ePortfolios in Education - Learning Tools or Means of Assessment?

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Abstract:

ePortfolios are collections of electronic evidence which capture the idea of lifelong learning ePortfolios at school can support the documentation of competences better than normal tests and assessments. The acquired competences may further be transfered from school to the world of work. On the other hand ePortfolios are powerful tools for learning and reflecting.

ePortfolios at Secondary School

In Austria there are several eLearning projects in Austria at primary and secondary schools, in higher and further education, and in workplaces of the civil service and industry. However, though successful eLearning pilot projects have been implemented, smart tools have been developed and courses have been disseminated, our society is still far from efficiently exploiting the full potential of technology enhanced learning. eLearning is not commonplace yet. Efficiency and sustainability of all these efforts are still to be optimized. There is general consensus that Europe is far from having achieved the targets of its Lisbon strategy (COLLIGNON, 2005) which aims at realising the "knowledge society". The European Commission underlines that the creation and dissemination of knowledge throughout the Union must be reinforced. Transforming the way we teach and learn requires a collective effort engaging all players fostering education and lifelong learning.

Why ePortfolio Projects?

ePortfolios can capture the idea of lifelong learning, support individuals moving along episodes of school, study, training and employment. ePortfolios likewise support employers as competencies can be transfered from school or campus settings to the world of work. The labour market with its increased fluctuation of work force requires dynamic evaluation of competencies from both the employer´s and the employee´s perspective. Due to the inherent portability of ePortfolios the educational continuity between programmes within an educational institution, the integration of evidence about learning over time, and the smooth transfer of verifiable information about learning and evaluation between institutions, levels of education, and employers is ensured.

Portfolios are products of self organisation to support collaborative learning processes at schools and can deliver first experiences of students achievement maps on the way of lifelong learning. Portfolios can be seen to balance rather strict school quality management issues like education standards with prototypic tasks and test items. Both elements, strict and open approaches, must be implemented in a proper mixture to shape schools of tomorrow.

Portfolios are personal reflection instruments to enrich university lectures and traditional school work. For the students it is now possible to collect know-how and skills-oriented knowledge for their later professional careers. Portfolios can be used on the one hand to have a new assessment instrument for student performance at vocational schools and on the other hand to prove competences and qualifications in the transition to the labour market.

Based on experiences of several years of practice ePortfolios seem to successfully demonstrate the potential of serving individuals as well as organisations in a comprehensive way. According to the Chief Executive of the European Institute for eLearning (EIfEL), Serge Ravet "*ePortfolios are now a central element in some national learning policies." (RAVET, 2005).* So it is safe to conclude that schools, higher education as well as enterprises are well advised to engage in the potentials of ePortfolios.

ePortfolios in Austrian Schools and Adult Education

Working portfolios have some tradition in teacher-training in Austria: For ten years "academy courses" in special psychological or pedagogical subjects have been held at the "Pädagogischen Institute" in different provinces. Topics are supervision, professional upgrade in vocational education, informatics, e-learning and e-teaching and others. The successful completion of the one or two years long courses depend on a working portfolio (a examination would not be adequate for teachers work), including a teaching diary, a documentation of lesson modules and reports on personal reflection and an evaluation of teaching and learning processes with different instruments (questionnaires and others). The experiences are positive, the models are well established in in-service teacher training in Austria.

Introduced by workshop conferences of "Salzburg Research" form 2005 to 2007 a transformation of concepts is being discussed in a twofold way:

