VIRTUAL TRAINING CENTRE FOR SHOE DESIGN

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The aim of this paper is to present a Development of Innovation project, within the Lifelong Learning Programme framework. The objective of this project is to develop a virtual training center, in order to supply training for shoe design. Virtual Training Centre for Shoe Design is a virtual space, a shoe design training portal on the Internet which will allow the constant sharing of e-learning based shoe design training material so as to foster the further development of e-learning based shoe design educational contents will be created.

1. INTRODUCTION

This paper aims to promote a Lifelong Learning project (Title: Virtual Training Centre for Shoe Design, Acronym: VTC-Shoe, Project no: 134124-LLP-1-2007-1-RO-LEONARDO-LMP). This project will address the strategic objectives mentioned above: The first one is improving the quality and effectiveness of education and training systems in the EU by developing skills for the knowledge society, ensuring access to ICT for everyone, increasing recruitment to scientific and technical studies, and making the best use of resources. The second one is facilitating the access of all to education and training systems by providing open learning environment, making learning more attractive, and supporting active citizenship, equal opportunities and social cohesion.

The rapidly changing technologies, as well as the innovative e-learning teaching methods require for adapted modules for lifelong training that keeps continuously up to date with the relevant developments of the European footwear industry. The Virtual Training Centre for Shoe Design will be an interactive platform, a meeting point for policy-makers, social-partners, practitioners, researchers and all those with an interest in shoe design field of vocational education and training. Experts in the field will be able to share and exchange knowledge and experience with associates within and outside the European Union.

The project's scientific and pedagogic objectives are in tune with the main priority in LIFELONG LEARNING PROGRAMME. Through the various research and development projects partners have developed training materials for shoe design. These materials have to be compared between involved partners in order to get common curricula to be share with future users at a European level. The innovative e-content, which will be developed within the VTC-Shoe project, can easily be translated to various languages.

In terms of strategic impact and contribution to growth, the VTC-Shoe project is expected to have a very powerful impact in the European footwear industry. Closely to the other projects funded by European Community, it will improve competitiveness helping footwear companies to have skilled and competent shoe designers. Thus, VTC-Shoe added value for the Community lies in the provision of a training tool that has the dynamics not only to provide valuable training and skills to the targeted beneficiaries but also to empower the processes of the EU footwear industry and thus, increase

productivity and competitiveness. This, in its turn, is expected help the industry grow and, thus, increase the demand for more skilled employees.

This virtual training centre to be formed in this field and its application will set the first and good example for virtual learning in national vocational training systems. It will help improve and upgrade competences and skills of staff and exchange experiences over the virtual training centre. It will increase the work opportunity by helping young generation to use Information Technologies.

As this project contributes to e-learning by providing new training tools, it will create new job opportunities for the individuals in partner countries and thus this will contribute to employment exchange in EU. These activities are inline with European strategies for vocational training. As emphasised at LEARNTEC 2005 (Karlsruher Messe- und Kongress-GmbH, 2004), "E-Learning has become indispensable for corporate training, but the fascination of SMEs for web-based learning is still quite limited. Further education and training figures rarely on the priority list, and in most of the cases, a training department does not even exist." This project is also expected to help the participants to acquire required qualities, to be proud of this, and in this way, to be an active citizen of EU.

The Internet based platform within the VTC-Shoe project offers to trainers/teachers the possibility for continuing development of their skills and competences. The innovative solutions for training in shoe design as well as the innovative pedagogical methodologies will keep them up to date with the new technologies in order to have a longer active professional life. Within the shoe industry, the majority of workers are women and account for about 40% to 50% of all employees (Ascoly N., Finney C., 2007). VTC-Shoe project will open new training opportunities for women. However, the e-learning shoe design course developed within the Virtual Training Centre is an equal opportunities course, combating all forms of discrimination based on sex and will be open to both man and women.

One of the major problems of the footwear industry at the moment is that the overall level of skills and qualifications needs to be raised and, therefore, it is also necessary for training modules to respond to the continuous evolution in the workplace so as to confront the problem of unemployment and increased competition. VTC-Shoe project proposal comes up to the changing needs in training, in terms of both quantity and quality, designed for promoting employment on the footwear industry. Training materials offered by the VTC-Shoe internet platform will help both unemployed people to find a job in footwear companies, and worker to up to date their skill for getting a better position. The Virtual Training Centre (VTC) will be set up on the Internet for Shoe Design training. This will allow the constant sharing of e-learning based Shoe Design teaching material will be created so as to foster the further development of e-learning based Shoe Design educational contents.

