

Learning a Second Language with a Videogame

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Abstract

In this paper we present, an experiment designed to evaluate a 3D game-like tutorial system for second language acquisition we implemented in our laboratory. Specifically, our experiment focuses on teaching French elementary vocabulary to German primary school children.

Second language teaching in German primary schools is not performance-oriented. Its aim is rather to convey sensitivity to the phonemic structure of the second language to young children. Therefore, in the traditional classroom listening and understanding activities (i.e. passive language learning) are privileged with respect to activities targeting at the acquisition of the second language grammar rules such as spelling, orthography exercises or essay-writing activities.

In our experiment we studied how, a very difficult task for German primary school children such as learning the spelling of new words in the second language, can be facilitated by the 3D interactive, game-like environment provided by our tutorial system. In the experiment, the tutorial system was adapted to interact with young children. The game scenario is a virtual house in which the children avatars can freely navigate and train new vocabulary by interacting with the objects. The system-user interaction modes provided by the system includes touching events and chatting. The system provides both written and audio output describing the name of the object and its pronunciation. For the experiment, we chose a set of simple French words for the children to learn. The children were divided into two groups, a test and a control group. The control group was exposed to classical classroom teaching, whereas the test group played our 3D game. Finally, we compared the number of words the children in both groups could remember and the percentage of right spelled words.