

Distance learning for Apprentices

LLP-LdV-Tol/2008/810

<http://www.adam-europe.eu/adam/project/view.htm?prj=3596>

Project Information

Title: Distance learning for Apprentices
 Project Number: LLP-LdV-Tol/2008/810
 Year: 2008
 Project Type: Transfer of Innovation
 Status: granted
 Country: DK-Denmark

Marketing Text: There is a constant need in the VET sector to adapt the vocational education of young people to the needs of business and economy. In Europe, in average 35-60 % of a youth cohort become skilled workers. Two opposing tendencies influence this significantly; towards the youth's choice of a higher education on the one hand and towards dropping out of VET educations or not starting an education at all on the other hand.
 The economy has a crucial need for vocational educations to stay and become even more attractive for young people, to prevent a future lack of skilled workers. In addition, all surveys show that young people with an education have better chances for a secured living standard in life later on.
 The project wants to contribute to enlightening and increasing high-quality of vocational training. A modernization and innovative development of the training methods will support this aim. So, as will a closer interaction between the key organizations of the VET system: The vocational schools and the companies.

Summary: The core idea of this project is the transfer of new, but already approved and rapidly spreading technologies for mobile phones to apprentices' on-the-job learning processes, within vocational education and training.

Description: The core idea of this project is the transfer of new, but already approved and rapidly spreading technologies for mobile phones to apprentices' on-the-job learning processes, within vocational education and training.
 The project aims towards: Increasing the attractiveness of the specific VET educations for young people, by modernizing the training methods with mobile technologies that are familiar to the students and are becoming more and more necessary/convenient for the schools and companies to integrate into the professions.
 Developing learning methods for apprentices that may support the apprentices' in learning to learn, in accurate information seeking as well as reflecting in and on their problem solving.
 Increasing the teachers' and the trainers' technical and personal/social competencies within distance training methods, by running training modules with them.
 Strengthening the co-operation between the vocational colleges and the training companies, by applying a common training tool and training method, as well as easing the access to relevant sources for the students' learning. Personal interaction between teachers and trainers during the training module will support this aim.
 Contributing to an increase of European innovative practice in VET's in-company training, by making our final products freely available: The training module for trainers/teachers and the digital students' reflection tool for mobile phones.
 Pointing at ways for adapting new technologies in general, by describing the project's working methods in a manageable and systematic way

This project refers to the vision of key competencies¹⁰, to be developed and strengthened for each individual, when the European countries aim towards the European Commission's declared goal of Europe as the most competitive and dynamic knowledge-based society. Educational institutions and training companies have a central role in realizing this goal, by supporting individuals in developing their competencies within eight core fields. The eight key competencies in total support the basic idea of 'lifelong learning'. One of these core competencies is "digital competence", in short defined as "the confident and critical use of electronic media for work, leisure and communication", to be realized in many fields and ways. This

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project relates, more specifically, to modern mobile technologies for vocational training and apprentices' learning purposes, including both vocational colleges and training companies as key actors.

More than ever before, traditional learning environments have expanded from classrooms to everyday situations. Thus, persons responsible for education in educational institutions, the home and work places, (teachers, trainers, parents, guides) have to co-operate to a far higher degree. Especially in on-the-job training, there is a great potential for the development of learning¹¹, even when you also find many challenges. Today's employees have to perform with far more flexibility and independence in environments that have developed from being production-based towards focusing on the customer. This means that also trainees and apprentices have to work and learn more on their own. Trainers/teachers and trainees/apprentices may easily work in separate places, while still being in a simultaneous training situation. This is significant in branches such as the health sector, within agriculture, transportation or sales. But you may also find this challenge in crafts like carpentry or plumbing, or customer service in industry. You will find these needs to be even greater in countries with large geographical distances, internal difference in level of professional quality or lack of access to competent trainers in general (Turkey, Germany).

Therefore, a need for distance training methods of apprentices/trainees has arisen. Young people - as "native digital learners"¹² - are used to multi-tasking, and they are able to perform with an efficient application of new portable technologies. They can even be a kind of consultants for adult trainers. Teachers and trainers may discover new potentials for distance learning by adapting the students' own favorite communication tools as professional training tools.

The primary target groups of the project are vocational teachers and in-company trainers, to be trained in applying new mobile media in distance training. The secondary target groups are colleges' education planners and companies' training managers, who will need to include the new technologies in their strategies/plans for education.