The free toolkit, available on this site, will provide the trainers and trainees with the facility to design the product in mind. Access to create, update or modify the VTC-Shoe will be available throughout the project and after it. The interactive teaching program served on Internet will help even while at work and disseminating information regarding the latest technology and innovations through observation and implementation will be beneficial to the manufacturers. This interactive software for Shoe Design training based on new common curriculum will be served on web. The log files will enable us to trace which of the expected users are logging on to the site.

2. FEATURES OF VIRTUAL TRAINING CENTRE (VTC) FOR SHOE DESIGN

2.1. The Objectives

The main objective of the project is to contribute to the development of quality lifelong learning and to promote high performance, innovation and a European dimension in system and practice in the field. VTC-Shoe project intends to improve vocational and educational training curricula on shoe design in Romania, Turkey and Greece by focusing on the development of innovation and good practice. The results of partners common developments will be transpose into a virtual centre, making it available on European level. By accessing the new created shoe design training course, trainers and teachers, shoe designers, adult learners, as well as trainees and apprentice will be keeping up to date with skills and knowledge necessary for high performance and innovation, both in training and shoe design. Based on availability into virtual common space of the innovative e-learning materials and training methodologies training materials, the project will make its contribution to development of single European information space.

The second objective is to help promote creativity, competitiveness, employability and the growth of an entrepreneurial spirit. In a world increasingly based on knowledge and information, education and training are put at the core of the European footwear industry agenda. The footwear companies need to make learning a lifelong endeavour deal with their employees of all ages continuously developing their skills. By creating a new e-learning content and functional web service the Virtual Training Centre for Shoe Design will help both workers and footwear companies transforming the way they learn, interact and work in order to meet the footwear sector needs for competitiveness, employability and the growth of an entrepreneurial spirit.

The third objective is to support the development of innovative ICT-based content, services, pedagogies and practice for lifelong learning. ICT-related skills in the shoe design are also vital for the competitiveness of the footwear sector from and for increased job opportunities and employment. The concrete aim of the project is to develop a modern virtual training centre in shoe design for: 1) training the trainers, trainees at the college and technicians and apprentices for shoe design; 2) preparing shoe design technicians as intermediates having common measurable qualities the industry is seeking. VTC-Shoe project will create a common ICT-based content and will help for upgrading competences and skills of teaching staff and exchange experiences over the virtual training centre.

As for the operational and specific objectives, the project aims to support improvements in quality and innovation in vocational education and training system, institution and practices. This can be achieved through improving the qualifications and competences of the trainees in this field and it is directly related to the well-designed and programmed curriculum to be carried out on shoe design. In addition, considering that education is a dynamic process, it will be possible through this project, through its dynamic and continuous characteristics, to improve the quality of vocational and technical education, and accession to vocational training will be carried out.

2.2. Innovative e-learning content

Through the educational programme and new teaching methods to be developed by implementing shoe design training content into a virtually designed and served training centre which is accessible over internet, e-learning will be realised as an innovation in

this field. The project will promote and reinforce the contribution of vocational training to the process of innovation through the virtual training centre to be formed in this field and its application will set up a new and good example for virtual learning in national vocational training systems. Appropriate training/learning materials, including for less qualified workers to improve skills, will be create and new e-learning tools for training and quality management in VET will be developed.

2.3. The partners

The partnership consists from three universities having necessary skills, knowledge, expertise and experience in relation to their role in the project: "Gh. Asachi" Technical University of Iasi, Romania, Technical Science College of Selcuk University, Konya/Turkey and CAD Laboratory of the Technical University of Crete/Greece.

2.4. Project Outcomes

The project outcomes will be: 1) a new and common curriculum in shoe design training in partner countries; 2) a new training method which is virtually served on the web; 3) interactive simulation software; 4) a user manual for both trainers and trainees will be produced. The interactive simulation software, manuals and the virtual training centre will be available for test in the second half of the second year.

The final results of the project will be used at the first stage at the shoe design training centres of the partners. The simulations, practical exercises making it possible to apply what is learnt, and the final product will be tested in short training courses. The feedbacks of the implementation at these centres will be recorded and the training participants will evaluate the curriculum; this will be undoubtedly one of the strengths and recommendations on both form and content, which will be incorporated into the final version. Evaluation will cover content (topics, language used, modules), methods (progress, different levels of difficulty, and range of resources, situations and practical cases) and technology (ease of installation, interactive nature and use without a tutor). Testing of the resource in self-instruction, workplace and training centre situations will be important.

