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CREATING VIRTUAL CITY TOURS FOR CULTURAL STUDIES IN LANGUAGE LEARNING – A CONSTRUCTIVIST APPROACH

Abstract

Introduction. *This paper demonstrates how modern digital technology can be used in task-based learning of modern languages.* ***Goal of the work***. *Our starting point is the fact that the best single predictor of second language learning is the time spent working with the target language; however, it is a challenging task for the language teaching community to create engaging tasks which capture learners' attention and help them in intentional and unintentional learning.* ***Materials and methods***. *Lingowalk learning objects have been developed as a response to this challenge. They are virtual guided tours which have proved to attract learners' interest in field trials and to lure them to use the target language in natural communication.* ***Results and conclusions***. *Using the proper tools, learners can also adopt an active role in developing virtual tours in many different environments and move from being consumers to being producers of learning materials.*

Keywords*: multimedia, co-operative learning, imagination, motivation, cultural aspects, creativity*

The theory of language acquisition has undergone radical change during the last two decades. Noam Chomsky presented several reasons in the late sixties why syntactic knowledge has to be innate. The main argument was that children hear samples of sentences which are inadequate for them to acquire the complexities of grammar rules. The theoretical problem resulting from the limited input is how children 'get from here to there'. This problem was solved by assuming that human beings are born with innate knowledge of a so-called universal grammar. According to this view the time spent learning a language is spent learning the vocabulary.

Towards a usage-based theory of language

The usage-based theory of language acquisition rejects the idea of innate knowledge of grammar and uses empirical data to show that language structure emerges from language use. This shift in thinking emphasizes that the acquisition of language follows general rules of learning and cognition. Michael Tomasello's book *Constructing a Language* (Tomasello, 2003) summarizes the empirical evidence for usage-based theory.

If language learning, both in case of L1 and L2, belongs to the category of skill learning, it has to follow general laws of learning. Probably the most important rule of skill learning is the "time on task" -rule which may simply be stated as "the more time one spends on a task, the better one gets at that task" (see Speelman & Kirsner, 2005). "Time on task" is the best general predictor of learning outcomes and MacWhinney speculates that as much as 50 per cent of the differences in second language learning can be explained by the amount of time a learner has spent working with the language. For the language teaching community this brings the challenge of creating motivating tasks engaging students for longer periods of time.

This paper presents the design of a new learning task whose goal is to offer students contextualized settings to work with spoken language.

The challenge of task-based learning

While talking about language teaching the word 'task' is used in both the general sense as a synonym to 'activity' and in the more specialized sense of "a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in target language while their attention is principally focused on meaning rather than form. The task should also have a sense of completeness, being able to stand alone as a communicative act in its own right" (Nunan, 1989). Our working paradigm is to combine both of these aspects of a task. This is done by combining language auditing with more specialized tasks complying with Nunan's definition. In our view this follows from the need to promote noticing when the time available for learning is limited.

The starting point of task design is described well by H.A. Simon, the Nobel Laureate and one of the founding fathers of modern cognitive psychology:

"Learning takes place in the minds of students and nowhere else, and the effectiveness of teachers lies in what they can induce students to do. The beginning of the design of any educational procedure is dreaming up experiences for students: things that we want students to do because these are the activities that will help them to learn this kind of information and skill. And then we can back off and ask what we have to do to get students to carry out these activities."

The key problem in task design is this 'dreaming up of experiences'. Keith Johnson gives some empirical albeit anecdotal evidence that there are huge differences in task design skills among teachers selected on the basis of their first-class expertise as teachers (Johnson, 2003).

Our starting point in the design process has been to find new ways to take students via computer screen to environments in which the target language is spoken. Advances in information technology make new approaches possible. Due to the fact that computers are now sold as game machines and home entertainment systems we also have very efficient multimedia machines available for educational purposes at a very reasonable price level. We have utilized multimedia computing for virtual visits to different organizations to interview experts and students, to create micro worlds in which students can build technical devices guided by native speakers or co-operate with a native speaker to create something tangible. The task framework described here takes students on guided tours of different cities.

Lingowalks

Lingowalks, as we call these guided tours, utilize a special purpose interface.

Using the interface the learner can navigate in a city from one place to another. This is done by following the advice given by a native speaker guide. The narrator can also ask the learner to find different things in the picture and click them. The sound track of a typical scene could go as follows:

This is New Oxford Street.

Can you see a tall skyscraper in the picture? Show it to me.

[Student clicks correct target]

Yes, that's it. This building was designed by Richard Rodgers, the architect of the new German Parliament building, in the 1960s and is called the Centrepoint building.

[Student clicks wrong target]

No, it's the tallest building that you can see in the picture.

I'd like to call my mother in Ireland to say 'Hello'. Where could I do that ?

