

Poster presentation

Multimedia learning and the World Wide Web: Considerations for learners with a mental retardation

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The World Wide Web as a source of information retrieval has become increasingly important. Web-based environments allow for combining different representational codes and addressing different sensory modalities which might be especially beneficial for users with special needs (e.g., for blind people or for people with reading and writing disabilities). Our study investigates which representational formats are beneficial to foster recognition and understanding of mentally retarded users. As factors, we varied modality (visual, visual + auditory) and codality (text, text + pictures) aspects which led to a 2*2 design, whereas visual information was presented by means of symbols. Dependent variables were recognition, understanding, concentration and motivation. Participants are students from schools for special educational needs. Preliminary results show that they profit mostly from auditorily presented information whereas purely textual information leads to the lowest performance. This is in line with our expectations because research shows that only a few learners with mental retardations are able to process written language in a meaningful way. The studies are still being conducted and we expect final results within the next weeks. These results will be presented and discussed with respect to their implications for ways to make web-based environments more accessible to disabled users.

Keywords: disabled learners, mental retardation, multimedia learning, multiple representations

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