

## **SIMULAB, Collaborative Tasks for Language Learning in the Web**

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**Abstract.** With the support of the European Union through two of its programmes (Socrates Adult Education and Telematics in Education and Training) a consortium consisting of language teachers, researchers and programmers from six European countries have developed SIMULAB, a product that includes both a validated pedagogical concept and a customized Web-based platform (TELSI) especially created to meet the needs of collaborative learning. The main objective of this type of simulation is to develop the communicative language skills of the students. Teachers see themselves as moderators of the interaction that takes place among the students in their own group. SIMULAB is a concept for Internet-based communication between language students across national and cultural borders. A simulation is a problem solving activity, a role-play where students must communicate within the frame of a fictive but realistic script. SIMULAB is based on such recognised pedagogical principles as student autonomy and collaborative learning. Individual creativity is just as important as the capacity to communicate both within the local group and with representatives of other cultures.

### **Introduction**

The rapid development of multimedia applications has created a new and ever expanding paradigm of possible pedagogical activities, frames and contexts. For several years, researchers have been telling us that our pedagogical thinking needs to undergo a radical change to accommodate the new realities. Old pedagogical concepts need a thorough revision if they are to survive in the Information Society, the researchers claim. For many educators, this constitutes a threat. They fear that pedagogical concepts that have proved successful in the past may not survive the appearance of this new frame for teaching. The SIMULAB project is proof that this need not be the case. Not only can the creative, fruitful ways of teaching of a pre-Internet era survive the change. They can also be enhanced and acquire an entirely new life.

### **Simulations in language learning**

The pedagogical concept in SIMULAB is based on the French "simulations globales" of the 70's and early 80's. In that context, a simulation was a long-term role-play, which took place within the frame of a classroom and in which the students themselves were asked to continuously form the role they were playing. In a simulation, the classroom group could become a factory, a bank, a political organ, etc.

The advantages of a simulation were manifold:

- several subjects could be integrated in one pedagogical activity,
- they created a powerful link between the closed world of the classroom and the world outside,
- they motivated the students for collaborative work,
- they integrated creativity and realia.

Simulations were used as a cross-curricular activity, but proved especially efficient and adequate in language learning. Paradoxically enough, the use of a fictive frame makes classroom communication more real. The simulations **aim at** restoring the natural communicative

status of a language, a status that is often difficult to recreate in a traditional teaching situation. The main **objective** of this type of simulation is therefore to develop the communicative language skills of the students.

Language teachers are familiar with the principle of simulation in oral role-play exercises of the type "Imagine you are in an unknown town and need to ask for directions". These small role-plays, however, are not real simulations because they only create isolated and limited communication situations. Simulations do not only simulate individual situations but create a whole communication scenario in the classroom, in which the students learn the language by using it according to the rules and structures set by the environment.

### **Breaking the mould: simulations in the Internet**

Several years ago experienced language teachers in Finland began to use the Internet as a means of communication between groups that participated in a simulation. They were led by Eric Rousselle, a French language teacher at the University of Oulu, who was familiar with the concept of "simulations globales". The first pilot groups used primitive e-mail systems. Conferencing systems on the Web were tried later, but it soon became obvious that to optimize the pedagogical results of the simulation activity, it would be necessary to create a customized, WWW-based software. This realisation led to the creation of TELSI, the Webbased SIMULAB platform for collaborative learning.

From the starting point of the "simulations globales", the SIMULAB concept takes the simulation activity a step further, creating international networks of student groups that will work together to accomplish the task indicated in the script. SIMULAB uses the WWW as a means of communication between these groups and as a source of information about the themes treated in the simulation, but the main pedagogical activity is still focused on the classroom situation where the students discuss which

decisions will be communicated to the other participating groups.

### **How does a simulation work?**

One of the main characteristics of the SIMULAB concept is its flexibility. Although this flexibility is an immense advantage for the teacher who wants to adapt the concept to a particular situation, it makes it very difficult to explain how a simulation works. There are simply too many alternative solutions and ways of implementing the activity. We will attempt, however, to give an outline of what a standard simulation could be like.

The ideal number of participating groups is three, although two or four will also be possible. Ideally, these groups will be in different countries, a fact that enhances the interest for communication, but this is not an absolute prerequisite. The three groups are given access to a password-protected TELSI environment where the simulation will take place.