[Student clicks correct target]

That's right. There are two public telephone boxes here.

[Student clicks wrong target]

No, we can't do it from there. Have another look about for me, please.

Let's keep moving forwards towards the large intersection ahead.

[Student has to click the arrow pointing upward to move forward
as he/she has learned to do earlier in the program.]

The Lingowalk-program can be viewed from different perspectives. It is at the same time media and a tool. As media it provides an interactive multimedia experience; as a tool it facilitates target behaviour by offering the opportunity for instant replay of any sound. If the learner does not know what s/he has to point to, the interface shows the target by flashing an arrow next to it when s/he clicks the Help button. A spoken comment is available when the student clicks the wrong object. By offering feedback the Lingowalk program also functions as a social actor (Fogg, 2002).

In a classroom context a Lingowalk through a city may be seen as an interactive version of a basic text. As a multimedia program it is natural to use it first by listening and following the instructions of the guiding native speaker. Later one way of interaction is to work in pairs so that one of the students has headphones and the other one is using the mouse. Only the student with headphones hears the original instructions given by the native speaker and it is his or her task to instruct the student using the mouse. Even if L1 is used in communication between students this is a very authentic comprehension task.

In language auditing it is useful to let learners work with the spoken language and ask them to find all lexical items or constructs belonging to certain categories. For example, during the walk from the British Museum to Covent Garden the guide mentions numerous man-made structures from balconies and railings to beacons and domes. By asking pairs of learners to compete in finding as many of them as possible they will follow the route again and audit the vocabulary carefully. In a similar way, you may ask students to work with linguistic expressions. One group may collect all the expressions the guide uses while asking the learner to move forward. Another group might look for all expressions used to tell you that you have pointed to a wrong item in the picture.

From consumers to producers

It was soon noticed that the Lingowalk tools could be further developed and put into the hands of students, so that they could develop their language skills by creating their own virtual tours in a foreign language and guiding visitors through virtual scenes of their hometown or by reporting on their holiday or school trips to cities abroad.

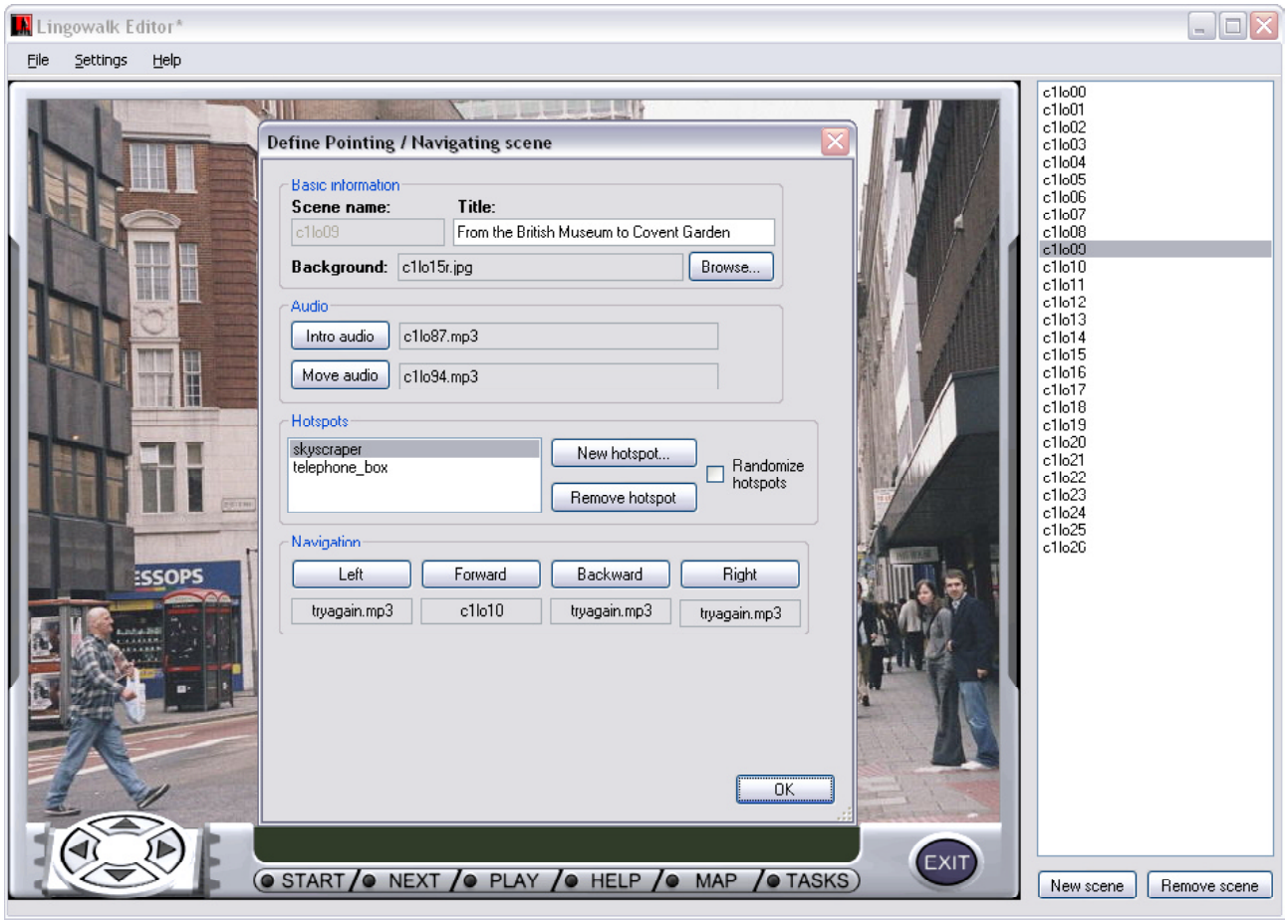
This kind of project can be visualised as a learning spiral, which starts with the teacher in charge briefing students and ends with students demonstrating their products to a larger audience. One of the ready-made Lingowalks may be used to describe the goal of the project, but it is important to encourage students' creativity and challenge them to carry out the task from their own perspective.