Finally, the ultimate outcome of the project will benefit apprentices/trainees who will learn to learn with their co-apprentices and their trainers by the use of mobile media. For the purpose of reflection on their own learning processes, the apprentices will work with a 'digital mobile log book', see below. A random survey¹³ indicates the following needs during the apprentices' job periods:

- Access to technical manuals (available through internet)
- Access to internal sources or data bases from school and/or company
- Mobile guidance (hotline between trainer and student, between student and teacher, between students)
- Conference between groups ("mobile Skype")
- Access to a personal reflection "logbook", with the mobile phone as a tool
- Video and mms: Communication and problem-solving during in-the-job training
- Communication messages: sms, sound messages, e-mail (read only and read/write)

We will build on results from projects on mobile learning and aim these results towards the VET sector (transfer). Suitable mobile technology will be chosen for having a reasonable cost performance ratio. We will monitor learning processes in trial runs with companies, schools and apprentices within 4 countries and several branches, and draw conclusions on the efficiency. In total, the project addresses the above-mentioned needs, by

Increasing the attractiveness of the specific VET educations for young people, by modernizing the training methods with mobile technologies that are familiar to the students and are becoming more and more necessary/convenient for the schools and companies to integrate into the professions.

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learning to learn, in accurate information seeking as well as reflecting in and on their problem solving.

Increasing the teachers' and the trainers' technical and personal/social competencies within distance training methods, by running training modules with them.

Strengthening the co-operation between the vocational colleges and the training companies, by applying a common training tool and training method, as well as easing the access to relevant sources for the students' learning. Personal interaction between teachers and trainers during the training module will support this aim.

Contributing to an increase of European innovative practice in VET's in-company training, by making our final products freely available: The training module for trainers/teachers and the digital students' reflection tool for mobile phones.

Pointing at ways for adapting new technologies in general, by describing the project's working methods in a manageable and systematic way (final report). Pedagogical considerations

For developing, running and evaluating the trial runs, as well as for programming of software and for the development of the trainer-training module, we will relate pedagogically to modern research results for blended learning and/or e-learning (Poul Dourish¹⁴). We will refer to Dourish's understanding of the learner's "embodied" interaction with the e-learning tool. This means that not only the relationship between the e-learning tool and the learner is important, but also the learner's situated learning process, that is his/her reality, where learning is integrated into his/her practice.

Applying mobile phones for distance learning and training, includes both "tangible embodiment" – the physical integration -, and "social embodiment" – interaction between the student and teacher/trainer/other students, while executing e-learning. It is still to be discovered, whether the application of mobile phones in learning processes might stimulate the involved participants to create a kind of "communities of practice" (Lave / Wenger¹⁵), a committed co-operation and partnership for a common outcome. But it could be relevant to have this focus. In any case, there will be relevant aspects in the project referring to "reflection-in-action" and "reflection-on-action", during in-the-job learning processes¹⁶. As far as we have experienced, there are no existing training concepts for training of trainers, related to distance learning of apprentices, that are freely available, at least not at an international level. And there are only very few surveys that evaluate the effect of mobile learning, for the purpose of distance training of apprentices.

The project also relates to the principle of "Open Education Resources" OER, supported with free tutorials. We would like to contribute to this idea with our materials.

For monitoring the learning processes, an external provider with experience in evaluation processes of e-Learning will be involved. The evaluation design (quality criteria and indicators) will be elaborated together with the international project group in the beginning of the project. The quality criteria will match the above-mentioned objectives of the project. For validating the products during the project, a "quality panel" will be designated, consisting of the provider, the pedagogical teacher training organization DEL, the European School Head Association and stakeholders from each country. The same quality panel will evaluate on the training module for teachers and trainers. The quality panel will focus on the usability and the adaptability of the outcomes of the project. Some of these stakeholders will be future users of the products and therefore be very interested in high-quality products. Each participant of the quality panel will have their own quality focuses, relating to the organizations' specific forces.

Themes: *** ICT
 *** Open and distance learning
 *** Language training
 *** Continuous training

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** Intercultural learning

Sectors: *** Accommodation and Food Service Activities
 *** Human Health and Social Work Activities
 *** Agriculture, Forestry and Fishing

Product Types: material for open learning
 open and distance learning
 website

Product information: The project is technically and pedagogically based on results from the European project "Mobile Learning: The Next Generation Of Learning" (m-Learning)¹⁷. The outcomes of this Leonardo-da- Vinci project relate to the mobile phone producer Ericsson. We will transfer some of m-Learning's technical principles, such as the bearable wireless access to information from the Internet / Intranet, and its implementation for pedagogical usage. As in that project, we will start from the point of view that young persons today are "native digitals"¹⁸.

