

USING THE ENVIRONMENT AS SUPPORT FOR TRAINING IN MOODLE CORPORATIONS PRESENTIAL

Porto Alegre - RS - April 2010

[Luciano Carvalho da Silva - PUCRS lucianocs@lucasinfoedu.com](mailto:Luciano.Carvalho.da.Silva@PUCRS.br)

[Lucia Maria Martins Giraffa, Dr - PUCRS - giraffa@puhrs.br](mailto:Lucia.Maria.Martins.Giraffa@PUCRS.br)

Class - 1 - Scientific Research

Category - C - Methods and Technologies

Education Sector - 4 - Corporate Education

Nature - A - Research Report

ABSTRACT

This paper presents a proposal to organize and administer training in semi-distance mode using the the platform MOODLE. it describes in detail the structure of the course / training related to Regulatory Standard 10 - Safety in Electrical Installations and Services in the Ministry of Labour and Employment for companies operating in the electricity sector, which served an element for the validation of this proposal. Presents the description of the tools of the educational environment and Its proposal, emphasizing the software used for the construction of supporting resources. at the end of the article are the results of the validation performed and findings of the process.

Keywords: Corporate Education, Distance Learning, Moodle.

1 INTRODUCTION

The learning society, we experience the beginning of this century, means that we are all always looking for new knowledge. For that happen to, and constructively consistently, most people need guidance on how to conduct/undertaker their studies. in this perspective, Corporate Education has considered the use of Information and Communication Technologies - ICT unnecessary making the physical presence of the counselor/teacher at some

levels of the teaching process, whether in higher level courses, middle or professional updating.

Aims this article to assist in reflection about the Advantages of using virtual environments in support of the Teaching and Learning - AVEA - Corporate in the middle, to an element of support to training semipresential. It Is Understood by Those that semipresential courses are part of the meetings in person, and part of the work is Carried Out in the distance mode, with Geographical and temporal separation Between students and teachers. The research companies Focused Electric Sector, Who Have Their employees distributed in large Geographical Distance and mostly away from the headquarters and training centers, Revealing the Possible Use of These educational and technological resources, skills and training For These employees.

The proposal is divided into two parts: creating a basic model of progress to Be Made on MOODLE and organization of a guide for development of the courses. Were Considered, too, matters Relating to training of instructors to use Moodle and assessment by the students about the work environment. For purpose of planning and structuring the research sought to gather support for the preparation of the Proposed architecture of virtual rooms in MOODLE in an interview with the Coordinator of the Center for Training and Improvement of the selected firm.

2 CORPORATE EDUCATION

The biggest Difference for an organization's survival in the era of competitiveness and innovation is its es-Ability to learn and to create new knowledge. For this to Happen that It Is Necessary Organizations and Their employees learn to learn. Businesses Must Become the Place Where People Are Their Continually expanding capabilities to create What They Need for Their Activities and want [1].

"The corporate education is still the Proposed, to align the organization's members to business goals, Providing learning solutions for each job family" [2].

What's behind all this is a paradigm shift, which is able to establish a philosophy of lifelong learning, based on organizational strategies. The corporate education based on the assumptions of distance emerges as a

response to this need. Thus, the e-learning can present itself as a tool for knowledge management, seeking to boost skills development and managing knowledge through various multimedia resources that facilitate interaction among stakeholders, complying with the targets proposed for the process of corporate education [2]. Some authors are beginning to use a concept of corporate university, where training courses are only fail to meet a demand for temporary, and are replaced by a pedagogical structure in universities as formal.

2.1 Corporate Education and Information Technology

For the development of distance courses, the company must use ITS staff experts, Promoting the clarification of practical knowledge and, Often, not yet shared. In the environment of debate, created with features such as forum and chat, it creates a collaborative network WHERE Geographically Dispersed Can employees discuss concepts and Experiences Allowing the generation of new skills. The work is well stated essay trigger new knowledge, in other words, different views on common themes [3].

In Table 1 the main advantages of using technology for professional education:

<ul style="list-style-type: none"> • Lower costs - The dissemination of information through technological means may be more cost effective, given the time in learning which can be accomplished. It is estimated that save about 20% to 50% of the time over the middle face;
<ul style="list-style-type: none"> • Learning controlled - technologies allow an individual authority over the learning environment, whether it is taught in the classroom, work or home;
<ul style="list-style-type: none"> • Interactivity - Advances in technology made have to develop interactive learning environments. These environments have begun to renew student interest in relation to the training process, since the contact becomes more active;
<ul style="list-style-type: none"> • Uniformity of content - The information developed and constructed can be transmitted in a more consistent for all users, reducing the possibility of multiple interpretations;
<ul style="list-style-type: none"> • Quickly update content - Content can be updated in real time.