As soon as students have completed the ready-made Lingowalks, it is useful to have meetings in which groups of four to six students develop their own ideas about a tour they would like to create. These groups then report to the other students as soon as they have their first draft. This gives the teacher an opportunity to set standards and bring all the students to a more uniform starting position. The work can be done by small groups of students each working with a different route.

For a Lingowalk you usually need a collection of pictures taken for this purpose. How they are collected may differ greatly depending on the larger framework of the project, but even a local campus offers many possibilities for less time-consuming photography. A digital camera is the best technical tool, but even the quality of new mobile phones is often satisfying for something to be presented on the computer screen either locally or via the web.

There are usually more pictures than needed, especially if details like shopfronts, statues, etc. have been photographed. When the pictures to be used have been selected, it is useful to load them onto the computer hard disk so that scripting can be experimented with as a spoken activity. Students could gather around the same screen or video projector and guide each other through the route. Some of them can adopt the role of the visitor and ask questions about interesting details. Recording or taking notes of this kind of brainstorming session produces useful starting points for scripting. All the lines in the script are recorded on the computer's hard drive and they have their own unique file names.

For each picture and each action by the student there has to be text. This text, as the program itself, is divided into scenes. The short segment from the New Oxford Street is an example of such a scene. These scenes are created using the editing facilities of the Lingowalk tool and the programming is to a large extent form-filling in order to specify which pictures and sounds go together.



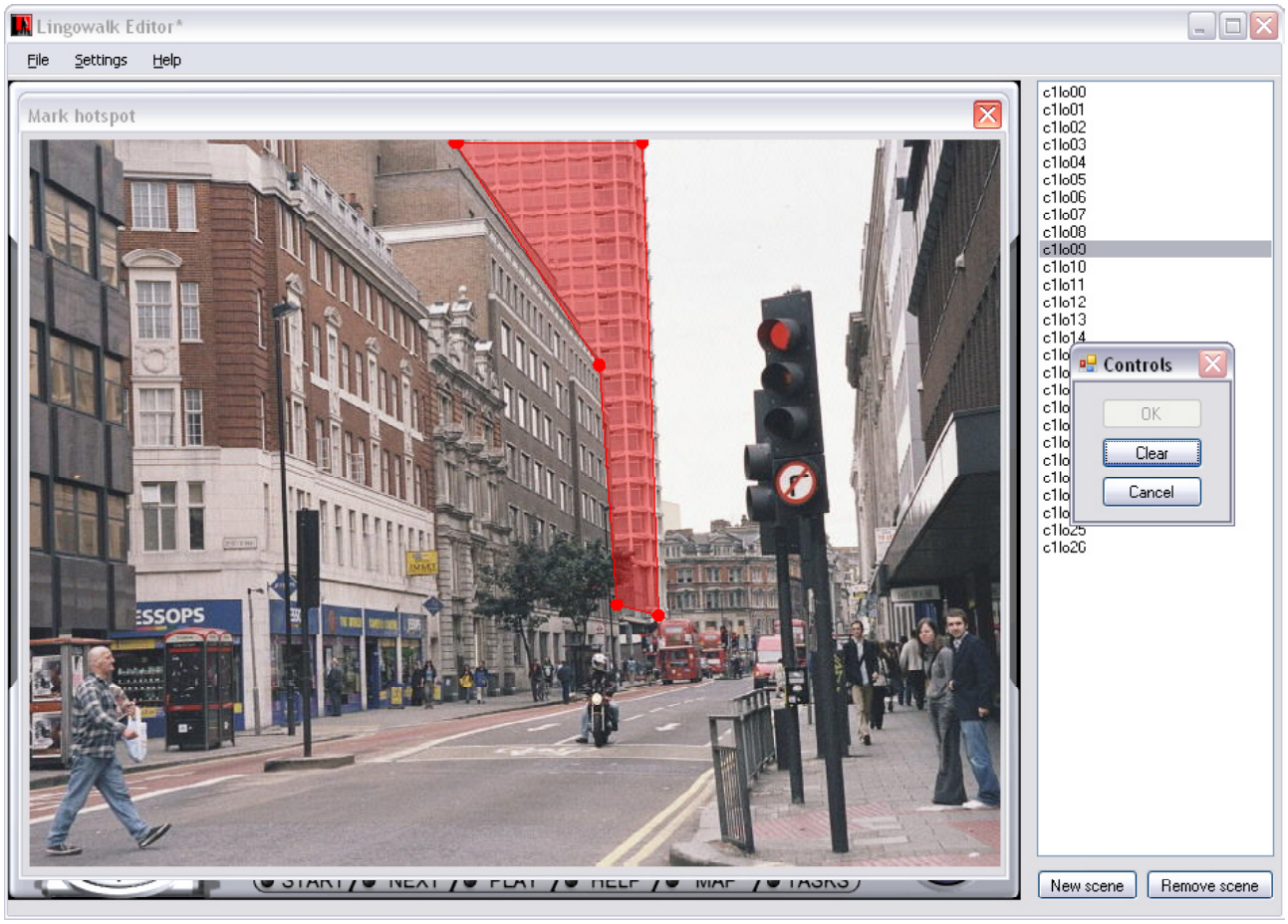
The above picture shows how the New Oxford Street scene is programmed. The program name is an abbreviation selected by the author, in this case from the words London, British Museum and Covent Garden. Scenes can be named as you please as long as each scene has a unique name and it only consists of letters and digits. For web use we recommend lower-case letters.

