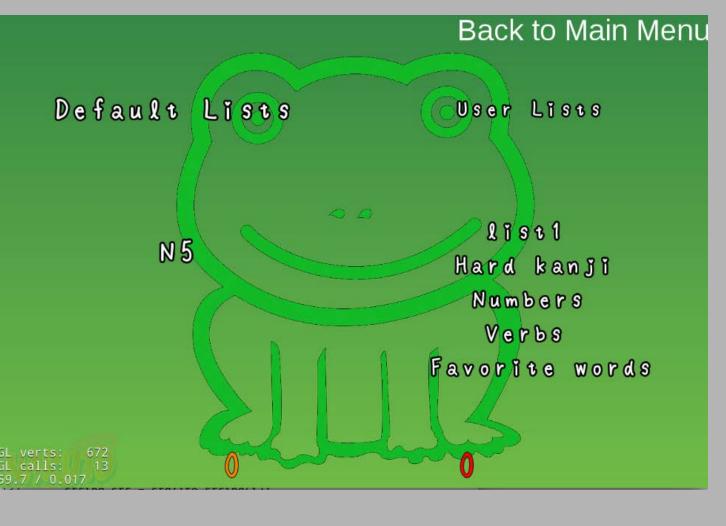


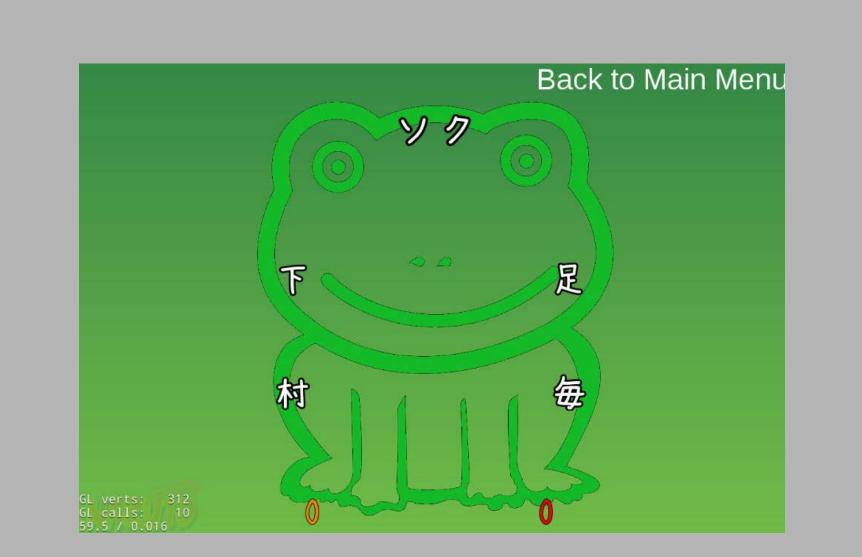
#### Screenshots

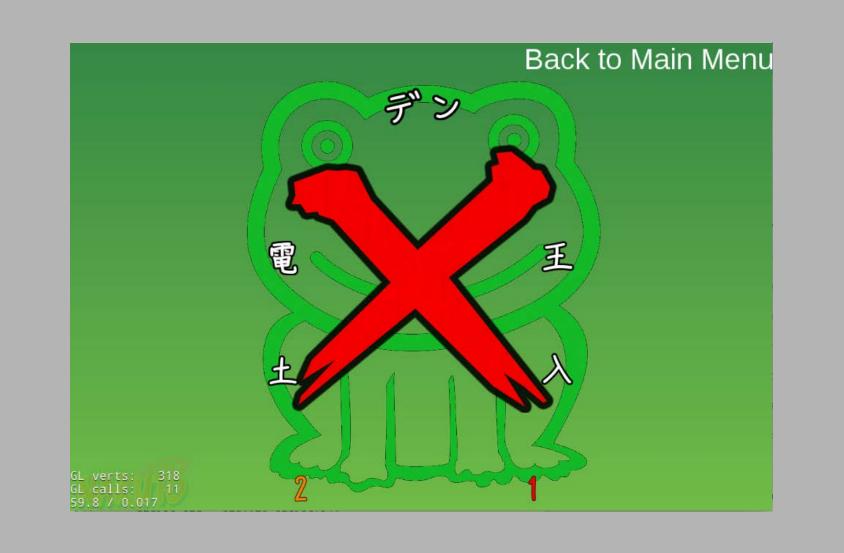










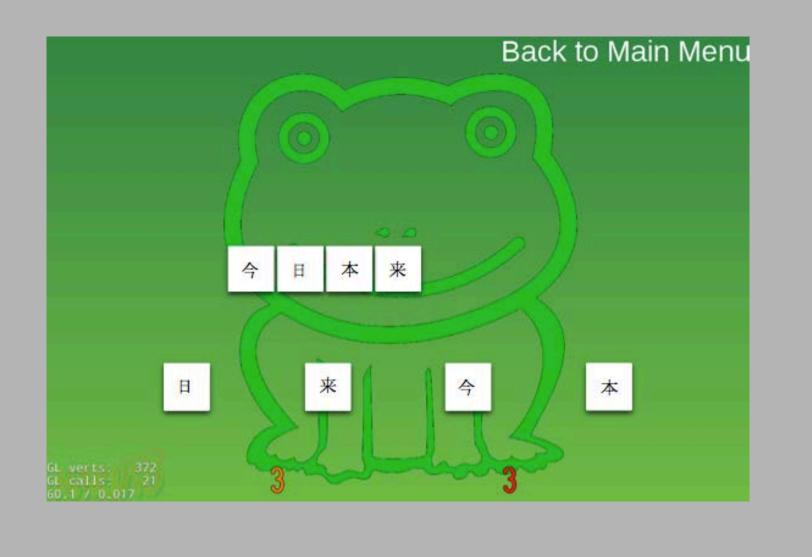


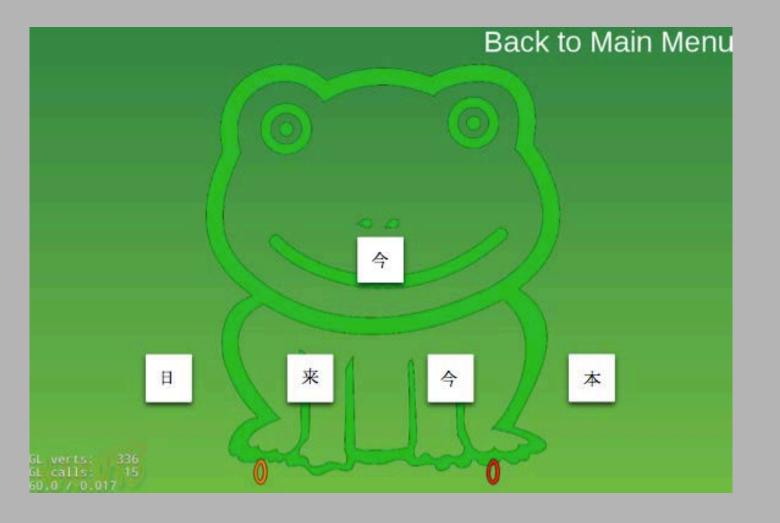
### Design

The app designed for this project will have a dictionary and flashcards along with a few games: complete the compound, writing practice, picture matching, which one doesn't belong, and kanji shiritori. Kanji will be divided into predefined levels for gradual introduction so as not to overwhelm the students. In each level, students will study a subset of the kanji through games and flash cards, then take a quiz. If they pass the quiz, they will go on to the next subset. After completing all the quizzes, there will be a short review period and then a test that covers all of the kanji learned in that level. Eventually a story mode will be added where users play as a ninja frog whose dream is to one day become the kanji hokage. Every time the user passes a level, or levels up, he/she will gain an item for their avatar, such as a forehead protector or shuriken pouch, and ultimately become the kanji hokage. This would be achieved when passing the JLPT N1 kanji level.

#### Acknowledgements

- Previous team members
- Japanese 101 and 102 students
- Modern Languages Department





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