SOME FACTORS FOR A SUCCESSFUL IMPLEMENTATION OF E-LEARNING IN VOCATIONAL TRAINING

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Abstract: Today, e-learning is becoming the key factor in the training process. In this paper, we present the efficiency of the e-learning in vocational training and some factors for a successful implementation of it. Some examples related to these aspects are also presented.

1. Introduction

The last developments of communication technologies, particularly the Internet, enable an actual digital presentation of knowledge, the storage, transfer and sharing of information across vast distances and different time zones.
The acceptance of the Internet and its services has led to a new alternative of computer based and distance learning: the e-learning. It can contribute to substitute the postulate of "learning of stock" with "life-long-learning on demand".
But over the last years euphoria about e-learning as a "social phenomenon" moves to rationality and realism.
"The dirty little secret of e-learning is that learner usage rates are dismally low" commented Paula Young of PriceWaterhouseCoopers at a recent conference. Behind the hype and the genuine potential of online learning, the reality is that not much is going on.
In this paper, we present some particularities of e-learning, we assess the factors needed for a successful implementation of it in vocational training, giving also some examples.

2. Particularities of e-learning

An important factor, which is a strong advocate for e-learning, is the higher efficiency through individual passing courses. Efficiency can be defined as the sum of knowledge and skills gained that improves performance divided by the sum of all the information delivered during the learning process (Moran, 2002).

Many classroom events are inefficient within this definition due to the factors:
- Learners vary in skill level, but classroom events assume a single target skill level. Learners with mastery levels that are higher than those of the target audience will have a low learning efficiency.
- For many learners it is too late when they arrive at classroom to conclude that the course does not apply to his or her job, particularly, in case travel is involved.
- Some instructors stray from the objectives of the course.

An advantage of e-learning being relatively easy to understand is the speed: a classroom event needs to be scheduled weeks in advance, but online learning can enable instant access to knowledge at exactly at the point and in time it is needed.
E-learning offers mobility to the trainees and more independency during the training activity.
One of the questions in connection with the implementation and use of e-learning is: "If I replace my traditional classroom training with Web courses, how much will I save?". Table 1 gives a perspective about costs of e-learning versus the traditional classroom training:

Table 1: Costs of e-learning and traditional classroom training

3. Factors for a successful implementation of e-learning

Companies that understand the role of learning in achievement of business goals know that to in order to be successful, e-learning needs to

be grounded in a larger organizational learning strategy tided to business objectives. For the planning and preparation of an e-learning program the followings questions, arrive (www.icfconsulting.com):

- What is our vocational training philosophy? How does it fit into our mission and strategy?
- How much are we currently investing in learning and what benefits are we realizing?
- How do we manage all facets of learning (training, performance support, communication, coaching, knowledge management) to achieve business goals?
- How do we measure success?

The definition and characteristics of the target group (homogenous or heterogeneous, education level, professional knowledge, language problems), the detailed explication of organisational and technical frames are also important during the preparation phase of an e-learning vocational learning program.

In the conception and design phase, the preparing and representation of learning content are important. Even the best planned e-learning implementation can fail if the content is not engaging and relevant. Organizations can enliven their e-learning programs and increase effectiveness by diversifying the form, provider (e-learning vendor, higher education institution, in-house) and delivery mode (Web, satellite, CD.ROM, etc.). The e-learning content should be developed as reusable-learning modules that allow for greater customization to individual learner needs. Still, many organizations mistakenly believe that all learning content must be converted to electronic format. In fact, more success can be achieved by blending online formats with traditional classroom-based learning.

A detailed and suitable script and an aimed use of an author tool with test generator can contribute to a successful production phase.

The testing process points out the quality of the programme. The management of quality supposes the development of a complex test generator in order to distinguish the difference between the objectives of the learning programme and what we realize in reality. With other words, the testing process points out the errors and the causes that generate these errors. After the identification of the errors and the causes that generate them, the

modalities of their elimination must be presented. By the test generator, trainers achieve experience in the e-learning domain and are developed procedures and modules that raise the e-learning activity to a high level. The quickest way to realize the full potential of e-learning is to simply get started, even if that means making do with existing technology infrastructure. Before chasing an ambitious broadband, multimedia learning environment, companies can gain valuable e-learning experience by resolving just a few key issues, such as how to deliver it through a company firewall and how to reconcile bandwidth-intensive e-learning traffic with already overtaxed data streams.

A good information and motivation of potential users to learn and to give feedback are important in the implementation phase. The learning environments should support communication and provide both: individual as well as common learning ways.

But while a robust technology infrastructure can facilitate successful e-learning, technology alone is not enough. Changes in budgeting, organizational relationships, policy, procedures and culture must be introduced for enterprise-learning to be effective.

All these aspects have been considered within a DAAD-co-operation between the IAT and Colegiul Turnu Severin, University of Craiova and within the EU-Leonardo project EURO H.

