

# **Guide about adaptation of TALAS methodology to the new needs of target groups and m-learning environment**

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## Contents

Introduction.....	3
Justification of the courses.....	3
Objective of the courses .....	4
Content level .....	4
TALAS methodology.....	5
Requirements for participants .....	5
Selection of participants.....	5
Technical requirements.....	5
Structure and duration .....	6
Quality assurance .....	8
Requirements for teachers .....	9
Computer Networking course.....	9
Technical English course.....	11
Women in IT.....	12
Target groups.....	13

## Introduction

The Guide about adaptation of TALAS methodology to the new needs of target groups and m-learning environment is the product of WP2. The document is based on TALAS methodology but it takes into account new content and new target groups. Its aim is to provide the partners with an overall view about the methodology that will be implemented during the creation and delivery of the courses.

## Justification of the courses

In today's reality, the effectiveness of each business, depends on well established, secured IT system, which can be used for promotion, communication, management of the firm, relationship with clients, finance, etc. Well functioning IT system depends on IT professionals that create and maintain it. While bigger firms have sufficient resources for that purpose, SMEs are in difficult situation. They may be too small to be able to afford dedicated Expert in IT and lack the money to buy consultancy advice. Therefore IT professionals working in SME often share their work time between a few firms and are the only IT person in charge of every aspect of IT. Requirements towards IT prof. in SME are high. They have to have much broader knowledge from various areas of IT in order to be able to maintain all IT aspects, have to be more creative in developing IT ideas and solving IT problems. The need for updating IT knowledge which changes rapidly is very high but unfortunately, it is hard for those specialists to keep up with quickly changing computer technology because employers are not willing to send them to training (which would leave the firm without IT support for that time). In addition, highly technical, specialised IT trainings are expensive and usually organised in big towns. IT prof. in SME have to learn from books and manuals written in technical English. The need for frequent IT training is high. That need, due to the reasons mentioned above, is higher in SME than in big companies. Also, the % of women employed as IT prof. in SMEs is

very low and in general there is a need to encourage women to get involved into IT and technical education and jobs.

## **Objective of the courses**

The courses will use innovative e-learning and m-learning solutions. M-learning stands for learning by the means of mobile phones. Technical issues will be the central topics of this course.

Participants will learn about the computers networking and associated with this area terms and definitions. They will also learn technical English which will focus on networking subjects. Phrases and vocabulary concerning ICT will be trained in situational contexts. We focus practice and not theory. Additionally, there will be a set of examples of successful women working in IT area which aim is to encourage women to undertake jobs in IT area.

## **Content level**

The courses are not intended to be a full ICT education. They aim to help participants in acquiring basic knowledge in the field of networking including language skills.

## TALAS methodology

### Requirements for participants

#### *Must be*

- Basic Computer skills (due to the fact that the course is an e-learning course)
- Basic English skills
- Willingness and ability for self directed e- and m-learning
- High motivation

#### *Should be*

- ICT education and / or professional experience in ICT
- Willingness to participate in trainings after having passed the e- and m-learning course
- Willingness and ability to work in the field of ICT

### Selection of participants

Each partner will choose 25 users from the target group - IT professionals working in SME and young people, holders of IT diplomas. Recruitment and testing will be described in the Plan of Testing which will be prepared at the beginning of WP5.

### Technical requirements

- Computer, preferably with Windows XP SP2 or higher
- Internet connection, at least 512kB/s download speed for watching streaming videos

- Video player compatible with content
- Any other software which may be needed for browsing content, probably some plug-in software like Flash
- Smart phone chosen according to the report

## Structure and duration

The course will be implemented through a platform utilizing the Learning Management System – Claroline with possibility of connection from mobile devices. Mobile learning offers a flexible solution of the course without time and space boundaries, thanks to wireless technologies. Mobile learning means to be a supporting path to the e-learning course and not an alternative one. Learners should have the opportunity to use their mobile phone to review and study contents which are compatible with mobile phone technology.

The courses will consist of modular lessons in order to assure a greater flexibility both for the learner and for a further development of the courses. First: the learners can pick up those modules which are important for them, there is no necessity to do the complete course though it is recommended. And second: if there is a need for changes only the respective module(s) must be changed while the structure of the course as whole remains the same.

All together there will be the following courses:

- **Computer Networking** – e-learning and m-learning - which will include twelve modules. The single modules will be built up in modular manner. They will consist of different lessons and each lesson will consist of different learning objects. This means: the learners can choose what they will learn within one module and in which order, though there is a recommended order. All modules will be structured the same way.

- **Technical English** – e-learning and m-learning – the course will include six modules build up in modular manner. They will consist of different lessons and each lesson will consists of different learning objects. All modules will be structured the same way.

- **Women in IT** – e-learning materials – it will be a set of case studies/examples of successful women working in IT. This course will consist of 10 different stories (2 from each partner country: Bulgaria, Italy, Poland, Spain, United Kingdom) in the form of audio, video and written interviews.

In addition to all courses collaborative learning will be a part of the courses.

Due to the fact that there will be different learning objects and not each participant will learn in the same order, and also because each participant has different learning needs and a different learning speed the duration of the courses will differ from participant to participant.

