The Design and Evaluation of Language Learning Materials Based on Comic Stories and Comic Strips

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Abstract
This paper presents a learning system named clickEcomiC. ClickEcomiC specializes in producing multimedia based language learning material developed for foreign Japanese learners. Two multimedia comic books were given to beginner, intermediate and advanced Japanese language learners. Improvement was assessed through an open ended questionnaire, informal interviews and through observing subjects behavior. The results generated by this study suggest that students found both packages interesting and informative however the package that dealt with ‘day-to-day’ language items received a slightly more favorable response from language learners of all abilities.

Keywords: Multimedia Learning, Second Language Learning, Japanese, Comic, Audio Narration.

1 Introduction
With the development of information communication technology (ICT), multimedia learning has recently received significant research attention. There are however very few current web-based learning materials available for Japanese language learning [1]. To meet this demand, the authors have attempted to develop multimedia learning material for JSL (Japanese as a second language) learners. [2]

The use of comic stories and comic strips for foreign language learning has greatly increased over the past few years. Recent studies show that the materials derived from comic books are a great aid to learning in that they appeal to the learners’ imagination, increase motivation and, above all, create a rich and meaningful context. [1][3][4][5]. This research makes use of Japanese comics which emerged early in the last century. We think that comics could be a useful aid for language learners, and we developed software to do research on different methods of language learning using comics.

In 1998, a research project sponsored by the Research Institute of the Software Engineering Foundation was conducted. In this project, Akahori et al. developed a Comic-Strip Database [3]. Through their observation, the learning system based on comic strips was very effective in language learning. This research contain similar concepts of that project.

The authors believe it is an advantage for learners if learning material can be used anytime, anywhere. Therefore, the system was developed in HTML and Flash format to be accessible via the Web. In addition, learners can use the material directly from a CD-ROM with faster access. [1][2]

2 Method
The aim of this paper was to evaluate subjects’ responses to the perceived educational value of 2 comic multimedia based Japanese learning packages Golden Empire and Kobo-Chan.

2.1 Subjects
The subjects used for this study were all foreign language students at the Tokyo Institute of Technology. Subjects were divided into groups based upon their Japanese Language Proficiency skills.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Golden Empire</th>
<th>Kobo-Chan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Learner</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Intermediate Learner</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Beginner</td>
<td>3</td>
<td>1</td>
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</tbody>
</table>

2.2 Materials
The multimedia comic presents text with simultaneous on-screen and audio narration, combining speech in one language with text in the other. By moving the mouse over any sentence in the comic, that sentence could be played repeatedly. This function was built into the product as we believe that it is often very difficult for the student to catch all the details of a sentence the first time it is played. To make the material user-friendly, we used the metaphor of a book for the comic. The narration is controlled with buttons similar to a CD player.

2.2.1 Golden Empire. We developed the system based on Golden Empire in three modes (See Figure 1): (1) Japanese text and English on screen text and audio narration. (2) English text and Japanese on screen text audio narration. (3) Japanese text and Japanese audio narration.

Subjects could choose which version they wished to view the comic book in, for example, Japanese speech bubbles and English on screen text and audio narration.

2.2.2 Kobo-Chan. To support language learning in the Kobo-Chan package some functions are added to clickEcomic2, for example: Question. Questions to help the learner think about the contents of the comic strip. This draws the attention of the learner to the certain language details illustrated in the comic strip.


Notes. Discussion about the language. Language and culture details are presented to the learner. This explains the punch line of the story, which often is linked to Japanese culture and grammar.

Vocabulary. Explanation of the vocabulary.

Lesson. Exercises to rehearse the points illustrated in the lesson.
2.3 Procedure

Subjects were asked to sit and read through the multimedia comic book and to fill in an open-ended questionnaire on their thoughts, feelings and opinions on using the multimedia comic book, at the end of the session. In addition a number of informal interviews were also conducted with subjects and their behavior observed throughout the course of their viewing session. Each comic book took approximately 30 minutes to read through.

3 Discussions

The gathered data provide similar results to previous of comics developed for the web [1][3][4]. All of the learners thought the material presented in the stories and comic strips was interesting.

3.1 Evaluation of Golden Empire

The part with English text & Japanese narration were found to be most useful for intermediate students, since they still found reading Japanese text very difficult. Japanese narration was considered good for learning pronunciation and increasing vocabulary.

Beginners did not know enough Japanese to be able to connect the correct English words to the corresponding Japanese pronunciations. For the beginner level, people said they would need more explanation of grammar to understand sentences. Without additional support, they would not be able to connect the written English to the Japanese heard.

This additional explanation would be a difficult task for a whole comic series. Therefore, we consider the material using comic strips and full explanation to be more suitable for beginners, while comic series are more useful for learners of advanced level.

3.2 Evaluation of Kobo-Chan

According to the data gathered, the language learning material based on Kobo-Chan was found to be suitable for each level of Japanese learners tested in this study. The contents of it focus on day-to-day life issues. Since the dialogues concerned everyday situations, learners felt they could understand the contents easily. But the comic strips also included detailed explanation of grammatical points and more culturally related nuances that may be unknown even to the advanced learners.

In contrast, the learning material based on comic stories Golden Empire is related to Japanese history, and the actors speak traditional Japanese. For beginners, this is less suitable.

The comic provided a very good way to learn Japanese. Preliminary observations suggest that it is a good method that covers vocabulary, pronunciation and reading skills. Furthermore, while using cartoons it is possible to take pauses when reading/listening – to look up new words or repeat it to understand it better. This allows the speed of the learning to be controlled by the learner to a greater degree than for example watching an animated series.

4 Conclusion and Future Work

This paper presented a new method for the presentation of language learning material based on comic stories and strips. This study sought to investigate learners feelings, thoughts and opinions to language learning material being presented in this format. The results of this study and the researchers’ experiences show that language learning material based on comic stories and strips can be an effective system for language learning. Also, the results of the experiment show us the potential of English learning for Japanese. Besides, the HTML and Flash format of the material offered the learners the opportunity to study at anytime and anywhere. Future work is currently underway to develop a full version of the system. We will also evaluate the effectiveness of this system for Japanese students who are learning English. And we are planning to test the efficiency when the material is used for on-line learning.

5 References