1. Introduction

Goal: To present a study that points out some interesting results that could explain why Virtual Distance Learning in a full Virtual Learning Environment based on ICT have not taken off as expected.

Methods: We proposed a survey in order to know which of the main elements of the Virtual Laboratories at the UOC were the most valuable for the students.

Results: Despite the fact that the objective of the survey was to study the relevance of technological resources, the students considered academy staff and pedagogical resources more significant than technological resources.

2. UOC overview (www.uoc.edu)

- "New" University founded in 1995.
- It was created as a complete virtual distance university.
- The students learn in a full Virtual Learning Environment.
- Based on Web-centric virtual organisation.
- It include Virtual Campus with integrated multimedia study materials.
- Over 40,000 students in 45 countries per semester.
- More than 1,400 teachers (counsellors and tutors) per semester.
- 18 officially recognized programs.
  - Computer and software engineering: created in 1998, 7,000 students per semester.

3. Learning Models

- One proposal based on time-space synchronism
- Traditional university, Traditional university, Distance university, Virtual university

4. Virtual Laboratories

- Computer and software engineering degrees ⊳ Highly practical.
- Virtual practical activities ⊳ Need for a Virtual Laboratory.
- Resources in Virtual Laboratories can be classified as follows:

<table>
<thead>
<tr>
<th>Technological resources</th>
<th>Pedagogic and strategic resources</th>
<th>Academic staff resources</th>
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<tbody>
<tr>
<td>Virtual communication environment (VCE)</td>
<td>Learning methodology (MET)</td>
<td>Teacher (TCH)</td>
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<td>Simulator (SIM)</td>
<td>Support documentation (DOC)</td>
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<td>Remote laboratory (REM)</td>
<td>Evaluation (EVA)</td>
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<td>Virtual machine (VM)</td>
<td>Automatic assessment tool (AAT)</td>
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5. Survey results: frequency analysis

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6. Survey results: descriptive analysis

7. New teacher role in VLE

- Change to VLE implies change of teacher vision.
- More than a "virtual lecturer".
  ⊳ "A Sherpa that helps the expedition reach the top"

**Key teacher features:**
- Knows her field of expertise
- Believes in what she teaches
- Special set of communication skills in an environment without voice or facial gestures.
- Polite but not too formal
- Great availability. Reliable
- More proactive than reactive
- Planning skills

**Role must be reinforced:**
- Guide
- Counsel
- Accompany
- Motivate
- Monitor
- Coordinate
- Plan
- Keep in contact

The set of required skills for a successful instructor changes considerably.

8. Conclusions

- Virtual lab students considered that as resources human and pedagogical factors are more critical than ICT resources in Virtual Learning Environment.
- The teacher is more important than the best technology in a Virtual Learning Environment, even for a virtual laboratory where technical aspects should be extremely relevant.
- Because of that, it is very important to pay extra attention to this new teacher role 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 Virtual Learning Environment may have been decisive in the breakdown of Virtual Distance Learning initiatives.