

## Virtual 3D Tools in Online Language Learning

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### Abstract

*The dynamic development of ICT technologies and Internet offers new tools and opportunities for more effective, comfortable and attractive teaching and learning. It is especially important in contemporary world offering many appealing and attractive ways to spend available free time. The real challenge for teachers is to get acquainted with these new tools and be taught how to use them in their everyday activities. Totally new approach and new methodologies are required.*

*The objectives of V-Lang project are aimed at overcoming the above mentioned problems with the results being very helpful. The basic results of V-Lang project, open source software for the online management of the training experiences by teachers and students and ready to use and upgradable Virtual World with a virtual village, virtual classrooms and meeting spaces, are described and explained how to use them. Methodology Guidelines on the integration of online/blended and virtual learning are presented and clarified. We show the results of pilot testing in 3 European countries for 3 different groups of beneficiaries, sharing experiences and conclusions. The Toolkit for creation of virtual worlds is free and available on the website of the project V-Lang.*

### 1. Introduction

Virtual communication becomes an integral part of culture of the 21<sup>st</sup> century. So it becomes a necessity to use it in the process of education. Modern teaching using ICT, opens up the great possibility of unprecedented opportunities for teachers and students. E-learning is growing at a rapid pace and is already properly rooted in educational systems of countries belonging to the EU. The next stage in this type of teaching and learning becomes adopting 3D technology. Virtual worlds 3D communities are representing usefulness for teaching foreign languages. The benefits of their use are various. They give opportunity to meet strangers at any time of day or night, in a virtual simulation of real life and to organize virtual meetings with other participants of the course in defined, virtual place. This could be a lesson in the school or arranged group activities at any other places.

Benefits of using 3D virtual worlds in education:

- teacher may cooperate with students on less formal basis, and students can choose an individual learning program and establish cooperation with other participants,
- the presence of avatars created according to individual needs,
- the risks reduction associated with lack of success for the student,
- activities may be conducted outside the classroom, for example, in any virtual space based on real examples or teacher's imagination,
- creation of many communication opportunities between the teacher and the student, both in collective and individual mode, in various forms, such as chat, message, e-mail, verbal and visual communication in real time.

Problems with using 3D virtual worlds in education:

- there may occur some problems with maintaining the discipline,

- relationships between the participants may cause problems due to possibility of identity changing - it may hinder the building up of the trust between students,
- anonymity offered by the virtual world may provoke some not acceptable kind of behaviour.

## 2. What is the V-lang?

The basic assumption of V-lang project is to create a virtual 3D space dedicated to teaching and learning foreign languages. The project supports teachers in solving problems related to the knowledge of modern teaching tools and using them in everyday work. From the other hand it offers to beneficiaries modern and attractive opportunity to learn the language. V-Lang project pretends to contribute to the promotion of innovative forms of language training by means of applying ICT in the design and implementation of language courses. The use of virtual 3D worlds in online language training provides a full audio communication system which allows to put into practice students language skills in immersive and social environments, in Collaborative and Problem-Based Learning environments that promote their creativity. Creation of communication techniques attractive for all kinds of students, motivates them to active learning of foreign language and cooperation. The intention of the authors is also use of sociological advantages of virtual 3D worlds and development of informal ways of contact between students and the implementation of the work in groups.

Objectives:

1. To develop V-Lang Toolkit:

- Ready to use and upgradable virtual world containing a virtual island, virtual classes and meeting halls.
- Open source software for the online management of the training experiences by teachers and students.
- Methodology Guidelines on the integration of online/blended & virtual learning.

2. To carry out pilot testing in 3 EU countries.

Impact:

- More than 240 target groups reached.
- 20.000 people reached by digital means.
- 40 stakeholders using the Toolkit.

