Use of a modified computer game as a tool for English vocabulary learning

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MMORPG

In this mixed methods research, the investigator explored the use of a massively multiplayer online role-playing game (MMORPG) as an English vocabulary learning tool. Data sources included transcripts of learner interaction, observation, scores on vocabulary tests, questionnaires and semi-structured interviews. Analysis of the test data reveals that the game provided significant opportunities to improve retention of low frequency English vocabulary. Researcher observation indicated that the participants found undertaking language tasks in the game to be a highly engaging and motivating activity. Positive findings were also revealed in the learner feedback. Participants indicted that they found playing the game to be an enjoyable and beneficial activity. They further noted that the game provided a low stress context for interaction that provided exposure to vocabulary not normally encountered in traditional learning settings.

computer assisted language learning

CALL   SLA   digital games   e-learning

In recent years, the use of computer games in many spheres of education has expanded. In the field of foreign language education there has been increasing speculation in the literature regarding the value of using computer games as tools to facilitate aspects of foreign language learning (Peterson 2010a). Of the computer games currently attracting interest in the CALL research community, games that provide opportunities for language learners to undertake purposeful real time interaction in the target language (TL) with native speakers are identified as promising venues for second language learning (Thorne, Black & Sykes 2009). Of the computer games that provide real time interaction in the TL, massively multiplayer online role-playing games (henceforth MMORPGs) are the focus of considerable interest from CALL researchers (Sykes, Reinhardt & Thorne, 2010). Recent experimental research suggests that the goal-based nature of these games, coupled to the opportunities for TL interaction with native speakers appears to elicit a high degree of learner engagement and participation (Reinders & Wattana 2012). Researchers further note that this type of game appears to provide access to potentially valuable environments for vocabulary learning (Peterson, 2013; Reinders, 2012). This research was motivated by these findings and seeks to expand the research base in this area.

The purpose of this research was to investigate use a modified computer game as a tool for non-native English speakers to enhance English vocabulary learning. This research established the benefits of using a modified massively multiplayer online role-playing game (MMORPG) to accomplish the above goal. This study represents one of the first attempts to utilize a modified MMORPG in a longitudinal CALL study involving undergraduate Japanese EFL learners based in Japan. The approach adopted was novel and provides an alternative to the classroom setting.

In my recent book (2013), I draw on my research to speculate that modifying existing games to better meet the needs of EFL learners through reprogramming may be an effective means to enhance their potential as tools for foreign language learning. In my view, modifying MMORPGs to incorporate realistic scenarios for second language (henceforth L2) language use involving interactive language tasks based on learner needs is particularly beneficial in terms of vocabulary learning. I argue that modifying suitable existing MMORPG games offers the additional advantage of creating an accessible low stress environment for TL use, providing learners with valuable exposure to low frequency vocabulary (Peterson 2013). In my view, modified MMORPGs provide learners with access to optimal conditions for learning that are frequently challenging to replicate in conventional language classrooms (Reinhardt and Sykes, 2012). However, as my recent work demonstrates (Peterson 2013) there are, at present, no longitudinal studies focusing on this area. There is an urgent need for longitudinal research studies of learner interaction in modified MMORPGs

It is anticipated that this research will demonstrate the sustained game play in a

modified MMORPG provides opportunities for learners of English to negotiate meaning and develop their L2 vocabulary knowledge. The findings of this research will form the basis of future studies that further investigate how computer games can be modified to most effectively facilitate English vocabulary learning.

In this mixed methods research, the investigator employed a number of analytical tools and data sources. These included discourse analysis of transcripts, researcher observation, analysis of scores on vocabulary tests, questionnaires and semi-structured interviews. The study focused on a learner-based longitudinal study that investigated use of a modified commercial MMORPG game as a tool to facilitate English vocabulary learning. The participants in this study were a group of intermediate level English as a foreign language learners based at Kyoto University. In the first year of this research, a number of MMORPG games were tested and a suitable game was selected as the platform for this research. A series of vocabulary learning tasks were developed and user tested. Effective tasks were incorporated into a modified version of the game. The design of these tasks was based on a needs analysis conducted at Kyoto University. A pilot project involving a modified version of the selected MMORPG was undertaken. This involved user testing of the game and data collection tools. In the second year of this research, a group of intermediate and advanced level undergraduate English as foreign language learners based at Kyoto University were

provided with training in playing the game. These learners played the game every week with native speakers of English who are learners of Japanese. The subjects in-game spoken and written interaction was recorded. Learner interaction was observed and feedback was obtained. This data was analyzed and compared to data collected from a control group who undertook regular language classes over the same period. In the third and final year of this research, the above data was subject to statistical analysis. This indicated that playing the game enhanced knowledge and retention of new English vocabulary.

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