MOSEP – More Self-Esteem with My E-Portfolio Development of a Train-the-Trainer Course for E-Portfolio Tutors

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***Abstract*—E-portfolios are known as a technology-supported learning method for the documentation of competency development. In this article the didactic approach, the course design and the results of the Leonardo da Vinci project MOSEP (More self-esteem with my e-portfolio) are described. The main objective of the project was to develop, test and evaluate a new e-portfolio training concept for teachers and tutors in order to support learners during their competence development phase.**

***Index Terms*—e-portfolio, vocational training,**

I. INTRODUCTION

In recent times "e-portfolio" has become the buzz word for individual, self-directed and lifelong learning. The e-portfolio hype is unbroken, and many educational institutions are addressing the question on how to implement the concept of e-portfolios in their curriculum. In this discussion, many other questions arise, too. With our contribution we want to answer the question: How can teachers and tutors be trained in order to be able to support learners in their e-portfolio process and what are the critical success factors for the e-portfolio implementation ?

A. The EU-Project MOSEP

This article is based on the results of the European Project "MOSEP – more self-esteem with my e-portfolio". MOSEP was a European project, funded by the European commission in the Leonardo da Vinci program (from 2006 to 2008). It had ten partners from seven European countries, including Austria, Germany, UK, France, Poland, Lithuania and Bulgaria.

The overall project idea is to promote e-portfolios as a means for continuous competence development thus reducing the amount of early school leavers in the transition phase from lower to upper secondary school or to vocational education. In order to fulfill this objective, the project partners developed a course and supporting materials for e-portfolio teachers and tutors acting as multipliers.

The project group developed a set of measures in order to support the direct (teachers, trainers) and the indirect (pupils) target groups when implementing e-portfolios for competence development: a basic study, identifying the required competencies for teachers and vocational counselors for the support of e-portfolio users; a didactic concept addressing issues of different target groups and sectors; an online course for the implementation, usage and the guiding processes of e-portfolios and finally a set of supporting materials (course materials, tutor guidelines, awareness videos, portfolio software) which are freely available online for download from the project website (www.mosep.org) as well as offline (DVD).

The project was initiated and co-ordinated by Salzburg Research Forschungsgesellschaft, Austria.

B. Working with E-Portfolios

Salzburg Research defines e-portfolios as a technology-supported learning method for the development of competencies whose entire developing process and results are demonstrated as well as illustrated and documented via digital information objects. Learners collect or rather save their self-contained and self-made products (artifacts) in a learning environment and reflect on their achieved goals and results. In the course of time of a learning biography, the results could be flexibly combined together and passed on for different purposes. The planning of an individual learning target as well as their results are accompanied and evaluated by teachers and peers.

This definition is far beyond the understanding of an e-portfolio as a "digital application folder", in which you find a collection of scanned certificates. From our point of view, e-portfolios offer and allow an overview of competencies of individuals or groups of people. Apart from the acquired and learned elements, e-portfolios document the learning process and therefore the developing process of competencies. As from our perspective e-portfolio is a didactic and methodological approach (and not a technical concept), all forms of expressions provided by today's multimedia technologies are possible for the e-portfolio implementation.

Working with e-portfolios means to follow a methodological process, helping users to identify their learning goals and define a learning process [1].

This e-portfolio process can be broken down into five processes, which are briefly described as follows:

- Process 1: Clarification of the overall objectives, the learning goals and the respective competence development methods.
- Process 2: Collection, selection and connection of the learning artifacts with learning goals as well as linking parallel processes and/or artifacts to each other.

- Process 3: Reflection of the competence development process and documentation of these reflections. Based on these reflections, the learning process shall be managed and adapted according to the learning goals.
- Process 4: Presentation of the e-portfolio artifacts to a broader audience (peers, tutors). For this process, a choice has to be made in order to tell a 'competence development story'.
- Process 5: Assessment and evaluation of the learning processes / competence development. For this process, the guidelines and criteria must be clearly negotiated with the participants.

II. THE E-PORTFOLIO COURSE: MOSEP

A. *New qualifications and skills for e-portfolio tutors*

As the e-portfolio learning and teaching paradigm is closely connected with a learner-centered approach, teachers and tutors obviously need different competencies and skills than face-to-face teachers.

According to Graham Attwell (1997) the new teacher has to be able to: "provide technical support, organize the contexts and communities of learning, formulate organizational objectives, facilitate the structure of portfolio contents, facilitate reflection, guide and monitor the students' advancement through the integral cycle of investigative learning, help evidencing competences, support planning, interact and conduct conversation with the students, plan and assess the overall process" [2].

Based on this vision of a "perfect teacher", we can deduce that working and learning with e- portfolios requires a set of certain competencies. But one question arises: How can we ensure that a teacher gains most of these competencies? One way might be for teachers to develop e-portfolios themselves. In this way it is possible to ensure that teachers work actively and build up experiences. The skills and the experiences achieved by working with their own e-portfolios might be very useful to understand the new role of a teacher and to use this knowledge in practice. Furthermore, teachers or trainers will be able to foresee and understand problems which may appear while working. These difficulties might be caused by problems of understanding or might be of technical origin. But if teachers have solved these problems once themselves, they might be more likely to be able to guide their students through the same or similar problems much better than without.