The basic results of V-Lang project, open source software for the online management of the training experiences by teachers and students and ready to use and upgradable virtual world with a virtual island, virtual classrooms and meeting spaces, are described and explained how to use them. Specifically, V-Lang aims at widespread use of virtual learning settings within online language training, already successfully tested by commercial products such as Language Lab. To that end, V-Lang strategy focuses on the development, experimentation and dissemination of a free Toolkit built upon open source software that will allow the swift integration of virtual worlds in online language learning. Final product will be an affordable and easy to use toolkit for language courses teachers, and a very accessible and appealing environment for learners, especially those at risk of exclusion.

## 3. Methodology

Teaching through virtual 3D worlds requires the development of entirely new teaching methods and new approaches to learning for teachers and students. Methodological solutions proposed in V-Lang project are developed for specific needs of teachers preparing virtual sessions. They are accompanied by a number of guidelines for teachers to be successful in conditions of virtual class, where a teacher is less able to enforce the concentration of listeners, while a student has more autonomy than during a lesson in the real world.



The methodology of teaching foreign languages using virtual 3D worlds in V-Lang project is benefiting of the best practices used successfully by other creators of educational virtual worlds. On the basis of these good practices V-Lang created its own original virtual space dedicated to language education. There are presented and explained the guidelines of teaching methodologies: online / blended and virtual.

## 4. Pilot testing

One of the tasks of V-Lang project was to conduct activities of pilot tests in three pilot groups of three countries: Lithuania, Germany and Poland.

### 4.1. Lithuania

The project was presented during the workshop for SIH teachers. The main target group for piloting was created of SIH students –with age range from 15 to 17. Virtual world environment is especially suited to younger learners because they already see the Internet as a natural place to learn and play. The other group was SIH summer camp students-age range from 8 to 11.

Level of difficulty/ease of use of V-Lang platform was evaluated in terms of:

- Installation / downloading of the platform /
- Registration
- Creation of an avatar
- Navigation
- Communication/chat /voice
- Transportation
- Inventory
- Menus
- Tutor Guide

Teachers opinions:

1. How would you describe your class experience in using V- Lang?

- It has got game dynamics which is very useful when teaching young learners.
- It involves into activities on another dimensions.
- It provides an ideal learning and teaching environment.
- It stimulates your creativity.
- It is interesting, but at the same time troublesome.
- There was some frustration at the beginning.
- Students liked creating avatars and interaction.
- Students liked more working in small groups than working on their own.
- It was challenging.
- It worked well for some time.
- It was not easy to get students concentrated.

2. How would you rate the benefits of using V-Lang platform to assist your teaching?

- Provided with a new learning environment.
- The role model activity was enjoyable and engaging for students, which sometimes fails during normal lessons.
- If practicing daily could encourage communication in a foreign language.

3. How would you evaluate the Methodology Guidelines?

Teachers approved them and were of the opinion that the guidelines are:

- Useful
- Clear
- Helpful

4. What are the advantages of virtual teaching?

- More interesting learning experience: students can see each other avatars and start interaction.
- Integration of different items into the lesson: texts, graphics, audio, video and interactive file
- Possibilities for simulating real life situations.
- It's not boring.
- This role playing activity probably would have failed if students had done it in real life, but it worked here because students were able to take on another character and do something new.
- Activities could include students teaching each other how to do things.

5. What did work well and what didn't work well?

It worked well

- Learning environment provided a lot of possibilities.
- Aroused interest on the part of the students.
- Stimulated students creativity and interaction in a foreign language.

It didn't work

- It was not so easy to keep students on tasks.
- Class management problems.
- Technical problems!

Students opinions:

What are the most attractive or interesting things you found about V- Lang platform

- Modification of the avatar.
- Chatting with friends.
- Moving around.
- Better than in the real classroom.
- The experience of using V- Lang for learning.
- It was quite interesting.
- I enjoyed talking to my friend.
- I could move around.
- It would be nice to have more of such lessons.
- I enjoyed working in a group.