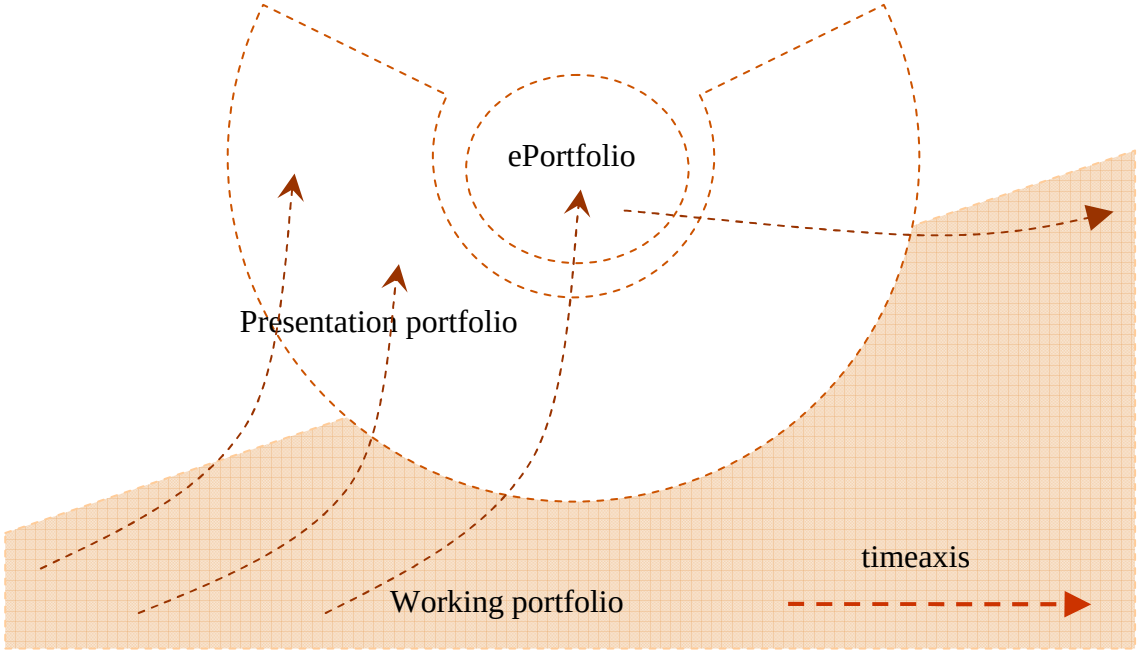
- The portfolio concept should be applied to document the student learning and working progress. There are some open learning forms in secondary education and the students have to manage project work during the end of secondary education (like "Fachbereichsarbeit", Engineering projects in teams, entrepreneurship experiences in business schools, tourism concepts and others). This progress at secondary level is also manifested in a change of the last exam regulations ("Reife- und Diplomprüfungsvorschriften" in the Austrian VET-sector).

- The portfolio shall become an electronically hosted portfolio. Students have the chance to collect different solutions, oral and visual presentations and seminar papers any time and also at home. The presentation of your own portfolio can be arranged, if desirable and possible (maybe on excursions to other countries, in laboratories and during external visits of neighbour schools or during internships). The working

portfolios will become presentation portfolios of school graduates and can be extended during university studies and practical work in companies.

In practice, some secondary schools of the e-learning Cluster Austria (eLC-Austria) decided to adapt the five-to-five model of Helen Barrett (BARRETT, 2001) to introduce the ePortfolio idea for their students. The portfolio development starts with a structure analysis, then a working portfolio is applied. The content is continuously reflected by students and teachers and a connection to other sources and digital working is made till at the end of secondary education a presentation portfolio has been established.

Learning Portfolio



Picture 1: Development of learning portfolios

There is a discussion with school inspectors and principals, if parts of the portfolio should be reviewed, for instance with the help of digital signature procedures.

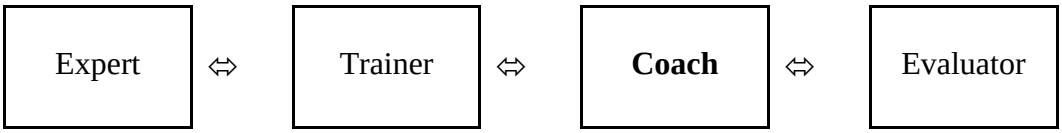
A software environment can help to develop portfolio structures easily. Now, within the eLC-project of the about 60 participants schools, software tests are made. Up to now, no portfolio software fulfils all conditions, continuing function analysis must be continued. After first practical experiences with 15 upper secondary schools in 2007 it can be assumed, that without nationwide common service structures portfolio approaches are too different and cannot be compared. So work has to be done to create a technical platform, designed commonly, but hosted separately. Simple schemes like Wiki-lists or learning platform courses are under discussion as well as more complex structures like LMS – portfolio environments with special export functions. Benefits of the web 2.0 transformation like social software or learning

community tools are tested to establish a useful culture also for university demand. The portfolio module has been realized within the well known Moodle Platform with a special extension named “Exabis portfolio”.

Changing roles and autonomy of teachers

Portfolios are instruments for reflective and self - organized learning. Learning should be organized in groups using the classroom setting. For these common processes learning management systems (LMS) are the best tools for co-operative and collaborative learning. The LMS offer structural support to work with learning projects and case studies, enabling instances for personal or partner reflection and peer feedback.

The expertise and the evaluation should not only be in the hands of teachers, but the students themselves can give support to each other, before involving the teachers. In LMS groups it is common that students read contributions of others, especially if they are encouraged by teachers to do so. Methodically the students contribute actively to their role in knowledge-“acquisition” and the teachers are in such a setting not only in the role of experts, but coaches in a constructivism manner. The coaching role means not to pretend all targets but to support learners to reach the self directed targets in different ways.



