A "Memory Palace" for English in Immersive Worlds

Heike Philp[1], Letizia Cinganotto [2]

Abstract

This presentation will describe an English language training initiative carried out in school year 2016-17 with Italian primary and secondary teachers in Edmondo, the educational Open Sim created by INDIRE. The syllabus and the activities were developed with the cooperation of a network of international experts in the field of language learning and immersive teaching some of whom were part of EU funded project AVALON and CAMELOT. A particular approach adopted for the delivery of the language course in Edmondo was 'the method of loci', a visualisation technique known to the ancient Greeks and Romans and used by memory contest champions. The mind walks through the rooms of a building, a palace or shops in a street and places objects along the way only to revisit these place, in order to recall the relevant items and label them. Immersive English language teaching and learning experts, involved in the teacher training initiative, have been using this technique to help attendees memorize vocabulary and phrases.

Using the "method of loci" with a genius twist, the beginner level English course was implemented using a 2D floor plan of a house. Each week, as the course progressed, one room after the other came to life in full 3D serving as memory hooks for new vocabulary and ensuing conversations.

Heike Philp of let's talk online sprl, Brussels and Letizia Cignanotto of INDIRE, Italy will highlight some of the impressive results of using the "method of loci" in virtual worlds, also highlighting the impact on the teachers as shown in some of their comments and remarks.

Keywords: Immersive, virtual worlds, method of loci, visualisation, situated learning

1. Digital and Immersive Game-Based Language Learning: Background

According to Kapp (2012) [7], "Gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems".

Game-based learning means using games to enhance the learning experience, balancing the gaming dimension with the real world. With the massive use of multimedia for educational purposes, the methodology was renamed "digital game-based learning" Prensky (2001) [9], which represents a very challenging and promising learning strategies as it activates in the learners a wide range of thinking skills and emotional reactions, making the learning process easier, faster, more enjoyable, more effective, and more transferrable to new situations Oxford (1990) [8].

Van Eck (2006) [10] describes three aspects relating to the use in class of digital games:

a) the use of attractive games which require teacher training in order to highlight the educational and pedagogical aspects

b) the so-called 'serious games', specifically developed to educate, train and inform

c) games built by the teachers and students themselves.

In fact digital games can enhance the learning of students and increase their intrinsic motivation, which improves learning performance (Deci & Ryan 1980) [5]. Digital game-based learning is based on a competitive activity where the students are challenged in order to reach educational goals (Erhel & Jamet 2013) [6]. As far as language learning is concerned, motivation play a crucial role and digital games can enhance the students' level of engagement and enthusiasm, simulating real situations and tasks. Previous research has shown the potential of games and game based learning for language learning and teaching, especially with the advent of web 2.0 technology.

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[1] let's talk online sprl (Belgium)
[2] INDIRE (Italy)

2. Immersive Games Training Proposed by INDIRE and the Research Project

Since 2015 INDIRE researchers (Letizia Cinganotto and Andrea Benassi), with the help of a network of international experts and trainers coordinated by Heike Philp have been engaged in planning and experimenting teacher training initiatives in Edmondo, the virtual world created by INDIRE and addressed to Italian teachers and trainers (Benassi, Cinganotto 2015) [2]; Cinganotto, Benassi, Philp, (2016) [4]; Cinganotto (2017) [3].

The initiative consists in a training pathway for teachers conceived as an English language course in "EdMondo", distributed in two sub-groups according to the teachers' level of competence (elementary/intermediate).

Behind the training pathways there was a research design, aimed at finding answers to the following research question: "Can virtual worlds and digital game-based immersive technologies enhance the teaching and learning of the English language and improve the methodological strategies for teaching English?"

INDIRE researchers want to investigate the effects of virtual worlds and digital game-based immersive technologies in improving teaching strategies and language competences, in particular by using a specific methodology, called "loci method".

