



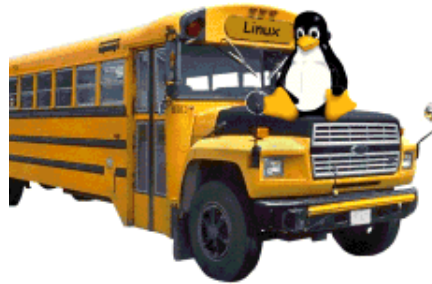
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Collaborative Virtual Workspaces and their advantages



Abstract:

This document is the product of the experiences obtained in the development and execution of the first course in college teaching from the Santiago de Cali University and other courses given via collaborative virtual workspaces, videoconference and chat. The foundation of these courses began with the following problem: Which are the conditions, criteria and methods required for the development of learning scenarios based in technological mediation, that favor new learning ways and new relations between teacher and student? The article is the result of this first learning experience with collaborative virtual workspaces Colombia.

Introduction

Right now the virtual education gives us, among many things, immediacy, telepresence and interaction and this is different from the conventional model for higher education.

Several learning theories could be applied into this kind of virtual environments, for example Piaget, Vigotsky [2] and Dewey. The collaborative learning environments prepare the student to: [1,4]:

- Actively participate in the collective construction.
- Integrate into a virtual team or group.
- Give help to others and ask for it when needed.
- To provide its own knowledge and strength to others.
- To understand other people needs.
- To discover solutions that are good for all.

- Make significant contacts with communities from different cultures.
- To compare beliefs and activities with the other ones.
- Establish goals, tasks, resources, roles, etc.
- Listen with a critical attitude and respect the others.
- To expose own ideas and thesis using argumentation.
- Accept the reasonable critic from other people.
- Provide credit to other people.
- Negotiate language and methods.
- To develop interpersonal abilities.
- Get familiar with democratic processes.

The Internet's increased growth has resulted in creation of cooperative and collaborative environments that cross borders. Now the students can go outside from their everyday world to get involved in adventures with partners from every part of the world. This kind of work, developed by the net, is made of projects in the form of didactic experience that must be done in groups, where the participants are not a mere pen pals, but a team searching for a goal. In the planning of these activities is very important to have effective communication, so communication and interactivity are necessary and fundamental [3]. Every day the learning multimedia applications are more rich and integrated, also the powerful platform of the Communication and Data Network in diverse formats has been applied for the Grupo de Investigación en Educación Virtual de la Universidad Santiago de Cali (GIEV: <http://cvw.usaca.edu.co>) Virtual Education Research Group in the creation of pedagogic environments. It is known for its versatility, handling and delivering of information available in electronic format. These environments favor the learning process and the research of the students. One of the goals of this research group is to guide the University directors and teachers for a better management of the technical resources, with a broad and clear vision of their possibilities and role in the educative environment. All this thinking research is based in the belief that the technology alone isn't capable to bring the quality in an educative system, but its planned use and its critical adoption based characteristics and the lessons derived from the experience and the research in different contexts.

The Virtual Education can't be understood only as a method for distance education or associated with programs in that format, or only for higher education. The GIEV is checking the possibilities to develop new technology-based mediation scenarios to grow the alternatives for the present curriculum with new virtual environment that provides for the extra value to the learning models at different levels.

With these lines, we began a series of actions to implement the virtual education model, at first, inside our institution, because of the viability to coordinate efforts and human, technical and logistical resources for a task that could generate important changes in the everyday educative activities and that could be projected from the GIEV to the main academic community. The Virtual Education Project is not only providing the possibility to generate new teaching forms, but to improve a process that is been changed in the last ten years, mainly because of the adaptation of new technologies with a growing influence in the society.

Materials and Method

The problem base in order to formulate this work was conceptualized this way:

Which are the conditions, criteria and methods required for the development of learning scenarios based in technological mediation, that favor new learning ways and new relations between teacher and student?

Inside our first approaches with the directives we found a broad range of interrogations that was distilled during two years of meetings and tests:

What's the meaning of Teaching in Technology?

Which are the bases to incorporate media in the curriculum from a pedagogic view?

Which are the existent relation(s) between the teachers and students in an university, with the technological resources for communication and information?

Which scientific, pedagogic and computer aspects are required to get the appropriated incorporation of technology in educative processes?

Which scientific, pedagogic and computer aspects are required to implement a Virtual Education Model in the university?

How these technological devices influence the learning and teaching dynamics?

When we speak about Virtual Education are we thinking of it as a Distance Education?

The decision of research in the field of technology was applied to the curriculum used inside the Santiago de Cali University. The idea is now that, over time, the teachers, scholars and alumni from different levels could develop and apply analytic abilities to the use of new instruments and the communication channels.

The model choosen for the course was that of Collaborative Learning. The technological platform was based on Open Source Tools. The Operating System used has been Linux, that has responded with great stability, speed and reliability as server.

We used as main software Claroline (<http://www.claroline.net/>), UNESCO approved and open source, made in PHP, which permit an easy adaptation, complement it or use it as the model for further development.

The databases has been handled using MySQL, for a daily average of 80 users at the same time.

The hardware used has been very cheap, because Linux can be implemented in PCs, this has let that the institution uses its own technical resources in this earlier steps (planning, development, test), without spending money on expensive servers.

Results

Using the collaborative virtual workspaces, software tools and the collaborative learning model we achieved the following:

- Eliminate one of main problems in Distance Education: the student isolation. Based on the profesional experience in this field, we can affirm that the distance model has few moments of true contact and interaction between the student groups and the teacher or tutor. The new technologies generate important changes in concepts like distance, time and communication forms.
- Students and Tutor-Teachers build together the knowledge and they develop tolerance and cooperation, necessary in a world where the kowledge is every day more socialized.
- The computer world has and enormous impact on the younger population and they feel that technologies are part of their environment and, specially, are part of their future work environment. The virtual education model, through networks, could transform a computer screen

- in a new open window to collaborative learning.
- It could help to solve the main problems (production and distribution of print and audiovisual material) that have been one of the main factors that caused in the past distance education programs to fail. The distributed information is not limited to the institution or teacher proposals because the students can access in the network lot of data and multiple information sources.
 - The flexibility of the virtual education model, because it can be adapted to the learning needs of the diverse target groups. For that reason the best model to virtual education and distance education is the collaborative work in virtual learning media, because it stimulates the individual and group participation.
 - The viability to conduct an historical record of all the learning development process and the interaction between students and the teachers. This facilitates the design of new pedagogic tools based on the previous course results. This has been absent in the traditional distance education.
 - Promote, using chat, the organization of ideas in a written way.

These and another reasons assure us that the college processes in virtual and distance education can be extended to many national and international places.

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