

Upper-body interactive rehabilitation system for children with cerebral palsy: the effect of control/display ratios

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ABSTRACT

We have developed a virtual reality rehabilitation system using upper-body interaction with Microsoft Kinect™. With the use of Kinect™, the system enables a patient a full-range of avatar movements to adapt the Control/Display (C/D) ratio of a limb's position in 3D space. In this paper, we have explored the effectiveness of C/D ratios in our prototype application to analyze user performance, work load, and user enjoyment with university students without motor impairments. Our findings suggest that the C/D ratio is related to task difficulty, movement strategy, and user motivation.

Full papers will be published in the Conference Proceedings and will be available to delegates at the conference on Sept. 10.

Full papers will be released on-line in the ICDVRAT archive on March 15.