Table 1: Main advantages of the use of technology [4]

3 THE TRAINING PROPOSAL SUPPORTED ON VIRTUAL ROOMS

The proposed training, used as a validation element, was organized and target public workers who already have prior knowledge. But according to the provisions in NR10, must take a refresher every two years to review the working methods and attitudes, as well as learn about the updates of the standard and working procedures. Through dialogue with colleagues and

instructors at the forum, people can rethink their attitudes and concepts, leading to an all professional growth. Following this concept, the training has a forum on each topic for discussion, questions and exchange of experiences among participants [5].

This work used the General forums for questions, discussions and further on the subject, and Forums Questions and Answers, for evaluation and reflection of the contents of [5]. The version chosen was the MOODLE 1.9.7 + (with date Compilation of 01/20/2010). Besides the basic package of tools were added the following features: Progress Bar, Poll Book and that will be detailed below. A first version was development in local machine and subsequently transferred to an external server. The server was chosen as a national level, with physical location in Porto Alegre to avoid problems with network infrastructure, speeding up data transfer. Was performed on the remote installation of the same package of Moodle and tools from the local machine.

In the figure 1 “Training of the Modules” is a road-map for the studies and the division of the modules of training, two mandatory safety at work electricity and worker health, and an optional basic electricity.

3 MÓDULOS DO TREINAMENTO

O curso possui dois módulos principais:

- **Segurança no Trabalho com Eletricidade:** Legislação, documentação, procedimentos para o trabalho com eletricidade;
- **Saúde do trabalhador:** Procedimentos de primeiros socorros, técnicas de ressuscitação.

Cada módulo possui uma sala com seus materiais e orientações para estudo. Para acessar os conteúdos do módulo basta identifica-la pelo nome do módulo e clicar uma vez no mouse.

Não existe pré requisito ou sequencia para realizar este treinamento, ou seja, você pode estudar na sequencia como são apresentadas na sala ou montar seu próprio plano de estudo.

Afim de facilitar a revisão de alguns conceitos básicos mencionados nos módulos disponibiliza-se o módulo abaixo:

Eletricidade básica: Revisão (módulo revisão/consulta) dos conceitos básicos sobre eletricidade.

O acesso a sala que contempla os conteúdos associados a eletricidade básica é opcional.

- [Segurança no Trabalho em Eletricidade](#)
- [Saúde do Trabalhador](#)
- [Eletricidade básica \(revisão/consulta\)](#)

Figure 1: Training of the Modules
Source Author (2010)

As the training was structured presentation of topics and not for weeks, participants could see all the existing activities and choose which they would like to start. Nevertheless, each module is a suggested script studies and, as an auxiliary tool in the organization, was inserted into the block progress bar. In this block the instructor sets the dates and

what activities will be monitored on the progress bar, indicating to the participants as is the progress of your study goals. Thus, when an activity is accessed the corresponding square changes color as the example in Figure 2.

The multimedia features are used to present concepts and promote reflection, presentations and videos are found on the Internet. To organize the discussion, we propose that students write in the forum explaining what were

their expectations and experiences covering the videos on safety at work into electricity. This forum will be coordinated by the instructor with questions and reflections of the situations presented. After watching the animations and comment on them in the forum, participants should access the technical presentation on risk analysis. This presentation was produced by the Foundation COGE (FUNCOGE) and is available for download at <http://www.drsergio.com.br>, and the original files are in MSOffice PowerPoint format. For presentation at AVEA were reorganized and converted into other formats, as described in topic 3.2, below.

For the continuation of studies have provided are two booklets and two presentations on the topic. Then, students were invited to participate in the forum “risk of analysis” that is in the form of questions and answers, where the instructor should make inquiries concerning the matter.

3.1 Using the book

Figure 3 refers to the topic of working procedures into electricity. In this topic, we use the resource book, with a book on the subject. This tool MOODLE is a set of interconnected pages, where the student can browse the titles and access the following pages you want.



Figure 3: Resource Book
Source: The author (2010)

The evaluation process was conducted through the participation of qualified students in forums, organized a quiz in Moodle activities and practices that occurred in the very capacity of the worker involved in your work routine. Some of these activities are planned in NR10, such as firefighting, rescue of victims of

accidents, work at heights. Further, be appropriate to local need of the worker. The Questionnaire tool, used for evaluation of the participants, is part of the default installation of Moodle and it can create a question bank for use in training. The questionnaire enables the inclusion of various types of questions such as: multiple choice, associative, complete the sentence, numerical questions, answers and essay with short text. For each question can be assigned a different weight range, according to the number of attempts and successes. These values are presented to students in the link notes, the Administration block [5].

