THE PORTFOLIO AS A DOCUMENTATION TOOL OF ECOMPETENCE IN THE "TIE VIE" TRAINING PROGRAMME

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Abstract

In this article we first discuss the use of portfolios in a university context. We then move the focus to digital portfolios and show an example of how digital portfolios are used in a national information and communication expert training programme in Finnish universities called "TieVie". In the last part of the article we draw conclusions about how individual portfolios reflect or could acknowledge institutional universities, in this case, strategy or understanding on "e-competency".

1. Developing and validating academic staff competencies in a university context

The idea of collecting data, pieces of evidence, documenting our own thinking and development through time and proving to others our capabilities, is not new. Looking at, particularly, academic work places such as universities, we can probably argue that the need for continuous development of individuals, and the institution itself, is necessary. Also the competition for posts, promotion and funding inside the university, forces the institution to develop an appropriate staff evaluation and grading scheme, as well as a means of assessing the success of its other activities. What is new is a systematic and agreed use of a *portfolio* as a tool for documenting both personal and institutional achievements in a university context.

Portfolios are used "to effectively convey skills, accomplishments and areas of expertise" (Heath 2003). By using portfolios, it is possible to discover the rationale behind peoples' ways of working and why they are using certain strategies when solving problems.

Portfolios are mainly used on the same basis as personal learning plans; however, portfolios are not just plans but show the results and progress as well. They are usually used in paper format, in which learners have a kind of folder/portfolio to collate all products and certificates or diplomas they receive. When using an electronic format, it can be easier to organise and update the material.

Portfolios can serve both *individual* and *institutional* purposes and in the university context we can see portfolios having two roles:

1. As a tool for (or a concept of) documenting personal, individual thinking processes and the development of skills. This type of a portfolio is usually called a *personal portfolio* and gives a collection of personal achievements and competences. In the field of teaching, teachers have used personal portfolios to maintain their "educational memory" and to document the history of learning. In this way, portfolios can serve the individual developmental purposes of academic staff.

2. As evidence of academic merit for, perhaps, promotion purposes. In this role, we usually use the concept of a *sample portfolio*. A sample portfolio can be seen as an extended *curriculum vitae*, made for a certain purpose, with a certain structure and a limited amount of text,

The Challenge of eCompetence in Academic Staff Development, Mac Labhrainn, I., McDonald Legg, C., Schneckenberg, D., Wildt, J., Galway: CELT, 2006.

referring to attachments which are actual pieces of evidence of a person's capabilities and mastery. By pieces of evidence we mean, for example, certificates of courses or training one has accomplished, documents of planning processes or projects one has carried out, or assessments of skills mastered in certain areas. When sample portfolios are used in filling professorships or portfolios are used in the faculty or unit level in assessing universities' units effectiveness, they may have a role in quality management and accreditation of the institution.

1.1 *Electronic portfolios*

Implementation of the portfolio can be classified in at least two dimensions – content and format. An implementation of a digital portfolio (besides its actual content) can be seen as an evidence of one's capabilities in using technology and to show one is *eCompetent* in one sense. To be able to use information and communication technology in building an individual portfolio, a person reveals something about his or her skills in using technology for this kind of purpose. According to Jonassen (1996), the construction of an electronic portfolio demonstrates complex thinking and creativity, which are important attributes (Jonassen 1996).

Most of the research concerning ePortfolios and basic portfolios is based on the tasks given by the university. In Kansas State University, for example, teachers were given tasks to create an electronic portfolio system for teacher education students. A committee was established to follow up the work so that the needs of different programme goals would be adequately considered (Norton-Meier, 2003). This type of approach has now been undertaken nationwide in the US, focusing on teacher education.

