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#### **Authors**

Nojima, Hisao  
Shingaki, Noriko

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# Age Differences in the Perception of Domain Names: Psychological Experiments on Internationalized Domain Names (2)

Hisao Nojima (nojima@nozy.org) Noriko Shingaki(shingaki@qomo.org)

Department of Social Innovation,

Seijo University; ;

6-1-20, Seijo, Setagaya-ku, Tokyo, Japan 157-8511

**Abstract:** In Japan, we have three notation systems for a word, to use Japanese (Hirakana, Katakana and Kanji), Romaji (Japanese written in alphabet), or English. We did an experiment to find out which writing system of Japanese were the easiest to recognize, memorized and used in using domain names when we use the Internet. The results showed that Japanese notation has precedence over Romaji and English on (1) understanding, (2) speed to input them on the mobile phones, and (3) recognition after one hour delay. In both cases, Young subjects outperformed the older ones..

**Keyword:** Japanese Domain Names, Memory, Internet

## Introduction

In Japanese, we can express a concept in "Japanese", "Romaji (Japanese written in alphabet)" and "English." In the experiment 1, the results showed that Japanese is (1) the quickest to recognize even in a short while, (2) the easiest to write on mobile phones, and (3) as easy to keep in mind after one hour as English. In the experiment 1, we could not find, against our prior hypothesis, a significant differences in recognition in Japanese and in English. This may be the side effects of using university students as subjects because they are skillful in using English compared to the ordinary Japanese people. So, we need to check the effects of using Japanese as domain names to other age groups.

## Experiment 2: Memory experiment of domain names

### Overview of the experiment

The purpose of the experiment 2 is to replicate the results of the experiment 1 using the different age groups. We adopted a recall method to check subjects memory, as the recognition method used in the experiment 1 seemed too easy a measure, thus resulting the less sensitive effects. Participants of the study was 10 university students in their age about 20s (Y-Group, average age: 23.6), and 10 senior people in their 60s (S-Group, average age: 65.2, leaning histories were: one junior high, seven high school, and two university graduates).

### Procedures

We used the same procedure as in the experiment 1 (Nojima & Shingaki, 2006). We first presented domain names on the screen to participants and asked them to do the immediate recall test to write down the names exactly as shown (40 minutes). Next, there is five minute interruption task to

prevent memory rehearsal. As the interruption task, we used English ability test. As shown in the hypothesis, we believed there is relationship between English ability and memory task results. Then we asked subjects to input various words with mobile phone.

The final session included two memory tests, one was the recall test (five minutes) and the other was the recognition test (ten minutes).

## Result

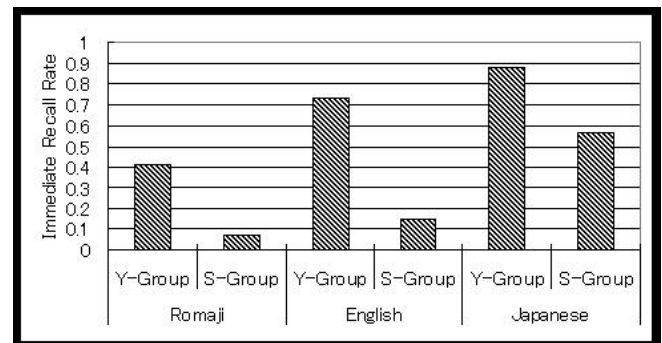


Figure 1: Immediate Recall Rate.

We conducted the immediate recall to check whether participants could write down the words just presented as in the experiment 1. As shown in Fig.1 in text presentation, the results is Japanese, English, and Romaji, and in oral condition, Japanese, Romaji and English, which were the same as in the experiment 1. As for the age difference, the differences of Y-group and S-group were significant in each of Japanese ( $p < 0.01$ ), English and Romaji words.

These results support our hypothesis that domain names in Japanese are useful and helpful for the memory, and that effects were especially true with senior people.

## References

Nojima, H. Shingaki, N;. (2006). Are Domain Names Written in Japanese Easy to Understand ?;. *Proceedings of the Twenty-eighth Annual Conference of the Cognitive Science Society*. Hillsdale, NJ: Lawrence Erlbaum Associates.