DESIGN OF LEARNING OBJECTS TO SUPPORT CONSTRUCTIVIST LEARNING ENVIRONMENTS

Yuanliang Liu

Dr. Hongchi Shi, Thesis Supervisor

ABSTRACT

Using Constructivism to guide the design of learning objects, we develop a generic structure that classifies knowledge into different types on different levels. With a simple generic structure of learning object, learners can easily share knowledge on the Internet, and knowledge can be rendered in various ways according to different patterns. In addition to the patterns rendered, the ease and efficiency of viewing the whole picture of knowledge and zooming into any degree of details at run time allow the learner to learn the material iteratively in different ways according to her current sense-making, setting up her learning strategies at each iteration of her learning. Thus, by putting learning back into the hands of the learner, our system assists the learner to construct knowledge efficiently in the real constructivist learning environment.