An interesting debate has been going on about whether an individual's electronic portfolio should be used as part of institutional assessment and management systems. This discussion has concerned mainly student e-portfolios and assessment of those. For example, Barret and Carney (2005) discuss why these two things (students' portfolios and using them as an essential part of the assessment system) should be kept separate. One reason is clear and that is the question of portfolio ownership. Who owns the portfolio? Is it a student who constructs his or her portfolio as a story, with a personal voice, putting his or her self in it by reflection on experiences, ideas and thoughts? Does he or she definitely have all rights to their own learning process, resulting from portfolio work and should they have a feeling of control over it? Or can individual learning processes, learning outcomes and 'products' such as portfolios are seen as the property of the university, the learning enabler, or even an adequate piece of evidence when externally assessing students' performance? Barret and Carney discuss paradigm conflict between constructivist (portfolio as a story, assessment FOR learning) and positivist (portfolio as a test, assessment OF learning) paradigms.

One idea Barret and Carney also mention is that a portfolio could be seen as a professional development tool which should be accessible to its owner throughout his or her life, or at least throughout their career. The electronic portfolio development process should provide the individual with the skills needed to continue with e-portfolio work later on. This is a very important point of view when considering academic staff and their e-portfolios, an issue we will come back to later on in this article.

2. Portfolios in the TieVie training programme

TieVie[1] is a Finnish nationwide support service project of the *Finnish Virtual University*, providing training in the use of ICT in educational settings. The programme is targeted at university staff with previous education or experience in the educational use of ICT. The participants usually have the profile of academic teachers wishing to develop use of ICT in a wider context, educational ICT

[1] TieVie comes from Finnish expression '**Tie**to- ja **vie**stintätekniikan opetuskäyttö" which means The use of information and communication technology in teaching and learning: Tietotekniikka = information technology, Ja = and, Viestintätekniikka = communication technology, Opetuskäyttö = use for teaching and learning purposes.

trainers, IT support personnel, experts and proficient users for universities and their virtual university projects. During the training the participants collect *a portfolio* of all the products developed within the course.

Training started in 2001 with two courses; One program, of 8 credits, aimed to provide skills in using ICT for educational purposes and another, of 15 credits, aimed at content-specific and professional applications, the production of digital learning materials, institutional information management and an ability to assist, support and train colleagues, develop the school community and act a part of an expert network. Until now, over 900 people have passed the course and 100 participants are in this year's course. The project is funded by the Ministry of Education and the training is free of charge. The funding from the Ministry has decreased yearly with the aim of creating local ICT courses in each institution.

The training deepens the participants knowledge of the educational use of ICT, enabling them to function as trainers, consultants, supervisors, educational planners, support persons and network coordinators or agents. An e-portfolio, which is mainly used for reflection and description of learning throughout the training, plays a crucial role in the training. The target of the development project can be, for instance, to improve teaching in the department/unit making use of ICT, networked teaching in a national or international network, Masters programmes based on ICT, carry out in-service training in the educational use of ICT in his or her own university, strategy work for, and strategic implementation of, the educational use of ICT, or organise the pedagogical and technical support for the educational use of ICT.

