## World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences Vol:15, No:12, 2021

## 3D Multiuser Virtual Environments in Language Teaching

Authors: Hana Maresova, Daniel Ecler

**Abstract:** The paper focuses on the use of 3D multi-user virtual environments (MUVE) in language teaching and presents the results of four years of research at the Faculty of Education, Palacký University in Olomouc (Czech Republic). In the form of an experiment, mother tongue language teaching in the 3D virtual worlds Second Life and Kitely (experimental group) and parallel traditional teaching on identical topics representing teacher's interpretation using a textbook (control group) were implemented. The didactic test, which was presented to the experimental and control groups in an identical form before and after the instruction, verified the effect of the instruction in the experimental group by comparing the results obtained by both groups. Within the three components of mother-tongue teaching (vocabulary, literature, style and communication education), the students in the literature group achieved partially better results (statistically significant in the case of items devoted to the area of visualization of the learning topic), while in the case of grammar and style education the respondents of the control group achieved better results. On the basis of the results obtained, we can conclude that the most appropriate use of MUVE can be seen in the teaching of those topics that provide the possibility of dramatization, experiential learning and group involvement and cooperation, on the contrary, with regard to the need to divide students attention between the topic taught and the control of avatar and movement in virtual reality as less suitable for teaching in the area of memorization of the topic or concepts.

Keywords: distance learning, 3D virtual environments, online teaching, language teaching

Conference Title: ICOLDE 2021: International Conference on Open Learning and Distance Education

**Conference Location :** Bangkok, Thailand **Conference Dates :** December 16-17, 2021