Title:

Where is the teacher in a Virtual Learning Environment?

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Abstract:

Introduction

One of the most important contributions of information and communication technologies (ICT) in the field of education is the support of distance education .Virtual learning (VL) is a modality of distance education that makes intensive use of ICT through Internet. Thus, students have maximum flexibility, adapting their studies to their own rhythm, and surroundings at any specific time (Simonson, 2000). This educational model, that at the moment has little reach, will be a model of reference in nearest future, as confirmed by Unesco (Unesco, 2006) and by other sources (Kaczmarczyk, 2001). Nowadays Unesco recognizes more than 100 important universities around the world that offer this model of education (Unesco, 2006). However, regarding the promises of VL the adoption of such learning modality by learning institutions has not been as fast as expected.

In the our Virtual University (VU, 2006) we have conducted a study that points out some interesting results that could explain why VL based on ICT has not taken off as expected. We proposed a survey in order to know which of the main elements of our virtual laboratories were the most valuable for them and we obtained no awaited results. By a great difference, the students valued more important the academy staff and pedagogical resources than the ICT resources. In short, the teacher is more important than the best technology, even for a virtual lab where technical aspects should be extremely relevant.

This result could explain the failure of many organizations that tried to create VLE assuming they could replace the traditional teacher by technological resources.

Methods

In this paper we present the survey and the obtained results. The survey conducted in spring 2006 has allowed the classification of the Virtual Lab resources based on the relevance given by the students.

Resources in Virtual Lab can be classified in:

1. Technological resources.
   - Virtual communication environment (VCE).
   - Simulator (SIM).
   - Remote laboratory (REM).
   - Virtual machine (VM).
   - Automatic assessment tool (APA).
2. Pedagogic and strategic resources.
   - Learning methodology (MET).
   - Support documentation and other materials (DOC).
   - Evaluation (EVA).
3. Academic staff resources.
   - Teacher (TCH).

Result

The survey results allow classifying the resources in three groups based on their relevance: Human factor, pedagogical factor and technological factor. Such classification shows that although technological factors are enabling tools for a virtual learning, students assess with better grades human factors and pedagogic factors (see figure 1). These results may conclude that even in virtual laboratories the teacher and his interaction with students through the communication environment is an essential resource to ensure the success of the learning process.
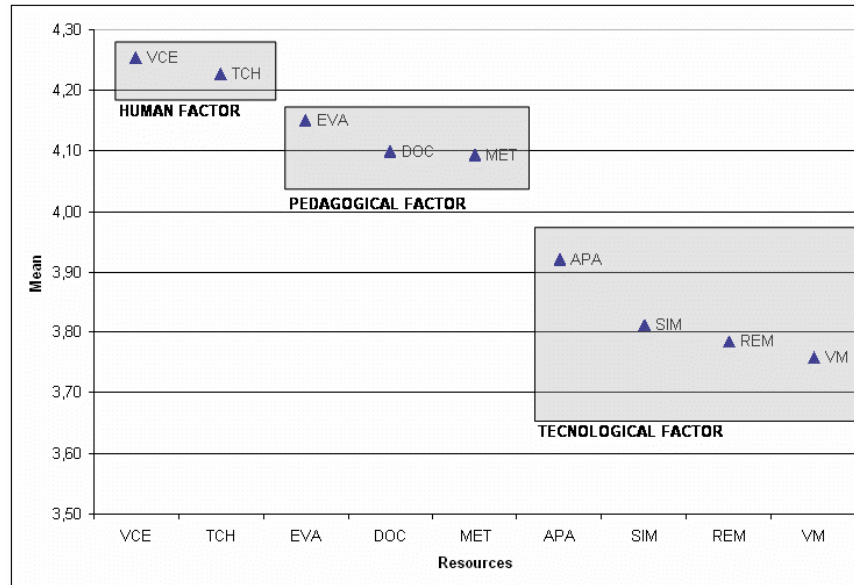

Figure 1

Conclusion

Virtual Lab Students considered that Human and pedagogical factors are more critical resource that ICT resources in Virtual Learning Environment. However, several initiatives have been focusing mainly on technological resources and others have not achieved the expected success. Further research should be conducted to verify if the lack of teacher in VLE may have been decisive in the breakdown of VL initiatives.

Bibliography

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