Development and evaluation of the support system for reading web text based on the SQ3R reading method

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Abstract

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In this paper, we developed supporting system for reading web text based on the SQ3R reading method. Recently, there are a lot of electronic texts in our surroundings, so readability of electronic text is very important in the field of education and learning. Compared with reading electronic text and reading paper text, people can't use reading strategy of theirs. So, this system's model is systematical reading strategy, the SQ3R method. This system enables using the SQ3R method when reading web text. This system's web interface has following functions: 1) adopt overview+detail interface, 2) questions which produce from table of contents of the web text set on the top of text body, 3) apply fisheye model for each sentences, 4) Supply interactive switching functions of focus/context, 5) set the button that opens the window, which described the question, 6) set the button that opens the concept maps, which described the content of the body.

In evaluation experiment 1, in order to examine usefulness of this system, we compared the usability of this system, a common web interface, and a paper interface. Using these experimental conditions, 12 subjects answered recall test about social-scientific text. In recall text, subjects using this system received higher grades, but used more time to read text. So, we could confirm that this system promotes understanding/memory of content of web text.

In evaluation experiment 2, in order to examine usefulness of this system in case of doing review, we compared the usability/saving-rate of this system, a common web interface, and a paper interface. Using these experimental conditions, the same 12 subjects as experiment 1 answered recall test about

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the same text as experiment 1. In recall text, subjects using this system received higher grades. And subjects using this system received higher saving rate, so using time to read text is the same level in every experimental conditions. So, we could confirm that this system's usability is higher than a common web interface and a paper interface in case of doing review.