The participants are presented with a problem that has to be solved by the whole network. Each group gets, or creates, a “group identity” that will differ from that of the other groups. In a standard simulation for language learning, the new identity will be placed within the frame of the culture where the target language is spoken. Students will be faced with the need to find relevant information about that culture, thus enhancing the language learning. During this phase, most of the activities will be centred round discussions in class. Computer communication will be used only as a source of information.

Once the group identity has been established, the students will describe it and make it accessible to the other groups as a document in the SIMULAB environment. The groups might also make use of the other communication tools in the TELSI environment (mailing lists and chat) to become acquainted with each other. In the second phase of this standard simulation, the students will be presented with the problem or case they will have to solve. To be able to negotiate with the other groups, they first have to arrive at a consensus in their own group. This is achieved through active discussion in the classroom. The group writes a proposal for a solution of a problem and presents it to the other groups in the SIMULAB environment.

Now negotiations can begin, the third phase in a standard simulation. Based on the proposals presented by the three participating groups, a discussion will arise to try to find a compromise within the deadlines imposed by the simulation coordinator (normally one of the teachers, who takes an overall responsibility for the activity). At the end of this phase, the simulation script will probably demand that one of the groups write a document summarizing the common solution the groups have arrived at.

A standard simulation does not end here. There is yet a fourth phase: evaluation, also called debriefing. The participants are now asked to step out of their roles and comment on both their own performance and that of the other groups, on the adequacy of the script, the interest of their roles, the results achieved, etc.

With the support of the European Union’s Socrates program, the SIMULAB consortium has created a series of scripts for learners of English, French, German and Spanish. Teachers can feel free to introduce changes which will adapt the scripts to the needs of their particular groups.

### **The Three Villages in Cork**

You and your class or group are now the inhabitants of a village situated in the southwestern region of the county of Cork, in Ireland. Your village is totally typical of the region.

#### *Tasks:*

- Find information about the region and use this as a basis for a description of your village.
- Describe the landscape around it, the architecture of the village houses, the climate etc. If you have access to a scanner, draw a map of the village and put it as an image under your village folder.
- Decide on the number of inhabitants, their characteristics (average age, employment, etc.)
- Decide what are the strengths (landscape? historical sites? arts and crafts? good leadership? ....) and weaknesses (unemployment? young people leaving the village? lack of water? lack of industry?) of your village.
- Choose four committees (*a, b, c* and *d*) to represent the village. The committee work is going to be divided in such a way that
  - a) gives a description of the village strengths,
  - b) gives a description of the village weaknesses,
  - c) takes care of the geographical description and,
  - d) gives a description of the human geography (inhabitants etc.).

In this particular script, the students will be presented with an unexpected problem in phase 2: the Irish Ministry of Tourism has decided to give financial support to a project for the region where the three villages are situated, if the villages manage to agree on a common proposal. The village committees will have to present one proposal each, being faithful to the needs or strengths they already have described, and then try to combine the three different proposals to arrive at a compromise, so that they can apply together to the Ministry.

### **Flexibility in theme, goal, time and structure**

A SIMULAB activity has only a few absolutely necessary ingredients: a minimum of two groups of motivated students, a knowledgeable coordinator, a script (which normally should include a presentation phase, a problem to be solved, a negotiation phase, and a final phase), a time-frame, and a password-protected TELSI environment.

Apart from these requirements, users can be free to adapt the concept to their needs and make use of the immense flexibility built into SIMULAB and TELSI. Experience shows that:

- Any problem or case can become the basis of a script, if it is written by an educator with SIMULAB experience.

- Scripts can and have been written for students of any age (from first grade to University), or at any level.
- Simulations can be adapted as a module to main stream studies or constitute the sole activity in a short brushing-up course for professionals.
- Simulations can last for a week or a whole term.
- Simulations can make more or less use of the possibilities presented by the World Wide Web. (A group's only contact with the Web might be through their teacher, if the technical infrastructure is deficient).
- Simulations can have one or many of a series of different pedagogical goals: linguistic practice, collaborative skills, internationalization, global (crosscurricular) learning, motivation for writing and reading, etc.
- Simulations normally take place in an international frame, which makes use of SIMULAB's potential as a tool for cross-cultural communication, but can also be used at national level, with groups from different towns or localities. Some educators have actually established simulations with different groups of the same institution. Although some of the motivation for communication disappears in such a set-up, it might be a justifiable in the case of a first simulation, where teachers will feel "safer" by not committing themselves to international collaboration before they master the system.
- possibility of creating internal links from mail messages to TELSI documents,
- integrated CHAT function,
- integrated editor for exercises and multiple choice tests.