Technical transfer

M-Learning has the mobile phone provider Ericsson as a central partner. We will refer to their recommendations and experience, and – if relevant – go into co-operation with them. Since the mlearning project, the technologies available on the mobile phones themselves and within the mobile network have rapidly increased in number and sophistication, and continuously do.

We aim towards becoming independent from specific providers and applying differing equipment and platforms/systems. In addition, technical experts from the Turkish partner Mugla University will produce a freely available software, adaptable to as many operational systems as possible.

Sectoral transfer

Vocational colleges and new branches During this project, new sectors will become involved: The final user group of the project will be vocational students/apprentices/trainees and their teachers/trainers. The vocational sector is very broadly organized in Europe. We assume that vocational colleges may become anchors for the implementation of mobile phones for distance learning. Not only young people, but also industry, craft, commerce and the public sector are integrating mobile technologies more and more for operational reasons. This is both a challenge and an opportunity for vocational colleges and will call for an update of vocational schools' technical and pedagogical traditions! During the m-Learning project, there were trial runs in some selected branches. We will build on these experiences and enter new branches, such as factories in industry and service within gastronomy.

Geographical transfer

Vocational colleges and new branches. The m-Learning project was carried out in Ireland, Hungary, Germany and Norway. In addition to the above-mentioned sectoral expansion, new countries will become involved: Denmark, Spain and Turkey. Denmark has a thriving environment for model projects within eLearning, and the government actively supports the integration of IT in the vocational educations. Turkey's economy needs distance learning methods and communication technologies for educational purposes¹⁹, as the country with its huge physical distances is modernizing extremely fast. Among others reason, because the Turkish VET system is under renewal, with our partner, the Turkish Mugla University, as one of the official central players for eLearning.

Projecthomepage: <http://learningatdistance.hansenberg.dk/project/index.html>

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Products

- 1 Train the trainer module

Product 'Train the trainer module'

Title: Train the trainer module

Product Type: website

Marketing Text: The Train-the-Trainer module on mobile learning for distance teaching/training of apprentices is a user-generated co-production between teachers and lecturers from six educational institutions in five European countries.

The materials in this module have been developed during several "trial runs" in Germany, Spain, Turkey and Denmark in the period February 2009 until May 2010. During these trial runs with vocational teachers, in-company trainers and students, the pedagogical and technological potentials and barriers of working with smartphones to support teaching and learning processes were identified.

Description: Introduction

This website targets vocational teachers and in-company trainers who want to strengthen their competencies in teaching and training apprentices from a distance through mobile technologies. Trainer-of-trainers and producers of learning materials are also welcome to use these materials, as long as there is a reference to learning-at-distance.eu and the authors of the subjects.

Target group: Teachers and trainers

Result: Your pathway through the Train-the-trainer module

The module contains subjects relevant for both beginners and experienced teachers/trainers in distance teaching/training with mobile technologies.

The module's subjects contain theoretical background knowledge, as well as exercises and references. All subjects may be downloaded freely and adapted or translated to own purposes, as long as there is a reference to www.learning-at-distance.eu as well as the respective author of the subject.

1. Start the module with a screening of your experience and needed competencies. The screening result will indicate which subjects we recommend that you choose, in order to achieve empowerment in mobile teaching.
2. Thus, you can build your own module, depending on your needs and time frame. As a trainer-of-trainers, you can compose a course, specifically targeting your participants' needs.
3. After having worked through the chosen subjects, it is recommended to end the module by designing a learning unit for your own practice. This learning unit is meant as a self-evaluation of your pathway through the module, as you can check yourself on the competencies you have achieved during your way through the module. At the same time the learning unit is a tangible product and can be used in your teaching/training.

Area of application: Europe

Homepage: <http://learningatdistance.hansenberg.dk/>

Product Languages: English

Project Tags

The project belongs to the following group(s):

Best Projects (<http://www.adam-europe.eu/adam/thematicgroup/MMVII>)

CityM (<http://www.adam-europe.eu/adam/thematicgroup/CITY>)