

# Acquisition of perceptual knowledge via information search

**Miki Matsumuro**

Nagoya University

**Kazuhisa Miwa**

Nagoya University

**Hitoshi Terai**

Nagoya University

**Misaki Kurita**

Nagoya University

**Abstract:** Recently, the user interface (UI) has become more important because devices have become complex and give us excessive information. In this study, we investigated “what users learn” through information search training. We tested the hypothesis that graphical UI users would acquire perceptual knowledge (the knowledge of the visual features of the display) rather than structural knowledge (the knowledge of how information is categorized). The results of the experiment showed that participants acquired little structural knowledge. Further, the computer simulation results indicated that structural knowledge was inadequate to explain the search patterns observed in the experiment. The model that had perceptual knowledge was better able to explain the results of the experiment.