The courses will consist of a mix of methods. Text, video clips, audio files, graphics, slide shows, links to databases, bibliography and multiple choice tests.

This will assure the best learning solution for every type of learner.

Basic knowledge is given by text, by graphics, video lessons, slide shows and by audio files. At the end of each lesson / module a test is foreseen. So participants can check to how much extend they succeeded in their learning process. By this means also the participation can be tracked. At the end of the course a final test concerning the didactic effectiveness of the course and the functionalities of the e-learning platform and m-learning portal will be delivered to all the participants in order to have a final evaluation of the results.

By the means of mobile learning participants have the chance to learn and recapitulate the contents which are compatible with mobile phone technology even if there is no computer at the place they are. They can use their mobile phone for example during work time if they need for example a certain phrase in one of the chosen languages. All in all mobile phone is used to get a compendium of the vital contents, e.g. the main do's and don'ts, the main rules of behaviour and especially for language training (phrases and vocabulary).

The course will take resource of New Information and Communication Technologies not only for the autonomous use of contents, which can be accessed by the learner at any time or place, but also to bring about fruitful relationships among learners and between learners. For this reason, forums, the newsletter and the audio and video chat will be used in order to promote virtual communities able to interact, to grow and to develop knowledge, expertise and experience.

The e-Learning course will take into account learners' needs and new learner-centred methodologies. High quality materials and useful services will be offered taking into account the recent theories of the Knowledge Management, blended learning, peers learning strategies, learning objects methodologies, knowledge as a personal construction.

The participation will be tracked thanks to the tests foreseen at the end of each module. Each participant will be provided with a nickname and a password.

### **Quality assurance**

Each course will be evaluated by the experts in respective fields according to the evaluation plan. The evaluators together with the partners – will

formulate quality standards and monitor the process of the production of all contents and materials. They will proof if the given standards are met.

### **Requirements for teachers**

- Excellent Computer skills
- Good English skills
- Experience in e-learning-processes
- Knowledge about the problems in e-learning processes
- Ability to identify problems of learners and to counter steer the problems
- Knowledge about technological communication
- Ability to plan learning scenes and to cooperate with his/her participants in order to carry out an educational course respecting different learning styles
- Playing the role of a guide and foster the learning process

### **Computer Networking course**

The Computer Networking course will be realised as e-learning and m-learning. It will consist of 12 modules containing standardised sections.

Participants will learn about the concepts connected with computer networking

- Information by text, graphics, video lessons, slide shows and by audio files
- Various tests as a proof of the learning success
- Compendium of the contents by mobile phone

The course will be divided into modules, each including the following sections:

OVERVIEW

*Core section of the module*

TIPS

TASKS

For each module, there will be a test allowing for verification of knowledge gained.

Module I – Basic of networks

Module II – Open Systems Interconnect (OSI) reference model

Module III - Networking Components

Module IV – TCP/IP Fundamentals

Module V – TCP/IP Addressing

Module VI – Network Services

Module VII – TCP/IP Utilities

Module VIII – Data transmission techniques

Module IX – Installing and configuring Network Operating system

Module X – Maintaining and Supporting a Network

Module XI – Network Security

Module XII – Dealing with network problems

There will be one additional module, GLOSSARY, containing network-related vocabulary.

## Technical English course

The Technical English course will be realised as e-learning and m-learning. Participants will learn the language with the focus on technical subjects. Information will be provided by text, graphics and by audio files together with various tests as a proof of the learning success. Compendium of the contents will be delivered by mobile phone.

The course will be divided into modules, each including the following sections:

Section A – READING

Section B – WORD STUDY

Section C – GRAMMAR FOCUS

The modules:

Module I – Networks

Module II – Local Bus Topology

Module III – Building your own network

Module IV – Firewalls

Module V – Network creation costs

Module VI - Troubleshooting

There will be one additional module, GLOSSARY, containing proper pronunciation of network-related vocabulary in English.

## **Women in IT**

The Women in IT will be realised as e-learning. It will consist of success stories of women working in IT. 10 cases (2 per each country). Stories realised as interviews consisting of video and written text parts.

### **Requirements for the video part:**

The text to be said by each interviewee (3 to 5 minutes):

*My name is...*

*I work as (title/position)... in/at (name or type of institution / firm / organization).*

*I do... (a few words describing the general tasks)*

*I've been working there for... (years)*

*I like my job because..... ( why? - few words/sentences)*

### **Technical issues:**

Standard camcorder, compatible with PAL system, standard video aspect (4:3).

Camera which is using micro DV tape.

Resolution: 720 x 576.

Detailed instructions to be provided in 'Guidelines for video recording' document.

### **Requirements for the written part:**

Interviews to be conducted according to the 5 sections:

SECTION 1 [FAMILY BACKGROUND]

SECTION 2 [ACTUAL VOCATIONAL SITUATION]

SECTION 3 [SUPPORTING/IMPEDING FACTORS]

SECTION 4 [THE PRIVATE PERSON]

SECTION 5 [ADVICE FOR OTHERS]

Questions in each section will be developed by partnership.

## Target groups

The course will be designed for:

- Information Technology professionals working in Small and Medium Sized Companies,
- young people holders of IT diplomas and students of IT,
- women.