

Enhancing Mobile Learning by Linking

Japanese Dictionary Apps

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Abstract

The emergence of the smart platform has prompted a surge in mobile applications which significantly enhance the user experience of dictionary users and language learners. This paper describes how four mobile apps exploit the unique features of the mobile platform to help learners study Japanese effectively in previously unavailable ways. (Halpern, 2015)

The first is a kanji-English dictionary (The CJK Dictionary Institute, 2019), which provides learners with an in-depth understanding of the meanings and functions of kanji in contemporary Japanese. The second is a kanji homophones dictionary ((The CJK Dictionary Institute, 2018)), which enables more advanced learners to understand the differences between *kun* homophones such as 変える 'change', 代える 'substitute' and 換える 'exchange'. The third is the first *kanji thesaurus* ((The CJK Dictionary Institute, 2018)), a new type of reference tool, which enables advanced learners to deepen their understanding of the difference between kanji synonyms like 破 'break', 壊 'break down' and 崩 'crumble'.

The KKLD app enables the learner to gain a full understanding of kanji through (1) the core meaning, a concise keyword representing the fundamental concept for each kanji, (2) character meanings grouped around the core meaning that show their semantic interrelatedness, (3) numerous illustrative compounds and examples, and (4) an efficient lookup method (SKIP) which enables beginners to look up characters quickly and accurately (in addition to other search methods such as by radical, by reading and by English). (Halpern, 2016) A useful feature of these apps is the use of state-of-the-art *app-to-app linking* technology that enables the user to freely switch between the dictionary apps by tapping on a link. For example, in KKLD tapping the entry for 換える 'exchange' launches the KKUG app to display the homophone group for *kaeru*.

Another application is a groundbreaking *parallel text reader* Libera ((The CJK Dictionary Institute, 2017)). Libera combines the strengths of traditional bilingual parallel texts with the untapped potential of mobile app technology. This multi-panel platform introduces a new form of hypertext called *Interactive Parallel Text* (Halpern, 2015)--, which displays texts side by side in separate panels for easy viewing. Tapping on a word/phrase in the kanji panel simultaneously highlights the corresponding segment in the English, hiragana/romaji and dictionary panels, and provides context-sensitive examples, grammar notes, and high-quality (human recorded) audio. This enables learners to enjoy uninterrupted reading combined with efficient vocabulary acquisition. A unique feature is the customized *context-sensitive dictionary* (CSD), which highlights the particular sense of the selected word in context.

The paper also describes how pedagogical lexicography was used to create dictionary apps that enable learners to gain an in-depth understanding of how kanji is used in Japanese. The method of compilation was based on the descriptive approach, whose aim is to record usage based on actual occurrences. Each meaning was written anew, the result of exhaustive semantic analysis, using such techniques as componential analysis and the study of near-synonyms.

In summary, by providing learners with a user-friendly and aesthetically pleasing environment, this new platform makes the learning experience enjoyable and represents an innovative new direction in mobile-assisted language learning.

Keywords: Japanese, kanji, mobile applications, language learning

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