In the MOSEP project, the initial study "Grab your future with an e-portfolio" aimed at the identification of these required skills for e-portfolio tutors. It is not surprising that in general teachers must be open and supportive, but there is more to it if the want to be good e-portfolio facilitators. The following list describes the key factors of successful e-portfolio tutoring [3]:

- Access – knowing about and knowing how to collect and/or retrieve data;
- Manage – applying an existing organizational or classification scheme;
- Integrate – interpreting and representing information. It involves summarizing, comparing and contrasting;
- Evaluate – making judgments about the quality, relevance, usefulness or efficiency of information;
- Create – generating information by adapting, applying, designing, inventing or authoring information.
- Define – framing a problem or issue and developing a structure for approaching the issues;
- Apply – the ability to move between abstraction and practice – and, conversely, between practice and abstraction;
- Contextualize – the ability to apply knowledge from one context to another;
- Scaffold – the ability not only to integrate learning in a personal knowledge base, but to develop and build ongoing learning;
- Search – the ability to use different search techniques to find knowledge and information;
- Make sense – the ability to make sense of disaggregated sources of information and knowledge (this goes beyond evaluating or integrating);
- Share – the ability to judge when it is appropriate and useful to share learning.

In the framework of the MOSEP project, the consortium developed a modular course (based on a wiki), which suits different target areas, target sectors and target audiences. All these requirements were developed in the Media Didactic Concept.

B. *Media Didactic Concept*

Apart from the use of open educational content, the media-didactic concept is based on the assumption that the course should be suitable for different target groups (teachers, trainers, tutors, vocational counselors, ...) and adaptable depending on the institutional needs the institutional needs: Therefore the course content should be "modular", which means that the topics and the assignments (if they are not appropriate for the institutional context) should be mutually combinable. Therefore the course content was broken down into "chunks", which can easily be re-used and (if necessary) shuffled with other activities. The tutor and his/her students are able to determine the whole course timing freely. Only the timings for certain activities or face-to-face situations are recommended within the course structure. So the course can take whole days, may be split up into half-days as well as after school sessions or even, thanks to the online option, can be accomplished at home.

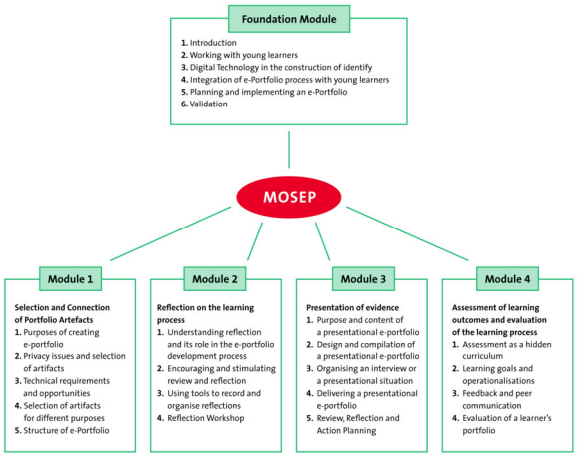
As the testing phase proved, the didactic concept turned out to be successful and suitable. The implementation of the course was done with an innovative Semantic Wiki (IkeWiki), which allows a multilingual implementation of the e-portfolio course as well as the navigation based on the tutorial structure.

The development of the course was platform-independent. This means that there is no specific e-portfolio software necessary in order to implement the course. None of the practical assignments require a certain 'e-portfolio functionality'. Furthermore, all modules are self-explanatory, which means that no external e-portfolio expert has to accompany the course.

The MOSEP course is divided into 5 modules, following a prototypical e-portfolio approach. The

foundation module gives an introduction to the e-portfolio as a method, modules 1-4 give theoretical and practical hints for the implementation of e-portfolios.

Each module is divided into different sessions; each session consists of information material, resources, web links and multimedia artifacts such as video tutorials, screen casts and web-resources. Furthermore, practical assignments are available to activate the course participants to work on their individual competence development by using the portfolio method themselves.



C. *The MOSEP Tutorials*

The MOSEP tutorials face the requirements of a new approach to train teachers and counselors for the e-portfolio method. Practical assignments can be used to activate the course participants to work on their individual competence development. The course is divided into a foundation module and 4 additional modules. The content of the modules is not only described, but also formulated as questions, so that participants can easily investigate the purpose of the topic.

The content of the modules is derived from the main findings of the basic study, which was compiled by the project consortium at the beginning of the project [3]. The topics of the modules are based on a typical e-portfolio approach, which can often be found in the e-portfolio literature: planning – selection/connection – reflection – presentation – assessment.

1) Foundation module: What is an e-portfolio and what are its advantages? How to plan and implement an e-portfolio?

To start working with e-portfolios, learners need to know exactly what e-portfolio work means and how these learning processes can be planned, implemented and applied. These questions are addressed and answered in the 'Foundation module'.