How would you rate the level of difficulty when using V- Lang platform?

- Teacher showed a short film, then gave instructions, which were easy, introduced new words.
- Presentation of myself was fun and easy.
- Interaction with other students was great and quite easy.
- It was not so easy to manage the platform, it needed teacher's help.
- I gained some new computer skills in easy way.
- I felt like in a foreign country.

How would you evaluate your participation in the lesson?

- It was easy to use the avatar, to use the map to move around.
- It was not so easy to use the foreign language at the beginning.
- The communication with a teacher was absolutely different from what we usually have during the lesson in the classroom.
- It's a good way to learn a language, but there should be someone from the other country.
- More confidence with virtual world.
- There were some new words.

#### 4.2. Germany

Pilot tests were organized by Dialoge Sprachinstitut Lindau and took place between February and May of 2011. Their schedule included:

- Presentation of the project and the platform, in-house teacher training on 20.02.2011.
- Online workshop for teachers from Austria, Germany and USA on 21.03.2011.
- Presentation and platform testing for teachers from Great Britain and Italy on 07.04.2011.

The tests were conducted in:

- Two groups of international students.
- 4 students in every group.
- 5 sessions each group / 10-12 hours.
- Each session lasting 60-90 minutes.

Conclusions from the pilot tests:

Advantages

- To communicate with „real“ looking people / avatars. It is a kind of face to face situation.
- Features like note card and chat are very helpful to organise a language lesson.
- It is very practical to have the Internet with Facebook, Twitter, You Tube, Google at your fingertips.
- It is nice to have a relaxed learning atmosphere – sitting at a sofa, sitting at the kitchen table, drink and eat...

Problems:

- Dependency on technology.
- Some confusing menu options.
- Presenter tool – works unstable.
- Voice chat didn't work at all – we used Skype.
- Stressful for the teacher to handle technical problems and at the same time to concentrate on the contents of the lesson.

#### 4.3. Poland

The piloting experience of the V-Lang project took place in Warsaw in May and June 2011. Warsaw Academy was responsible for testing the V-Lang platform in order to teach Spanish.

The piloting was divided into eight 60-minute sessions. Each session consisted of 2 parts: a short technical training conducted in Polish and a 45-minute Spanish lesson. All the sessions took place in the evenings (6pm – 9pm) as the majority of participants were working adults. In total, 38 people participated in piloting sessions (36 students and 2 teachers). The age of participants varied between 20 and 40 years old.



#### Training structure

- Short technical training (Polish).
- Spanish lesson (Spanish + Polish chat).

#### Teachers' opinions:

##### POSITIVE but:

- Teacher's problems with technology.
- Student's problems with technology.
- Problems with slides and video.
- Lack of non-verbal communication.
- Avatars should be more personalised.
- Mini glossary (Spanish-Polish).

#### Students' opinions:

##### VERY POSITIVE but:

- Technical problems (connection interruptions).
- Less material covered than in a traditional classroom.
- No slides visible.
- Lessons should be more dynamic.
- There should be a handout that would accompany the lesson.
- More effective with more advanced users.
- Possibility to talk to real students (interactive aspect).
- Convenience (learning from home).
- Innovative character.

#### Suggestions to improve the platform and the guides

First of all, the functionality of the projector should be improved. The projector plays a role of a virtual blackboard and as such it has to be reliable for both students and teachers. It should be able to show both Power Point presentations as well as pdf and video files. Some students suggested that some V-Lang functions should be removed from the user's interface as they distract attention and may overwhelm a new user, especially the one that is not very familiar with ICT.

## 5. How to apply the Toolkit?

Final product will be an affordable and easy to use toolkit for language providers, and a very accessible and appealing environment for learners, especially those at risk of exclusion.

Toolkit will provide a ready to install virtual village and classrooms allowing for immersive and collaborative training environments, as well as methodology guidelines for the integration and impact assessment of such approach into traditional on line language training.