Poster presentation

There's more to it than instructional design: The role of individual characteristics in hypermedia learning

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Hypermedia environments offer a high amount of learner control including the option to select and combine different representational codes and address different sensory modalities. Additionally, learners can access information in a linear as well as a nonlinear fashion. However, according to prior studies, it can be questioned whether learners are able and willing to appropriately use this navigational and representational freedom. Research suggests that the relationship between the design of hypermedia environments and learning strategies as well as outcomes is moderated by individual differences, i.e., learner characteristics. In our study, we investigate the role of epistemological beliefs, attitudes, and metacognition. Two questions are in our research focus: (1) Is their influence domain specific or general? and (2) Is there an optimal degree of learner control for learners differing on these dimensions? The study is being conducted using a learning environment on probability theory. First results show that learner characteristics come into play when a high amount of learner control is provided in that sophisticated beliefs and positive attitudes lead to longer learning times and higher performance. For metacognition, however, we found that low scoring leads to better performance. These partly surprising results will be presented and discussed in December.

Keywords: hypermedia, learner characteristics, epistemological beliefs, attitudes, metacognition

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