



VIRTUAL INTERACTIVE SPACE (V.I.S.) AS A MOVEMENT CAPTURE INTERFACE TOOL GIVING MULTIMEDIA FEED- BACK FOR TREATMENT AND ANALYSIS

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Articles

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VIRTUAL INTERACTIVE SPACE (V.I.S.) AS A MOVEMENT CAPTURE INTERFACE TOOL GIVING MULTIMEDIA FEED- BACK FOR TREATMENT AND ANALYSIS

BROOKS A.L. FREDERIKSBERG AKTIVITET CENTER, AARHUS, DENMARK.

PURPOSE: The VIS system was developed to research whether multimedia feedback through movement in virtual interactive spaces is capable of enhancing current methods of expressive therapy.

DESCRIPTION: Infrared light and ultra sonic sources create the spaces capable of translating movement into digital information which is mappable within a computer system to give the desired feedback via a digital interface. Interactive programs for each participant are designed depending on the facility and the therapists' desired goal for the treatment. Physically limited participants are trained to explore the interactive space and to focus on the multimedia element(s), for example, sounds or images, which are manipulated as a result of movement. The zones are programmable to give results up to eight meters from the source therefore allowing close and distant treatment and analysis. The system has been researched and developed with various groups of physical and mental disadvantaged groups. Neglect, co-ordination and balance training were programmed for brain damaged participants, whilst stress relieving exercises were programmed for Spastic, Cerebral Palsy and similar participants.

OBSERVATIONS: Both groups and therapists showed an enthusiastic response to using the system with an accelerated learning curve over traditional methods achieved. Participants were able to measure their own progress through the feedback of sounds or images within a specific program. It was also observed that certain groups experienced reduced spasm attacks and stress related disorders as a result of the use of virtual interactive space over traditional input devices.

CONCLUSION: The virtual interactive space (VIS) is a non-intimidating interface that gives immediate results to both therapist and user and provides foundation for further research and development.

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