2.1 The Method of Loci

There is a legendary story told by Cicero of about an event that happened in the fifth century B.C. Simonides of Ceos, a Greek poet, went to a banquet one evening. He left for a moment and stepped out of the building. At that moment, the palace collapsed killing everyone at the banquet. No one knew exactly how many people had been in the palace. Simonides was approached by the families who wanted to know if their loved one was inside. Knowing the families were anxious to know who had attended the banquet. Simonides did a creative and unusual thing. With his eyes closed he imagined the scene in the palace. He visualized his arrival and departure going through the palace in his mind. He saw himself entering the banquet hall and remembered the scene in which he thought "Ah, I nodded hello to Pseudolus on the way in, and remember wondering how he had gotten a date with that cute Philia." He recreated in his mind's eye the scene and the seating arrangements. In this way, he was able to recall an amazing number of those in attendance.

Location and spatial information are very powerful in building a strong context and laying the groundwork for the brain to remember. Floor plans and rooms provide a good vehicle for organizing language information and learning words in context.

Ahour and Berenji (2015) [1] conducted a study comparing learning a language employing the method of loci compared to the rehearsal method. The loci method seems to enhance long-term memory recall. In the rehearsal method, recall and retention is limited short-term memory. The method of loci was used to learn vocabulary by the experimental group. The control group implemented the rehearsal method. The two groups were English as a Foreign Language learners. During each lesson, 60 new vocabulary items were introduced. Right after the lesson, students took a multiple-choice exam. The exams were aimed at testing the short-term memory. After four weeks had past, a post-test was given to evaluate long-term memory of the vocabulary taught.

The group using the method of loci had better long-term and short-term memory of the vocabulary taught. This group also stated they experienced more enjoyment from the lessons than the control group of students; the group practicing the method of loci had more fun and learned more.

2.2 The Memory Oalace in EdMondo: A House

First, the teachers built a floor plan with no walls. Second, they built their first room--the living room. Every week when the students arrived, there would be a new room. It was always a surprise for the students because they never knew which room would appear next. For example, in the first room, the living room, learners discussed the vocabulary associated with living rooms. Students discussed what they usually do in their living room. Finally, students performed a living room roleplay as a culminating

activity. There was a party and everyone learned about receiving guests at the door, introducing people and making small talk at parties. It was a real party and was fun as the students really didn't know each other.

The next week week the students arrived and the teachers had built a dining room. Everyone learned about American Thanksgiving at the dinner party and went over the vocabulary for dining, for Thanksgiving and for the objects in the room.

The following week when the students arrived, the teachers had added a bedroom to the memory palace. First, they discussed the important vocabulary. Then the students described what they usually did in their bedrooms. As a final activity, the students had to check in at the Crazy Cabins Country Resort. They were very engaged.

2.3 The Teachers' Comments

Through some questionnaires delivered to the participants it was possible to collect the teachers' remarks and feedback, in order to understand better their reactions to the training initiative and to possibly change it for the future where relevant. The feedback is positive and rewarding: the comment is full of enthusiasm and gratitude.

"…. I loved this course because I met very excellent teachers, who always helped me; they are so patients with all of us, and their voice are so sweet that I am always happy on Monday evening. Often we smiled together, when we tried to talk about our experience. I am very very happy to participate to an Immersive Course… and to a stimulate course, like this. Teacher pushes us to talk, talk, talk…. and this is important to improve English!".

"I think all the activities were wonderful, I followed only another course so funny, interesting, immersive, like this… and it was the first Immersive Course on English Village 4, last November! I am very happy, and I about all the topics! The teachers are excellent, wonderful, and always helped me and my colleagues, for ad immersive participation."

3. Conclusions

The paper was aimed at describing the training initiatives in English proposed by INDIRE researchers with the help of some international experts and consultants in Edmondo, the educational Open Sim created by INDIRE. Through the description of the training initiatives and the comments of the participants as the real protagonists of their learning pathway, we got positive answer to the question: teachers like entering inworld and communicating in English with the other avatars to practice their English skills, especially with the "loci method" proposed: this method turned out to be effective and attractive. At the same time, teachers seem to be able to reflect more on the thinking skills activated by the course inworld in order to improve their teaching style and get better learning outcomes from their students.

4. Acknowledgement

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