The Advantages of Pleco and Google Translate Applications in Assisting Mandarin Language Learning

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Abstract. As technology develops, dictionaries have changed from paper to electronic. Electronic dictionaries can be an alternative medium for language learning because they combine sound, visuals and text that make learning foreign languages easier. One example of using an electronic dictionary is in reading subjects. Users can learn about how to pronounce a vocabulary and sound tones correctly by utilizing the audio feature in an electronic dictionary. Vocabulary recall through mobile device applications is far more effective than through other media. The electronic dictionary application that is widely used by Chinese Literature students in learning Mandarin is the Pleco and Google Translate application. Therefore, the authors are interested in making comparisons of the similarities and differences between the two applications for the recommendation of Mandarin learning aids. This study uses a comparison method by comparing the functions of the two e-dictionaries. From the results of the comparison, both applications have keyboard features, handwriting features, voice record features and scanning features for translating words. The difference is in the radical features, stroke, number words and sentences sample

1. Introduction
The dictionary is a book that contains the meaning of a word in another language. Generally, the dictionary is in the form of a book that is very thick and has varying sizes. Along with the development of technology, the dictionary has evolved into an electronic form or so-called electronic dictionary. Electronic dictionaries are applications that generally have the same functions as conventional dictionaries. What makes it different is that this dictionary can be accessed through mobile devices, more effective and easier to use. Electronic dictionary technology can be an alternative medium for language learning because it combines sound, visual and text that makes learning foreign languages easier.

One example of the use of electronic dictionaries is in learning to read, namely by utilizing the audio feature in an electronic dictionary application so that users can learn about how to pronounce a vocabulary and sound the notes correctly. If there is a word that is difficult to know its meaning, the user can type pinyin or hanzi from the word, then the electronic dictionary will translate the word. Vocabulary recall through mobile device applications is far more effective than through other media. The effectiveness of using a mobile dictionary for learning is good because it can help students understand learning material [1].

There are several electronic dictionary applications that can be used in learning Mandarin. Each application provides several translation features with their respective advantages and disadvantages.
Electronic dictionary applications that are widely used by Chinese Literature students in learning Mandarin are Pleco and Google Translate. Therefore, the authors are interested in making comparisons about the similarities and differences of the two applications which aim to provide information to the reader so that the reader can use the application as needed.

2. Literature Review

Electronic dictionaries are very popular especially among the younger generation. Its simplicity is the appeal of the younger generation to learn languages compared to using a book-shaped dictionary [2]. The electronic dictionary can function as a medium of distance learning because of the features that are quite helpful to students in learning to read in Mandarin [1]. Learning Mandarin especially in the preparation of sentences can be done with the help of mobile learning applications [3]. This application can be in the form of a word dictionary that can be downloaded and used offline [4].

Electronic dictionaries make it easy for foreign language students to learn Mandarin, especially in finding vocabulary meanings. With the electronic dictionary, it shortens the time in searching for a word [5]. One of the dictionaries used online and offline is Google translation. The use of Google translation really helps students in translation assignments in English so that they can be completed quickly [6].

3. Research Methods

The research method used is a qualitative method with a comparative approach. The aim is to explain a problem, finding or event systematically and accurately that is happening with the support of literature study so that it further strengthens the analysis in making a conclusion. Qualitative research reports their findings in narrative discussions that consist of many forms, such as chronology, questions or comments about changes experienced by participants [7].

4. Discussion

4.1 Pleco

Pleco is a Chinese dictionary application made by Michael Love in May 2000. Michael was inspired to make Pleco because he found it difficult to find Chinese vocabulary while living and studying Mandarin in China so he thought of making a Chinese dictionary in the form of an application. Pleco can be used without having to connect to the internet network. Pleco makes it easy for users to search for the meaning of a word, type words, read words, read sentences, find examples of words and sentences, as well as hanzi characters using the input features of handwriting, radical, pinyin, zhuyin, flashcard, sound mode and scanning using a cellphone camera. Pleco is recorded to have a vocabulary of 130,000 hanzi characters including 20,000 examples of sentences in pinyin and 34,000 hanzi sound recordings that can be recognized by Pleco. Pleco is supported by the availability of simple hanzi and traditional hanzi (Taiwan), both of which are still widely used in learning Mandarin. Pleco only provides translations from Chinese - English and vice versa and does not provide Chinese translations into languages other than English.

4.2 The Benefits of Pleco in Mandarin Language Learning

At present, there are still many people who think that Mandarin is the most difficult language among other languages. However, with the development of Mandarin learning technology it has become easier. One of them is an electronic dictionary that is easily carried everywhere and is available in the form of a smartphone. Learning Mandarin with the help of technology includes 4 factors, namely Yuyin (pronunciation), Hanzi (Chinese character), Cihui (new words) and Yufa (grammar). Yuyin is a Mandarin learning that focuses on pronunciation and tone. Hanzi is a Chinese character. Cihui is the sum of all fixed words and phrases in a language. Another term for Cihui is vocabulary and Yufa is learning Chinese grammar. The features in Pleco become one of the supporting dictionaries in learning Mandarin, because mobile learning is not bound in time and place. Pleco provides motivation for students to learn Mandarin without being bound by time and place. They can only use cellphones [8].
4.3 Google Translate

Google Translate is a translator application developed by Google Incorporation in April 2006 to translate words, sentences, paragraphs and web pages from one language to another. Google Translate can be used without having to connect to the internet by first downloading the desired translation language. Google Translate provides input features for handwriting, pinyin, voice mode and scanning using a mobile camera. How to use the Google Translate application is quite easy, that is, users simply type in a word or sentence and then choose which language, the word or sentence is translated.

4.4 The Benefits of Google Translate in Mandarin Language Learning

Google Translate can be an online dictionary of spell checking and learning tools for foreign language word pronunciation [6]. The spelling check is the correction of the mistyped words. When mistyping, google translate will justify automatically by giving a sign. The sign is in the form of giving a yellow color to the mistyped word to the user. The marking is very useful for users who want to do a spelling check of Mandarin. But google translate still has weaknesses. The weakness lies in the system, where google translate translates word for word without considering the structure of words so that the results of the translation of a sentence have a meaning that is far different from the actual meaning. In other words, Google Translate has not been able to interpret long sentences and text accurately. Google translate focuses more on translating shorter words.

5. Conclusion

From the explanation above, it can be concluded that Pleco and Google translate have some similarities to support Mandarin learning, namely keyboard (keyboard), and (handwriting) features. In addition, users can use the voice record feature and normal voice mode, which provides an offline scanning feature. Voice record can help users to practice the accuracy of tone and pronunciation when sounding a word or sentence. Both of these learning applications also provide several examples of related words and both can send words, sentences or information via email.

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