3.2 Converting files

Because of the presentations contain several figures, its size was high, which could hamper the use, since in its original format would need to download the participant's computer to then assist them. We decided to make them available in smaller file formats, like Flash, or using the tools typical of MOODLE. We were careful to use free tools, in other words, accessible to any user, thus avoiding the costs of acquiring them. The tool used for converting flash was the Impress of BrOffice, office suite compatible with MSOffice, which has good documentation and resources comparable to the paid version.

In this step the original presentations were edited because the flash Impress generates static. Were then added some pictures and explanatory texts on how to use the presentations. The benefit observed with the conversion, was to reduce the size of the files that were on average 30% of original size, not overloading the connection and makes them difficult to copy. Some were

provided with direct link to the platform and others were inserted into HTML pages. The goal was to produce different looks in order to assess which ones best serve the audience. Besides the flash files were added presentations converted to HTML pages, also using Impress. Other topics were worked in book format, detailed in Chapter 3.1.

3.3 Moodle resources and other software

Variations in the form of presentation of the contents were produced to demonstrate the capabilities of Moodle. This tool may have its use based on simple tools such as HTML pages, text available in PDF files, text documents, or more elaborate features, like the book, lesson or the SCORM standard. To exemplify the standard SCORM was inserted an activity, created in eXeLearning on electric shock. With activities created this pattern can work notes and control the activities of Moodle normally. The eXeLearning is a free software used for the preparation of teaching resources. Its interface is simple to use, where they can be added activities of different kinds. This software saves files in standard SCORM or directly to HTML pages, which can be displayed in the browser. Another tool used was HotPotatoes. It is possible to create multiple choice questions, association, crossword, complete with the insertion of text and images. This generates files in SCORM and HTML formats, among others.

4 CONCLUDING REMARKS

The environment was presented to two employees who work in the electrical area and have participated in classroom training on NR10, one of whom is also an instructor in these trainings. Both are enrolled in higher education in distance education mode. The answer to the first question about the feasibility of deployment in the company, was:

“Perhaps. It is feasible. With the exception of needing a basic training on using computers and Internet, because many colleagues do not have this prior knowledge.”

Such a response was expected, considering the age of employees and their role in the company, which does not need to use computers in daily work. The use of computers is common only to exchange e-mails and a few isolated features on the intranet. It is observed, thus the lack of a policy for using the

company intranet. We cite as an example, the absence of a culture of access and update the company intranet portal. The proof is that all notices are sent directly to the emails for each user, since the portal is not properly used.

On the second question: Do you believe that a course in distance education mode (with study materials on the Internet and directed, as we propose in this training) facilitate employee access to knowledge?

The answer “Yes, it can be accessed from anywhere.” Such a response demonstrates that the assumption of acceptance of this training format was confirmed. As the characteristic work of some sectors, including travel, often the entire week, this would be an option to exchange information and resolve questions that would be available where the employee could have access to the environment.

The third question: If there was a class with all classes and face, another with classes semipresential, as included in this proposal, you would opt for the version of virtual classrooms with part?

The answer was: “Yes, it prevents shifting and is richer in content and images.”

Again, our assumptions were confirmed. Once the company has a training center, in general, employees should move up to him to take the courses, which generates costs of travel, lodging, food and deviation from their workplace. This cost, in most cases, unfeasible the implementation of training.

After these issues, we ask respondents to present the advantages and disadvantages they perceived this type of training. The alternatives were considered advantages:

- *Access material from anywhere, provided you have a computer with internet access;*
- *No need to travel to work or home to the training center.*
- *More freedom to organize your personal study.*

The alternative considered disadvantageous for the employee in this proposal:

- *Condition of owning a computer with Internet access, to access the course material.*

The suggestion given by respondents was the availability of the material gradually, or in stages, so that the student might have a sequence of studies. As mentioned previously, adaptation is possible in Moodle. Simply adjust the settings in display type by changing the format to the format topic for weeks. It

would also be possible to insert a plugin like activity locking, where we set up the prerequisites that the student must have access to some of the content you want. Another way to provide the materials, prerequisites, is through the lesson or SCORM tool, which can be configured on the educational needs before accessing them.

Another suggestion of the respondents offer training on the use of Moodle. This could be created and maintained as consultation, until the developers dominate the use of the tool, to harness its full potential.

Opting for distance learning (DL) should have well defined goals, so that the installed system not to become just another link where materials are deposited. Training in distance education, is what platform is implemented, will require an infrastructure similar to human presence, for its perfect operation. Should also consider the continuous improvement of the team responsible for training in distance education in order to seek ways to involve the participants in this journey to knowledge acquisition, since a forum without discussions, is the same as an empty classroom or full of students without the proper guidance of the instructor/teacher.

Education should be built by people for people. Technological innovations should serve to facilitate this and not to replace it. The educator must learn to use them in your favor, improving teaching and learning as a whole. Moodle was created by this philosophy of universal participation, to assist in the organization of classes in the pedagogical function of who creates the course.

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