BibTeX:  
@unknown{unknown,

author = {Sebok, Angelia and Nystad, Espen and Drøivoldsmo, Asgeir},

year = {2002},

month = {02},

pages = {8-14 },

title = {Improving safety and human performance in maintenance and outage planning through virtual reality-based training systems},

isbn = {0-7803-7450-9},

booktitle = {IEEE Conference on Human Factors and Power Plants}

}

**Bibliography**

VR technology has the potential to provide a more effective way to teach configuration knowledge than map-based training. Methods and techniques using VR technology lead to improve safety and performance in nuclear maintenance tasks.

For work in hazardous environments, e.g. Radioactive areas, VR can provide a safe and realistic means of training workers. In the nuclear industry, maintenance and decommissioning tasks are performed in radioactive areas. This work requires that personnel are well-trained to complete tasks quickly and efficiently to minimize their exposure. Virtual reality technology can be used to train unfamiliar workers on the physical layout of an area and to help workers visualize the radiation distribution in the area.

The results indicated that the VR-non-guided condition provided the best support for user performance. However, performance in the VR-guided condition was worse than the map condition. Thus, it is not simply VR technology that contributes to effective learning, but rather the design of the training system, which can effectively be supported by VR technology.

Training in VR is effective in terms of transfer of training and offers results equivalent to or superior to map-based training. However, it is not simply a matter of using VR technology to make an effective training program. The training program must require active learning, which engages the learner, to fully realize the potential benefits of the technology. The results of this study, together with other research in the area, indicate that VR can effectively be used to improve safety and performance in nuclear maintenance tasks.

**References:**

* [http://ieeexplore.ieee.org.libproxy.uml.edu/](http://ieeexplore.ieee.org.libproxy.uml.edu/document/8023530/citations)
* IEEE Conf. Human Factors and Power Plants
* UML Library Website

"This is entirely my own work, except as disclosed in the documentation. I gave help to the following persons:  
None  
Signed Kiran C Shettar"