Picture 2: Role model of teachers

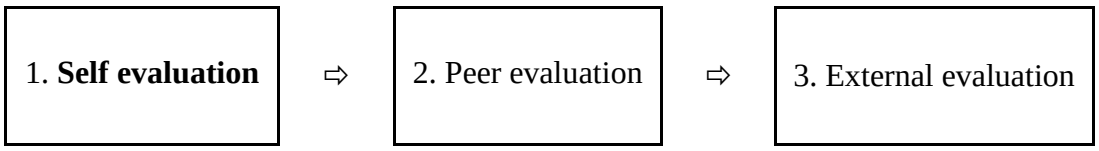
The change from teaching to coaching requires a lot of sensibility and evaluation of personal behaviour. It is important, that the coach role even more so the expert and trainer role is contrary to the evaluation role. So, coaching should be clearly separated in space and time from evaluation and assessment.

Assessment, teamwork and social control

Good experience are documented to give the platform organisation to students in self organisation if self directed learning is intended. A classroom oriented “knowledge management” with support in every subject should be established (G. Reinmann, 2005).

Occuring problems and mistakes will be treated during the lessons and learning experiences will be reflected and results will be presented. On the platforms themselves, fault tolerant places and spaces should exist, which will be administrated by a critical learning community.

Evaluation corresponds to the following pattern:



Picture 3: Evaluation of learners

To optimise this learning process social effects and the teamwork should be explicitly enforced. “Copying” others work is welcome. Teamwork and community learning is a higher motivation for learning as learning as a single person (Lave und Wenger, 1991). With such community learning styles the possibilities at judging somebody is expanded. The LMS combined with the ePortfolio is a good backbone to support different kinds of peer evaluation and coaching processes. For the LMS “moodle” an ePortfolio module named “Exabis” (by Andreas Riepl) is developing to allow a personal name space besides attending courses.

ePortfolio using Wiki lists

A portfolio concept is being introduced, where in an easy way the “wiki lists” in LMS platforms can be used. The emphasis is a portfolio of student achievements, that will be compiled by the whole class, where every student contributes and reflects his or her individual learning process:

Wiki - ePortfolio of a first year course in marketing (11th grade in vocational training)

The school year is going to end in three weeks and there are three possibilities to present your own achievement in a learning community:

A. Proposal for a graduation with a short argumentative statement
B. Achievement report for 2005/06 with links to documents and arguments for a specific mark
C. ePortfolio – with curriculum vitae and extensive achievement report

Choose format A, B or C please. Explanations see below. Click on the question mark behind your name and a new page for your personal portfolio will open.

AuderPeter?
BauMaria?
DrimiJade?
DornEva?
FauMaria?
GrasKarl?
SchatzFini?
StruckMaria?
….

References:
What is an e-PortFolio??
How the structure of an ePortfolio can be created??

How can you create an ePortfolio linking existing documents in LMS moodle ??
How can you fill pictures and documents into an existing ePortfolio ??

Picture 4: Simple classroom ePortfolio by a wiki list

Writing the name as „SurnamePrename“ (without gap) the wiki automatically creates a link to other pages with the same pattern.

The explaining text for the students is as follows:

What is an ePortfolio?

A portfolio is a folder with recent pieces of works and documented results of projects, which has been created alone or in teams. The ePortfolio is an innovative form of this documentation and should also support the transition into working life. The portfolio can be designed freely.

What are content structures of a Portfolio ?

1. Introduction, salutation, letter to the reader...
2. Curriculum vitae (see form www.europass.at)
3. Working report of former school years with links…
4. Documentation of projects:

Targets, aims and development, (common) results, own contributions of group projects, pictures of work, links to documentations on the platform; tips for project management; tips and tricks for following classes!

5. Personal learning diary:
This year learning progress, knowledge gaps, possibilities for improvement?

The structure of the portfolio is your task and can have personal features. The portfolio should be clearly structured, contain practical examples and in a compact form. Linking it to other documents, pictures or streaming media may be important for the reader…

Picture 5: Explanation of eportfolios for students

ePortfolio – Learners' Feedback [1]

The ePortfolio was tested with students of the 9th and 10th grade at a general upper secondary school. The engagement was high, but technical problems had to be fostered.