TELSI makes it possible to integrate three different types of communication in the simulation platform:

*Static, important communication*, which needs to be structured and easily accessible for future use, is presented in the form of DOCUMENTS. Each user has his/her own folder in which he/she can create subfolders and create documents of different types e.g. html-files which are created with an automatic editor, links, images, uploads in standard formats such as Word, Excel or PowerPoint, sound files, video files, etc.). The user/author can decide who else can read or edit the document, and can also keep the document "hidden" until further notice. It is also possible to set a date in which the document will automatically become "public" or be erased.

*Dynamic communication*, such as will occur during periods of negotiation between the participating groups, will take place in the MAIL area. Although private mail between TELSI users is possible, most of the dynamic communication in a simulation will take place in conferences or mailing lists established by the coordinator. It is possible to give different reading and writing rights to these lists, which makes it possible to create a conference only for teachers, only for students, or only for a specific group. Within the conference, a message can be directed to only one, several or all the readers of the list, but no matter which option is chosen, the message will be readable by all users with reading rights to the list.

*Synchronic communication*, through CHAT. Although most of the communication taking place in a simulation is asynchronous (within the limits imposed by the deadlines for each phase), it is possible to establish synchronic communication if the users agree on meeting on-line in real time. Since the environment is password protected, the system keeps track of who is logged in at a specific moment in time, and their names appear in the Chat window. One or several of these users can then be invited to chat, either privately or in a group. A special feature of the TELSI chat is that it can be recorded. The Chat log-book will appear as a document in the folder of the participant who has issued the invitation.

Through a special profile editor, the Chat button can be linked to a standard system for oral communication, like Net-meeting. Any net-based type of communication can thus be integrated into the environment.

#### **The roles of the supervisor, coordinator, and teacher.**

A supervisor is the representative of SIMULAB. He/She is the person with whom the coordinator, who rents the TELSI environment, first establishes contact. The supervisor will provide the coordinator with a URL for the rented TELSI environment and a user name and password corresponding to a coordinator profile.

The coordinator is normally one of the teachers taking part, with their students, in a simulation. He or she is the person

#### **TELSI and SIMULAB**

The first simulations using the Web as a communication platform took place in 1997. Although the activity was obviously interesting and motivating for language students who could now practice their target language through real communication in a collaborative, cross-cultural setting, it soon became obvious that the standard tools that were being used were inadequate. Language teachers who were not familiar with html-codes could not create their own simulation scripts, students could not create and edit their own documents in the way they wished, and standard mail systems were insufficient to create the internal mail communication needed in a simulation. A customised software was needed, a Web-based authoring tool which would enable both teachers and students to communicate in a structured setting.

#### **TELSI as a tool for the simulation activity**

TELSI has been developed as a platform especially designed to meet the needs of a simulation. Its main features, from the user point of view, are:

- easy creation and editing of user names and passwords,
- easy creation of folders and subfolders for documents, with different reading and writing rights for different users or types of users,
- easy creation and editing of different types of documents, which can contain links and images,
- easy creation of mailing lists, with different reading and writing rights for different users,

who takes the main responsibility for the activity, rents a TELSI environment through the SIMULAB homepage, receives their share of the rent payment from the other participating groups, creates user names and passwords and sets up the simulation script.

The coordinator will be the main person in charge of the simulation as the activity proceeds. He/she should access the environment frequently, control that the instructions are being followed, answer questions from the participants, and encourage groups who are not active enough. Whenever problems arise that he/she feels unable to resolve, the coordinator shall make use of the help desk (contact with the supervisor is normally limited to five hours of user support per year). The role of the coordinator is extremely important. Although initially all participating teachers may be highly motivated for the simulation activity, experience shows that simulations risk stopping completely somewhere along the line, unless there is a person who takes responsibility for seeing that everything is completed as it was planned. It is important that the coordinator continuously make his/her voice "heard" in the simulation, praising the work that has been made, reminding the participants of approaching deadlines, correcting mistakes, suggesting ways of solving problems that may arise, etc.

The role of the other teachers participating in a simulation with their students is equally important. It is important that teachers have a very clear idea, long before the simulation starts, of the task they are undertaking: what the purpose of the simulation is, how long the different phases will take, what the tasks in each phase are, when and where the different documents are to be placed, what kind of communication is expected during the simulation. If possible, the teachers should try to meet face-to-face and discuss the activity before it begins.