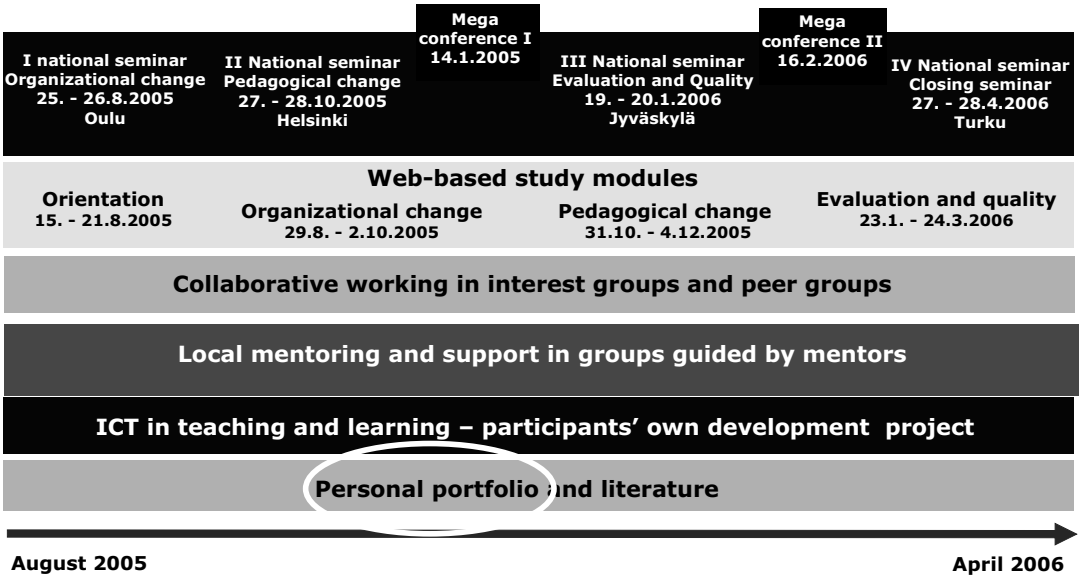

Figure 1: The structure of TieVie-training and the role of the portfolio.

2.1 *Individual perspectives on portfolios*

Training portfolio work has two phases, where the first phase is a collection of material. All materials produced during the training is first collected to one place. The structure of the portfolio should be defined as early as possible to help the editing process. First phase work for the portfolio calls for collection of a basic portfolio. At the end of the training, participants start to work with their portfolios in order to create a sample portfolio for peer evaluation and assessment. After the first round of assessment, participants can modify their portfolio into a final version, which is one of the compulsory outputs of the training.

Most of the work is guided with certain assignments that are compulsory for all, but participants may also add personal writings and reflect upon their learning. Although the work is mainly for personal use (i.e. the participants write for themselves), portfolios and most of their content in this training are open to all other participants. The picture below describes the portfolio work done during the training.