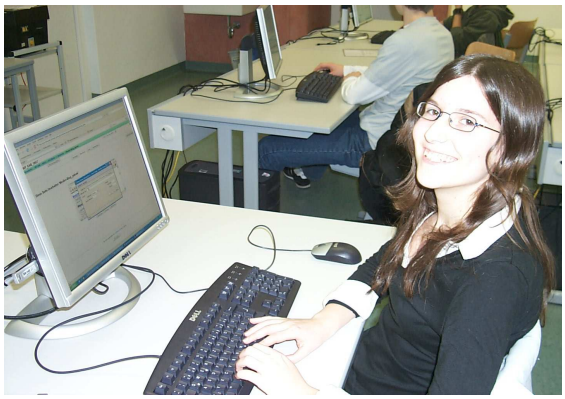
The students didn't use wiki lists for the first time, but some small problems occured. Training periods for the teachers to use wiki lists are important. Online support is crucial to help the students master their home work.

[1] Stepancik E.; Schrack C. (2007)*; Einsatz von Wikis bei der Realisierung von Leistungsdarstellungen und ePortfolios im Unterricht in: Wikis im Social Web* publisher Stockinger Johann & Leitner Helmut, OCG (pictures by Evelyn Stepancik)

A feedback round with the students showed that 80% of the students enjoyed working with ePortfolios. The form of reflection and the exposition with contents was reported to be quite positive. More than 50% of the students would like to continue working with the portfolio wiki lists. If technical problems were solved, the output for students would even be higher. The tool itself was judged positively.

Positive feedback concerning to ePortfolios:

- Self organized design
- Good revision
- Possibilities to work at home
- Possibility to use ePortfolio continuously
- Possibility to expose own knowledge virtually
- Orientation on the work of other students
- Lifelong learning aspect.



Negative feedback of students:

- Difficulties with linking
- Difficulties to handle files
- Scarce possiblities of creating formats
- Time consuming

Teachers could discover interesting aspects of new learning cultures. The engagement of the students was impressive and the learning diary was recognized as a new learning tool.

In the last months, adult education institutions also reported the use of ePortfolios to prepare people in professions for entrance exams at universities (Berufsreifeprüfung, 2005). They use Pebble Pad and try to get more experience (Volkshochschule Wien-12).

The main challenge is now to find criteria and indicators for the implementation of eportfolios at schools, universities, in adult education and even for personnel managers for the labour market. Portfolios for pupils, students and any learners are only useful, if there is a common framework of content demands and technical environments from school to university and even to lifelong learning. Educational institutions, enterprises and labour market support facilities should be work together and have to find a common language.

From the point of view of school development must be a balance between highly standardized education at targets (like PISA-oriented tasks and subject oriented education standards) and open “learning result collections” like portfolios. The individual portfolio will be a proper instrument for lifelong learning. The foundation must be clarified at school.

Portfolios are personal reflection instruments in the hands of the students to enrich lectures and traditional school work. There are two main types, the **process portfolio** for learning, working and reflection and the **application portfolio** for assessment purposes and job application. They are products of self organisation to support collaborative learning processes and can deliver first insights into students achievements on the way of lifelong learning. It is now possible to collect formal and informal competences and know how and skills-oriented knowledge for the later professional career.

References:

[1] BEETHAM, H., (2005) *e-portfolios in post-16 learning in UK: developments, issues and opportunities*. A report prepared for the JISC e-Learning and Pedagogy strand of the JISC e-Learning Programme. URL: http://www.jisc.ac.uk/uploaded_documents/eportfolio_ped.doc

[2] BARRETT, H.C.; (2001) ePortfolios in K-12 and Teacher Education, ISTE-Presentation, Anchorage.

[3] COLLIGNON, S.; ET AL., (2005) *Notre Europe. Policy paper #12, The Lisbon strategy and the open method of co-ordination - 12 recommendations for an effective multi-level strategy*, http://www.notre-europe.asso.fr/article.php3?id_article=706

[4] RAVET, S., (2005) *ePortfolio for a learning society*, eLearning Conference, Brussels, May 19-20 2005, http://www.elearningconference.org/key_speaker/ravet.htm

[5] LAVE, E,; WENGER, E.; (1991) Situated Learning. Legitimate peripheral participation, Cambridge.

[6] MANDL, H.; REINMANN-ROTHMEIER, G. (2000). *Wissensmanagement, Wissenszuwachs – Wissensschwund*; Oldenburg

Links: Didactics:

http://edumedia.salzburgresearch.at/index.php?option=com_content&task=view&id=92&Itemid=119
http://edumedia.salzburgresearch.at/
http://electronicportfolios.org/
http://www.zum.de/wiki/index.php/EPortfolio
http://www.hak-steyr.at/typo3/index.php?id=200

Technology and context:

http://treadwell.cce.cornell.edu/moodle_doc/database_moodle/index.html
http://edutechwiki.unige.ch/en/Learning_e-portfolio
http://www.educa.ch/dyn/97827.asp
http://www.eportfolio-hessen.de/

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