The background picture is selected by clicking the Browse-button and selecting the picture from a list.

The intro sound “This is New Oxford Street” is stored in file c1lo87.mp3. The form is filled with this file name by clicking the Intro audio -button and selecting the file name from a list.

As this scene involves pointing (i.e. clicking a particular target) the user can move forward only after completing the pointing task. When ready, the program will play the Move audio, which says “Let’s keep moving forwards towards the large intersection ahead.” In the Forward-field we have the name of the scene into which pressing the arrow ‘forward’ will take us. All the other arrows give negative feedback.

The two hotspots the learner has to click are programmed next. When the Hotspots-button is clicked in the Pointing Scene -form, we access the background picture and can mark the area reacting to the mouse click. Again the necessary sound files are selected from the list of sounds recorded earlier and stored on the hard drive.



The programming of a Lingowalk is mostly working with the media resources: pictures, texts and sounds. The quality of a Lingowalk corresponds to the quality of the comments made while guiding the learners. While developing the script and the sound track the principles of process writing should be used. The first versions of Lingowalks should be viewed together: students give feedback to each other and the teacher coaches this process.

As Lingowalks can be shown to the whole world via the Internet there is more motivation to work through several production cycles.

The first publicly available Lingowalks we produced were made within the framework of the European Celebrate project and were tested in several schools as ready-made learning objects. In addition to the fact that they attract students to work with the language, they were also seen by teachers as an easy-to-use format.

It has not escaped our attention that the Lingowalk format also works well when introducing buildings, laboratories, workshops, etc. to students – all places where we have a long tradition of taking tours in.

1. Fogg, B.J. (2002) *Persuasive Technology: Using Computers To Change What We Think and Do*. San Francisco: Morgan-Kaufmann.

2. Johnson, K. (2003) *Designing Language Teaching Tasks*. Basingstoke: Palgrave.

3. Whinney, B. (1995) Evaluating foreign language tutoring systems. In V. M. Holland, J. D. Kaplan, & M. R. Sams (Eds.), *Intelligent language tutors: Theory shaping technology* (pp. 317-326). Mahwah, NJ: Lawrence Erlbaum Associates.

4. Newell, A., & Rosenbloom, P. S. (1981) Mechanisms of skill acquisition and the law of practice. In *Cognitive skills and their acquisition*, edited by J. R. Anderson, Hillsdale, NJ: Lawrence Erlbaum Associates.

5. Nunan, D. (1989) *Designing tasks for the communicative classroom*. Cambridge: Cambridge University Press.

6. Simon, H.A. (1998) What we know about learning. *Journal of Engineering Education*, 87(4), 343-348.

7. Speelman, C. and K. Kirsner. (2005) *Beyond the Learning Curve: The Construction of Mind*. Oxford University Press.

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