### **Flexibility within a frame**

The fact that all three or four participating teachers should be completely committed to bringing the simulation to a happy conclusion does not necessarily mean that they all need to work with their part in the simulation in the same way. What they must all bear in mind is the need for a certain type of communication to occur between the groups and within the established deadlines.

This communication will be the transmission of results of another, and essential, type of communication in a simulation: the discussions that occur in class. Here the teacher is completely independent from the other teachers in the network and free to direct the activity of his/her students as he/she sees fit.

Let's consider the script called "The Three Villages in Cork". The product of the first phase or step, will be a series of documents describing the characteristics of the different villages. The teachers should feel obliged to ensure that their students have created these documents before the deadline. But the procedure through which each group has arrived at these descriptions may be completely different in each group. A small group which meets often and has few curricular obligations (which means they have

a lot of time), may choose to really "create the village" in the classroom. Each student might get a distinctive role in the village (priest, teacher, mayor, unwed mother, unemployed worker, young political activist, etc.), and learn to act and discuss from this sustained fictive role. Different interest groups may be created, where the issues are discussed. Each group might then send a representative to the Village Council, where final decisions will be taken. These final decisions will then be communicated to the other groups through the simulation environment. The whole group process might, in this case, be placed in a "suggestopedic" frame. (Suggestopedia is a pedagogical model for language learning that implies using all the learner's senses aiming at a complete immersion in the culture corresponding to the target language).

Within the same simulation, another group might choose a completely different approach. If time is limited, the teacher might lead a plenary discussion in the group, and work him/herself as a "secretary", writing down on the blackboard or on an overhead slide the information that should be communicated to the other groups. A small group of students may then be sent to type the information into the TELSI environment. Or, if this is difficult because of practical considerations, the teacher himself/herself may choose to do so.

Teachers should see themselves as moderators of the interaction that takes place among the students in their own group. Although a simulation is essentially a student-based activity, the importance of the teacher as moderator and constant motivator should not be underestimated. The enthusiasm or lack of performance of the teacher will have an immediate effect on the students.

Simulations are collaborative processes, and the success of the activity depends totally on the commitment of all the groups involved. Time and time again, during the project years, the SIMULAB consortium has been surprised by the degree of individualism that some teachers express in their professional life. Several participating teachers have failed to lead their students through the necessary simulation steps or failed to comply with deadlines, and have explained this as due to lack of time or prior obligations, like tests, or other projects. They have seemed completely oblivious of the fact that their failure to meet their obligations had very negative results on the activity of the other groups. It is important that all participating teachers know that when they engage in a simulation, they commit themselves to fulfilling the tasks and complying with the agreed deadlines, and that failure to do so will spoil the simulation for the other participants. They are expected to have taken into consideration the amount of time needed and all other prior obligations, before they engage in the simulation.

Despite all these considerations, unexpected things may happen. Teachers who understand that their group will be unable to comply with deadlines, should make use of their creativity, flexibility and problem solving skills: they can simply fulfil the tasks themselves, and inform their students that they will be able to take up the simulation activity again when the time for the next phase arrives.

## **SIMULAB in Europe and in the rest of the world**

In the spring of 1998, the SIMULAB consortium applied for a prolongation of two years to its project period. The Telematics in Education&Training programme approved this prolongation, whose main purpose would be twofold:

- to create dissemination, training and information materials for the SIMULAB concept,
- to spread the knowledge about the pedagogical concept and the software created to serve it, by organising of face-to-face, hands-on workshops in different European countries, participation in international conferences, and contributions to different journals on the use of technology in education. Another means of dissemination which had not been thought of at the moment of the prolongation application, has proved very popular: the organization of free on-line workshops for teachers.

As a result of these measures, the concept of SIMULAB has been made known to teachers in many countries in Europe and in other parts of the world. The consortium has organised face-to-face workshops in Belgium, Denmark, England, Germany, Greece, Hungary, Israel, Italy, Norway, Poland, Portugal, and Sweden, with 15 to 25 teachers in each workshop. Many of them have later applied to participate in on-line workshops, where they have met colleagues from other countries and improved their knowledge of both the concept and the software.

The SIMULAB concept has also been presented to language teachers from all over the world at international conferences in China, Canada, Denmark, Germany, and the US. National conferences in several countries, among them Australia, Denmark, Finland, Greece, Norway, Spain and Sweden, have included SIMULAB workshops, presented either by members of the consortium or by teachers who have become experts in the use of the software.