2.5. Methodological Approaches

In order to strengthen and ensure that the project results will be used as regards the target groups, target sectors and potential users, the Developing Database for Team Members of Target Sectors and Groups working package will play an important role. This interactive software for shoe design training based on new common curriculum will be served on web. The log files will enable us to trace which of the expected users are logging on to the site. The obtained results will be classified and compared to the expected usage levels and the users will be encouraged and promoted to take part in dissemination.

The strategy of methodology and decision on the content development phases will be determined basing on the common curriculum obtained in Curriculum Design working package. Thus, the stages to form the content of VTC (Virtual Training Centre) need to: 1) consider the identified and approved training needs /new qualification needs addressed by the common curriculum; 2) consider the possible future developments. The content will be based on the operability and comparability of the training program. Satisfaction of the target groups will be of another concern. The

responsible partners for this work package will concentrate on the common curriculum produced in WP3. As well as that, the results drawn up from the conference at the end of WP3 will be also a great asset for the content development stage. As well as those, the partners will provide appropriate pedagogical experts from their organisations to conduct and conclude the pedagogical approaches to the content.

This VTC-Shoe is a kind of library that contains a collection of training material presented in many formats; documents, demonstrations, recorded lectures, and hands-on labs. The VTC contents can be searched, reviewed all content of each type, or filtered the content by a topic of interest. When one finds something that interests him or her, he/she will click the link to access the content. The VTC-Shoe to be set up should contain six stages under the following headings:

- *Introduction* providing the setting.
- *Task* telling the learner what to do.
- *Process* suggests to the learner how to complete the task.
- *Resources* are a set of website links or other resources like the common curriculum (on or offline) that the learner will use to find the appropriate information.
- *Evaluation* informs the learner as to judge the success. This could also include soft outcomes.
- *Conclusion* rounding up the activity.

2.6. Innovation in the project

Virtual Training Centre for Shoe Design will be set up on the Internet to supply training for shoe design. A virtual space, a shoe design training portal on the Internet which will allow the constant sharing of e-learning based shoe design training material so as to foster the further development of e-learning based shoe design educational contents will be created. The equipment, methods, curriculum and techniques currently used in shoe design training by partners will be observed, collected and evaluated. The selected materials will be used to create a new and efficient curriculum. This curriculum will be the core of target virtual training activity. Therefore, four main aspects will be solved (Sahin M. et.al., 2007):

1. Virtual training will be an innovative approach in shoe design training, as the Virtual Training Centre will include interactive training software based on the new and common curriculum. In this way more trainees will benefit from the same and reliable source of training.
2. The simulation program served on Virtual Training Centre will be expected to solve lack of unification of the shoe design tools necessary for training purpose for numerous trainees.
3. The common curriculum will enable the partner countries to cooperate in shoe design training. Thus the authorities will be able to obtain mutually a means to measure the level of outcomes in shoe design training in partner countries.
4. Creating an interactive teaching program served on Internet will help even while at work and disseminating information regarding the latest technology and innovations through observation and implementation will be beneficial to the shoe manufacturers.

The general features of the anticipated web platform will be: easily comprehensible, web modularity (a modular structure that will be accessed by different user groups (a modular structure that is provided by object oriented programming techniques),

separation of supplying and operating logics (the system will conduct operational functions and the design of user interface separately from the operation logics). By means of this understanding, a secure structure will be obtained basing on the web manager and user modules:

- **Web Manager** will be in an Internet application structure that will provide the administration of the web site and provide the web broadcasting of content formers over web browsers.
- **Technical Features**: MySQl will be used as database. For the confirmation of the registered users, a special index keeping the information of the users will be used.
- **Development of application process**: Algorithmic infrastructure, software development, hosting procedures, creation of the web platform and necessary development procedures will be done. Development of the security module, make use of the different databases and testing the system at different stages.
- **Basis of the program**: This application will be developed enabling the distance web site managing. Thus, the construction and update of partner sub-web sites both in English and in native languages will be possible by using the English based management modules. The partners will transfer the information for their sub-web site (under the original web site) to the web server over this application.

6. CONCLUSION

This virtual learning environment for Shoe Design as an e-learning environment is important in the EU in terms of internationalisation and globalisation of education, student demand and interest in increasing the quality of education through ICT. At the national level, integration of ICT should become a key priority with national and regional institutions making a commitment to ITC and the development of networks. There must be increased national flexibility with a commitment to support common standards of quality and assessment and to develop national and international metadata standards. This centre addresses the priorities expressed here. Furthermore, this virtual training centre addresses the strategic objectives mentioned above: improving the quality and effectiveness of education and training systems in the EU by developing skills for the knowledge society, ensuring access to ICT for everyone, increasing recruitment to scientific and technical studies, and making the best use of resources. Facilitating the access of all to education and training systems by providing open learning environment, making learning more attractive, and supporting active citizenship, equal opportunities and social cohesion is the other strategic objective that can be achieved through this virtual training centre.

