

The role of virtual landscapes in the learning of geospatial science

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There has been considerable research and development into the use of multimedia in teaching and learning geospatial science. Geospatial science professions like cartography, geomatics and surveying are practiced-based and therefore are heavily reliant upon the application of knowledge to practical situations in the field. Action learning and action research establishes a learning environment in which students are actively engaged in building, testing and refining mental models.

This presentation discusses the development of a virtual field trip to facilitate action learning and action research to enhance the field experience obtained by undergraduate geospatial science students when preparing for fieldwork. Developing the virtual field trip to encompass field observation for a number of geographic scales is discussed as part of this paper. Preliminary evaluation has been undertaken with results indicating that students are able to obtain a general overview of the area into which they will be working and obtain background information in an interactive three-dimensional model that will enable them to maximise their experience when away on fieldwork. Further work into the development of new localised sites and more tools to assist students with orientation and navigation are required.