4. Examples

Since the 2000 year, Romania has initiated a project titled: "THE VOCATIONAL TRAINING BY ODL OF YOUNG PEOPLE WITH A LOCOMOTORY DISADVANTAGE - EURO H 2000-", in collaboration with other three European countries: Hungary, Germany and U.K. The project is a part of the Leonardo da Vinci Programme and is financed by the European Union.

The main goal of the EURO H 2000 project is to provide vocational training by open and distance learning of young people and to improve their employment situation.

The target groups of the project are formed by:

- young people between 14-28 years old with mobility impairments
- employers and workers in job center and training center for young people
- the Government

- non-governmental organizations
- the parents of the peoples with disabilities
- the main public formed by the peoples without disabilities

On the base of a comparative analysis of the employment situation in the partners countries involved in the project, new labor market requirements and training needs were identified in accordance with them and the specific content of the training modules.

A database of job requests and offers, as well as disability organizations, existing training, good practice and legislation as well as training modules have been developed within the project.

The project provides vocational training for young people with disabilities, through training modules and training workshops on making job applications, basic computer skills and vocational and technical subjects. Also, the project provides vocational training for employers and workers in training centers and job centers, in order to improve the employment rate of young people with disabilities and to make employers more open to hiring them. Training modules will be available on-line, in a variety of formats including web, CD and hard copy, within an e-learning environment.

In order to identify needs of vocational training of the project target group, some special institutions have been contacted like German organisations Bundesministerium für Arbeit und Sozialordnung, Bundesinstitut für Berufsbildung, Werkstätte for disabled, Centres of vocational education.

The training modules and learning are seen as components of a national as well as a European strategic approach for improving the qualification and the integration of disabled people in work and life in which modern media are important tools.

The development of the learning environment was based on:
- Simplicity and clarity of the virtual class-room, i.e.
  ⇨ Division of areas according to function
  ⇨ Easy and multiple navigation
- Low technical requirements
- Support for networked learning/development of a learning community

The modules contains:
- texts which are illustrated and animated,

- exercises which are "self-learning" exercises, checked by the programme or exercises where the result has to be submitted to the tutor or fed into the discussion forum.

Evaluation and improvement of the training modules has been done through pilot studies of their performance on trainers and disabled students volunteers taking into account their feedback and workshops results.

All the modules will be produced in the languages of the four partner countries - Romanian, German, English and Hungarian with the possibility of translation into other languages at a later date.

The project reaches its climax by the establishment of EURO H Centre, a distance learning centre designed to continue the activities after the end of the funding period and in particular to:
- Update the training modules and write new modules
- Update the existing database
- Provide tutorial and other support to people who attend the training modules
- Encourage contacts and exchange of good practice between different parts of Europe
- Provide (re)training for people who become disabled later in life

The EURO H Centre will also provide training after the end of the project, according to the target group's needs and taking into account the specificity of the different existing disabilities. Web teaching materials are set up to offer student support by presented the contents in many accessible ways like non-text equivalents of texts such as pre-recorder speech, icons, or audio and video distribution models that can be transmitted via Internet.

From the indicators of the quality of the Web facilities, we mention: a permanent updating of the information offered, the accessibility, the security of the applications, site's attractiveness, the concordance between the content of the site offered as an answer and the information required by the student.

The main task of the College Turnu Severin is to carry out both high education and vocational training activities for people of the region Mehedinti, taking into consideration regional needs. In this region, many manufacturing companies have been closed. Economists as

well as administrative and financial staff with good computer skills and knowledge about e-business are required in the whole region. Some distance learning programs are carried out at the College Turnu Severin, but not systematically and not using the Internet. The College Turnu Severin would like to use e-learning in order to qualify many persons in the needed fields in short time: it is in the phases of planning and development of an e-learning program. Two e-learning modules about Internet and some applications including e-business, and e-work belong to this program. Within a DAAD-cooperation of the College with the IAT, planning and preparation activities have been carried out for this e-learning program like the following:

- interviews with staff and students of final classes at schools from the region Mehedinti and staff from different regional organisations,
- analysis of documents provided by the regional office of statistics and by the regional Job Centre Mehedinti.

Handicapped students of the College who already attend the distance learning activities of the College are integrated into the e-learning program. So they can use not only printed and floppy versions of the distance learning modules but also learn by using the Internet.

5. Conclusions

We consider that e-learning bridges work and learning and promises significant effectiveness and cost saving over time and can improve also the vocational training of young people with disabilities.

The implementation of e-learning affects organisations and the new technologies bring their own strengths in each e-learning project. But the success of a such project for disabled young people will be completed only by gaining the participation and support of each group from the beginning and continuing that involvement throughout the project.

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Classroom	e-learning
Facility costs • Room rental • Refreshments • Training materials • Teaching aids	Computer costs Web-enabled costs Hosting costs
Instructor costs • Instructor salary or fee (if contracted) • Travel and meals	
Learner costs • Time away from workplace • Replacement labor • Travel and living	Learner costs including time away from work
Course development costs	Course development costs

Table 1: Costs of e-learning and traditional classroom training