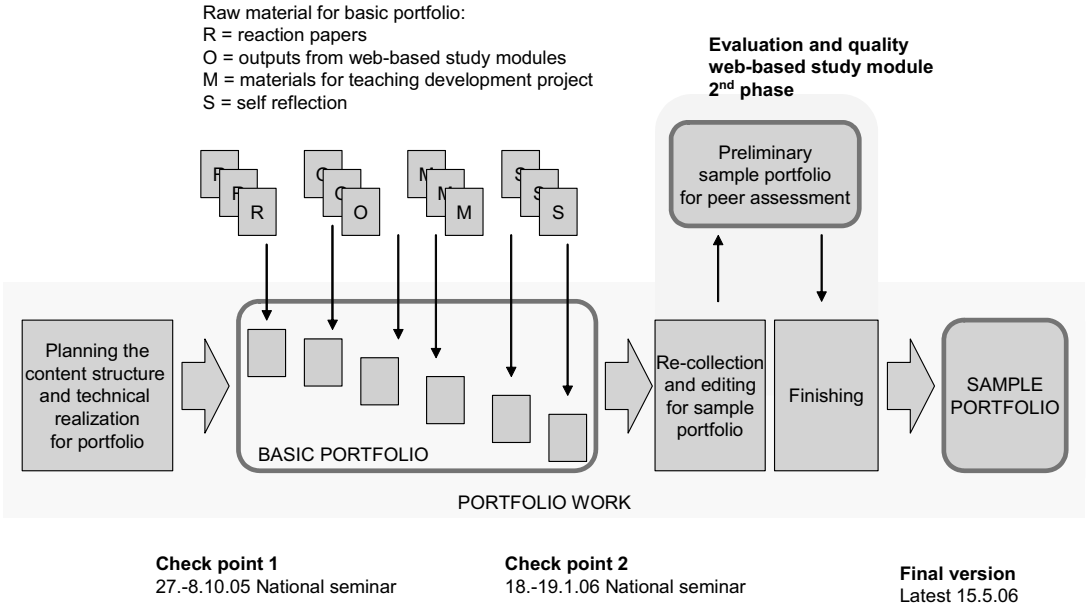

Figure 2: Portfolio structure

2.2 *Technical aspects of implementing the portfolio*

Participants are free to choose their preferred means of constructing the portfolio. Some of the universities offer content management tools for teachers that they can use for this purpose. Another option is the use of basic authoring tools for developing web pages. In this case, portfolios become electronic. In the latest course (2005-2006) participants were offered learning platform tools. In this case, all participants have their own folder in the platform where they can collect their materials. They are guided to create sub folders for each different raw material category in order to help the sample portfolio creation. Two thirds of the sample portfolios are expected to be in pdf or word format. One third of the participants are going to use more advanced tools, such as content production systems (e.g. Zope), html pages, etc.

2.3 *Institutional perspectives on portfolios*

As discussed earlier, the target of the development project that the participants make through the whole training can be, for instance, to improve teaching in the department or a unit utilising ICT, network teaching activities within a national or international network, develop strategy, etc.

In the recommendations of the *Information Society Programme for Education, Training and Research* (2004 – 2006) it has been announced that good overall and pedagogical ICT skills enable the teaching profession to develop their own work and renew teaching methods. According to this need, the Virtual University of Finland has funded several sub-projects. Since TieVie is one of the projects, the Ministry of Education is tracking the number of participants, from which universities they come from and what kind of work they have done during the training. The aim is that by 2007, at least 75% of teachers will have the knowledge and skills to use ICT in teaching. (Ministry of Education, 2004, Information

Society Programme for Education, Training and Research 2004–2006). After participating in the TieVie programme, university staff have in their hands a seed for their teaching portfolio, which in the future is one of the most essential tools to show, not only individual competences, but also the unit's competences through faculty portfolios.

3. Conclusions

We should now return to thoughts presented at the beginning of this article and see how the "TieVie portfolio" fits into that discussion. A short glance at the concept "competence" and reflection on whether the e-portfolio development process produces skills we can say constitute a part of being "e-competent," is also part of this discussion.

In the case we have presented, the portfolio has two roles. It works as a participant's personal portfolio and is used to assess participants' performance in the training programme, especially in the teaching development project. If we turn to Barret and Carney's reasoning concerning students' e-portfolios and institutions' assessment management systems, we are facing the same dilemma in the case of TieVie. On the other hand, by going through the development process of constructing portfolios, we argue that participants have gained skills useful for further and continuous e-portfolio work, such as choosing and using technical tools for portfolio, producing digital (learning) materials and practising reflection.

Competences are characterised in many different ways. One may describe competence as knowledge or understanding, or as cognitive skills. There are clear distinctions between the definitions, which should not be confused. Knowledge is usually associated with the representation of facts, procedures, principles and theories in a particular domain. Knowledge is also the information gathered from observations, situations experienced, beliefs and prejudices in everyday life (Westra 2001). Understanding goes further than knowledge by representing an intellectual capability to use information and being able to use it in a new situation. Cognitive skills are associated with the mental operations that process knowledge. These kinds of processes are mental and associated with higher-order activities. Cognitive skills are difficult to test directly because of the impossibility of direct brain observation (Westra 2001). According to Westra (2001), the only way to test the mastery of a cognitive skill is to provoke observational behaviours that can directly be linked to the skill. Competence and behaviour are associated, usually because of the common understanding that competence can be presented in behavioural habits. Competent behaviour is always associated with conscious thinking and deliberation.

In the previously mentioned training programme, where ICT is tied into all work done during the course, participants need to have certain eCompetences to succeed and manage with the demands placed on them. Electronic reading skills are supported when giving participants materials in electronic format. Different learning platforms are used during the course and all participants need to work with them.

Are we able to draw conclusions about institutional e-competencies from individual's e-portfolios? Or should we first find an answer to the question of whether individuals' e-portfolios somehow acknowledge institutional eCompetencies? Our answer is that there should be a relation between these two. If seeing individual and institutional as two ends of one entity, could portfolios be something that brings both interests together? Success stories on this probably exist already and we believe the example presented in this article opens the issue for further discussion and research.

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