Using Virtual Reality Application in Web Based Learning Environment (Web Space Website)

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Abstracts:

WebSpace is developed to introduce the basic of technical drawing in Isometric, Oblique, Orthographic and visualization of virtual object using Virtual Reality application. Virtual Reality (VR) is an interactive, simulated environment (three dimensional multimedia applications) that allows the users to perform actions that give them more control over how the information is viewed. The website content material was developed based from the Technical Drawing (Lukisan Kejuruteraan) subject syllabus for form four students at secondary school level. The objectives of developing this website are to integrate new technology through combination of VR and multimedia authoring tools, enhancing the individual spatial ability as well as creating an interesting interactive learning environment. The VR was used to helps users on how to visualize the geometrical objects from different perspectives specifically in orthographic projection which includes view from top, front and right side. Being part of medium for education, WebSpace allows an individual to move freely while exploring the geometrical objects. It gives the viewer more information and more control over how the information is viewed than traditional graphic, photographic or video elements. The web based learning approach are used to help the teaching and learning process and give the opportunity for individual exploration at anytime, anywhere and anyplace (self-paced learning). The non-linear and hierarchical navigational structure (composite) used in this website to help the individual to navigate freely but occasionally constrained to linear presentations or data that is most logically organized in a hierarchy. In the WebSpace, VR application was used only to visualize the orthographic projection but in future, it has a big opportunity to be fully expanded and used to represent any suitable subject at primary or secondary school level.