On a short term, the partners country will have trainers from colleges, vocational schools being up to date with the a new common curricula and having necessary skill for teaching on-line; trainees with more extensive knowledge in shoe design, more skilled design technicians, designers, who are actually responsible for designing shoes and apprentices [prepared for a new job. who are newly recruited for shoe design.

The Virtual Training Centre for Shoe Design is necessary for universities, footwear companies, colleges and training institutions all over Europe and elsewhere, because they are integrating in an organised and illustrative way all the steps required to acquire

quickly, easily and in a technologically advanced manner the skills necessary for shoe design, and pattern construction and which will be more clearly and in a more effective educational approach than in an ordinary classroom. Through the network of collaborations of the partnership, the outputs of the training tools will be assimilated in the training systems of a wider spectrum of training organisations.

The project will be considered successful if it will manage to stimulate interest and immediate results in the participating universities and vocational centres, by demonstrating to them the usefulness of the proposed technologies and by encouraging them in participating in new teaching and research activities.

In the long term, trainers will broaden their training ability by means of communication over virtual training centre; trainees and apprentices will have better employment opportunities in their countries and especially in other partnering countries; technicians will be a subject to lifelong learning and e-learning as a member of modern society; shoe designers will be more creative by contributing their creative feedbacks.

As target sectors, educational institutions will need to modify their existing training methods and techniques in the light of the new curriculum, and distance learning approach will provide them with a better, cost-effective training, which would have been impossible without high cost, numerous staff and workshops. Shoe manufacturers will be able to customise their training content according to their own training requirements, which may differ from one manufacturer to another.
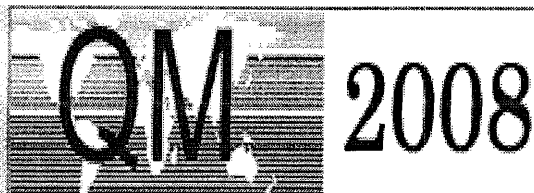
As potential users, the training organisations, the SMEs, the universities, colleges, vocational schools, training centres will be able to increase easily the number of trainees and in this way they will contribute to the employment.

The results of the project can be transferred to similar fields such as furniture, textile, air conditioning etc. The experiences and knowledge gained during the process of this project can be used in developing and improving other training programmes in particular in the area of new information technology applications in related sectors.

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Notification of full papers acceptance:	May 25, 2008

QMHE 2008

The Center for Continuous Education and Training (CETEX) at "Gh. Asachi" Technical University of Iasi, Romania announces **The 5th International Seminar on Quality Management in Higher Education – QMHE -** to be held in Tulcea, Romania, on June 12-14, 2008.

The focus of the 2008 Seminar will be on **Competence-Based Curricula Design for Higher Education.**

The aim of the seminar is to disseminate quality management tools and instruments and to connect business environment with higher education environment, in order to establish together the most required competences and capabilities, and to improve the quality of graduates and employees.

The objectives of the seminar are to bring together researchers and specialists, representatives of state and local governmental institutions, universities, and business environment, from Romania and abroad, conducting research and projects in Quality Management in Higher Education, and to facilitate and foster networking for all these groups that promote quality management issues in Higher Education.

The attendees will discuss issues of Accreditation and Curriculum Design, Educational Tools, including E-learning and its economical and social aspects, and Assessment Methods. Special attention will be given to Quality Management, Organizational Culture and Innovation in Higher Education, and also to Social Justice and Access to Higher Education.

The papers will be published in the QMHE 2008 Proceedings, which will include different chapters dealing with various aspects of the main topic.

The Conference will be chaired by Prof. Nicolae Badea, Rector of "Gh Asachi" Technical University of Iasi, Romania, together with Prof. Costache Rusu, Director of Quality Management Research Centre at "Gh. Asachi" Technical University of Iasi, leader of the Conference coordination team.

The organizers are glad to bring this Conference to Tulcea, Romania, after the previous editions being held in Iasi and Sinaia, Romania, and welcome and invite all those interested to further access the Conference website on a regular basis for more information.

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- Competence Based Curricula Design for Higher
- Internationalising the Curriculum
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2. Instructional Design, Accreditation

- Accreditation as a Form of Quality
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4. Assessment Methods

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