# When sighted people are in the skin of visually impaired ones: perception and actions in virtual reality situation

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## ABSTRACT

Most of us do not know how a visually impaired person perceives and acts within the environment in everyday life. In this context, an experimental study was conducted using a virtual reality simulation in which sighted people were immersed in low vision situations: Blurred vision, Tunnel vision, central Scotoma. After a brief familiarization procedure with a virtual reality tool called "SENSIVISE" which includes a virtual apartment, 24 adults had to explore two rooms through low vision simulation or full vision (as control group) to identify their location, and then were instructed to find particular targets. Perception and actions performances were measured in terms of time needed to answer questions related to visual perception, and distances between the participants' body and the screen. The results show that low vision simulation impairs perception among sighted people. It was expressed by a statistically significant effect of lower times needed to execute tasks compared to the control condition. Consequently, the sighted individuals realized how it is difficult to perceive and move when vision is limited.