A large number of the teachers and representatives from institutions and interest groups that have been part of these dissemination activities now form part of the SIMULAB network, and it is the hope of the consortium that they will contribute to a continuous dissemination of the pedagogical concept of SIMULAB. One of the most interesting spin-off effects in this context, is the fact that several organisations for in-service teacher training have expressed their interest in including SIMULAB, as a tool for collaborative learning, in their curricula.

### **European recognition: The European Label**

The SIMULAB concept has gained the recognition of European language teachers. In January 1999, the project was awarded the Norwegian edition of the European Label for Innovative Language Teaching and Learning. In an event hosted by the European Union in Brussels in March 1999, where the winners from the different countries were presented, the jury gave the following description of SIMULAB:

“**SIMULAB** is a concept for Internet-based communication between language students across national and cultural borders. The communication is based on a

specific simulation script. A simulation is a problem solving activity, in a role-play where students must communicate within the frame of a fictive but realistic script.

**SIMULAB** contributes to the creation of international networks of language students, who will collaborate to attain the goals set by the script. The structure and contents of the scripts can be adapted to cover different languages, themes, levels or specific learning goals, and the model can be used as soon as the students master the most basic communication strategies in the target language.

**The TELSI software**, developed by the SIMULAB-project under the Telematics in Education and Learning programme, combines technology and pedagogy in a user-friendly authoring tool which enables students to publish and edit their own documents and makes it possible for the teacher to direct and structure the simulation activity.

**The SIMULAB concept** provides an integrated frame in which it is possible to combine active oral use of the target language in the classroom (because oral discussions take up approximately 80% of the time given to the activity) with internationalisation and Internet-based search for information.

**The model motivates** teachers and students to become better users of ICT, as well as encouraging the students to study the history, art, society and geography pertaining to the target language. It leads to increased interactivity between students, and between each student and the communication tool.

**SIMULAB** is based on such recognised pedagogical principles as student autonomy and collaborative learning. Individual creativity is just as important as the capacity to communicate both within the local group and with representatives of other cultures.”

### **... and the work goes on**

The SIMULAB concept is currently continuing its expansion through Europe both through small networks of interested teachers and through new European projects concerned with different pedagogical adaptations of the original idea. Teachers from Spain, Belgium and Finland have run several versions of a special simulation for Business English called CyberMarket. A current European project, eCOLE will make use of the TELSI platform for the validation of two new collaborative concepts, the WSS and ACROSS. In Lithuania, English teachers from Kaunas University of Technology have been running different types of simulations and are currently involved in the eCOLE project.

The results of different user groups can also constitute an excellent field of study for researchers interested in collaborative learning, in the new roles of the teacher in virtual environments, and in the value of international collaboration in adult education.

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## SIMULAB – bendradarbiavimu internete paremtos kalbų mokymosi užduotys

Santrauka

Remdamasis dviem Europos Sąjungos finansuojamomis programomis (Socrates Suaugusiųjų švietimui ir Telematics Švietimui ir mokymui), kalbų mokytojų, metodologų ir programuotojų konsorciumas iš 6 Europos šalių sukūrė SIMULAB – priemonę panaudoti mokymosi bendradarbiaujant principus, kuri grindžiama patikrinta pedagogine praktika ir specialiai sukurta internetinio tinklo platforma. Besimokantiems anglų, prancūzų, vokiečių ir ispanų kalbų, konsorciumas parengė scenarijus, kurie talpinami tinklapyje ir gali būti naudojami mokant visų kalbų. Varotojai gali lengvai pritaikyti SIMULAB savo poreikiams pasitelkdamai ypač paprastą TELSI platformos valdymą.

Svarbiausias kalbų mokymosi aspektas naudojant scenarijus yra besimokančiųjų diskusijos klasėje, kai dalyvauja mokytojas-moderatorius, kuris yra visai nepriklausomas nuo kitų bendradarbiavime dalyvaujančių mokytojų, ir savo grupės darbui vadovauja norima linkme. Diskusijų rezultatai kitiems partneriams ir koordinatoriui publikuojami (pateikiami) per internetinę platformą. SIMULAB kaip mokymosi priemonės taikymas pelnė Europos kalbų mokytojų pripažinimą ir 1999 m. sausį buvo apdovanotas Europos pažymėjimu (European Label) už kalbų mokymo ir mokymosi inovacijas.

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