

16 | VIRTUAL REALITY SIMULATOR TRAINING FOR TEENAGERS WITH INTELLECTUAL DISABILITIES

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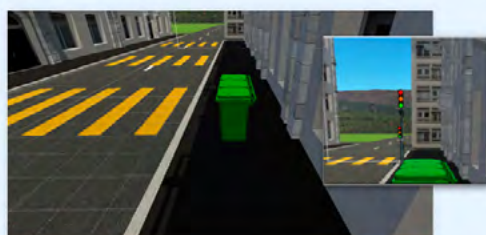
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SUMMARY

People with intellectual disabilities (ID) need to train regularly to perform several complex daily tasks while being accompanied by one or more supervisors. The use of virtual reality (VR) allows the simulation of these learning situations that would be difficult to set up or reproduce systematically in the real world. This paper presents an enhancement to a VR simulator designed for this purpose with the help of social educators. The goal is to use virtual reality to perform learning exercises with teenagers with ID. The main exercises are: (a) walking on the sidewalk and crossing crosswalks, (b) taking one or more buses and getting off at the right stops, (c) taking the right train at the station and getting off at the right stop. The simulation also proposes to manage social interactions thanks to the use of avatars in these scenarios. Each scenario is customized for the students' learning objectives.

KEYWORDS

Virtual reality; Intellectual disability; Simulator Training.



Street and crosswalks

- Unforeseen
- Obstacles
- Pedestrians
- Protected (red lights) or unprotected



Example of customization and avatar (social interaction)

Bus

- Bus scenario (get off, get on)
- Stop (with or without contingencies)
- Artificial voice to announce stops and problems
- Social interactions



Train and station

- Train scenario (get off, get on)
- Station (with or without contingencies)
- Artificial voice to announce stops and problems
- Social interactions