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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 37(0)

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Publication Date

2015

Peer reviewed

Acquisition of perceptual knowledge via information search

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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.