1) Introduction | Why e-portfolio?
2) Working with young learners | How can I support young learners?
3) Digital technology in the construction of identity | Why might they need it?
4) Integration of e-portfolio process with young learners | e-portfolio and curriculum – which barriers, which strategies?
5) Planning and implementing an e-portfolio | How to plan and implement an e-portfolio?
6) Validation

2) Module 1: Selection and connection of portfolio artefacts - How can I select artefacts and connect them?

In this module teachers are guided towards the development of specific skills that will enable them to support learners (pupils and students) as they select appropriate digital artifacts for their e-portfolio.

1) Purposes of creating e-portfolio | Why create e-portfolios?
2) Privacy issues and selection of artifacts | Who owns the e-portfolio?
3) Technical requirements and opportunities | What do I need, what do I get?
4) Selection of artifacts for different purposes | Why do I need what for which reason?
5) Structure of e-portfolio | What is the best way to structure it?

3) Module 2: Reflection on the learning process - How can I reflect on my own learning process during e-portfolio work?

In this module teachers will develop a set of skills necessary to support learners' reflection on their individual learning process.

1) Understanding reflection and its role in the e-portfolio development process | Why is reflection important?
2) Encouraging and stimulating review and reflection | How can I encourage my learners?
3) Using tools to record and organize reflections | What exists and what is appropriate?
4) Reflection Workshop | How to set it up?

4) Module 3: Presentation of evidence - How can an e-portfolio be presented?

In this module teachers will learn how to organize a possible presentation of e-portfolios and their artifacts and how interviews can be initiated.

1) Purpose and content of a presentational e-portfolio | What is a presentational e-portfolio and what are its purposes?
2) Design and compilation of a presentational e-portfolio | What possibilities are there for designing and compiling the e-portfolio?
3) Organizing an interview or a presentational situation | How to plan and design
4) Delivering a presentational e-portfolio | What do I have to consider?
5) Review, Reflection and Action Planning | What are the next steps?

5) Module 4: Assessment of learning outcomes and evaluation of the learning process - How can assessment be carried out and the learning process evaluated?

Here teachers will learn why assessment is important, how to plan and guide assessment of e-portfolios, and how feedback and evaluation can be carried out.

1) Assessment as a hidden curriculum | What does that mean?
2) Learning goals and operationalisations | How can I create them?
3) Feedback and peer communication | How can I initiate and motivate my learners' feedback and communication?
4) Evaluation of a learner's portfolio | How can summative assessment be carried out?

III. TESTING AND EVALUATION

A. Test-Setting and evaluation approach

The consortium partners in seven European countries tested and evaluated the MOSEP course from December 2007 to May 2008. The testing groups were very heterogeneous (teachers at secondary schools, university teachers, vocational counselors) with very heterogeneous pre-knowledge, with the positive effect that the course was trialed from a variety of perspectives.

The two testing phases (pre-test and main test) provided valuable data and detailed information for two review and refinement cycles.

The MOSEP course was evaluated based on pre-defined evaluation criteria and indicators relevant for the evaluation of European-sponsored projects as well as on e-portfolio evaluation criteria developed by Penn State University.

The evaluation was divided into two major areas: Quantitative evaluation (using an online survey) and qualitative evaluation (using in-depth interviews with selected trainers and focus group interviews with testing course participants).

The main focus of the course evaluation was put on

- The MOSEP train-the-trainer concept
- The usability of the developed content
- The usability of the e-portfolio software Mahara

The project evaluation by means of questionnaires covered criteria like

- The project's added value at regional / European level
- The project's elements of innovation
- The quality of outputs and results
- Transnationality element
- Sustainability of the project
- Project management, communication within consortium etc.

B. Evaluation Results

The overall reception of the MOSEP course was very positive with almost 80% of the participants stating that the module structure of the course was clear, more than 70% considering the modules to be comprehensible, 80 % rating the course as interesting and more than 85 % judging the course content as informative.

7 out of 10 teachers / trainers agreed that the MOSEP-Wiki was a useful tool for course delivery and that the course provided their students / clients with an in-depth understanding of portfolio work, thus helping them to enhance their self-esteem

Data collected during the testing phases also provided the course developers with valuable information and suggestions for further developing the course structure and course content as well as the Mahara software.

Concerning the project evaluation, the before mentioned evaluation criteria for European projects were applied and matched with respective success criteria. The survey between the consortium and the testers proved that the project management as well as the communication within the project group were regarded as excellent.

Altogether both, the MOSEP course and the project itself showed high acceptance among the interviewees.

C. Conclusions

During the testing phase, e-portfolios have been acknowledged by most of the testing participants as a powerful tool for career guidance, reflection, self-reflection and assessment. Some of the partners used MOSEP materials to upgrade the existing guidance practices at their institutions; in this way the e-portfolio method could be integrated with the other guidance and assessment training methods. The combination of face-to-face meetings and distance training activities enriched the feedback provided and ensured enough time for experimenting and reflection.

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