

Title of the master's thesis:

Augmented reality (AR) and its possibilities of use in education:

Evaluation of the contribution of AR for teaching vocabulary in German based on a comparison of classical and experimental learning methods

Abstract:

This master's thesis focuses on the use of augmented reality (AR) in the context of education. AR currently represents a dynamically evolving technology. The aim was to explore the benefits of using AR for foreign language teaching, to compare the possibilities of didactic application with the traditional way of teaching and to find out whether learning with AR is a motivating factor stimulating students' interest and a tool for better understanding and memorizing through visualization and acting on emotions.

The theoretical part of the work presented the characteristics of augmented reality, its types and areas of use and compared it with virtual and mixed reality. It briefly mentioned the history of AR, the advantages and negative aspects of the use of this method, the current state of research in language didactics and cases of the use of AR in education in the Czech Republic and abroad.

In the practical part, a web interface was created using the Model Viewer tool, which allows users to view 3D objects in augmented reality. Then, quantitative research was conducted with students who learn foreign language vocabulary both in the AR environment and the traditional method. Using this experiment and subsequent tests, I verified the initial hypothesis, which assumed that teaching with AR would lead to greater efficiency in learning and better memorization of the subject. The conclusions of the empirical part showed that both methods can be considered very similarly effective. The results of the work should contribute to the academic debate on the use of digital technologies in the learning process.

Keywords:

Augmented reality, education, web application, foreign language teaching, German learning, vocabulary learning, motivation